Government of Bengal



# Report of the Bengal Jute Enquiry Committee

## Volume I

Majority Report

Minority Reports

Appendices



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# TABLE OF CONTENTS.


| | Page. |
|---|---|
| Note by the Chairman | v |


## I.—Majority Report.


| | |
|---|---|
| Introduction | 1 |
| Description of the Jute plant, its cultivation and extraction of fibre | 3 |
| Yield | ibid. |
| Historical Survey | 5 |
| Regulation of Jute Cultivation | 6 |
| Alternative Crops | 10 |
| Jute Forecast | 11 |
| Marketing of Jute | 12 |
| Standards of quality— | |
| (*a*) Export Market | 14 |
| (*b*) Loose Jute Trade | 15 |
| Conditions of Export Business | 18 |
| Co-operative Societies | 21 |
| Regulated Markets | 23 |
| Weights and Measures | 26 |
| Futures | 28 |
| Propaganda | 29 |
| Proposed Jute Committee | 30 |
| Jute Substitutes and Research | 39 |
| Summary and Recommendations | 40 |
| Acknowledgment | 44 |
| **Supplementary note by Mr. G. S. Dutt** | 45 |
| **Minute of Dissent by Dr. J. C. Sinha—** | |
| (*a*) Standard for Kutcha bales | 53 |
| (*b*) Jute Futures Markets in Calcutta | 55 |
| (*c*) Note on the Jute Committee | 59 |


## II.—Minority Reports.

### Introduction.


| | |
|---|---|
| Reasons and circumstances leading to this report | 63 |
| Working of the Committee | 65 |


### Chapter I.


| | |
|---|---|
| Jute : A Survey of the Present Position—Agricultural | 67 |
| Characteristics of cultivation | 72 |
| Demand for Jute : Local Industrial Consumption and Export | *ibid* |
| The Jute Industry : A Historical Retrospect | 74 |
| Present Position of the Industry | 78 |
| Trade in Jute | 82 |
| Organisation of the trade in India | 83 |
| Recent developments | 84 |
| Causes, Nature and Extent of the Recent Fall in Price | 85 |
| Tables | 91 |

CHAPTER II.


| | Page. |
|---|---|
| Regulation .. .. .. .. .. .. | 95 |
| Methods of Regulation .. .. .. .. .. | 97 |
| Arguments for and against Regulation .. .. .. .. | 98 |
| Recommendations .. .. .. .. .. .. | 104 |


CHAPTER III.


| | |
|---|---|
| The Jute Forecast .. .. .. .. .. .. | 107 |


CHAPTER IV.


| | |
|---|---|
| Marketing of Jute : Internal trade—Present organization of the market .. | 111 |
| Cost of Movements .. .. .. .. .. .. | 112 |
| Allowances .. .. .. .. .. .. | 113 |
| Weights and Measures .. .. .. .. .. | *ibid* |
| Standards of Quality .. .. .. .. .. | 114 |
| Criticisms regarding Movement of Jute .. .. .. .. | *ibid* |
| Remedies .. .. .. .. .. .. .. | 115 |
| Co-operative Societies .. .. .. .. .. | *ibid* |
| Regulated Markets .. .. .. .. .. .. | 116 |
| Arrangements for Information .. .. .. .. .. | 121 |
| Standardisation of Weights and Measures .. .. .. .. | 122 |
| Standardisation of Quality and Grade .. .. .. .. | 123 |
| Financing the Marketing of Jute .. .. .. .. .. | 128 |
| Central Marketing Organisation .. .. .. .. .. | 131 |
| Export Trade .. .. .. .. .. .. | 134 |
| Futures Market .. .. .. .. .. .. | 135 |


CHAPTER V.


| | |
|---|---|
| Jute Substitutes and Research .. .. .. .. .. | 141 |


CHAPTER VI.


| | |
|---|---|
| Jute Committe— | |
| Nature and scope .. .. .. .. .. | 149 |
| Functions .. .. .. .. .. .. | 153 |
| Constitution .. .. .. .. .. .. | *ibid* |
| Finance .. .. .. .. .. .. | 155 |
| Summary .. .. .. .. .. .. .. | 157 |


**Note of Dissent by Dr. N. C. Sen Gupta, M.L.C.—**


| | |
|---|---|
| Introductory .. .. .. .. .. .. | 165 |
| Regulations of Cultivation of Jute .. .. .. .. | *ibid* |
| Co-operative Sale of Jute .. .. .. .. | 174 |

**Report of Khan Bahadur M. Azizul Huque, M.L.C.—**


| | Page. |
|---|---|
| Average Yield .. .. .. .. .. .. | 181 |
| Cost of Production .. .. .. .. .. | 182 |
| Jute Price .. .. .. .. .. .. | 184 |
| Regulation and Legislation .. .. .. .. | 187 |
| Jute Committee .. .. .. .. .. | 188 |
| Allowances .. .. .. .. .. .. | 189 |
| Weights and Measures .. .. .. .. .. | 190 |
| Fatka Market .. .. .. .. .. .. | *ibid* |
| Standard for Kutcha Bales .. .. .. .. .. | *ibid* |
| Regulated Market .. .. .. .. .. | 191 |
| Regulation of Production in other Countries .. .. .. | *ibid* |


## III.—Appendices.


| No. | | |
|---|---|---|
| I. | Questionnaire .. .. .. .. .. | 3 |
| I-A. | Central Provinces Cotton Market Act, 1932 .. .. .. | 9 |
| I-B. | History of the adoption of Universal Standards for American Cotton. .. .. .. .. .. | 17 |
| I-C. | Note on Proposed Jute Control Corporation .. .. | 27 |
| II. | Table and Graph of Observed and Adjusted Prices of Jute .. | 33 |
| III. | Cost of carrying out jute restriction : An attempt by the Director of Land Records, Bengal, to estimate the cost of the minimum staff required to carry out compulsory jute restriction in an average district .. .. .. .. .. | 35 |
| IV. | London Jute Association Arbitration Fees .. .. .. | 39 |
| V. | Duties on jute sackings and hessians : Memorandum showing the countries which, according to the latest information available in the Commercial Intelligence Department, have during recent years increased or imposed duties on jute sacking sand hessians and the rates of such duties .. .. .. .. | 41 |
| VI. | Report of the Jute Futures Market Committee .. .. | 47 |
| VII. | Competition, Research and the Expansion of Markets for Jute Goods : Circular No. 64-D., dated the 5th June 1933, from the Indian Jute Mills Association, to all Members of the Association.. | 55 |
| VIII. | The Indian Central Cotton Committee : Its Objects, Activities and Achievements .. .. .. .. .. | 123 |
| IX. | Formation of a Central Jute Committee : Letter No. 1419-1931, dated the 24th April 1931, from the Secretary, Bengal Chamber of Commerce, to the Secretary to the Government of Bengal, Commerce Department, with enclosures .. .. .. | 131 |
| X. | Proposed Central Jute Committee : Correspondence between the Secretary, Bengal Chamber of Commerce, and the Government of Bengal, Commerce Department, together with the views of the Indian Jute Mills Association .. .. .. .. | 137 |
| XI. | Variation of Purchasing Power : Note by Mr. D. P. Khaitan with tables indicating the relative variations of the purchasing power of the agriculturists and their dependants in Bengal from 1920-21 up to 1932-33 .. .. .. .. .. | 153 |
| XII. | Restriction Schemes in other Countries .. .. .. | 169 |

Page.

XIII. Legislation on standardisation of quality: Letter No. 1341-Com., dated 2nd March 1933, from the Joint Secretary to the Government of Bengal, Commerce and Marine Departments, to the Secretary to the Bengal Jute Enquiry Committee, with enclosures, on the subject of legislation to fix definite standards of quality for all dealings in jute .. .. .. .. .. 181

XIV. Regulated Cotton Markets—

(a) D.-O. No. 1539, dated the 29th March 1933, from Mr. F. J. Plymen, Director of Agriculture, Central Province, Nagpur, to R. S. Finlow, Esq., C.I.E., Chairman, Jute Committee, Bengal .. .. .. .. .. 199

D.-O. No. C/27, dated the 13th/15th April 1933, from Mr. F. J. Plymen, Director of Agriculture, Central Provinces, Nagpur, to R. S. Finlow, Esq., C.I.E., Chairman, Jute Committee, Bengal .. .. .. .. .. *ibid*

(b) Report on the Regulated Cotton Markets in the Central Provinces, by Mr. Tara Nath Roy, Inspector of Agricultural Schools, Department of Agriculture, Bengal, dated 5th June 1933 .. .. .. .. .. 201

(c) Letter No. 414-4824 of 1933, dated 25th April 1933, from the Director of Agriculture, Bombay Presidency, Poona, to the Secretary, Bengal Government Jute Enquiry Committee, Calcutta .. .. .. .. .. 207

Letter No. 414 of 1933, dated the 15th May 1933, from the Director of Agriculture, Bombay Presidency, Poona, to the Secretary, Jute Enquiry Committee, Bengal .. .. 208

XV. The Bengal Jute Bill (II), 1930, as introduced in the Bengal Legislative Council by Dr. N. C. Sen Gupta, M.L.C. .. .. 213

XVI. Currency and Monetary Policy outside the scope of the enquiry: Letter No. 3967, dated the 29th July 1933, from the Secretary to the Government of Bengal, to the Secretary, Jute Enquiry Committee, communicating the decision of Government that questions of currency and monetary policy are outside the terms of reference of tho Jute Enquiry Committee .. 221

[**Oral and Written Evidence**—*See* **Volume II.**]

# Note by the Chairman

At the last meeting of the Bengal Jute Enquiry Committee, it was agreed that the Chairman should write a short note explaining the circumstances under which it was decided that two reports were necessary.

From the beginning, it was obvious that there were considerable differences of opinion in respect of the first three terms of reference to the Committee, but it was hoped that it would be possible to compose the differences sufficiently to bring the opinions within the compass of a single report. This hope seemed the more reasonable because there was some measure of agreement in regard to all three of the terms of reference in question. On further discussion, however, it became evident that the differences of opinion extended not only to the ultimate goal which the respective members had in view, but also to the method of presentation of the case.

Attempts to reconcile these conflicting attitudes having unfortunately failed, it was regretfully decided, after discussion, that the only course open was to write two separate reports, embodying the respective views of the two groups into which the members were divided.*

R. S. FINLOW.

*8th August 1933.*

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*Subsequently Khan Bahadur M. Azizul Huque decided not to sign either the Majority or Minority Report but to write a separate Report of his own (*vide* page 179).

# MAJORITY REPORT

# Report of the Bengal Jute Enquiry Committee.

## Majority Report.

### Introduction.

1. At the meeting of the Bengal Legislative Council held on the 1st February, 1932, a resolution was passed to the following effect:—

"This Council recommends to the Government that a Committee consisting of official and non-official members of the Council and experts be appointed to make a systematic examination of the present economic depression in Bengal and to make suggestions as to what temporary and permanent measures may be taken to alleviate the present distress and ensure a steady economic progress of the people of the Presidency."

The Government of Bengal (Ministry of Agriculture) carefully considered the resolution, and came to the conclusion that the appointment of such a Committee to conduct a general enquiry of the nature contemplated in the resolution, viz., "to make a systematic examination of the present economic depression in Bengal," would serve no useful purpose. Government realized, however, that apart from other general factors which have affected almost every country of the world, the fall in the price of raw and manufactured jute is one of the primary causes responsible for the acute economic depression in Bengal. They, therefore, appointed a Committee consisting of the following members to investigate the jute problem as affecting the province:—

(1) Mr. R. S. Finlow, C.I.E., *Chairman*.

(2) Mr. J. T. Finlayson, representative of the Bengal Chamber of Commerce.

(3) Mr. H. H. Burn, M.L.C., representative of the Indian Jute Mills Association.

(4) Mr. N. R. Sarker, representative of the Bengal National Chamber of Commerce.

(5) Mr. D. P. Khaitan, representative of the Indian Chamber of Commerce.

(6) Mr. Mirza Ahmed Ispahani, representative of the Muslim Chamber of Commerce.

(7) Dr. Naresh Chandra Sen Gupta, M.L.C., Vice-President, Bengal Jute Growers Association.

(8) Khan Bahadur Muhammad Abdul Momin, M.L.C.

(9) Khan Bahadur M. Azizul Huque, M.L.C.

(10) Dr. J. C. Sinha, Professor of Economics, Presidency College, Calcutta.

(11) Director of Agriculture, Bengal (*ex-officio*).
(12) Registrar of Co-operative Societies, Bengal (*ex-officio*).
(13) Director of Industries, Bengal (*ex-officio*).

The Director of Industries was also appointed Secretary to the Committee.

The terms of the reference to the Committee were as follows:—

(1) the question of regulation of the production of jute;
(2) the marketing of jute, including the establishment of regulated markets, and the supply of market information in a suitable form to the producers;
(3) the creation of a Jute Committee for the province of Bengal on the lines of the proposed Central Jute Committee and the minimum amount required to finance such a Committee;
(4) the extent to which other materials have displaced jute and the likelihood of further substitutes being found in the near future;
(5) the possibilities of making any other economic use of jute to an extent that might relieve the present situation.

The Committee were originally requested to submit their report by May 1st, 1933, but this was found impossible and Government agreed to the extension of the date, first to June 1st, 1933, and later to 10th August, 1933.

Mr. Ispahani resigned his seat on the Committee on the 27th April 1933, owing to his having to go abroad, and in his place, the nomination by the Muslim Chamber of Commerce of Mr. N. Rajabally, was approved by Government on 18th May, 1933. Mr. A. T. Weston, Director of Industries, proceeded on leave on the 7th June and was succeeded by Mr. G. S. Dutt, I.C.S.

2. The Chairman arrived in Calcutta from England on the 4th February, and at informal meetings of the Committee, beginning on 10th February, 1933, a questionnaire based on the terms of reference was elaborated. Copies of the questionnaire* were distributed in the beginning of March to the Bengal Chamber of Commerce, the Bengal National Chamber of Commerce, the Indian Chamber of Commerce, the Muslim Chamber of Commerce, the Marwari Chamber of Commerce and various other organizations connected with the jute trade. Others receiving the questionnaire were Commissioners of Divisions, Collectors of Districts, Chairmen of District Boards, prominent members of Union Boards, Co-operative organizations, employers of labour, leading gentlemen in the jute districts, etc.

Replies were received from 119 persons, and commercial and public bodies, and are printed in Volume II together with the oral evidence.

A short tour was made by a Sub-Committee between the 8th and the 15th April, 1933, in the course of which Narayangunge, Dacca, Mymensingh, Serajganj and Rangpur were visited. At these places the Sub-Committee examined representatives of mufassal jute

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**Vide* Appendix I.

agencies, District Board Chairmen, Presidents of Union Boards, dealers in jute and cultivators.

In Calcutta representatives of the commercial bodies already referred to appeared before the Committee. Altogether 32 persons were orally examined in Calcutta.

The Committee held 42 meetings.

## Short description of the jute plant, its cultivation and the extraction of fibre.

3. Jute belongs to the botanical genus *Corchorus* and the order *Tiliaceae.** According to Dutt, Skeat and others it receives mention in the classic literature of India under the name of *patta, juta, jata, kalasaka,* though possibly the somewhat similar fibre of *Hibiscus cannabinus,* or *mesta,* may also have been included in this classification.

There are two important cultivated species of *Corchorus,* viz.—

(*a*) *Corchorus capsularis.*
(*b*) *Corchorus olitorius.*

The former is grown chiefly in Eastern Bengal, Northern Bengal, Bihar and Assam and is known as *pat* or *koshta* in the vernacular, and "white jute" in the trade. The latter is mainly grown in the Presidency and Burdwan Divisions and in the southern portion of the Rajshahi Division, but it is extending fairly rapidly on high lands in Eastern Bengal. It is variously called *desi, tossa* and *bogi.*

Besides *Corchorus capsularis* and *Corchorus olitorius* there are two or three other species of the genus *Corchorus,* the completion of the study of the possibilities of which is desirable.

4. **Cultivation.**—*Corchorus olitorius* has to be sown later than *Corchorus capsularis,* viz., in May, and it must therefore be grown on high lands. Reaping takes place in August and September. *Corchorus capsularis* is grown on both high lands and low lands. On low lands, liable to heavy inundation, it is sown from February onwards. In such places it is cut in June and July when the flood water becomes deep. On high lands, sowing takes place up to the middle of April and reaping is done in July and August.

5. **Extraction.**—Jute is a bast fibre and is contained in what is popularly known as the bark. It is extracted by "retting" or fermentation in water, when the soft parenchymatous tissue, in which the fibre-vascular bundles are embedded, dissolves and leaves the fibre, which is then separated from the pith, washed and dried to be ready for the market.

## Yield.

6. An average crop of jute is about 16 maunds per acre, but yields as high as 40 maunds per acre have been authentically recorded.

The jute crop is produced in the three provinces of Bengal, Bihar and Orissa, and Assam, but roughly 90 per cent. of the total yield is accounted for by Bengal.

The following table, taken from the report of the Indian Jute Mills Association, shows quinquennial averages for total acreage, total exports,

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* Watt: "Commercial Products."

Indian Mill purchases and Indian Mill consumption from 1893 to 1927. Corresponding figures for individual years from 1928 to 1932 are also appended.

| | Estimated total acreage, Bengal, Bihar and Assam (in thousands). | Total exports (in thousands of bales). | *Indian mill consumption (in thousands of bales). | *Indian mill purchases (in thousands of bales). | Estimated domestic consumption (in thousands of bales). | †Estimated total crop (in thousands of bales). |
|---|---|---|---|---|---|---|
| 1893-1897 .. | 21,99 | 34,23 | 17,46 | .. | 5,00 | .. |
| 1898-1902 .. | 19,99 | 32,97 | 24,66 | .. | 5,00 | .. |
| 1903-1907 .. | 30,93 | 40,71 | 33,48 | .. | 5,00 | .. |
| 1908-1912 .. | 29,52 | 43,48 | 41,50 | 40,99 | 5,00 | 89,46 |
| 1913-1917 .. | 28,30 | 29,60 | 52,68 | 54,45 | 5,00 | 89,05 |
| 1918-1922 .. | 21,33 | 27,52 | 50,19 | 47,04 | 5,00 | 79,56 |
| 1923-1927 .. | 29,61 | 40,83 | 55,28 | 57,68 | 5,00 | 1,02,76 |
| 1927-1928 .. | 33,71 | 44,86 | 56,33 | 61,64 | 5,00 | 1,11,50 |
| 1928-1929 .. | 31,30 | 44,28 | 58,79 | 55,55 | 5,00 | 1,04,83 |
| 1929-1930 .. | 34,16 | 44,46 | 62,46 | 59,62 | 5,00 | 1,09,08 |
| 1930-1931 .. | 34,85 | 34,27 | 44,37 | 62,26 | 5,00 | 1,01,53 |
| 1931-1932 .. | 18,58 | 30,53 | 41,50 | 30,04 | 5,00 | 65,57 |
| 1932-1933 .. | 21,43 | 35,67 | 42,45 | 47,29 | 5,00 | 87,96 |

NOTE.—One bale = 400 lbs.

Acreage figures are probably not as reliable before the period 1908-1912 as they are in succeeding years.

7. Export of jute at the beginning of the century was about 33 lakhs of bales, and it rose to a maximum of 49 lakhs of bales in 1912-13. There was a heavy decline during the war, and immediately after, and a recovery to 45 lakhs of bales in 1927-28. In the last three years the amount has again fallen to about what it was in 1900-05. In the same period, the consumption of Indian mills rose from 24 lakhs of bales to 62 lakhs of bales in 1929-30. In fact the growth of the Indian jute mill industry is the characteristic feature of the history of the jute trade in the last 33 years.

8. An average crop at the beginning of the century was about 60 lakhs of bales; but in 1926-27, the enormous output of about 120 lakhs of bales was achieved. As indicated on page 6, average harvest prices rose gradually from about Rs. 4-1 per maund at the beginning of the century until the peak yeear 1925, when the abnormal average harvest price of Rs. 16 per maund, was realised. Since 1930-31, we have been in the grip of the worst depression the world has known, and the value of jute has fallen as low as a harvest price of little over Rs. 3 per maund. On this basis the aggregate value of jute to Bengal was probably not more than 1/5th of what it was in 1926. The result was something approaching financial paralysis in the Province, which itself was a demonstration of the very great importance which jute has assumed in the economic life of Bengal.

*Indian mill consumption and purchase figures apply only to mills affiliated to the Indian Jute Mills Association. An approximate estimate of present consumption of mills outside the Association may be from two to three lakhs of bales per annum.

†These totals are irrespective of amounts brought, or carried, forward. They do not include the purchases by the Non-Associated Mills.

## Historical Survey.

9. Jute has been a staple crop in Bengal from ancient times, and apparently it was grown over much the same extent of country as at present, only on a much smaller scale.

Reports of the East India Company and by Buchanan-Hamilton, written at the end of the 18th century, indicate this; also (*a*) that the normal price of jute was about Re. 1 per maund, (*b*) home-made jute cloth was the common wearing apparel of the people of North Bengal, (*c*) the purchase of home-made jute cloth, or gunny, was just then beginning to interest the East India Company. Ultimately, as shown by the following quotations, a considerable trade developed in this direction :—

*"The spun yarn was used for lines and cordages, also for bedding cloth, screens, matting, garments for the poorer people and many other domestic purposes throughout India, including bags for handling sugar, coffee, grain and other produce."

"Even so early as the first quarter of the last century cloth and bags came to be exported in quantity to Java, Borneo and other neighbouring ports; also for country exports of sugar, coffee and other produce. Further demands quickly followed, principally for cotton packing cloth, or bags, for America and Bombay coast ports. For shipment, the cloth pieces and bags were packed in ropebound bales in wooden presses operated by manual labour."

In "Fibrous Plants of India" (published in 1855) Forbes Royle gives the following description of the importance of the industries of hand-spinning and hand-loom weaving of jute :—

"The great trade and principal employment of jute is for the manufacture of gunny *chuts* or *chuttees*, i.e., lengths suitable for making bags. This industry forms the grand domestic manufacture of all the populous eastern districts of Lower Bengal. It pervades all classes, and penetrates into every household. Men, women and children find occupation therein................."

10. The first commercial consignment of raw jute reached Europe only in 1828, but from 1795 onwards†, sample bales were forwarded by Roxburgh, Director of the Botanic Gardens, Calcutta, to Dundee for experimental purposes.

The fibre required different treatment from flax, and it was not till about 1838, when batching with oil was introduced, and machinery was adjusted, that Dundee spinners, who had hitherto confined their attention to flax, were able to turn out marketable jute goods**. Having established itself, jute made steady progress in Dundee, and in the Crimean War, which shut off all Russian flax supplies, jute became

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* Wallace, "The Romance of Jute," pages 1-2.

† In a paper read at the thirteenth public meeting of the Indian Historical Records Commission held at Patna in December 1930, Dr. J. C. Sinha has shown by referring to Volume 375, of the "Home Miscellaneous Records" (India Office, London) that the first sample was despatched to England even earlier, in March 1791, by the Board of Trade in Bengal. The paper was published by the Government of India in 1931.

** Wallace : "The Romance of Jute."

supreme. The American Civil War consolidated this position, and jute cloth took its place as the world's packing medium.

The first jute spinning mill was established on the Hooghly in 1855, but weaving was done by hand, and power looms were not installed until about 1860.

11. The first mill was soon followed by others and the tremendous extent to which the industry has expanded in the interval, may be grasped from the fact that in Bengal to-day there are 94 jute mills, with approximately 60,000 looms, consuming about 60 per cent. of the total production of jute. The total number of looms in other countries is estimated to be about 45,000.

Though the development of the Bengal jute mill industry involved the decay of the hand-loom industry, the loss has been compensated by receipts from the cultivation of jute. In 1925-26, which was a year of exceptionally high prices, the value to the cultivator of raw jute was about Rupees 70 crores, being estimated at Rs. 15 per head of the population of Bengal.

The value of the exports of raw and manufactured jute, which was estimated at Rupees 41 lakhs in 1850-51, rose to Rupees 80 crores in 1926-27, or over 62 per cent. of the total value of merchandise exported from Bengal.

## Regulation of jute cultivation.

12. Owing to the inevitable post-war trade depression, and the heavy fall in commodity prices, various Governments have elected, or have been compelled, to interfere in commerce in ways which are foreign to individualistic or non-socialist states. Such intervention has always proved very expensive, and it is reliably stated in the American Press, that the operations of the American Farm Board, up to date, have cost somewhere in the region of 500 million dollars, or about Rs. 130 crores.

Of course Bengal has not escaped the world financial crisis. America, the biggest buyer of Bengal jute manufactures, has had to reduce its purchases, owing to acute trade depression, and the same applies to other countries. It was unfortunate that the full weight of the depression began to be felt in Bengal in 1930, when a larger jute crop than usual was being reaped, thus intensifying the fall in jute prices, which was heavier than in the case of other Indian commodities. The same applies, however, to other fibres like Manilla hemp, Sisal and New Zealand hemp.

13. The following are quinquennial averages of prices per maund of jute estimated to have been received by the cultivator in the period 1900-29:—

| | Rs. | A. |
|---|---|---|
| 1900-04 ... ... ... ... | 4 | 1 |
| 1905-09 ... ... ... ... | 5 | 2 |
| 1910-14 ... ... ... ... | 6 | 8 |
| 1915-19 ... ... ... ... | 6 | 15 |
| 1920-24 ... ... ... ... | 8 | 8 |
| 1925-29 ... ... ... ... | 10 | 4 |

The prices show a steady rise, aggregating about 150 per cent. in the 30 years, and dispose of arguments regarding any systematic overproduction having taken place in this period. It is worth noting that during the period 1926-27 to 1929-30 there were large crops of jute each year, yet even in 1929-30 the harvest price remained at the remunerative figure of Rs. 8 per maund.

In Dr. Sinha's opinion the above argument against overproduction is open to misconception as it does not make any allowance for changes in the purchasing power of money. While it is true that the high nominal price of jute during the first quarter of the present century has benefited the raiyat so far as the payment of his fixed monetary obligations is concerned, it is equally true, as pointed out by a recent writer (Dr. H. Sinha's paper on the Marketing of Jute in Calcutta in "Capital," August 15, 1929) that throughout the post-war period the raiyat obtained less real value for jute than in 1913. This will be evident from the table and the graph given in Appendix II.

Dr. Sinha further considers it quite obvious that if we take a series of years, the total quantity of jute produced during the period must adjust itself to the total quantity consumed by the mills in India and abroad. The crux of the whole matter is whether this adjustment has taken place or is taking place at a price remunerative for the raiyat. The overproduction of jute does not mean that its supply is excessive from an absolute point of view. It means that the supply is such that it cannot adjust itself to demand at a price which brings normal profit for the raiyat. Mr. Dutt associates himself with the above views.

14. Various proposals have been put forward for State action in regard to the Bengal jute crop. These vary from intensified propaganda, when necessary, in favour of restricted cultivation, through compulsory regulation, to complete control of the crop as a State monopoly. All are, of course, agreed that in the face of a limited demand, it is necessary to restrict production; and we contend that this has already been achieved in a substantial measure in the last two years.

In regard to future action there is division of opinion. We believe that it will always be sufficient if consistent and intense propaganda be carried out, not only advising the cultivator regarding the amount of jute to be sown, but giving the reasons on which the advice is based, such as the respective amounts of raw jute produced in previous years, also the stocks of jute in Calcutta and elsewhere, as far as they can be ascertained.

Others contend that such propaganda is largely without effect, because each cultivator argues that if everyone else is restricting, he can afford to do the reverse, or at least not to restrict. It is probable that some do behave in this way, but on the other hand the great reductions in the crops of the last two years shew that, as a body, the cultivator is definitely open to reason and the logic of events, and undoubtedly has faith in information which is given to him from Government sources. It is, therefore, reasonable to conclude that the more Government take the cultivator into their confidence regarding the prospects of any coming season's jute crop, the more the response will be in the desired direction, thus justifying the policy pursued. We strongly urge that the propaganda in question can only be efficiently done through Collectors of districts and that it should be made an essential part of their duty. The Collector is a real power in his district, and the prestige which the propaganda would carry if the Collector is in charge, would go a long way to making it successful.

15. We suggest that the material for the propaganda be collected by the Jute Committee (*vide* page 33) and approved by Government Then the Collector, working through the Revenue staff of Subdivisional Officers and Circle Officers, and assisted wherever possible by local officers of the Agricultural, Co-operative and Veterinary Departments, would carry on the propaganda through Union Boards, Co-operative Societies and non-officials.

It is possible that extra staff will be needed, and in cases where the Collector's duties are very heavy, a responsible officer with the necessary qualifications may be placed at his disposal to assist him in the propaganda work. Additional subordinate officers will also almost certainly be required. These subordinate officers may be paid by the Jute Committee, but they should be under the orders of the Collector for the purposes of their work, though subject to the general control of the Jute Committee. They would be valuable, apart from the propaganda under discussion, in assisting in the preparation of the jute forecast, and in other propaganda work.

Wherever possible, of course, the agencies mentioned in the section on propaganda, viz., wireless, cinema and magic lanterns, accompanied by short lectures, should be employed.

One great advantage of such a scheme as the above is that it will be a permanent and systematic one, and its educative effect will not be confined to propaganda for regulation of jute cultivation only. Progress in other directions, such as organisation of co-operative jute societies, will also be considerable. Moreover, much the greater proportion of the organization contemplated is already in existence; but, if necessary, it would be capable of expansion in an efficient way and without becoming unwieldy.

16. Those who say that propaganda towards voluntary regulation, either in the direction of restriction or of expansion, is not capable of producing the results aimed at, believe that legislation making regulation compulsory is necessary. Advocates of this policy usually contend that the present district executive organization can induce Union Boards to do all the work of ordering and, if necessary, coercing the raiyat to grow jute on any scale which may have been agreed on. It is, however, certain that such a policy could not be put into operation by the Collector with his present staff, and that necessary reinforcement would involve increased expenditure at the rate of about Rupees 1½ lakhs per district per annum, *vide* Appendix III, or a total approaching Rupees 30 lakhs per annum. This is a minimum estimate, even assuming that the cultivator will be complacent and that he will not actively resist such compulsion and encroachment on his traditional freedom. Moreever, the absence of any trained staff for such work would make an immediate policy of compulsion impossible, and it is worthy of note that nearly all really responsible opinion, even if it supports the idea of compulsory restriction and general control of the jute crop, and its marketing, as an ideal to work up to, recognises the immense difficulties involved in attaining such an ideal and its impossibility as an immediate contingency.

17. A necessary corollary of compulsory restriction would seem to be a demand on the part of the cultivator for compensation, or at least a guarantee, against loss. Moreover, inevitable mistakes on the part of

the control would be used as an excuse for refusal to pay rent and for agrarian trouble in general. Even without compulsory regulation, compensation is being demanded by and granted to farmers in the United States for the rent of land to be kept fallow. All this supports the arguments of those who believe that a policy of compulsory restriction is bound, sooner or later, to lead to large financial commitments on the part of Government, or any other organisation, which attempts it.

Again, other people advocate not only compulsory control of jute cultivation, but also the financing of the resulting crop by Government, or by non-official agency, in the form of a financial corporation. Such schemes are the essence of absolutism. In common with the form of compulsory restriction already dealt with, they constitute a definite attack on the time-honoured freedom of the raiyat to cultivate his land as he likes, and they could only be attempted if a sufficiently large force were available for purposes of coercion.

Apart from this, the magnitude and widespread nature of the financial operations involved in such proposals, in addition to the attendant risk of heavy loss, which has been the experience in other countries where Governments have financed crops, lead to the conclusion that success is not a reasonable possibility.

It is unbelievable that an enormous organisation of this kind, in control of a monopoly, and without any possibility of competition, would market jute at cheaper cost than the commercial firms at present in the business, with more than half-a-century of experience behind them, and in keen competition with each other.

It is also essential, under any scheme of compulsory restriction, not to forget the danger of corruption and harassment, to which the cultivator is likely to be a victim, and to which he is more than likely to offer active opposition.

18. It is further imperative to remember another side of the problem. It is acknowledged that in Bengal, as in other countries, it is impossible to produce alternative crops to order, and that, in the main, rice must take the place of jute (*vide* page 11). It is often forgotten that, already, cultivators depending on rice for their revenue, are still worse off than the jute cultivator; yet many would have liked to see a large reduction in jute cultivation this year, with a corresponding increase in rice cultivation and therefore in the amount of grain on an already overloaded market. The question may be asked why the rice cultivator of the Bakarganj district and the Presidency and Burdwan Divisions should be sacrificed to the jute cultivator.

19. Our conclusions are as follows:—

(1) The fact that the prices of jute rose by about 150 per cent. between 1900 and 1929 shew that there was no systematic over-production during this period.* The large carry-over from the crop of 1930-31 was due to shrinkage of demand, owing to the onset of the world financial crisis, and not to over-production in face of a steady demand.

(2) The ordinary effect of low prices, assisted by propaganda, has produced the desired effect of reducing stocks to the point where a gradual rise of prices appears to be in progress.

(3) There is therefore no justification for such revolutionary action as compulsory regulation of the jute crop by legislative action.

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*Messrs. Dutt and Sinha dissent from this view, *vide* their arguments on page 7.

(4) We believe that the raiyat is an intelligent farmer who appraises the situation to the best of his knowledge and grows the crop which, on the information at his disposal, he thinks will pay him best. We therefore recommend that, in the manner described above, better organized and more intensive propaganda should be carried out in simple language to acquaint the cultivator with—

(*a*) the amount of accumulated stocks of raw and manufactured jute in India and, as far as possible, in other countries, and

(*b*) any other information or advice such as overhead prices for, say, the last three years, which will assist him in deciding what would be a reasonable area of jute to sow in order to secure an adequate return for his produce.

(5) We strongly urge that the propaganda be in the hands of Collectors in their respective districts, and that such extra assistance as is necessary be given to them for the purpose.*

## Alternative crops for jute.

20. The Committee have considered in detail the question of crops which can be grown instead of jute. They recognize that the solution of the problem in regard to any crop would be comparatively simple, if there were other crops of approximately equal value to which the farmer could turn, when any crop in the series available to him becomes unprofitable. Jute is normally an exceptionally good revenue crop, more profitable than ordinary staple crops, such as cotton, rice and wheat, and comparable with sugarcane and tobacco.

21. Apart from jute, Bengal can grow excellent sugarcane, but cane is an all-India crop, like cotton, and the additional area of cane required to eliminate the present import of sugar into Calcutta is only about 150,000 acres. As Calcutta imports of sugar are not all consumed in Bengal, and as rapid development in cane cultivation is taking place in other Provinces as well as in Bengal, it is obvious that the possibilities of cane in Bengal must be definitely less than an increase of 150,000 acres. Now, 100,000 acres of jute is equivalent to no more than 3-1/3 lakhs of bales of fibre, while the actual variation in the jute crop from year to year may be several times this amount. Nevertheless, to the above extent, sugarcane is an alternative crop to jute, more especially as it is proposed to establish large sugar factories in tracts where the cultivation of cane is sufficiently dense. In these tracts the sugar

*Mr. Dutt is of the opinion that compulsory regulation is impracticable, but he would observe that if voluntary restriction should be proved to fail in its object, then other measures would have to be considered.

He is also of opinion, that voluntary propaganda, to be effective, must be based on a system of some sort of quota to be fixed for each district, subdivision, union board and village, calculated proportionately on the basis of the jute forecast figures of a normal year, and that it would not be effective if reliance is placed on disjointed action of individual cultivators, but that it is necessary that joint action should be secured on the part of cultivators in each village. For this purpose, he advocates the formation of a Jute Growers Association on a voluntary basis in every village. This Association would work on the advice of the propaganda officers to be maintained by the Jute Committee under the supervision of the Collector in each district. It would be the function of the village Jute Growers Association in each village to endeavour to see that the quota fixed for the village every year is adhered to. This will be secured not by compulsory action but by voluntary propaganda and persuasion on the part of the village Jute Growers Association. Dr. Sinha associates himself with this view. (*Vide* Mr. Dutt's Supplementary note, page 45).

factories would pay cash to neighbouring cultivators for the cane they produce.

22. Tobacco of course is a *rabi* or cold weather crop, and would not normally replace jute, unless a fine tobacco were being grown, for which it would pay the cultivator to fallow, or to green manure, his land in the preceding *kharif* season. Much the same applies to other *rabi* crops.

23. It is true, therefore, that in the case of diminution of jute cultivation, the great proportion of land so freed would have to go under rice, the value of which has also fallen greatly in recent years, largely owing to increased cultivation in other countries.

24. The Department of Agriculture should be given funds and staff to investigate other lines which the cultivator can take up. Such investigations should never cease, and after recent experience, efforts should be intensified to find new directions in which cultivators can most profitably spend their time and labour.

## The jute forecast.

25. The preliminary and final jute forecasts are published in the beginning of July and the end of August respectively by the Director of Agriculture, on the strength of information supplied to him by District Collectors, who, in their turn, depend on their revenue subordinates and, ultimately, on the presidents of Union Boards. The latter are supposed to check the actual area of jute on village maps, from which their respective totals are compiled. It is known, however, that the checking process is too great a task for the Union Boards, and that the estimates furnished are usually mere guesses which are always conservative and, in most cases, far from the truth. The very inaccurate forecasts for the years 1920-22 inclusive were substantially the figures as supplied by Union Boards. The Director has, therefore, to depend largely on his own experience, and on any other available sources of information, in the preparation of the jute forecasts. Fortunately, several large firms, which have mufassal agencies, prepare their own forecasts, and they supply much valuable information to the Director.

In several years, up to and including 1923, a staff of "jute clerks" used to be employed from April to September in each year to assist Presidents of Union Boards in preparing their estimates of jute cultivation. These men, however, were not a success, as supervision by the Department of Agriculture was difficult.

26. The Committee proposes that such extra staff as may be allotted to the Collectors for propaganda in connection with jute (*vide* page 8) should be used, also under the Collectors' supervision, for the jute forecast. A really careful annual survey of a few villages in each of two or three parts of a district would yield a much better basis for an estimate than anything which is at present supplied to the Director of Agriculture from the districts. Incidentally, such a survey would be of use in other ways, as it need not be confined to jute.

The extra staff in question could be financed from the funds of the Jute Committee, as indicated on page 33.

27. Practically all countries publish forecasts of the staple crops which they produce; but in some quarters in Bengal the jute forecast is looked upon with suspicion, owing to an impression that such estimates give to the trade information which, from the point of view of the cultivator, it would be better to withhold. Such ideas are of course erroneous,

because, even if the Government forecast were not published; other trade estimates are available, and the Government estimate is admittedly unbiassed and free to all. It is considered that a good deal of this prejudice might evaporate if the cultivator were supplied, in his turn, with such information as would enable him to decide how much jute to grow. The proposals which we make in regard to the Jute Committee (*vide* page 33) embrace the supply of such information to the cultivator.

28. On frequent occasions the members of the jute trade in Calcutta have pointed out that, in addition to the preliminary and final jute forecasts, it is desirable that interim weekly or fortnightly reports, containing information regarding the progress of the jute crop, the effect of weather, rise or fall of rivers, pests, etc., should be published. It is contended by the trade that the furnishing of this information would go a long way to prevent undue speculation, which is liable to take place before the preliminary forecast, and particularly in the long interval between the preliminary and final forecasts. A certain amount of such information is already published in the weekly crop reports by the Department of Agriculture, but lack of staff in the districts has hitherto made it impossible that the information could be anything but rather meagre and indefinite in nature.

29. The extra propaganda staff, which it is proposed to give to the Collectors, would enable more reliable information to be gathered, and thus help towards elimination of the undesirable speculation already referred to.

30. The Committee recommends that both the jute forecasts, as well as the interim reports in question, be published not only in the Government Gazette and in English papers but also in the vernacular press.

## Marketing of Jute.

31. *Mofussil Markets.*—The marketing of jute has been the subject of much attention in recent years, as not only the Royal Commission on Agriculture, but also the Central Banking Committee and the Bengal Banking Enquiry Committee have dealt with it.

Briefly, the system is one in which the cultivator sells his fibre through middlemen who may include the *Faria* or the *Bepari*, and the *Aratdar* or the *Mahajan*. The middlemen sell to the up-country (*kutcha*) baler, who assorts and bales the jute, and in his turn sells to the Mill in Calcutta, or to the *pucca* (export) baler. In some cases, the *Aratdar* himself despatches jute to Calcutta. This jute is usually not baled up-country, but is sent loose, in "drums" of about 1 maund weight to one or other of the recognized markets in Calcutta.

The functions of the *Faria* and the *Bepari* merge into each other, but the latter usually works on a larger scale than the former. Either may be a merchant, or an agent, according as he works on his own capital or on commission. Both purchase jute either from the cultivator in the village, or at local *hats*, and bring the fibre, by boat or road, to the baler, or to the godown or *Arat* of an *Aratdar*, depending on whether they have made arrangements with the former or the latter. Usually the *Bepari* is sent out into the district, either by the up-country baler or by the *Aratdar*, with instructions as to the price he may pay. If he works on commission, he gets about 9 pies a maund, and if he works on his own, he tries to buy from the cultivator at such a price as will leave him a profit, after the price paid to the cultivator, plus transit charges, are deducted from the baler's price. Sometimes the *Bepari* cannot buy from the cultivator at the price offered, and if he is working on his own, he may pay the cultivator's price, in the hope that the market will rise, or, having bought the fibre, he may damp it so as to increase the weight sufficiently to give him the necessary profit, provided the baler does not detect the water. Usually, watering is only done when the *Bepari* is working on his own. If the *Bepari* is acting as the agent of a baler, the latter protects him, and pays the extra price which he has to pay to the cultivator.

It is certain that little watering of the fibre is done by the cultivator, and that this evil is mostly perpetrated by the petty dealer. When a consignment of wet jute is brought in, the baler either rejects it or, after roughly estimating the added moisture, makes allowance for it in the price he pays.

The baler cannot bale his jute wet, because the fibre deteriorates in the bale if it contains more than a certain proportion of moisture; but in any case, the added moisture evaporates from the bale, and is the cause of claims on account of deterioration of fibre and short weight. Generally speaking, therefore, claims by the buyer on account of moisture would be proof of careless work by the baler. It has been alleged by witnesses before the Committee that claims for short weight are made arbitrarily by some mills. We have not been able to ascertain the truth of this allegation. On the other hand, it is known that balers of repute seldom have claims made on them, and in any case the seller has the right of re-weighment by a licensed measurer.

It is often contended that the petty dealer cheats the cultivator from whom he purchases jute at his (the cultivator's) house or in the local *hat*. No one will contend that the *Faria* or the *Bepari* is a philanthropist; but on the other hand, it is necessary to remember firstly, that the cultivator is by no means a fool and, secondly, that the *Faria* and the *Bepari* are usually local men, who have been and probably still are, cultivators known to most, if not all, of the people from whom they purchase jute.

If, further, these small dealers were in the habit of making large profits, it would be expected that, as a class, they would be well off. On the contrary, it has several times been pointed out to us that it is not common to meet wealthy *Farias* or *Beparis*. As a matter of fact, in the last few years, all middlemen, including the *Faria*, the *Bepari* and the baler, whether European or Indian, have had an extremely bad time, and have lost money, sometimes in large amounts.* The fact that the difference between what the cultivator at present gets for his jute and the Calcutta price, has been as little as Re. 1-4 to Re. 1-8 per md., is proof that no middleman has been making a fortune, taking into account the cost of freight, insurance and baling charges. On the other hand, it is pointed out that these charges represent over 20 per cent. of the present total price, so that the spread between what the ultimate buyer pays and the grower receives appears rather high on existing price levels.

32. The simple system just described, which is on a purely business basis, applies not only to the jute crop, but also to all other produce

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* Messrs. Dutt and Sinha hold the view that this loss to middlemen is quite natural in a period of falling jute prices but it does not prove that the present marketing arrangement is satisfactory from the point of view of the raiyat.

in the Presidency of Bengal. It may not be perfect, but the only organizations which are suggested as able to replace it are Co-operative Societies and Regulated Markets, the possibilities of which are described hereafter under their respective heads. It appears that experience has to be gained before either type of organization would be able efficiently to replace the present system.

33. *Allowances.*—The custom of giving allowances by the sellers is as common in dealings in jute, as it is in the case of other commodities, but such allowances are generally more numerous in a commercial and more highly valued crop like jute than in the case of usually less valuable food crops. Examples of such allowances are:—

| | | |
|---|---|---|
| (*a*) "Excess" | .. | Commonly about 1 seer in the maund. |
| (*b*) "Sample" | .. | Commonly about ½ seer per maund. |
| (*c*) "Kabari" | .. | Commonly about ½ seer per maund. |
| (*d*) "Bachhat" | .. | Commonly about ½ seer per maund. |
| (*e*) "Dhalta" or "Dholak" | | Is an allowance for dryage in districts where Jute is brought to market in a more or less damp condition. |

All these allowances are of ancient origin, and in no district do they all apply.

"*Excess.*"—Formerly it was the custom to deliver 103 maunds when 100 maunds were ordered just as, in England, a "baker's dozen" is 13 and not 12.

Now-a-days, at any rate, whatever happened in the past, the "Excess" is allowed for in fixing the price of jute, so that the seller is not a loser through conceding the allowance.

"*Sample*" is the portion theoretically taken out by the buyer in sampling a consignment of jute.

"*Kabari*" is given by the seller to the buyer's purchasing staff.

"*Bachhat*" is connected with the weighing of the consignment. At the end of weighment, any residue not equivalent to the smallest weight used, is not counted in the weighment.

"Sample," "*Kabari*" and "*Bachhat*" are very small.

It is sometimes represented that these allowances are the means used by buyers in victimizing the sellers. Actually, as already remarked, each allowance represents an old and recognized custom, and it is certain that in every case the buyer has to pay a correspondingly higher price on account of it. It is undoubtedly desirable to eliminate allowances as far as possible, but such customs die hard, and without previous education, legislation would probably be ineffective.

The introduction of standard weights will have a good influence in regard to all these customs.

## Standards of quality.

34. (*a*) *Export Market.*—According to whether it is intended for export, or for use in Calcutta Mills, raw jute is assorted into two quite different sets of grades or standards. For the export trade, practically all jute is "cut", i.e., the hard bark at the base of the stem, which is

known as "root" is cut off before baling. Recognised public standards of quality for export jute are "Firsts," "Lightnings," "Hearts," "Daisee" and "Tossa," and although there is no written description of any of these standards, which are based only on strength, colour and quality, they are well known to all in the export trade, both in India and abroad. Such standards do not change, and are sold subject to a guarantee of "average quality of the mark or marks specified above shipped at the corresponding period of the two previous seasons." For general information it may be stated that "Firsts," "Lightnings," and "Hearts" are the fibre of "white jute" (*Corchorus capsularis*), while "Daisee" and "Tossa" are the fibre of *Corchorus olitorius*.

Jute is always exported in "pucca," i.e., 400 lb. bales, and the bales are always marked by the different balers with their own distinguishing marks, the majority of which are registered each year in the Calcutta Baled Jute Association Book of Marks.

Annually the London Jute Association forms groups of these marks, under each grade, which for the previous year were found reliable. Marks included in the groups are termed "actual" marks, and those not so included, "substitutes." Under this system, which is intended to encourage balers to keep regular and reliable standards, "actual" marks have an advantage over "substitutes" in that, for allowances over a fixed minimum, a "substitute" mark is subject to a penalty of 25 per cent. whereas "actual" marks are not subject to this penalty.

In addition to the above, a large export business to almost every consuming country is done in privately baled marks, the standards and qualities of which are fixed by agreement between balers and consumers. These marks are baled to meet consumers' particular requirements for the manufacture of special yarns or cloth.

(*b*) *The Loose Jute Trade.*—A quantity of jute is used in the country by cultivators and others for the making of rope, etc. There is no means of estimating the amount so absorbed, but, by general consent, the consumption is placed at a more or less arbitrary figure of 5 lakhs of bales. Apart from this, the balance of the jute crop is brought either to Calcutta or to Chittagong, and roughly three-eighths is exported while five-eighths is worked up in the Calcutta Mills. The export standards have already been dealt with, and the following represents the position regarding standards for jute which finds its way to the Calcutta Mills.

Years ago, the standards for loose jute were 1's, 2's, 3's, 4's and "Rejections." 1's and 2's were regarded as suitable only for export, and outside the quality required for Calcutta Mills, whose demand was confined to 3's, 4's and "Rejections." 3's and 4's were based on a spinning guarantee of warp and weft fibre, but there was no guarantee in regard to "Rejections." There are still three standards or grades in the loose jute market, but the names of the grades have frequently changed, the tendency being constantly towards an improvement in the quality of fibre associated with any particular grade.

35. During the last two years, owing to heavy stocks of manufactured goods, the Associated Mills have curtailed production by sealing hessian looms and by working shorter hours. In addition, five of the Non-Associated Mills also reduced their hours of working from the 1st of August, 1932. This has resulted in diminished requirements of better quality fibre. Secondly, for several years past there has been

sufficient fibre to go round, while for the last two years the supply has exceeded the demand,* with the result that there has been increased competition amongst sellers to dispose of their holdings. With the above in mind, the following short description supplies a reasonable explanation of the frequent changes in loose jute standards which have taken place in recent years.

36. Firstly, there is no abrupt division between standards or grades, because there is always fibre intermediate in quality between two grades. In some cases, in order to avoid any risk of spoiling the standard of the higher grade, but more often in order to make sure of disposing of his stocks, the seller delivers a rather better assortment for a lower grade than his competitors, by bringing in better quality fibre, for which there is little or no demand, and which otherwise might easily be left on his hands. The competitors retort in the same way, and so on, until the lower standard has improved by a whole grade, and takes the place of the top standard, the name of which therefore ceases to exist.

37. It is commonly thought that the mills impose the raising of standards on the trade by refusing to purchase any but lower class-fibre, but this is not the case. All that is true is that the mills have not refused to take better assortment than the grade purchased, when it is offered to them. When trade conditions again become normal, and especially if the demand for fibre should exceed the supply, as was generally the case before 1926, then it is certain that it will be found that standards have less tendency to improve and change.

38. In the meantime, various efforts have been made to institute defined standards. The last arrangement in this respect was made in May, 1932, when warp and weft guarantees were re-introduced, and all business has since been, nominally, conducted on this basis. In spite of this, however, sellers in many cases have delivered jute superior in quality to that guaranteed by the contracts, and it may be contended that standards have again improved. But as there has been no change in the guarantee for the current season (1933-34), i.e., provided the *guarantees* remain fixed, the standards will remain the same as they were at the beginning of last season (1932-33). This arrangement, therefore, offers a basis for reasonably fixed standards.

39. It is contended that it is impossible to prevent a seller delivering jute better than he has contracted to sell, if he wishes to do so. In this case, even legislatively fixed standards, which after all, must be based on minima, could hardly be more effective than the system now in vogue. At the same time it is an illogical position, in which, from whatever cause, standards can change in the way loose jute standards have changed in recent years, and it is suggested that stability could easily be achieved if a committee, representative of all the trade interests involved, were appointed to deal with this question.

40. There is undoubtedly a wide feeling in the trade itself that some action to stabilize standards should be taken. The cultivator is really outside the question. In the first place he sells his jute "overhead," i.e., unassorted, and the fact that the situation is due to competition

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*These conditions are now changing.

amongst middlemen is certain to assure him a full value for his fibre.* On the other hand, the *kutcha* baler may stand to lose, by having to open out bales for re-assortment and re-baling, if standards change. Moreover, it has been alleged before us that in some instances, owing to standards having been changed, sellers having made a forward contract to supply a certain mark have had in fact to deliver a higher grade on due date, also that in some cases this has been supported by arbitration. In these cases it would appear that the wording of the contract must have been faulty, but such questions could not arise with standards of reasonable stability.

41. It is common in this connection to point to the American Cotton Standard Act of 1923, and to ask why similar action could not be taken in regard to jute in Bengal. But it must be remembered that in 1874 there was an unofficial movement in favour of uniform cotton standards for the United States of America, and, as early as 1907, for a Federal Standard (*vide* Appendix I-B, page 17). The Act embodying the Federal Standard was, however, only passed in 1923, after persuading foreign buyers to accept American cotton standards in return for concessions in regard to arbitration. It follows, therefore, that though buyers and sellers of loose jute both reside in India, it is desirable that those who believe in fixing standards for jute by legislation should try and convince others holding different opinions, before any resort is had to legislative action in this matter.

42. It has been argued that any legislative action which would rigidly fix loose jute standards, would at once bring them into *Fatka* gambling, with all the consequences which much the greater proportion of the jute trade deplores in regard to *Fatka* gambling, at present fortunately confined to *pucca* bales. This, however, is not intended as an argument against reasonably stable standards arrived at by mutual agreement.

43. The following suggestions for guarantees for loose jute standards were tentatively put forward by trade members of the Committee as a basis for discussion by the trade:—

| | Hessian warp. Per cent. | Sacking warp. Per cent. | Weft and cuttings. Per cent. |
|---|---|---|---|
| *White Jute.* | | | |
| Fine | 60 | 20 | 20 |
| Superior | 40 | 40 | 20 |
| Tops | 20 | 60 | 20 |
| Middles | .. | 70 | 30 |
| Bottoms | | Without guarantee. | |
| *Daisee and Tossa.* | | | |
| Superior | .. | 90 | 10 |
| Tops | .. | 80 | 20 |
| Middles | .. | 50 | 50 |
| Bottoms | No guarantee. | | |

"Fine" and "Superior" grades are too good for use in the Calcutta Mills and are only suitable for export.

"Tops," "Middles" and "Bottoms" are the grades which are in common use in the Calcutta Mills. The names of all the grades are new and are suggestions from the trade itself.

*Messrs. Dutt and Sinha dissent from this view. They hold that competition among middlemen anxious to dispose of jute to mills cannot mean that middlemen are equally anxious to buy jute at full prices from the raiyat.

44. We are unanimous that immediate legislation for fixing loose jute standards is not necessary.

Messrs. Dutt, Sinha and Arshad Ali,† however, consider that legislation should be resorted to if the trade does not fix standards for itself. The remainder of us hold that standards made over a year ago are still in existence, and that in any case legislation could not improve the situation as it is because—

(1) legislation must be based on minima, and

(2) no one can prevent a seller from delivering a better article than the minimum standard if he wishes to do so. This is all that is happening at present. Moreover, legislation would be in direct opposition to the wishes of a large and important section of the trade, which believes that the question of standards is a highly technical subject which can only be satisfactorily settled inside the trade itself. It is held that the representative Committee already referred to (*vide* paragraph 39) is undoubtedly the agency for this purpose, and that legislation or other action by Government, is not needed.

## Conditions of Export Business.

45. As already indicated, Jute is exported in the form of *pucca* (400 lbs.) bales. Some baling for export is done at up-country stations by firms which are their own shippers, but the bulk of *pucca* baling is done in Calcutta, with jute which has been brought from the mofussil to one of the loose jute markets in Calcutta, such as Hatkhola, Cossipore, Belgachia, etc. Some of this loose jute is in *kutcha** bales, but much is also loosely rolled into one maund bundles, which, from their shape, are known as "drums."

The *pucca* baler in Calcutta, knowing the "marks" or grades he has to bale to, goes to Hatkhola or other loose jute market, and buys his requirements after inspection. The jute is then assorted and the fibre of right length, colour, and strength is taken in the proportion which the "mark" is recognized to consist of. The hard bark, or "root", is cut from the base of the fibre, which is then hackled.†† Finally, the jute is baled. The cuttings are also baled and may be sold locally or exported.

46. *Home Guarantee.*—The people concerned in the export jute trade in Calcutta are the loose jute merchant or *Aratdar*, the baler and the shipper. The baler is often his own shipper, but if not, the shipper deals with the customer over-seas and orders what he requires from the baler. As the shipper does not see the jute before it is baled, he protects himself by taking a written assurance from the baler that the fibre supplied is up to the standard required by the over-seas buyer. This written assurance is known as "Home Guarantee", and if a claim is made on arrival at destination and upheld in arbitration, the baler is responsible for making good the award. This is as it should be. If there is no claim, Home Guarantee costs the baler nothing. If a claim is made, it is usually due to careless packing, for which the baler is to blame. In some cases, as an alternative to arbitration, when a claim arises, the baler agrees to make an allowance which is known in

†Vide Minute of dissent by Dr. Sinha on standards (Page 53).

**Kutcha* bales vary in weight from one maund to four maunds.

††Hackling is a form of combing done in order to straighten out the strands in the fibre from the lower portion of the stem.

the trade as an "amicable settlement" Some balers, however, are said to object to Home Guarantee and its abolition has been suggested. On the other hand, Home Guarantee offers protection alike to the shipper and to the overseas buyer, and on this account, has many supporters. Nevertheless, it is stated that a few balers, who do not agree to Home Guarantee terms, have become their own shippers. It is necessary to remember that, if the fibre be properly chosen and is in good condition, claims will be rare, and firms baling "Group Marks" or "Substitute Marks" have little or no trouble in this direction. Frequency of claims is, therefore, an indication of unreliability on the part of the baler.

47. *Invoicing Back.*—In home contracts, there is an "Invoicing Back" clause under which, if, for any reason, a consignment differs so much from the buyer's agreement that he cannot use it, he may, after arbitration, "invoice it back", i.e., refuse to accept the tender under contract, in which case it falls back on the shipper's hands. If a consignment is invoiced back, it means that the packing has been so careless as to be almost fraudulent.

In this connection, it must be borne in mind that the great bulk of export consignments, of Indian as well as European shippers, are accepted by overseas buyers without complaint, and that, as would be expected, it is only a very small percentage of shipments which are disputed.

48. *Arbitration.*—In case a claim is made, the dispute may be settled by amicable agreement, which costs little or nothing, or it may go to arbitration. The Dundee Chamber of Commerce appoints its own arbitrators, because it purchases special lines of fibre, in consequence of which the arbitrators have to have particular knowledge of the local trade. For the rest of the world, arbitrations are held in London under the auspices of the London Jute Association. It is admitted on all hands that the London Jute Association arbitrations and awards are carried out by very competent men, who are appointed to the Board only after careful examination of their knowledge of, and general fitness for, the work they have to do. It is also admitted that their decisions are fair and impartial.

49. There are complaints in some quarters that the London arbitrations are expensive (*vide* Appendix IV), and that, in some cases, they involve unnecessary delay; also that sellers are obliged to settle claims amicably, as far as possible, in view of this alleged delay and expense. One suggestion is to substitute Calcutta arbitration for London arbitration. As a variant of this it has been suggested that, as with Manilla Hemp in the Philippines, legislation should be enacted under which all export jute would be inspected and guaranteed before it leaves Calcutta, and that this guarantee should be final and not open to appeal. Exporters and buyers would then be compelled to conform to the conditions imposed.

Here again impulsive legislative action is proposed, when the trade itself has the remedy entirely in its hands. The London Jute Association arbitrations have no legislative basis or sanction, but they could not have attained their present prestige without their fairness and reliability having gained the confidence of the great majority of the trade.

It is pointed out that, in the above the buyer's point of view has not been considered, and that it cannot be too strongly emphasized that the good-will of the buyers is the most vital consideration in the export trade of any country; also that action of the nature suggested, which virtually amounts to the exporter dictating his own terms, would certainly do endless harm to the trade, and encourage the search for, and use of, jute substitutes.

There is no obstacle in the way of making private arrangements between buyers and sellers, whereby they agree, so far as they themselves are concerned, firstly, to have their jute inspected and guaranteed in Calcutta before shipment and thus abolish arbitration, or secondly, to retain arbitration, but have it in Calcutta, Hamburg, New York or Tokio as well as in London. It is all a question of agreement. In any case, no legislation is required which would compel others to conform to terms which they disapprove of and which might easily involve them in unfair financial sacrifice.

50. It is stating a truism to say that if there were any real feeling against London arbitration, a break-away of the kind indicated would have taken place long ago, and London arbitrations would have subsided to the level at which opinion held in some quarters places them.

The same argument applies to "Home Guarantee" and "Invoicing Back". Some balers are said to have become their own shippers. They thus in effect sign their own "Home Guarantee" letters. If it pays them to do this, the custom will doubtless spread.

51. It remains to deal in rather more detail with the proposal to form a grading board for jute as has been done for Manilla Hemp in the Philippines. In the first place, more than one kind of hemp is grown in the Philippines, with the result that not only varieties of *agave* fibre, but also the fibre from various types of banana (*Musa sp.*) were offered as being *abaca* or true Manilla Hemp (*Musa textilis*). To start with, therefore, the Philippines had to deal with adulteration of Manilla Hemp, the finest of all cordage fibres, with inferior substitutes, which lowered the reputation, and therefore the price, of Manilla Hemp in the world's markets.

In any case the crop of Manilla Hemp is only about 1/7th that of the jute crop. Moreover, the bulk of the jute crop is marketed between September and the end of December, and to assort and inspect such an enormous mass of material efficiently and honestly, would require so large a staff as would add very materially to the cost of placing jute goods on the market. Moreover, it is not certain that any benefit to the cultivator or to the trade in general would accrue. Apart from this, it is probable that there would be numerous mistakes, due either to carelessness or to corruption.

It is also certain that, failing general consent, hasty action would produce such chaos as would do great injury both to the producer and to the consumer of jute.

We know that even Government grading of hemp in the Philippines does not prevent many complaints and frequent arbitration; also that it has not abolished London arbitrations on hemp, any more than the American cotton standards Act abolished Liverpool arbitrations in regard to cotton. In the case of cotton a give and take policy had to be adopted, whereby America agreed to continue arbitration in Liverpool in return for the acceptance of American cotton standards.

52. *Conclusions.*—(1) *Pucca* bale standards for jute are recognized as reliable and stable and there is no need to change them. Any action

which the trade may take to tighten up these standards as regards quality and stability should be supported in the interests of the reputation of Indian jute.

(2) Arbitration in disputes in regard to export jute is normally carried out under the auspices of the London Jute Association or the Dundee Chamber of Commerce. But many amicable settlements are made without arbitration. The London Jute Association arbitrations are generally admitted to be fair and impartial, and moreover it is stated that there have been few complaints in recent years. There is, therefore, no object in the proposal to transfer arbitration on export jute to Calcutta. Such a measure would meet with determined opposition from overseas buyers.

We believe that the great bulk of the export trade in Jute, whether handled by European or Indian firms, is carried out on sound lines; that the number of disputes is small; that every means should be explored to maintain, and if possible improve on, this satisfactory position, and that nothing should be done which would in any way tend to encourage the shipment of unreliable parcels.

## Co-operative Societies.

53. So far, experience with co-operative jute sale societies has been disappointing, and unless village co-operative jute societies are organized on right lines, they will not work cheaply enough to ensure a better price to the cultivator for his fibre than he is getting at present. Moreover, if experience in other countries is to be trusted, there is some doubt if, at present, the raiyat is sufficiently educated to take full advantage of co-operative marketing.

54. The failure of the jute sale societies is not conclusive evidence against the feasibility of co-operative marketing. Instead of following the previous method it is necessary to start at the bottom, on a basis of village societies. Indeed, the development of village co-operative jute societies of the right type seems to offer a real prospect of further improving the economic condition of the cultivator, and the matter is of sufficient importance to justify the formation, in the first place, of a few experimental village jute societies, which will receive such attention and supervision from officers of the Co-operative Department and others as will guide them on the right lines. If possible, the societies should be founded in a tract where there has been a previously expressed desire for them, and it will be necessary to choose the centres at which the societies are formed with care and deliberation, so as to hold out reasonable prospects of success; also to carry on effective propaganda to ensure willing co-operation of the bulk of the growers. Otherwise, the societies will experience avoidable difficulties due to scepticism or hostility of their own members.

55. So far, two necessary conditions have been mentioned, viz., a sympathetic atmosphere and good supervision. A third essential is that, in the beginning, the aim of the societies should not be diffuse, but on the other hand, should be strictly limited to the object in view, viz., to sell the jute of the members to the best possible advantage. To do this seems easy, but in practice it is found that there are difficulties. For instance, at the outset, the societies must not buy the jute of their members, because they cannot take the risk of financial loss. Secondly, as an alternative, it would appear simple for each cultivator to bring

from his house such jute as he wants to sell, place it in a boat with fibre belonging to other cultivators, and depute one or two of the members of the society to take it to the baler and bring back the value in due course. Here two obstacles present themselves. In the first place, it is stated that a cultivator will not usually allow his jute out of his sight unless he first receives its value. Unfortunately, there is reason to believe that the cultivators' suspicions are well founded, and so a difficulty about finance and advances arises. Secondly, each cultivator might contend that his jute is better than the average quality in the consignment, in which case disagreement would follow regarding the share of the sale proceeds to be allotted to each member. The latter is a serious matter, because it would be impossible to assort each cultivator's fibre separately. It has been suggested, however, that a solution to both difficulties might be found, not by deputing members of the society to take the jute to the baler, but by arranging with the baler to send a representative to the village to make the purchase on the spot. In such a case the society would have to possess a godown. From time to time, up-country representatives of various firms have tried to help village societies to sell their jute direct to the baling establishment, and there is no doubt that such offers would be renewed, and all assistance given to the societies. If a representative of a baling firm were to visit the village, he could price each cultivator's jute as it was brought in, and immediate payment could be made. Procedure akin to this is already in vogue in some districts. Eventually, as with the many credit societies which are functioning successfully, the members of the co-operative jute societies would settle down and work together. When this happens, it appears that joint sale by village societies to balers' representatives will replace sales by individual cultivators. If there were an organized market in the neighbourhood, or if there were unregulated markets where there is competitive buying by representatives of different buying firms, the chances of success for the village societies would be increased.

56. An officer of the Co-operative Department should be deputed to be in charge of one or two such societies, to help them as far as possible, and in doing so to gain experience himself. In these conditions one or two years' experience would show whether there is any opening at present for societies of this kind. If successful, the societies would soon find imitators all over the country.

It will be necessary to place men of honesty and experience in charge of these village jute co-operative societies. Lack of such trained men may make initial progress slow, but the experimental societies referred to above in paragraph 54, if successful, should prove invaluable as training centres.

In the meantime, the officers who, it is proposed, should be given to each Collector for the purpose of propaganda (*vide* page 8), could advocate formation of village co-operative jute societies, describe the lines on which they should be run, and the advantages which are likely to accrue to the cultivator from them.

57. Some of us consider that the formation of village credit societies to work alongside the co-operative jute societies and advance money to cultivators on their crops on condition of their joining the co-operative societies is to be deprecated, as restricting the freedom of the individual and as being opposed to the principles of co-operation. It is also advisable, if possible, to avoid making advances to members of a village

co-operative jute society on their respective shares of the fibre sent to the baler. The true spirit of co-operation means nothing if not trust and loyalty to fellow members.

Khan Bahadur Arshad Ali, Mr. Dutt and Dr. Sinha hold the opinion that village credit societies should advance sufficient loans to their members at sowing time, on the understanding that the recipients of loans will make over their jute in due course to the local co-operative jute societies. It should be remembered that even in advanced countries where co-operation has made considerable headway, some measure of compulsion, not to speak of a system of "local option," has been found necessary. It is true that such village societies cannot go beyond the stage of the first or second middleman, but it is idle to expect at present a fully developed co-operative organisation connecting the village grower with the ultimate buyer. In any case, even this modest beginning, working in conjunction with regulated markets, will mean some improvement on the present system.

## Regulated Markets.

58. Regulated markets for cotton, as recommended by the Royal Commission on Agriculture, have been introduced by legislation in the Central Provinces and more recently in Bombay. The basic idea of regulated markets is that the ordinary custom, under which a middleman collects produce from the cultivator in his village, exposes the cultivator to the danger of being cheated by the middleman from lack of knowledge, or fraudulent weights, or both; or from undue influence which the middleman may hold over him. If the cultivator goes to an ordinary local *hat* or market to sell his produce the allowances which the owners of the market and the dealers extract, are said to be too great a toll on the amount which the cultivator receives for his produce.

59. The regulated cotton markets in the Central Provinces and Bombay are established under legislation. They are designed to abolish all undesirable customs and allowances, and to keep the cultivator who comes to the market well posted in regard to Bombay prices. The Director of Agriculture in the Central Provinces, who has large experience of the regulated markets in Berar, considers that, taken all round, the markets are run fairly well, and irregularities and victimization are less than they were, although for some years to come the theory of marketing control will be considerably better than the actual practice. Amended rules giving representation to growers on the Market Committees were introduced in Berar in 1931, and better approximation between theory and practice may now be expected.

60. It appears to be true that the amounts and number of allowances are limited in regulated markets; but both in Berar and in Bombay, although open bidding—one of the chief reforms— is enjoined in the Act under which the markets are established, it has not yet been possible to bring it into practice, and bidding under the cloth, which is illegal under the Act, has had to be condoned. In spite of this, a step in advance is that the final rate of each cotton cart is now declared to the seller, though this is somewhat off-set by the fact that in Berar

* *Vide* Appendix XIV (a) and (b)

further bargaining still takes place at the ginning factory while weighing is in progress.

61. Complaints that the position of brokers and *adatyas* in regulated markets in Berar has hitherto been a strong one, and that they have favoured buyers at the expense of the grower, are likely to be met by the inclusion—already referred to—of growers on the Market Committees. In Bombay this has been done from the first.

62. It would seem probable that big cultivators, who are, on the whole, more capable of taking care of themselves than smaller men, are able to derive advantage from the regulated markets, but the Director of Agriculture in the Central Provinces considers it doubtful if this is true of the small man. Indeed, the question of regulated markets would appear to be very similar to that of co-operative credit, in that both are more likely to succeed with substantial men of comparatively good education as their supporters.

On the other hand, organized markets bring some indirect advantages to the small cultivators who do not sell in those markets. They benefit by the dissemination of correct information about prices ruling in important trade centres. The possibility, also, that they may sell in the organized markets without hindrance or undue exactions probably induces middlemen to offer better prices even in the villages.

63. Bengal differs somewhat from Berar in that the average cotton grower's holding in Berar appears to be considerably larger than holdings in the Bengal jute growing tract. This, however, is to a certain extent compensated for by the fact that the normal yield of jute is a good deal larger than that of cotton in Berar. Thus, it can only be determined by experience whether or not the small holding in Bengal is a disadvantage in regard to regulated markets. On this account, it would not be wise to establish a large number of such markets immediately, before the necessary knowledge has been gained in experimental markets in selected places under proper supervision.

The conditions in Bengal differ from those in the Central Provinces. For instance, in Bengal, once the rivers fall, communications in many places are very difficult. Again, the Berar cultivator sells his cotton as *kapas*, as the mixture of seed and lint picked from the plant is called, and the ginning of cotton appears to make it necessary for the regulated markets to be at ginning centres. Big cultivators bring their *kapas* to these markets, but the smaller ones do not, and they still sell their produce to the dealer in the village.

As indicated, Bengal probably has a larger proportion of small cultivators than Berar, and here again it has to be discovered by experiment whether regulated jute markets in Bengal must be at large centres in order to be successful, or whether they would not attract more cultivators if established at the sites of larger country *hâts* in the centre of dense jute cultivation.

64. Notwithstanding the difference in conditions as indicated, we are unanimous in considering that a careful trial should be given to a few such regulated markets in selected centres, where there is a sufficient volume of business, and under competent supervision, so that the results obtained may be reliable. As in the first instance the markets would be experimental, the Committee also considers that the cost of these initial markets should fall neither on the producers nor on the buyers. They could be financed from the grant of the Jute Committee.

65. The cultivator should be a free agent in the disposal of his produce; in other words, if he does not desire to patronize the regulated market, he need not do so. It is probable that there will be opposition and scepticism at first on the part of the cultivator towards such markets, but if those who attend them are pleased, the remainder will soon come in.

As with co-operative societies, the main object is to start on a small scale, and gain experience by selecting honest and well-trained men to place in charge of the original markets. Precipitate action and lack of experience are likely to do more harm than good by discrediting the movement when more deliberate procedure might produce a favourable result.

66. The cost of establishing a regulated jute market will include land and possibly goodwill of an established market, fencing and buildings, including an office, weighing room, godown, etc. Recurring charges would include salaries of the officer-in-charge and his subordinates. Income would include license fees for dealers, weighmen, etc., but in the first instance it might be necessary to remit such fees.

67. The Royal Commission on Agriculture (Report, page 395), examined the question as to whether Regulated Markets should be established under *ad hoc* legislation, or under bye-laws framed under the Municipalities Act or the District Boards Act. For Berar special legislation was passed and the same has also been done in Bombay. This also applies now to the Central Provinces.

The Royal Commission came to the conclusion that special legislation is advisable, and made recommendations to this effect.

68. Four of us are not convinced that Regulated Markets in Bengal must be established under legislative protection. We consider that, if under proper control, the advantages they offer would recommend them to cultivators and dealers alike and that they would make their way and gradually become popular. We, therefore, advise that an early endeavour be made, without legislation, to establish Regulated Markets in a few places decided on in consultation with Collectors of districts, where the assistance of buyers could be relied on. We believe that such assistance will not be difficult to obtain and that there are many places where local influence would lend its support in eliminating unfair competition. The markets thus established would afford all the advantages to sellers, such as standard weights and market information, which the Regulated Markets under legislative protection do and, if necessary, they could be run through a committee representing growers as well as buyers. Moreover, at least for the first few markets established, a reliable and responsible officer, preferably of the Department of Agriculture or the Co-operative Department, should be deputed to be in charge, and the market should be regularly inspected not only by the Collector and his subordinates but by officers of the Departments of Agriculture and Co-operative Societies when touring in the neighbourhood.

If after a fair trial, the markets are not succeeding because of difficulties which legislation would overcome, then such legislation should be enacted in due course.

69. Messrs. Burn and Finlayson do not subscribe to the latter recommendation because, from their knowledge of the jute districts and the

system of marketing now in vogue, they consider that if cultivators will not, of their own free will, operate in markets of the nature indicated, then it would be unwise to force upon them by legislation a system which they are not prepared to support.

70. Dr. Sinha and Mr. Dutt are of opinion that legislation is necessary and their remarks are given below:—

"It is not possible to start even a few regulated markets in Bengal without legislation. Unless there is a danger of breach of the peace, the right to open markets in Bengal outside the limits of a municipality is unrestricted. Within a municipal area, markets can be established either by the municipality or with its sanction. As soon as any regulated market will be started in this province, the middlemen are likely to boycott it and try to make a failure of it, by starting an unregulated market close by.

"If the regulated market is to attain success, all unregulated markets within a certain radius will have to be prohibited by legislation. The initiative for starting such organised markets must come from the Provincial Government. As the Royal Commission on Agriculture observes: 'The need for the establishment of regulated markets may not in the beginning be appreciated.' This makes it necessary that the first few experiments with regulated jute markets should be guided by able and sympathetic Government officers who would try their best to make such institutions a success."

## Weights and measures.

71. In Bengal there is the same chaos in regard to weights and measures as in other parts of India, but they are the weights which are common in their respective tracts, and the cultivator is at present more familiar with them and with prices quoted in regard to them than he would be with prices quoted for standard weights. Nevertheless, such differences in weights may offer opportunities of cheating, although to guard against this possibility up-country agents of baling firms invariably convert the price of the standard maund at which jute is quoted at Calcutta to that corresponding to the local weight before giving buying instructions to the *Bepari*. The weights vary according to the number of *tolas* in a *seer*—40 *seers* always making a *maund*. Thus while the standard *seer* is 80 *tolas*, a local *seer* may vary from only 60 *tolas*, or 60 *sicca* weight, to 110 *tolas* (110 *sicca*). Sometimes even properly made weights are not used. Under another system, jute is sold by the "hank" or bundle, and as the hanks are made up by the cultivator, it can be taken for granted that he does not make them too heavy. The accuracy of such rough methods is often astonishing.

72. The above is enough to show how complex the situation is in regard to weights. In practice, of course, the local weights are what the cultivator has been brought up with and has been familiar with all his life. Probably, therefore, he is not cheated as a general rule. On the other hand, the Committee has met with no opposition to the suggestion that the standard seer should be introduced by law, at first in the jute trade only, but later in other directions also. The Central Provinces and Bombay have already enacted legislation in regard to weights and measures, but the implementing of these measures awaits

allotment of funds. We recommend that ultimately similar action be taken in Bengal. We are of opinion, however, that, in introducing such a radical reform as standard weights and measures, it may happen that, at first, the inertia of public opinion may be too great to allow of the law being enforced. If special difficulties of this kind had not been anticipated, the Government of India would doubtless have introduced the necessary legislation in 1913 when the question of standard weights was first brought up. After consideration, the Government of India decided to leave the choice regarding action or otherwise to local Governments.

73. It will certainly be difficult to administer any legislation enjoining standard weights and measures. In fact, many would regard it as a somewhat distant ideal. The use of old-fashioned weights and measures is not an act of moral obliquity, and it would be impossible at present to make it a punishable offence.

74. The best way would seem to be that standard weights should at first be introduced wherever possible, e.g., in municipalities, jute-buying centres, baling centres, etc., and that, at the same time, propaganda in favour of standardization be made with the object of educating public opinion and accustoming people to the idea as well as acquainting them with the advantage of a system of standard weights. It will be convenient to have propaganda in favour of the use of standard weights made through Collectors in their respective districts, and the extra staff (*vide* page 8) which we have already recommended to be placed at the disposal of Collectors, should take part in this propaganda also.

75. Before legislation is contemplated, very careful consideration would have to be given to the cost of running a weights and measures inspection service—

(1) A cadre of officers would be required to inspect weights, and these would have to be trained in testing weights and scales before they were sent out. In Bombay it has been decided that an entirely new service must be recruited, the members of which will have the necessary special training.

(2) It has been pointed out to us that it would be much more difficult and would require a more numerous as well as a more highly trained inspection staff, if inspection of scales as well as weights were to be included in the reform from the beginning. It is probable, therefore, that the introduction of standard weights would be sufficient for a beginning, and that the question of scales could be taken up later, when the system of standard weights has been introduced and is in common use.

(3) It is impossible at present to lay down the strength and kind of staff required. Presumably, municipalities will retain their own inspectors, but even if the use of standard weights were at first confined to the jute trade, the staff required would be a large and expensive one. There would be a chief inspector, in addition to numerous inspectors, all of whom would have to be not only well trained but thoroughly honest, and paid accordingly.

It has to be remembered that usually the bulk of the trade in jute is over by the end of the year, as far as the mufassal is concerned; so that the inspectors would be very busy for four months and have little to do in the remainder of the year.

## Futures.

76. The question of futures markets is not specifically included in the terms of reference to the Jute Enquiry Committee, though its consideration under the head of marketing is not debarred.

At the time the Jute Enquiry Committee was composing its questionnaire, a Jute Futures Market Committee, appointed by the trade, was considering the futures market as applied to baled jute for export, and pending the issue of the report of this Committee it was decided not to include questions regarding futures in the questionnaire of the Jute Enquiry Committee.

77. The joint committee referred to failed to agree as regards the necessity for a futures market in jute*; but they made certain proposals for the modification of the constitution and functions of the East India Jute Association which, it was thought, might enable the jute futures market connected with the Association to become a helpful link with the jute trade of Calcutta. The proposals of the Committee, however, did not meet with any substantial measure of support from the trade. The opinions of the various bodies referred to are set forth in Appendix VI. At the final meeting of the Committee, the following minute was recorded:—

"This Committee having made its report is now *functus officio* ..............".

78. In the meantime, a large volume of evidence was volunteered to the Jute Enquiry Committee from the mufassal, as well as from Calcutta, to the effect that the futures markets, both jute and hessian, are detrimental to the trade, that the modifications suggested by the Jute Futures Market Committee, already referred to, would make little change in the nature of such harmful operations, and that the speculative element, which has no connection with the trade as a whole, could still pursue its operations uncurbed. The result of such speculation is violent and unjustified fluctuations in prices of both raw jute and jute manufactures.

It has been credibly reported that these frequent and sharp fluctuations are one of the factors checking the trade in Calcutta goods and driving consumers to other markets.

79. In considering the question, we find we are divided as to whether or not a jute futures market is necessary. We are, however, agreed that under present circumstances no legislation or Government action could at this stage be usefully undertaken, and that the remedy lies in the hands of the trade itself to devise effective means by which futures operations can be limited to genuine trade transactions, thus excluding the mere gambling element which makes the price of jute and hessian a plaything for profit to the detriment of the producer and the genuine trader both in India and overseas. We can see no justification whatsoever for a hessian futures market. †Messrs. Dutt, Sinha and Arshad Ali are of opinion that, failing reform by action within the trade itself, Government intervention will be necessary.

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* *Vide* Appendix VI.

† *Vide* Note of Dissent on Jute Futures Market in Calcutta by Dr. J. C. Sinha, page 55.

## Propaganda.

80. Opinions differ considerably as to the extent to which growers of jute receive reliable market information, but it is generally agreed that it is desirable to place the cultivator in possession of such information and to assist him in deciding on the amount of jute he should sow. To fulfil the latter object, proposals have been made for a staff of propaganda officers financed by the Jute Committee and working under Collectors of districts (*vide* page 8). Part of the duties of these officers will be to disseminate information regarding stocks of raw jute in Calcutta and abroad; also overhead prices of jute during the last three years or so. If and when these proposals mature, the cultivator should no longer be in the dark on the subject of the area of jute to sow in any season.

81. The Committee discussed the best means of giving the grower regular information regarding market prices of jute from July to December, when he sells the bulk of his fibre. As already indicated, evidence is conflicting as to the extent to which he receives information of jute prices. Some say that he is completely ignorant and that he sells his fibre for whatever the *Faria* or *Bepari* cares to offer to him. Others believe that the *raiyat* has little, if anything, to learn about prices. The truth is probably somewhere between the two points of view. It is a fact that the *raiyat* is not always a helpless dupe of the dealer. Moreover, *hâts* and baling establishments are so common in the jute districts that cultivators never have to go very far for information. It is not generally known perhaps that jute prices are broadcasted by wireless every day, though at present there are only about 660 licences for receivers in the Bengal *mufassal*.

82. The Committee consider that it is possible to improve on the methods by which information regarding prices reaches the cultivator; and they realise that, to be of value, the information must be reliable.

83. There is division of opinion as regards the possibilities of wireless telegraphy. Its development is recommended by the Royal Commission on Agriculture and its has undoubtedly much to recommend it. On the other hand, the difficulties are undoubtedly considerable.

Bengal, however, is more fortunate than some other provinces in having a sufficiently powerful broadcasting installation to reach all parts of the Presidency. It would, therefore, seem that the extent to which wireless information can be conveyed to the cultivator depends on the number of receiving sets available. The Director of Broadcasting considers that a complete receiving set of a suitable type with duplicate accumulators would cost about Rs. 300. The accumulators would require periodical charging, for which they would have to be sent to the nearest electric generating station. This might prove a serious difficulty. A further obstacle would be finding suitable persons to place in charge of the apparatus and to note the prices as received. It is, therefore, obvious that no rapid development can take place, but it is suggested that an experiment might be made by placing receivers at headquarters of one or two selected districts whence the information received could be conveyed by post twice a week to Presidents of Union Boards and to centres, such as markets, which the Collector may select. Similarly, one or two receivers should be placed in important jute markets, including regulated markets, when these are established.

In the meantime, we recommend that an immediate start should be made by forwarding information regarding prices by post from Calcutta, twice or three times a week, to Presidents of Union Boards or to selected police thanas; also to the *Ijaradars* of important country *hâts*. If regularly posted on the notice boards at such thanas or in the *hâts*, cultivators would soon hear of the communications and would come regularly for information. The estimated cost of this, including the staff required for issuing the post cards, appears to be well within Rs. 10,000 per annum.

84. The value of cinema and lantern lectures for general propaganda purposes are well known. They are already used to some extent, but the number of agricultural films should be increased, as also the number of lantern slides. Indeed, this side of propaganda work with the cultivator should be developed as much as possible, because, while undoubtedly effective, it also ensures contact of the propaganda officer with the public.

## The Proposed Jute Committee.

85. As the terms of reference quote a Bengal Jute Committee on the lines of the Indian Central Jute Committee, it is necessary to describe the latter and the way in which the scheme originated.

In paragraph 65 of their report, the Royal Commission on Agriculture, while laying down the general principle that the trade concerned should provide the funds required for any research on the product in which it is interested, beyond that undertaken in the normal course by the Agricultural Departments, recommended that an exception should be made in the case of the jute trade. They did so on the ground that, although jute was a monopoly of India, there was no guarantee that it would remain so, as the danger that an artificial product or a process may be discovered, either of which would effectively break the apparent monopoly of jute, to the disadvantage of the Bengal cultivator and all concerned with jute in Bengal. The Royal Commission considered that for jute to retain its position it is necessary that every effort should be made to improve quality, outturn and methods of manufacture and to maintain the relative cheapness of jute as compared with other fibres. They, therefore, recommended the formation of a Central Jute Committee on the lines which had proved successful in the case of the Indian Central Cotton Committee. The Royal Commission suggested that the personnel of the Central Jute Committee should be composed of representatives of the Agricultural Departments of Bengal, Bihar and Orissa, and Assam, also of growers, merchants and manufacturers, as is the case with the Indian Central Cotton Committee. In order to provide the necessary link between research work on jute and all-India research work, it was also proposed that the Chairman of the Central Jute Committee should be the Chairman of the Council of Agricultural Research, and that the Agricultural Expert to the Council as well as an all-India authority on co-operation should be members. In the matter of finance, the Royal Commission proposed that the Central Jute Committee should receive an annual grant of Rupees five lakhs from the Government of India, but as there were objections to this, it was proposed by the Government of India, as an alternative, that the Central Jute Committee, like the Indian Central Cotton Committee, should be financed from its own statutory fund; and that an adequate fund could be provided by a cess of one anna a bale on raw jute, five annas per ton on sacking and eight annas per ton on hessian exported from any customs port to any port outside British India. It was further announced that the Government of India were prepared to make a reduction in the export duties on raw and manufactured jute to the extent of Rupees five lakhs annually, if and when the necessary legislation establishing a Central Jute Committee, with its own statutory fund, is passed.

86. The above proposals for an organisation whose function should be research from the field to the factory, and whose powers should be purely *advisory*, should have commanded the instant support of all concerned, but actually the opinions expressed by different sections of the trade in Calcutta varied widely and this resulted in considerable delay. Ultimately, after lengthy discussion with the Government of Bengal and the Indian and European Chambers of Commerce in Calcutta, the Government of India further explained that the Royal Commission proposals in regard to the Central Jute Committee were that it should have the same functions in regard to jute that the Indian Central Cotton Committee has in regard to cotton, and not that it should combine the functions which the Indian Central Cotton Committee and the East India Cotton Association exercise for the Cotton Industry. They did not intend that it should be given any powers of interference with the organization of the jute trade. Such questions as jute grading, jute futures and the like, are primarily matters for the trade, and if the Central Jute Committee considered that action in respect of them were needed in the interest of jute growers, it would be for the Committee to convince the trade of its desirability*.

In accordance with this view it was proposed that the functions of the Committee should be confined to agricultural, technological and economic research, including the improvement of crop forecasting and statistics; the production, testing and distribution of improved seed; enquiries and recommendations relating to marketing and transport facilities and transport routes; the improvement of marketing; and the dissemination of information in the interests of the jute industry in India.

The Government of India considered that the Indian Lac Cess Act† (XXIV of 1930) is a more suitable model for legislation in the creation of the Central Jute Committee than the Indian Cotton Cess Act, and it was proposed that the Central Jute Committee should have a personnel of 22 members.

87. Thus the scheme for a Central Jute Committee emphasizes the fact that the main object of the Royal Commission in recommending the establishment of the Committee was the urgent need for research for the accumulation of knowledge which would enable the jute industry to meet and overcome competition. The report of the Sub-Committee of the Indian Jute Mills Association (Appendix VII) proves beyond doubt that, since the Royal Commission sat, the position has changed definitely for the worse. In the interval, not only has bulk handling of grain made considerable strides, but paper has practically entirely superseded jute in the packing of cement. To a considerable extent, also, cotton has replaced jute for small containers in the United States. These items in the aggregate divert a very appreciable volume of trade from the jute industry. In fact, the position to-day is that the jute trade is faced with a reduction in the demand for its products, owing to increasing competition. It is not necessary to point out that any

* *Vide* Appendix X.

† *Vide* Appendix X, page 141 *et seq.*

reduction in the demand for jute means an equivalent reduction in the income of the cultivator and of the province as a whole, and that the only way of avoiding this is to take effective measures to retain the trade which the industry now holds, and to explore other avenues for new business, which means in a large measure, the discovery of new uses as a result of research.

88. Looked at in this way, no one with a sense of responsibility could, for any reason whatsoever, delay the inception of a scheme of research which would be of material help to the jute industry on the lines indicated. Even if it be admitted that improvements are possible in the present organization of the jute trade, the importance of such improvements cannot detract from the supreme need for research, and the accumulation of new knowledge.

It is anticipated that, as a result of the political reforms, Bengal will enjoy its share of the jute export tax. But if the demand for jute decreases, the value of the share will shrink, and it will also be off-set by decreased revenue due to the diminished income of the cultivator.

Even if all that has been said were open to argument, which is not so, the case for research is still overwhelming. The jute industry in India is alone among the great textile industries of the world in lacking research on the technological side. Cotton, wool and flax have elaborate research organizations on which they spend large sums of money. Even if the whole of the Rupees 5 lakhs a year with which it is proposed to endow the Jute Committee were devoted entirely to technological research in the jute industry, it would be the reverse of extravagance. Any means which can increase the demand for jute is to the benefit of Bengal, and honest research to this end cannot fail to be a sound investment which eventually will pay for itself many times over in productive results.

It cannot be too strongly urged that research should proceed continuously and not spasmodically, when trading conditions are bad, and people are nervous about future prospects. Suitable results of value cannot be expected to accrue from disjointed efforts.

89. The research programme of the Jute Committee would be a wide one, and it is suggested that its development should proceed on the lines of the Indian Central Cotton Committee. A statement of the objects, activities and achievements of the Indian Central Cotton Committee is given in Appendix VIII.

The technological laboratory would include chemical, physical, fibre-testing and microscopic sections; also a botanical section and a model machine section, with necessary workshop accommodation. It is possible that the botanical and plant-breeding work may, as at present, continue to be done at the Agricultural Research Institute at Dacca, just as the Cotton Research Officer has his headquarters in the Punjab and not in Bombay. Much botanical and plant-breeding work with jute has already been done at Dacca, and it would probably be convenient to keep it there, as the necessary land for field experiments is also available.

Whether or not it would be possible to carry out satisfactory laboratory spinning tests with jute, as is done with cotton, is a matter for experiment.

For experimental work in regard to the optimum percentage of moisture necessary in the spinning of various types of fibre, a moisture-testing section would be necessary.

The fibre-testing section would concern itself with strength tests of various kinds, both on raw fibre and on finished cloth. It will provide a valuable check when it is necessary to turn out goods of very even quality.

The chemical and microscopic laboratory would have a varied programme of work which would include research into the composition and structure of different types of jute, the possibility of treating these in such a way as to make them suitable for new purposes other than those at present in use, also the ordinary preparatory treatment of the raw fibre before spinning, and the improvement of manufactured goods to enable them to meet competition from substitutes.

In addition to investigations dealing with large-scale manufacturing operations, the technological institute would devote attention to the possibility of developing cottage industries, which would tend to increase the use of jute. Already small beginnings have been made by the Department of Industries and there is undoubtedly considerable scope for expansion in hand-spinning of jute, also in cottage weaving of articles from mill-spun as well as hand-spun jute. The Department of Industries should be given every assistance for further research and for demonstration on an extended scale in this direction.

90. Other items of activity for the Jute Committee might be to finance further investigations by the Agricultural Department into the production of jute fibre. Much has already been done, but there is still wide scope for further investigation into quality of fibre as well as yield per acre. The Committee would also undertake economic research into marketing, study of market organization and the finance of marketing.

Another item is the jute forecast, for the reasonable accuracy of which a larger district staff is required. Such a staff could be financed by the Jute Committee (*vide* pages 11 and 12).

91. In discussing propaganda with a view to regulating the production of jute (*vide* page 8), it has been proposed that such extra staff as is required in the district should be financed by the Jute Committee, but should be under the Collectors of districts, and the same would be true of officers working on the jute forecast and on marketing and transit conditions. For agricultural investigations, of course, the officers financed by the Jute Committee for the purpose would work under the Department of Agriculture. It is an encouraging sign that so important a body as the Indian Jute Mills Association is now considering a report by a special sub-committee (*vide* Appendix VII) on the questions of competition, research and the expansion of markets for jute goods.

92. There is undoubtedly much to be done in the direction of establishing a competent *liaison* between the Calcutta Mills and buyers in countries overseas. Representatives on the spot, to sympathetically investigate complaints or difficulties of foreign buyers, should be of considerable help to the trade, and, in addition, to opening the way to new business by enquiry and persuasion. The value of the reports of such representatives to the Calcutta mills would also be very great, and incidentally, they would contain information which could be passed on to the cultivator to help him in deciding on his jute crop for the next season. The services of Indian Trade Commissioners at Hamburg and other places should also be utilized in the above connection.

93. It is suggested that the mills should have a technological laboratory of their own, in which the treatment of fibre, experimental spinning, weaving and the treatment of manufactured cloth in various ways will be the objects of investigation. It is hoped that this research organisation and the Technological Institute under the Jute Committee would be able to work in collaboration with the object of mutual help and of avoiding overlapping of work. The testing of new machines and of improvements in old machines, which is now carried out by mills individually, would be facilitated by similar work by the suggested Mills research organisation. Generally, it may be said that both the mills and the Jute Committee would carry out a programme of technological research in which jute fibre will be subjected to chemical, physical and microscopic examination with a view to ascertaining its properties, not only as regards its reactions to present manufacturing conditions but as a means towards possible new uses in directions in which jute at present has no place.

94. It is needless to say that, to be of value, the technological investigations, as described, demand not only ample facilities and accommodations but also workers of great ability as well as high qualifications and experience. It has also to be remembered that in scientific investigation results of value cannot be obtained to order, and that often they take a long time to accrue. It is, therefore, of utmost importance that the technological laboratories should be established at the earliest possible moment.

95. The financial and other responsibilties of the Indian Central Cotton Committee are considerable, and the Jute Committee would perform similar functions.

96. Three of our colleagues who have signed this report, viz., Dr. J. C. Sinha, Khan Bahadur Arshad Ali and Mr. G. S. Dutt, are in favour of a Bengal Jute Committee, as opposed to a Central Jute Committee, and it is proposed that the Committee should have a membership of sixteen, composed as follows:—

(1) The Minister of Agriculture, Bengal, *Chairman* (*ex-officio*).
(2) One representative of the Imperial Council of Agricultural Research.
(3) Director of Agriculture, Bengal, (*ex-officio*).
(4) Registrar of Co-operative Societies, Bengal, (*ex-officio*).
(5) Director of Industries, Bengal, (*ex-officio*).
(6) to (9) Four representatives of jute growers nominated by the Government of Bengal.
(10) One representative of the Indian Jute Mills Association.
(11) One representative of the Bengal Chamber of Commerce.
(12) One representative of the Bengal National Chamber of Commerce.
(13) One representative of the Indian Chamber of Commerce.
(14) One representative of the Muslim Chamber of Commerce.
(15) One Scientist.
(16) One Economist.

One or two other members (experts in any matter under discussion) may be co-opted from time to time.

If the Governments of Bihar and Orissa, and Assam so desire, each may nominate one member of its Department of Agriculture to the Bengal Jute Committee.

There will be a Secretary—a whole-time salaried officer—with a clerical staff; also a permanent staff of experts and assistants for the Central Research Institute with its several laboratories, botanical, physical, chemical, etc. The expert staff would include a statistician.

97. Messrs. Dutt and Sinha give the following reasons in support of a Bengal Committee:—

"It seems natural to have an All-India Committee for jute in the same way as that for cotton; but there are important differences. In the first place, about 90 per cent. of jute is produced in Bengal, whereas the production of cotton is scattered over many British Provinces and Indian States. In the second place, almost the entire manufacture of jute is concentrated in Bengal, but in the case of cotton, mills have started practically in all parts of India (including Indian States), not to speak of the hand-loom industry. It may also be presumed that the interest of the Government of India in matters pertaining to jute is limited mostly to that of a tax gatherer. It may also be pointed out that the formation of the Indian Central Cotton Committee was comparatively expeditious because of 'Imperial interests' of increasing the production (*vide* Resolution of the Revenue and Agriculture Department No. 933-263, dated 27th September 1917, quoted in paragraph 1 of the McKenna Committee's Report) of long staple cotton in India and of the reported threat of retaliatory export duty on American cotton as a reply to Stevenson's rubber restriction scheme. These incentives are wholly absent in the case of jute. It is also certain that if the proceeds of the jute export duty are made over to Bengal, at least partially, the interest of the Government of India will correspondingly decline. The Government of Bengal is likely to form a jute committee much earlier, and will take a much more active interest in it than the Government of India.

"The constitution of the Jute Committee will naturally differ according to whether it is an all-India Committee or a provincial Committee. Even for a provincial Committee, there are different interests to be considered, such as those of growers, manufacturers, traders, etc. According to section 4 of the Indian Cotton Cess Act (Act XIV of 1923), the Indian Central Cotton Committee was to consist of 33 members from British India, out of whom as many as 10 were growers' representatives, 9 represented commercial associations, and 4 manufacturing, including ginning. It should be remembered also that section 10(2) of the Act confers wide powers on the Collector or his Deputy, to examine the records and accounts of any cotton mill even without notice. This power is not proposed for the Bengal Jute Committee, on which therefore no excessive representation of the manufacturing interest is called for. According to the Indian Lac Cess Act of 1930*, the Indian Lac Cess Committee is to consist of 17 members 5 of whom would represent growers' interests, and 5 manufacturing and trading interests."

For the above reasons Messrs. Dutt and Sinha favour the constitution of the Bengal Committee already outlined. They also

* *Vide* Appendix X, Page 141 *et seq.*

consider that there should not be invidious distinction regarding the representation of different trade interests; but they would agree to a second representation on the Committee being allowed to the Indian Jute Mills Association.

98. Four of us, including the Chairman, favour the proposal for a Central Jute Committee as opposed to a purely Bengal Committee. Our reasons are as follows:—

Firstly, we believe that a Central Jute Committee, on which the Imperial Council of Agricultural Research as well as other jute-producing Provinces, are definitely represented, would be more effective than a purely Bengal Committee.

Secondly, the scheme for a Central Jute Committee is still, it is understood, under consideration of the Government of India. If adopted, the financial backing would be available immediately, and the scheme could be put into operation at an early date. The great necessity is for research to begin with as little delay as possible. It may take some years to obtain results of value, and, in the meantime, the jute trade will be open to further attack. On the other hand, a scheme for a Bengal Committee would probably have no chance of obtaining funds until the political changes allow of the scheme being financed by the jute export tax. It is feared that the Government of India would not be prepared to subsidize a Provincial Jute Committee.

99. Messrs. J. T. Finlayson and H. H. Burn, who respectively represent the Bengal Chamber of Commerce and the Indian Jute Mills Association on the Committee, recommend that the personnel of the Jute Committee, proposed in letter No. 1419, dated the 24th April 1931, from the Secretary, Bengal Chamber of Commerce, to the Secretary to the Government of Bengal, Commerce Department (*vide* Appendix IX) be adopted. It is as follows:—

*A. To be nominated by Government.*

(1) The Vice-Chairman of the Imperial Council of Agricultural Research, *Chairman.*

(2) One other representative of the Government of India.

(3) to (5) Representatives of the Provincial Agricultural Departments (two representing Bengal).

(6) to (8) Representatives of growers (two representing Bengal).

*B. To be nominated by trade interests.*

(9) to (12) Representatives of the Bengal Chamber of Commerce and allied Jute Associations.

(13) and (14) Representatives of the Indian Jute Mills Association.

(15) and (16) Representatives of the Bengal National Chamber of Commerce.

(17) and (18) Representatives of the Indian Chamber of Commerce.

It is suggested that an additional member should be appointed from the Muslim Chamber of Commerce.

A permanent staff as detailed above for the Bengal Committee would also be required.

100. Messrs. Finlayson and Burn consider the composition of the Committee proposed by our three colleagues wrong for a body which is to discuss and direct investigations of the nature outlined. They are convinced that representatives of the jute trade are too few, and that, in particular, the Bengal Chamber of Commerce and the Indian Jute Mills Association have not been given the weight their importance in the trade entitles them to. The representatives of these two bodies on the Committee further consider that with the interests of three provinces concerned, a Central Committee would be the proper body to function, and they desire to call attention to the correspondence in Appendix IX between the Secretary to the Government of Bengal, Commerce Department, and the Bengal Chamber of Commerce on this subject. They further wish to stress the fact that, in the correspondence referred to, it was stipulated that there must be no question of imposing an additional burden on the trade in respect of the provision of the necessary finance.

101. Another essential stipulation which was made when the proposal was accepted in 1929, was that there should be no question of any interference by the Jute Committee with functions properly belonging to the trade itself. The Government of India recognised the need for care in this respect, when they stated in 1931 that "such questions as jute grading, jute futures and the like are primarily matters for the trade, and if the Central Jute Committee considered that action in respect of them were needed in the interests of the jute growers, it would be for them to convince the trade of its desirability." Messrs Finlayson and Burn press strongly for provision being made that no decision of the Committee with regard to the exercise of its functions should be effective unless the decision is supported by each of the commercial bodies represented on it. Only such a provision would give the needed protection against any attempt to interfere, through the Committee, and without the concurrence of trading interests generally, with the normal course of trading operations. Failing unanimity in the trade itself, the Jute Committee, which requires to be thoroughly representative of the trade, would be of a purely advisory nature. Its primary functions would be those already suggested, namely, agricultural, technological and economic research, the improvement of crop forecasting and statistics, the production, testing and distribution of improved seeds, and the dissemination of information in the interests of the jute industry in India.

102. With regard to the question of the minimum amount required to finance the Jute Committee, Messrs. Burn and Finlayson consider that at this early stage any figure would merely be a conjecture and of no practical utility as a guide. The proposed functions of the Committee have been gone into in considerable detail, but the full extent of its activities must be influenced by the result of the initial investigations which will give some idea as to the practical steps desirable to take in the Committee's attempts to attain its aims.

103. The Chairman and Dr. Hector prefer the personnel for the Central Jute Committee, suggested by the Government of India in their letter No. 89-A., dated 17th January 1931, to the Secretary to the Government of Bengal, and given below; but they would agree to the proposals of the Bengal Chamber of Commerce, or any reasonable modification of either proposal, if it would hasten a decision and allow of an earlier commencement of the research work which they consider so vital.

*The Government of India's Proposal, January 1931.*

Representatives of the Government of India—4.

Representatives of the Agricultural Departments:—

| | | |
|---|---|---|
| Bengal | 2 | |
| Bihar and Orissa | 1 | |
| Assam | 1 | |

Growers' representatives:—

| | | |
|---|---|---|
| Bengal | 2 | Nominated by the Local Governments. |
| Bihar and Orissa | 1 | |
| Assam | 1 | |

Commercial representatives:—

| | | |
|---|---|---|
| Calcutta | 8 | |
| Bihar and Orissa | 1 | Nominated by the Local Governments. |
| Assam | 1 | |

A permanent staff as detailed above for the Bengal Committee would also be required.

104. Regarding the personnel of the Bengal Jute Committee (*vide* page 34), the Chairman and Dr. Hector consider it is not sufficiently balanced. In the first place, the representative of the Imperial Council of Agricultural Research should be the Agricultural Expert to the Council. Secondly, two of the growers' representatives should be members of the Indian Civil Service with intimate district experience in jute growing tracts. These officers would greatly strengthen the case for the growers, and would be valuable generally as members of the Committee. There is no special need for a Scientist on the Committee or for an Economist. If necessary, one or both could be coopted temporarily. Their two posts should be added to the trade representation, which is too small, and it is suggested that the extra representatives be given to the Bengal Chamber of Commerce and to the Indian Jute Mills Association respectively. The reasons for this suggestion are that the Indian Jute Mills deal with about 60 per cent. of the total production of jute, and that the Bengal Chamber of Commerce is the only body with any claims to represent both Indian and European opinions on the subject of jute. If there are objections to re-enforcing the representation of the Bengal Chamber of Commerce, the Calcutta Baled Jute Association, which is a representative body of European and Indian jute merchants, should be given one nomination.

105. Regarding the cost of financing a Jute Committee, Central, or otherwise:—

It will require at least Rupees 5 lakhs per annum which has been accepted from the inception of the scheme as being necessary. If a smaller sum were allotted and it proved insufficient, it would be difficult to increase the fund, which would be a statutory one. Rather than form a Jute Committee with insufficient funds, it would be better to be content with providing separately for the propaganda staff to be at the disposal of Collectors (*vide* page 8), and for the most urg items of research, pending the time when adequate finance for the formation of a Jute Committee would be available.

## Jute Substitutes and Research.

106. The report of the sub-committee of the Indian Jute Mills Association (*vide* Appendix VII) shows in detail that jute is meeting with competition, as a result of which the jute industry is faced with the possibility of a diminished demand for its goods. Competition has developed along two main lines, viz.—

(1) The increased adoption of bulk handling of grain is progressively eliminating jute sacks as containers for grain in transit.

(2) The substitution of jute by paper, and to a less extent by cotton, for the making of bags.

107. It is probable that the losses due to bulk handling and to the use of paper are permanent, also that they may increase. As already indicated, this means correspondingly reduced jute production, and, therefore, less income for the cultivator. The danger is real, and the remedy is to put forward every effort to retain trade which the industry now holds; also to initiate at the earliest possible date a policy of research, vigorously pursued, with the object of discovering fresh markets or new uses for jute, thus minimizing the loss of trade caused by competition.

108. The proposals for a permanent Jute Committee and the suggested Jute Mills Research Organisation both contemplate research as the main item in their respective programmes. Details of the kind of work to be done are given on pages 32 and 33 and need not be reproduced here. But we repeat that no avoidable delay should stand in the way of the commencement of the research which we regard as of vital importance.

109. Another point should not be forgotten. The Department of Agriculture has done much to increase the yield of jute, and, therefore, to lower the cost of production. We should not rest content with this. Agricultural research into jute should continue unceasingly, partly towards obtaining new strains which will give better results, either in the matter of yield or quality of fibre or both, than those which have already been produced, and secondly, towards improving agricultural practice in regard to jute cultivation. In this way, if competition should develop so as to be a serious menace, the cultivator will be in the best possible position to meet it.

110. It has often been suggested that jute sticks offer a source of paper pulp which has not yet been exploited. This is a question which should be investigated. The weight of stick seems to approximate to double the weight of fibre, and the sale of the stick as raw material would add appreciably to the income from a jute crop. It is, however, well known that the cultivator has many uses for the jute stick, and it would have to be decided whether the extra income from jute sticks, would not involve the cultivator in additional expense for fuel, fencing, etc., before capital would be safely sunk in a scheme for turning the stick into pulp.

## Summary and Recommendations.

111. The following is a Summary of our findings and recommendations:—

*Regulation of Jute Cultivation (pages 6-10).*

(1) The large carry over of fibre from the crop of 1930-31 was due to shrinkage of demand caused by the onset of the world trade depression.

(2) The combined effect of low prices since 1930-31 and of propaganda, resulting in smaller crops of jute, has reduced stocks to such an extent that a gradual rise of prices appears to have set in.

(3) There is no justification for compulsory regulation by legislative action.

(4) Better organized and more intensive propaganda should be carried out to inform cultivators, as far as possible, regarding stocks of raw and manufactured jute in India and abroad, so as to assist them in deciding what area of jute is likely to secure them an adequate return for their produce.

(5) Propaganda should be in the hands of Collectors of Districts who should be given extra staff for the purpose. Two of our colleagues recommend that Jute Growers' Associations, through which propaganda would be carried on, should be formed in each village.

*Alternative Crops for Jute (pages 10-11).*

(6) A large proportion of any land set free by reduction of jute cultivation must go under paddy.

(7) There should be increased cultivation of sugarcane, accompanied by establishment of sugar factories in suitable tracts.

(8) Further investigation should be carried out by the Department of Agriculture, to find other crops, such as finer varieties of tobacco, for which cultivators can most profitably utilize their land.

*The Jute Forecast (pages 11-12).*

(9) The extra staff recommended to be given to Collectors for the purpose of propaganda should also be used for the jute forecast.

(10) Careful detailed surveys of several limited tracts in each district would yield a better basis for an estimate than any information at present supplied to the Director of Agriculture from the districts.

(11) If more detailed information regarding the jute crop were supplied in the weekly reports published by the Department of Agriculture, it would counteract the tendency towards speculation in the periods before the publication of the forecasts.

(12) Both the Preliminary and Final Forecasts, as well as the interim reports referred to in (11), should be published in the vernacular as well as in the English press.

*Marketing of Jute (pages 12-14).*

(13) "Allowances" should be eliminated as soon as possible.

(14) Standard weights should be used (*vide* also pages 26-27).

(15) Prices of jute should be published widely in the *mufassal* during the season (*vide* also pages 29-30).

*Standards of quality for Loose Jute (pages 14-18).*

(16) Standards should be stabilized by agreement within the trade on a basis of warp and weft content of the fibre. A Committee representative of all the trade interests involved should be appointed to deal with the matter. Some of us think that legislative action in regard to standards will serve no useful purpose, but others of our colleagues consider that legislation will be necessary if the present standards, which have been unchanged for over a year, do not remain stable.

*The Jute Export Trade (pages 18-21).*

(17) *Pucca* (export) bale standards are reliable and stable and there is no need to change them.

(18) London Jute Association arbitrations are fair and impartial. There is not sufficient justification for the proposal to transfer arbitration in cases of dispute from London to Calcutta, but if any parties should prefer to make other arrangements there is nothing to prevent their doing so.

(19) The great bulk of the export trade, whether handled by European or Indian firms, is carried out on sound lines and nothing should be done which would tend to encourage the shipment of unreliable parcels.

*Co-operative Societies (pages 21-23).*

(20) The failure of Jute Sale Societies is not conclusive evidence against the feasibility of co-operative marketing.

(21) A few experimental Village Jute Societies should be established, and run under such supervision from the Co-operative Department, as will guide them on the right lines.

(22) In the beginning the object of the societies should be limited to selling the jute of the members to the best possible advantage. The societies should not risk loss by buying the jute of their members.

(23) Eventually it is hoped that joint sale by village societies direct to baling firms will replace sales by individual cultivators to small dealers.

(24) Opinion is divided as to whether Credit Societies working alongside the Jute Co-operative Societies should advance money only to cultivators who are willing to join the Jute Societies.

*Regulated Markets (pages 23-26).*

(25) A few regulated jute markets should be established on the lines of the regulated cotton markets in Berar and Bombay. These markets

should be given a careful trial in selected centres where there is a sufficient volume of business, and should at the outset be under competent supervision, so that results obtained may be reliable.

(26) Such markets being experimental, their cost should fall neither on the producer nor on the buyer. They may be financed by the Jute Committe (page 30).

(27) Opinion is divided as to whether or not legislation is necessary for the success of regulated markets.

### *Weights and Measures (pages 26-27).*

(28) No opposition has been met with to the suggestion that the standard *seer* should be introduced by law.

(29) In view of the present state of chaos in regard to weights and measures, it would be difficult to administer any legislation fixing standard weights and measures.

(30) Standard weights should be introduced wherever possible, *e.g.*, in municipalities, jute buying centres, jute baling centres, etc., and propaganda in favour of standardization should be carried on to educate public opinion in the matter.

(31) The reform should at first be confined to the introduction of standard weights. Inspection of scales should be brought in at a later stage.

(32) It would be necessary to have a large inspecting staff, specially trained and adequately paid.

### *Futures Markets (page 28).*

(33) There is division of opinion as to whether or not Futures Markets for jute are necessary.

(34) Under present circumstances no legislation could at this stage be usefully undertaken and the remedy lies in the hands of the trade itself. There is no justification for a Hessian Futures market. Three of us are of opinion that, failing reform by action within the trade itself, Government intervention will be necessary.

### *Propaganda (pages 29-30).*

(35) Before the sowing season a staff of propaganda officers working under Collectors of districts (page 10) should disseminate information regarding stocks of jute in India and abroad; also regarding average prices of jute in the preceding two or three seasons.

(36) It is possible to improve on the methods by which information regarding prices reaches the cultivator.

(37) Experiments should be made by placing wireless receivers at headquarters of one or two districts for conveying information to growers by post twice or thrice a week through Presidents of Union Boards and others; also to centres, such as markets, which the Collector may select.

One or two receivers should also be placed in important mufassal jute markets.

(38) Pending materialization of the above suggestion, information regarding prices should be sent by postcard from Calcutta twice a week to Presidents of Union Boards and others.

(39) Every possible use should be made of the cinema and of lantern lectures. The number of agricultural films and lantern slides should be increased.

*The Jute Committee (pages 30-39).*

(40) A Jute Committee should be established by statute. Its function will be advisory (pages 30-31), and it will carry out agricultural, technological and economic research such as the improvement of crop forecasting and statistics; the production, testing and distribution of pure seed; enquiries and recommendations relating to marketing and transport facilities and transport routes; the improvement of marketing, and dissemination of information in the interests of the jute industry.

(41) The Jute Committee would employ a permanent Secretary and a trained technical staff, and would establish technological laboratories with chemical, physical, fibre-testing and microscopic sections (pages 32-33).

(42) In addition to investigations into large scale manufacturing operations, the Technological Institute should devote attention to developing cottage industries which would tend to increase the use of jute. The Department of Industries should be fully utilised in carrying out work in this direction.

(43) The Jute Committee should finance the extra staff required to work under Collectors of Districts in connection with the regulation of jute cultivation (page 8).

(44) It is hoped that the proposal now before the Indian Jute Mills Association for a Technological Institute of their own will materialize, and if so, that it will work in collaboration with the Technological Institute under the Jute Committee (page 34).

(45) Three of our members are in favour of a Bengal Jute Committee, while four prefer a Central Jute Committee (pages 34-39).

(46) The Jute Committee should be financed from its own statutory fund to be provided out of the jute export tax (pages 38-39).

*Jute Substitutes and Research (page 39).*

(47) Jute is meeting with competition which has developed along two main lines:—

(*a*) Progressive elimination of jute sacks as containers for grain in transit owing to increased adoption of bulk handling.

(*b*) Substitution of jute by paper, and to a less extent by cotton, for the making of bags.

(48) The danger is real and the remedy lies in putting forward every effort to retain trade which the industry now holds; and in initiating

and vigorously pursuing a policy of research with the object of discovering fresh markets and new uses for jute.

(49) Agricultural research should continue with the object of obtaining new strains of jute which may give better results, either in the matter of yield, or quality, or both.

## Acknowledgment.

112. We desire to record our thanks to all who have helped us by answering the questionnaire and by giving oral evidence. We are also indebted to a number of persons who, at our request, have supplied us with information. We further wish to acknowledge the excellent service rendered by Babu Dhirendra Nath Dutt, Assistant in the Department of Industries, and the ministerial staff, who have had to work very hard throughout the period of the Committee's labours.

ROBERT S. FINLOW.

J. T. FINLAYSON.

H. H. BURN.

G. S. DUTT.*

A. M. ARSHAD ALI.

J. C. SINHA.†

G. P. HECTOR.

*The 1st August 1933.*

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* Subject to Supplementary Note (*vide* page 45 *et seq.*)

† Subject to Minute of Dissent (*vide* page 53 *et seq.*)

## Supplementary Note by Mr. G. S. Dutt.

1. As mentioned in the footnote to page 10 of the Majority Report I am of opinion that the only way in which an effective regulation whether of production or of marketing can be secured is by the fixation of a quota of crop production for every district, subdivision, union board and village, and by securing joint action among the cultivators themselves with a view to endeavouring that such quota is given effect to on a voluntary basis. Joint action of this nature cannot be secured by general propaganda whether district by district, subdivision by subdivision or even union board by union board, addressed to the general body of cultivators at random. Joint action will have to be secured on the part of the entire body of jute growers in every village. For this purpose a village Jute Growers' Association will have to be formed in each village which will work under the advice of competent propaganda officers to be maintained by the Jute Committee under the supervision of the Collector of the district. Such officers should, it is suggested, be of a status corresponding to that of Inspectors of Co-operative Societies, or, at any rate, of Auditors of Co-operative Societies. A group of villages with a Jute Growers Association in each village should be placed under each of such officers. Such village associations will furnish an excellent medium for a continuous adult education propaganda to be carried on by the officers mentioned above as well as by specialist officers of other departments of Government, not only for educating and guiding the cultivator in securing an effective regulation of crop production from year to year by voluntary action but also on every other aspect of the jute problem and its allied problems, namely, the organisation of co-operative credit societies as well as co-operative societies for marketing jute, the improvement of the quality of crop by seed selection, manuring, adoption of improved processes, the cultivation of alternative crops, development of cottage industries for the utilisation of hand-spun or mill-spun fibre, etc.

2. If only a general propaganda of a roving character is carried on merely for giving general advice as to the crop percentage to be grown instead of a concentrated, localised and sustained adult education propaganda of a comprehensive nature through a network of Village Agriculturists' or Jute Growers' Associations covering the whole jute growing area, it will not only be ineffectual in securing the result aimed at but will largely result in waste of money. One of the main reasons why so little advance is being made from decade to decade in securing agricultural and other improvements among the rural population in India is that since the gradual break-up of the old Indian village community there has been a complete absence of an adult education organisation of the above nature in every village. The smallest rural administrative unit that now exists in Bengal is the Union Board which does not represent an organic unit of the villages joined together by a common interest. A union board sometimes covers as many as 8 to 10 square miles and consists of a conglomeration of villages the residents of which rarely, if ever, have occasion to meet together and who work through a system of votes for electing a handful of representatives for carrying on the union board work. Such a unit, while it can carry on many useful functions of local self-government, as many union boards are doing now, can never function as an effective adult educational organization of the nature contemplated above. The village agricultural association suggested by me is nothing but the whole body

of agriculturists of each village, or at any rate, the whole body of jute growers and not merely a small body of 8 or 9 elected men, whether representing one large village or a conglomeration of a number of villages. Such adult education organisations working on a voluntary basis and actively fostered by the State exist in most advanced countries among the rural population.

3. Denmark and Japan may be mentioned as outstanding examples in this connection. While such organizations should work on a voluntary basis there should be some system of registering them and giving them recognition as the regular agency through which the recommendations of the specialist officers of the departments of the State will be communicated to the individual cultivator.

4. Sir F. A. Nicholson in his interesting and informative book "Note on Agriculture in Japan" (published in 1907 by the Superintendent, Madras Government Press), gives an admirable description of the constitution, aims, objects and manner of functioning of the village agricultural associations in Japan and it would seem that the jute problem or for that matter the entire rural problem in Bengal can only be solved through the adoption of a similar organisation in this province. I cannot do better than quote below the relevant portions of Nicholson's description of these agricultural associations in his book mentioned above :—

"*Agricultural Associations.*—Throughout the sections on Agricultural Education and Experimental Stations there has been frequent reference to Agricultural Associations, and these are among the most remarkable evidences and are becoming most powerful instruments, of agricultural progress in the country. As pointed out by the far-seeing Director of Agriculture in France, M. Tisserand, it is impossible for a Government to influence individually millions of petty peasants; they are individually too isolated, too suspicious, too shy, to accept new ideas, to undertake experiment in new methods; similarly, they are too poor, too powerless to produce the best products, to get the better of the middleman and the best of the markets. There must be some organisation which enables Government to act upon a body of men at once and to serve as intermediary between the Government and the individual; an organisation which can be advised, educated, reasoned with, and listened to, which will discuss together the suggestions of authority, and will, through its better educated or bolder members, provide intelligence to absorb new ideas, find courage and funds to attempt new methods, and combine both for the improvement of products and for the better sale of the same. Similar views actuated not only the Government but the thinkers of Japan, and the result is that practically the whole agricultural population of Japan is united in various forms of Association; probably there is no country in the world, not even Germany, where Associations have taken such hold and, though dating only from the last few years, are beginning to exert such influence. The object of the Government is gradually to shift the work of agricultural development from the shoulders of Government to those of the people themselves, recognizing that it is not that which is done for the people but that which is done by the people that is truly beneficial, and that real progress can come only from within; this shifting of work is impossible unless there are popular bodies to take on the work. Not only so, but there is much that even the most highly organized Government, short of that in an imaginary socialist Utopia, cannot possibly do or that it would be well for them to do if they could, for fear of obliterating self-help as a national virtue. Government can experiment and point the better way and educate the people into a readiness to accept that better way, but it is only the people themselves who can work out the several improvements. It is here that the Associations step in; their experts and the more intelligent of the members receive and assimilate the new knowledge and not only work this knowledge into local fact but influence the more conservative or ignorant members into following their lead. The best explanation, however, of the functions of these Associations will be found in the description of their correlation and work.

"*Associations under the (revised) law of 1905.*—These are the Agricultural Associations proper, and are divided into Prefectural, County (taluk), and Village Associations, of which there were recently 46 and 579 and 11,968 respectively, as compared with 47 Prefectures, 638 counties and 13,509 towns and villages: In the Aichi Prefecture with a gross population in 1903 of 1,692,744 in about 308,000 households, there were 210,750 members of Agricultural Associations. As will presently be seen, membership is practically compulsory.

"*Relationship of Associations.*—These Associations are not isolated but are all interdependent within the several prefectures.

* * * * *

"The starting point is the Village Association which consists of all the farmers of a village; each of these units elects a deputy, and these within each country or taluk form the Taluk Association; these in turn elect deputies who constitute the Prefectural Association.

"*Legal conditions of Association.*—The law provides that these Associations, though juridical persons, shall not be business societies trading for profit; that is left to ordinary companies; they are simply Associations formed to promote the interest of the agriculturists and the development of agriculture by experiment, discussion, education and so forth. The members of Town and Village Associations shall be the proprietors and cultivators of land within the boundaries of the Association; County (Taluk) Associations shall be constituted from the Town and Village Associations within the county, and Prefectural from the City and County Associations within the Prefecture. Before any Village Association can be formed not less than two-thirds of the persons qualified for membership shall consent, provided that such two-thirds own not less than two-thirds of the cultivable land; but when such Association shall have been formed all persons qualified for membership must join it. The law makes provision for the working of such societies and for the appointment of deputies, officers and honorary members; the income of the Associations shall be derived from its constituent members, whether persons or Associations; and one curious provision is that members of a Village Association may pay their fees in kind. The Civic Corporation within which an Association is established may lawfully contribute towards the funds of such Association. All Associations must report on agricultural and other matters as required; these reports appear to be the basis of the very detailed statistics presented in the annual report of the Agricultural Department; they are also entitled to make suggestions on agricultural matters. The authorities have full power to examine the affairs and books of an Association and to pass such orders as may be needed.

* * * * *

"*General finance.*—These Associations, it will be noticed, are financed by the members, *i.e.*, by the farmers' subscriptions, aided apparently by donations, since the Village Associations support those of the counties and these again those of the prefectures; the farmer pays for all. Per contra, the Prefectural Associations make grants-in-aid to the Town Associations whenever necessary and possible, while the Government, Imperial and Prefectural, materially assists the whole organisation by liberal subsidies to the prefectural societies according to the rules of March 1900. In 1905 the Imperial Government gave Rs. 1;42 lakhs (in 1904 and 1906 Rs. 2·2 lakhs); the Prefectural Treasuries gave Rs. 3·45 lakhs in addition to the Imperial grants; these latter are, by the rules, applied for and given to Associations direct by Government. In 1905 the total expenditure of Prefectural Associations was Rs. 8;9 lakhs, so that more than half was provided by Government, either Imperial or Prefectural.

* * * * *

"*Village Associations.*—These are, perhaps, the most interesting of all, as we see in them what the farmers are able to do for and by themselves in their own villages. For these associations are simply the united cultivators (proprietors or tenants) of a village, and it is important to know what these men, whose farms average only 2½ acres, can do when instructed and united and led by the best local men.

"The village association gets down to the people even more than its name signifies, for the association may be subdivided into as many sections or branches as there are hamlets of between 20 and 40 houses, in the village, and each branch has its own councillor in the association and also its own local head and councillors, the latter representing groups of five houses; this method was decided in a general conference to be the best method of representing village opinion and of communicating information to the individual members. The same conference decided that every effort should be made to secure competent experts for village associations, viz., by offering a suitable salary, by providing that he should have a good position and receive suitable respect; by sending a student to an agricultural school at the expense of the association or of the Prefecture and employing him as their expert; in one Perfecture an expert has been appointed to each village association in several taluks and paid by the village associations with aid from the taluk associations; these officers are doing much good work.

* * * * *

"The following operations are undertaken by the village associations:—

(1) *Cultivation.*—Seed selection, supply, and exchange; establishment of special plots for seed-growing; improvements to seed beds in form, manuring, etc.; establishment of common seed beds for all the members (a great saving in space, seed, and labour); the prevention and destruction of insect and other crop pests; encouragement of use of cattle; cultivation of green manure; improvements in compost; encouragement of second crop cultivation; improvements in the cultivation of rice; the wholesale purchase of manure from united funds; the destruction of field rats.

(2) *Competitive Exhibitions.*—Of staple crops; of other agricultural products; of seed beds; of growing crops; of improved methods of cultivation; of ploughs; of silk cultivation.

(3) *Sericulture.*—United action in securing good seed and in preventing infection; in disinfecting; in providing suitable places for killing the pupae and drying the cocoons; in the improvement of mulberry growth.

(4) *Education.*—The establishment of temporary schools and lecturers; ditto for women; of night schools; of libraries; of agricultural bulletins.

(5) *Secondary occupations.*—The cultivation of grasses (*e.g.*, Juncus effusus and balticus) for mats; the weaving of mats; and of straw plaits; the growth of fruit trees and tea bushes and poultry; and the distribution of nests of eggs for breeding.

(6) *Miscellaneous.*—The consolidation of fields; draining; the establishment of Industrial Guilds; the encouragement of thrift; the planting of trees and woods; the statistical investigation of agricultural and village business. Other miscellaneous work is the promotion of meetings, the payment of special honours to leading farmers, the lending of implements and machines, the education of students, etc.

* * * * *

"Whatever the primary influence which originated or stimulated the formation of these associations, they are calculated both to arouse an interest in new ideas and to bring new ideas down to the farmer, and actually succeed in so doing; the whole country is being permeated with new ideas and stimulated to new action by the method thus adopted of getting at the individual farmer, viz., by forming these isolated units into societies, by dealing with them in the group, and by showing them the benefits of co-operative union and action. The mere perusal of the above is rich in hints and suggestions. One of the foremost is the opportunity which these and other associations give for reviving the position and influence of the village."

5. It will be observed that the village Agricultural Associations in Japan have no coercive power whatever but are adult education organisations working through voluntary propaganda and persuasion. Without a network of village associations of the above nature covering the country and consisting of the entire body of jute growers in each village, if not of all the agriculturists of the village, it would be impossible to educate the rural population within a measurable period of time in the matter of agricultural improvement, intelligent self-help and combination generally in their common economic interest in co-operation with the departments of Government, or to help the cultivators to effectively regulate jute production from year to year according to the variations in the world demand.

6. Experience gathered by me in the district of Birbhum from 1916 to 1920 and in the district of Bankura from 1921 to 1923 goes to show that such organisations can be formed in Bengal and may produce results similar to those that have been obtained in Japan if they are given sufficient encouragement and assistance.* Government in their

* *See* " A Practical Scheme of Agricultural Organisation and Rural Reconstruction in Bengal (1919) by G. S. Dutt, published by the Bengal Co-operative Organisation Society.

resolution No. 631T.—R., of the 7th June 1919 (Revenue Department), recognised the success which was attained by such village associations formed on a voluntary basis in the district of Birbhum; and given some support in the matter of finance and systematic official recognition and stimulus as has been done in Japan, there seems little doubt that such organisations could achieve permanence and grow in success and provide that medium for adult education and combined action among the rural population, particularly in the matter of agricultural progress, which is so indispensably needed.

7. It is hoped that with the expected restoration of a substantial share of the Jute export duty to Bengal, funds will be available for financing not only the activities of the proposed Jute Committee but also the organisation of a system of village Agricultural Associations of the nature indicated above along with the provision of a staff of propaganda officers recommended in the majority report whose duty will include organising, assisting and guiding the activities of these Village Agriculturists' or Jute Growers' Associations as the case may be. It may be added in conclusion that the organisation of a network of such village associations will, by furnishing a machinery for direct and first-hand information regarding village conditions, constitute the best guarantee for the accuracy of the jute forecast in future.

G. S. DUTT.

# MINUTE OF DISSENT.

(Majority Report.)

# Minute of Dissent by Dr. J. C. Sinha.

## (a) Standard for kutcha bales.

1. I cannot associate with the view of four of my colleagues that State intervention is undesirable even in the case of an admitted evil like the instability of loose jute standard. It is an accepted principle that the State should fix our standard of value and of weights and measures. There is no valid reason why it should not go a step further and, in case of necessity, guarantee the quality of an important staple of which buyers and sellers both reside in the country.

2. The question of standards for *kutcha* bales has been under discussion for a long time. Standards were changed from time to time, more frequently than may be inferred from the guarantees nominally in force. This appears, for instance, from a letter, dated the 27th April 1920, to the Indian Jute Mills' Association from a member to the following effect:—

"We may take it that balers are now more or less voluntarily giving a moral guarantee of 50 per cent. good sacking warp, and it is no doubt gratifying to mills to receive a 50 per cent. sacking warp under a 40 per cent. sacking warp guarantee.........We submit that only the persistent cry from the mills for higher assortment is responsible for the improvement, and now that the higher assortment is a *fait accompli*, it is surely up to mills to see that the outcome of their efforts is firmly established and not dependent on moral guarantee of balers." (Indian Jute Mills Association Report, 1920, pages 66-67.)

3. The matter was also discussed by the Calcutta Jute Dealers Association, but no compromise could be effected. The unsatisfactory state of things continued. Thus in 1923, the proposal for a joint meeting of the two associations was turned down by "a very small minority" of the members of the Indian Jute Mills Association. A fresh attempt was made by the Calcutta Jute Dealers Association in 1927, as a result of which the question of buying jute on guarantee terms or on the standard of the mark was left to the decision of individual mills. In 1928, the Bengal Jute Dealers Association complained to the Indian Jute Mills Association that the absence of fixed guarantees had been the cause of confusion and misunderstanding during the previous season, when the frequent changes in the standards necessitated corresponding changes in the instructions issued by the sellers to their mufassal agencies. On a reference being made, 60·60 per cent. of the mills were ready to work on the guarantee basis, 37·24 per cent. were opposed to the proposal and the remaining 2·16 per cent. were neutral (Report of the Indian Jute Mills Association, 1928, page 19). On account of this lack of unanimity, the *status quo ante* was maintained. It is thus clear that the question of standards could not be settled on account of the persistent opposition of a minority of the mills which apparently wanted to take full advantage of the lack of combination among the sellers. The matter became very acute by 1929.

4. It seems that in that year the members of the Indian Jute Mills Association unanimously accepted certain standards. This however was short lived. For, in August 1930 we find that "sellers had made inevitable the introduction of a mark lower than 'R', then the lowest mark." (Indian Jute Mills Association Report, 1930, page 49.) This is not surprising, for, by this time the competition among buyers of

jute had totally ceased. As Prof. Smith rightly observes: "where no system of grading is adopted for a commodity which varies considerably in quality, the seller at any stage (if competition is keen) finds himself pressed to supply an article of a somewhat better quality than he has strictly promised." (*Organised Produce Markets*, 1922, page 16.)

5. It is also difficult to see how at the very beginning of the jute season in August 1930, there could have been any deterioration in quality due to, say, the storing of wet jute, necessitating the introduction of a mark lower* than the existing bottom mark. There is no evidence of any real desire on the part of the mills to act up to their "unanimous" resolution of 1929, referred to above. On the other hand we find that the proposal to keep "a range of samples representing the various marks in the Arbitration Room......of the Royal Exchange, with a view to preventing any possible misunderstanding as to what should be tendered against the different marks, and to assisting arbitrators in making their awards" was opposed by a large majority of the mills. (Indian Jute Mills Association Report, 1930, page 49.) Nor did the mills show any anxiety, two years later in 1932, to remove a real grievance of the Calcutta Jute Dealers Association referring to "instances where arbitrators had been appointed to adjudicate on a particular type of jute of which they had not sufficient knowledge or experience" (Preliminary Issue of Indian Jute Mills Association Report for the year ended 31st December, 1932). It is obvious that in the present chaotic state of 'standards', the award made by such arbitrators without any samples to guide them, cannot inspire any confidence in the minds of the parties.

6. No legislation can or should prevent a seller from *voluntarily* offering goods of a higher quality than he contracted for, and the buyer to accept it, if he so chooses, at the price of the lower. What is open to legitimate objection is the seller offering a higher standard *as the inferior standard* he contracted for. For, it enables a fraudulent buyer to demand of his other sellers the same higher standard, offering this transaction as evidence of what the standard is. "The opposition of a large majority of the mills" to maintain samples in the Arbitration Room, as referred to above, is certainly not the way of allaying suspicion as to such fraudulent practice.

7. Voluntary action for standardisation having not materialised, as stated above, there seems to be no alternative to the fixing of standard for *kutcha* bales by the State. It is therefore recommended that failing definite action within a year by the trade itself for the maintenance of an invariable standard, the standard in loose jute should be fixed by law. The matter is by no means free from difficulties, having regard to the easy deterioration of jute kept under ordinary conditions. But the real magnitude of these difficulties can only be ascertained by proper scientific investigation, and this has never been done. It is not at all established that even by special care the samples of the standard cannot be maintained in a fairly stable condition. Nor has it been demonstrated that the comparison of a consignment in dispute with the standard kept would present serious difficulties to persons with special training. If standardisation is really necessary, as I believe it is, no supposed difficulty should deter us from making even an attempt to do it.

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* With effect from October 1931 a mark lower than "LR" viz., "XLR" came into vogue.

## (b) Jute futures markets in Calcutta.

8. I regret I cannot agree with four of my colleagues in the "let alone" policy with regard to futures markets. It is of course a sound principle that Government should not ordinarily interfere with trade. But if the activities of a trade are proved to have harmful effects on the weaker sections of the community, the State has certainly the right to interfere for the protection of those classes, especially in this country. I have accordingly proposed in this note that there should be Government action in the case of existing futures markets in jute, failing reform from within the trade.

9. Conflicting views have been placed before the Committee as to the necessity for a genuine futures market in raw jute. The mere fact that jute is produced commercially only in India, does not obviate the need of such a market. It is curious that this argument of a monopoly is advanced precisely by those persons who are most apprehensive of substitutes for jute. In any case the similarity of jute with other fibres like cotton is much too great to allow us to treat jute marketing from a totally different standpoint. For, in agricultural commodities which are produced only during a part of the year and in which there are fluctuations in prices, there is, according to well established principles of economics, need for a well organised futures market to give continuity and steadiness. It has been argued that a futures market is unnecessary because it is possible to cover a forward transaction in jute in one direction by an opposite forward transaction in the actual market. But this argument loses sight of the fact that only a properly constituted produce exchange can offer a continuously liquid market where contracts for the purchase and sale of a sufficiently large volume can be executed at any time with a minimum fluctuation in prices.

10. The next question is: Is there any such properly organised futures market for jute?

There are at present three jute futures markets in Calcutta:—

(*a*) The East India Jute Association.

(*b*) The East Bengal Jute Association or the Gudri Market.

(*c*) The Kutni Market.

The unit of transaction in the first is 250 bales, in the second 25 bales and in the third it is 5 bales only.

11. It is obvious that the second and the third, offering opportunities to people with scanty resources and having presumably no substantial stake in the trade to operate in futures, can only be markets for petty speculators wagering in jute. The necessary consequence must be frantic buying followed by equally frantic selling, leading to great uncertainty and undue fluctuation. No genuine hedging operation is possible under these conditions. The effect of both is harmful to spot and futures markets.

12. It is claimed that the case of the East India Jute Association is different. It is pointed out that there are written contracts for delivery which, it is urged, put an effective check to speculation. But it is well known that a mere provision for delivery is not conclusive. In fact, in some cases, e.g., Karuna Kumar Dutta Gupta *v.* Lunkaran Patwari, decided on the 9th February 1933, by Ameer Ali, J., arising out of the East India Jute Association contracts, although the Court

had nothing to complain against the *form* of the contracts, it found that *in substance* the parties had no real intention of making or accepting delivery and that these were nothing but wagering transactions.

13. Evidence has also been tendered before the Committee that "the actual delivery is barely over one per cent. of the transactions." This however is not the criterion. For, in all genuine futures markets actual deliveries form a small percentage of total number of transactions. It is thus necessary to examine the position in greater detail in order to see whether the transactions of the East India Jute Association have any unwholesome influence on the trade.

14. It has been said that the East India Jute Association contract is merely a seller's contract. The following arguments have been advanced in support of this contention:—

(1) Allowanced parcels may be delivered which are not acceptable under London Jute Association contract;

(2) Seven days are allowed for putting goods alongside the vessel;

(3) There is provision against cornering but not against dumping;

(4) Sellers may "deliver" without having the grade and quantity of jute in their godowns, shipping instructions having been actually issued only for a fraction of the jute "delivered".

On the other hand, it has been urged that the sellers are expected to carry the stock, and the cost may not be fully covered by the premium ruling in the East India Jute Association over the spot price. This undefined liability of the sellers however can hardly be said to convert what is obviously a seller's contract into one equitable both to buyers and sellers.

15. Objections have been taken against the system of weekly payments of "margins."* Its object has been stated to be the "protection of contracting parties from the loss resulting from the non-fulfilment of a contract by either party through any cause whatsoever." This only shows that the system enables parties of doubtful financial position to operate in the market with the necessary consequence of importing undue fluctuations. It is also obvious that the purpose of adopting the high unit of 250 bales is partly frustrated by the system of weekly payments.

16. On the other hand, two positive advantages have been claimed for the East India Jute Association market. In the first place it has been said that "speculators can by means of their financial resources create an artificial demand, or they can provide more holding power." Furthermore, it has been claimed that it secures better prices to the cultivator. It has however been urged that on account of the disparity in the ready and forward rates, balers may afford to sell below cost for genuine delivery in the actual market, the loss being compensated by the profit made in the East India Jute Association market. Both these views seem to be exaggerated and based on some misapprehension. Speculation cannot raise or depress price *in the long run*, which is determined by actual production and consumption. What it can do, and in fact does, is to produce short period effects—a rise being followed by a fall or *vice versa*.

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* This period has since the 24th April 1933 been extended to a fortnight.

17. The other benefit claimed for the East India Jute Association is that it provides hedging facilities, without which no modern trade is possible. Hedging means the balancing of each spot transaction by an equal and opposite "futures" transaction. It is usually done in the following cases in well organised produce exchanges abroad. :—

I. Sales of futures—

(*a*) By the grower against his standing crop;

(*b*) By the importer against the shipment bought by him;

(*c*) By the manufacturers against his finished goods.

II. Purchases of futures—

(*a*) By the manufacturer against the sales of his finished goods;

(*b*) By the shipper against the sale of forward deliveries when the goods are still to be bought.

18. To take hedging sales first, it is not possible for any cultivator in Bengal to sell futures in the East India Jute Association against the standing crop of his small holding. The question of sale of futures as a hedge by importers against shipments from abroad does not also arise in the case of jute. The only hedging akin to this which is possible in the East India Jute Association, is the sale of futures by loose jute dealers in Calcutta against the stock of their fibre. It is true that in the long run the price of pucca bales (first mark) in which alone transactions are carried on in the East India Jute Association, and the price of loose jute must move in sympathy. But in the short period the relation between these two prices is not necessarily close enough to permit of any effective hedging by any loose jute dealer. That the number of loose jute dealers making hedging sales in the East India Jute Association is not large is admitted by the representative of the Association before the Committee. In his recent note submitted to the committee he says that "during the last two years most of the importing firms have suffered heavy losses as they did not hedge their sales or purchases." He also admits that the sale of futures in the Association by jute mills in Calcutta against their stock of hessians and sacks is not in vogue. The only hedging sale in the East India Jute Association, which has been referred to by some witnesses, is the sale of futures by balers against their purchase of loose jute in the actual market or their stock of pucca bales.

19. As regards hedging purchases, there is no buying of futures by the Indian Jute Mills in the East India Jute Association against their sale of finished goods. Nor can shippers make any hedging purchase worth the name in Association against their commitments for forward deliveries in actual trade. For, the rate for any future delivery in the East India Jute Association is higher than the rate for corresponding delivery in the Calcutta Baled Jute Association. This higher rate is explained by the difference in the contracts in the two associations. According to the terms of the Calcutta Baled Jute Association contract shipping instructions have to be given to the sellers at the end of the contract month, while according to the terms of the East India Jute Association contract, sellers have to hold jute after the due date of delivery for *an uncertain period* not exceeding nine months, *free of any additional charges, if the buyer so chooses.* It was only on the 24th of April last, while the Committee was sitting, that this extraordinary

rule which gives a definite incentive to gambling, was changed. It is said that this change has been made only out of deference to the recommendations of the Jute Futures Market Committee.* One cannot therefore feel assured that the old rule will not be re-introduced. For, the Secretary of the East India Jute Association informed our committee in his letter dated the 2nd May 1933, that "the Directors of the East India Jute Association still *adhere* to their views that the bye-laws that have been in force up till now are in their opinion *the best that can be devised* in the interests of all the sections of the jute trade, *particularly the growers.*"

20. The contention of the Association before our Committee that some shippers do make hedging purchases there, even though the rate is higher, is far from convincing. For, in all properly organised futures markets, the ready and forward rates at the time of delivery must be identical.

21. The conclusion therefore seems to be that whereas in other futures markets hedging sales are substantially covered by hedging purchases, and only the temporary deficiency in either direction is made good by speculators, hedging transactions in the East India Jute Association are absolutely one-sided. It follows that the number of wagering contracts in the Association must be unduly large, as compared with other futures markets. This is also borne out by the evidence of the representative of the Jute Balers' Association who appeared before us. His estimate is that at least 70 per cent. of the transactions in the East India Jute Association are of the wagering type. This statement is also confirmed by some other witnesses who appeared before us, as well as by those who appeared before the sub-committee of the Jute Balers' Association, a copy of whose report and evidence has been submitted to our Committee.

22. Transactions in a produce exchange are carried on by two classes of persons:—(*a*) those who go there for hedging; and (*b*) those who seek to profit by fluctuations in the price of the produce. The first class consists entirely of traders in the commodity. The latter class is composed partly of traders in the produce and partly of outsiders who have nothing to do with the commodity at all. As pointed out above, persons belonging to class (*a*) form a very small minority in the East India Jute Association, class (*b*) forming the predominant section. This class comprises a few manipulative giants and a large outside public, the effect of whose activity is to bring about undue fluctuations in the price of raw jute. But if *all sections* of the jute trade were represented in the East India Jute Association, they could by their mutual check sufficiently control this gambling element. It is no function of a Jute Enquiry Committee to say anything about gambling in general, but the Committee have certainly a right to protest against jute, the staple produce of this province, being made the sport of the gambler, with its disastrous effect on the grower and the legitimate trader.

23. It has been argued by some witnesses that *fatka* operations benefit the raiyat. But let us consider. When *fatka* prices are on the rise, it is reflected on the ready market, at least partly. The result is that

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* At a conference held in the Royal Exchange, Calcutta, on the 16th September 1932, on the initiative of the Bengal Chamber of Commerce, the Jute Futures Market Committee was formed with representatives of all local jute interests. This non-official Committee published its report on the 21st February 1933.

*fariahs* in the mofussil offer higher prices to the raiyat. Only those raiyats who are prepared to sell at that price or are compelled by circumstances to sell immediately, get some advantage out of it. But those who hold out in the hope of getting a higher price or are not compelled to sell immediately, do not get any advantage. On the other hand, when prices fall, this latter class if they can no longer hold their stock or are apprehensive of a further fall in prices, have to sell at a loss.

24. Let us consider a little more fully the case when *fatka* prices show a downward tendency. The result must be that ready prices in the mufassal begin to fall. The argument that merchants as a class would stop buying in a period of falling prices is contrary to fact. They would be quite willing to purchase from the raiyat at a price lower than the Calcutta price so as to ensure a profit, however small, even in a falling market. Thus when *fatka* prices fall, the *fariahs* offer lower prices to the raiyat. Those raiyats who are apprehensive of a further fall in prices, or are compelled by circumstances to sell immediately, lose by the fall in the *fatka* prices. Thus the rise of *fatka* prices benefits only a section of the raiyats. But it is almost that very section that loses when prices begin to fall. If, therefore, it is correct to say that the raiyats as a body get the advantage of *fatka* prices, it is equally correct that as a body they suffer when these prices fall. As a matter of fact, undue fluctuations of these *fatka* prices result on some occasions in chance gains which are rarely well spent by the raiyat. On other occasions unexpected losses due to such fluctuations cause further deterioration of his already low standard of living. Rapid fluctuations of prices, due to *fatka* operations, are, on the whole, prejudicial to the interests of the grower. The effect of such operations on the trade, especially on the small trader, is no less harmful.

25. What is the remedy? *Gudri* and *Kutni* should be suppressed by a more vigorous police action. The East India Jute Association should be asked to reconstitute itself on sound commercial lines, and if this is not done or cannot be done, a new Association should be set up on the lines of the East India Cotton Association of Bombay, representing all interests in jute. For, the only effective safeguard against indiscriminate gambling is the participation and control of the Exchange by all sections of the trade.

### (c) Note on the Jute Committee.

26. With regard to the criticisms of Dr. Hector and the Chairman (*vide* page 38 of the Report) regarding the constitution of the Bengal Jute Committee, I have the following observations to make. I do feel that there is need for an eminent scientist on the Committee in order to ensure that scientific research of the right type is carried on under the auspices of the Jute Committee and that money is not really wasted in the name of research. An economist will also be necessary in order to guide economic research. With regard to the suggestion that the Bengal Chamber of Commerce is to have an additional member, as suggested by Dr. Hector and the Chairman, there is no reason why the other three Chambers should be refused such additional members. If the Calcutta Baled Jute Association is to have representation on the Committee, there is no valid reason why the Jute Balers Association should be left out. I also think that in these days of democracy, it is impolitic and inexpedient to suggest that growers' representatives should be members of the Indian Civil Service.

J. C. SINHA.

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# MINORITY REPORT.

## INTRODUCTION.

### Reasons and circumstances leading to this Report.

In preparing an altogether separate Report, we think, a word of explanation is due from us as to the circumstances which compelled us to submit a separate report. We were indeed very anxious, as much as any other member of the Committee, to bring out an unanimous report as the result of the present investigation, and it was only after some preliminary discussions were held in the reporting stage of the proceedings that we felt constrained to dissociate ourselves from the report of the Majority.

Differences in opinion and outlook which revealed themselves as the inquiry progressed, became pronounced when the Chairman presented his draft Report. Apart from its being unusually brief, we believe it has not explained our attitude towards the great problem of jute; neither does it appear to us to have bestowed sufficient consideration to certain vital aspects of the questions affecting not only the cultivation of jute but also of its marketing and manufacture. Differences between ourselves and the Majority were so acute that the possibility of achieving unanimity by making piecemeal amendments receded into the background and we had to abandon most reluctantly all hopes of compromise. At one stage we even offered our Draft as the basis for the Committee's Report in which suitable amendments might be made by the Majority. But the view-points represented by the two groups were apparently too conflicting and the difference fundamental to allow of adjustments. We, however, testify with great pleasure to the cordial relations that have always existed between the members of the Committee throughout the investigation, despite differences of opinion.

In fairness to ourselves it is necessary to make a somewhat detailed reference to the genesis of our separate Report. When the reporting stage was reached after the examination of witnesses the Chairman of the Committee drafted a Report, and copies of this were circulated to the members, who were allowed a specified time in which to move amendments. However, the amendments that suggested themselves to us were found to be so numerous that some of us decided to rewrite the relevant chapters with the idea that these drafts, being in some ways more exhaustive, might be adopted with the approval of the Chairman himself. To be in keeping with formal procedure, however, these drafts were submitted as amendments. They could not, however, be furnished for all the chapters together.

In the course of the discussion that followed, the question naturally arose as to the procedure to be adopted in connection with the original draft of the Chairman and the amendments proposed by some of us, which were themselves complete and self-contained documents; the question at issue was which of the two should be taken as the basis of discussion. Though at the very commencement some of us strongly advocated that both the drafts should be placed before the Committee and even proposed that on the non-acceptance of the draft amendments by the Majority we should decide to submit a separate Report, we refrained from acting on those lines at this stage in the belief that a compromise to the satisfaction of the full Committee might not be impossible. A portion of the Chairman's draft met with general acceptance, while the Chairman himself informed the Committee that in that part of his draft dealing with the historical aspect of the problem he had incorporated a considerable part of our draft. Even then, in view of the important questions discussed, and opinions expressed in some of the sections with which agreement was honestly impossible, we became confirmed of the necessity for writing a separate Report.

As a matter of fact, substantial difference of opinion manifested itself even in the discussion on the "Historical" portion. While some members of the Majority suggested that it was the agreement on conclusions that was essential, some of us demurred on the ground that the difference in the method of presentation in the two drafts, even where no difference in respect of conclusions was involved, was to be considered no less important. For example, we expressed ourselves in concurrence with the Majority against the initiation of compulsory control of production in the prevailing circumstances. But this concurrence was no indication that out attitude to the problem was precisely the same as that of the Majority. While we were forced to the same conclusion by the limitations of existing circumstances and were anxious to know how far and by what means these limitations might be removed, the Chairman's draft disclosed an attitude of total unconcern on these points. Indeed we felt that the Chairman's draft exaggerated the risks and disapproved of the measures we were suggesting in order to make the circumstances more favourable to the successful adoption of a bolder policy. Thereafter, it became clear to us that we should inevitably have to submit an entirely separate Report; but we were left no alternative when Khan Bahadur Azizul Haque (who was requested to amalgamate the two draft reports) declared it to be impossible. We decided to submit a separate report after having furnished copies of the amendments that we desired to make in respect of the Preliminary chapter, and the chapters on Regulation and Marketing.

## Working of the Committee.

So far as the appointment of the Committee, the terms of reference and examination of witnesses, etc., are concerned, we approved of the Introductory section as in the other report first circulated to us by the Chairman, but we feel constrained to point out the inconvenience caused to our working as members of the Committee by reason of the extremely meagre staff and resources placed at our disposal. The secretarial assistance necessary for collecting, classifying, tabulating and marshalling a large volume of facts and figures was unfortunately not available. The work was, however, more onerous and taxing than was possible for the staff at our disposal to cope with. In spite of these difficulties we greatly appreciate their work and their readiness at all times to be of service to the members of the Committee. We must also express our regret that on many occasions the work of the Committee should have been hampered by the belated despatch of papers and notes to the Members.

# CHAPTER I.

## Jute: A Survey of the Present Position.

### Agricultural.

Although jute is the pre-eminent commercial crop of Bengal, being cultivated in almost all the districts, and is practically a monopoly product of the Province, the acreage under jute is not proportionately so high as is commonly thought of. The following percentages showing the average area under the principal crops in Bengal during the decade 1921-30 may be taken as an index of the position which jute occupies in the distribution of the total cultivated area of the province among various crops of importance:—

*Mean percentage for the decade 1921-30 of gross cultivated area in Bengal.**

| Crop. | Percentage. |
|---|---|
| Rice | 72·5 |
| Jute | 10·7 |
| Fodder, oil seeds and other crops | 6·3 |
| Cereals (other than rice) and pulses | 5·3 |
| Sugar, drugs and narcotics | 2·6 |
| Fruits and vegetables, including root crops | 2·6 |

But despite the fact that the extent of the cultivation of jute is not so conspicuously large as the acreage under rice, and is indeed insignificant as compared with the latter, jute has long established its position as the pre-eminent commercial crop of Bengal. For while the trade in paddy is mostly confined to an inter-district movement of the crop, almost the whole of the output of jute with the exception of the very small proportion of about one-eighth is destined to be exported, either raw or manufactured, as the case may be. The incidence of the trade in paddy is consequently in sharp contrast with that of the trade in jute in so far as the latter brings in money from outside the country. The value of the annual exports of jute and jute manufactures accounts for a remarkably high percentage not only of the total value of the provincial exports but also of the entire Indian exports. While jute and jute manufactures account for about half the total value of exports from Bengal, these two items alone contribute more than 25 per cent.

*Census of India, 1931, Volume V, Part I, page 66.

of the total value of Indian exports, as will be found from the following table:—

*Comparative values of total exports of the Principal Indian Products.**

| Indian merchandise. | Percentage of the value of total exports. 1929-30. | 1928-29. | 1927-28. |
|---|---|---|---|
| Jute, raw | 8·74 | 9·80 | 9·61 |
| Jute Manufactures | 16·71 | 17·24 | 16·78 |
| Total, Jute | 25·45 | 27·04 | 26·39 |
| Cotton, raw | 21·11 | 20·20 | 15·09 |
| Cotton Manufactures | 2·31 | 2·36 | 2·72 |
| Total, Cotton | 23·42 | 22·56 | 17·81 |
| Food grains | 11·90 | 10·21 | 13·45 |
| Seeds | 8·52 | 8·97 | 8·36 |
| Tea | 8·37 | 8·06 | 10·18 |
| Metals and ores | 3·33 | 2·90 | 2·81 |
| Leather | 2·63 | 2·82 | 2·84 |
| Hides | 2·57 | 2·70 | 2·76 |
| Lac | 2·54 | 2·62 | 2·19 |
| Wool | 1·72 | 1·79 | 1·67 |
| Wax | 1·02 | 1·16 | 0·76 |
| Oil cake | 1·00 | 0·74 | 0·98 |
| Other minor merchandise below 1 per cent. each | 7·53 | 8·43 | 9·80 |

The importance of jute, however, does not consist in its commercial pre-eminence alone. Of still greater significance is the unique bearing which this single crop has on the entire economic structure of the Province. Directly it is of great economic value to the agricultural masses who account for about 80 per cent. of the population. This is clearly indicated by the following table, which sets forth the exchange values obtained by the cultivators of the Province for the marketable surplus of the principal crops, the values representing the average of

* "Jute and Substitutes," by N. C. Chaudhury (Third Edition, 1933), page 231.

ten years, 1920-21 to 1929-30, and actual figures for the three subsequent years:—

| Principal crops in Bengal. | Value of the marketable crops obtained by cultivators (according to harvest prices).* (In Crores of Rupees). | | | |
|---|---|---|---|---|
| | Average for ten years 1920-21 to 1929-30. | 1930-31. | 1931-32. | 1932-33. |
| Food grains (in excess of consumption by cultivators) .. | 20·83 | 21·22 | 17·04 | 13·64 |
| Linseed .. .. | 0·38 | 0·27 | 0·19 | 0·16 |
| Rape and mustard .. | 2·96 | 2·01 | 2·42 | 1·07 |
| Sesamum .. .. | 0·65 | 0·43 | 0·20 | 0·34 |
| Other oil seeds .. | 0·09 | 0·10 | 0·06 | 0·04 |
| Tobacco .. .. | 4·57 | 3·30 | 2·44 | 2·13 |
| Cotton .. .. | 0·37 | 0·21 | 0·21 | 0·20 |
| Jute .. .. | 35·72 | 17·60 | 10·29 | 8·62 |

The following table shows the value of marketable crops of Bengal calculated at harvest prices, the monetary liabilities of the agriculturists of the Province and the proportion of the total harvest price of jute to the total value of marketable crops* (*vide* also Mr. D. P. Khaitan's note at Appendix XI).

| Year. | Value of marketable crops. (Crores of rupees.) | Monetary liabilities. (Crores of rupees.) | Free purchasing power. (Crores of rupees.) | Value of jute crop in Bengal at harvest price. (Crores of rupees.) | Percentage of the value of the jute crop to the total value of marketable crops. | Percentage of the value of jute crop to the free purchasing power. |
|---|---|---|---|---|---|---|
| | | | | | Per cent. | Per cent. |
| 1920-21 .. | 62·53 | 26·81 | 35·72 | 15·74 | 25 | 43 |
| 1921-22 .. | 54·94 | 27·30 | 27·64 | 10·79 | 19 | 38 |
| 1922-23 .. | 74·79 | 27·41 | 47·38 | 23·73 | 31 | 50 |
| 1923-24 .. | 59·34 | 27·97 | 31·37 | 33·58 | 56 | 108 |
| 1924-25 .. | 74·11 | 28·05 | 46·06 | 42·99 | 58 | 93 |
| 1925-26 .. | 117·15 | 28·13 | 89·02 | 74·73 | 63 | 83 |
| 1926-27 .. | 68·38 | 28·02 | 40·36 | 43·67 | 68 | 109 |
| 1927-28 .. | 42·51 | 28·54 | 13·97 | 36·92 | 85 | 263 |
| 1928-29 .. | 102·65 | 28·30 | 74·35 | 38·33 | 37 | 51 |
| 1929-30 .. | 69·81 | 28·50 | 41·31 | 36·76 | 52 | 89 |
| Average .. | 72·62 | 27·90 | 44·71 | 35·72 | 48 | 79 |
| 1930-31 .. | 53·28 | 29·38 | 23·90 | 17·60 | 33 | 73 |
| 1931-32 .. | 39·34 | 28·30 | 11·04 | 10·29 | 26 | 93 |
| 1932-33 .. | 32·71 | 28·30 | 4·41 | 8·62 | 26 | 195 |

*Some of the estimates contained in the above table, such as those relating to the value of marketable crops, monetary liabilities and the harvest price of jute, require an explanation. The basis on which these estimates have been made are therefore briefly stated :

*Value of marketable crops.*—First of all the total harvest price of all food grains grown in the Province has been calculated on the basis of the yield and price statistics.

It will be noted from this table that the proportion of the value of jute to the total value of the marketable crops of the Province exceeded in some years even 80 per cent., the average for the ten years 1920-21 to 1929-30 being 48 per cent., *i.e.*, about half the total.

While the above percentage proportions bear unmistakable testimony to the extent of the importance of jute to the agricultural interests of Bengal, its superiority as the most remunerative crop from the point of view of agricultural economy appears to be equally pronounced from the table given below:—

*Table showing the market value of produce per acre for Rice, Wheat, Cotton and Jute in India.**

(Average figures for ten years 1904-13 inclusive.)

| Crop. | Area. | Yield. | | Yield per acre. | Wholesale price per maund. | Market value of produce per acre. |
|---|---|---|---|---|---|---|
| | Acres. | | | Mds. | Rs. | Rs. |
| Rice .. | 569,895,465 | 24,025,303 | (Tons) | 11·5 | 4·75 | 54·62 |
| Wheat .. | 28,145,474 | 8,752,354 | „ | 8·4 | 3·73 | 31·33 |
| Cotton .. | 20,979,500 | 3,836,966 | (Bales) | 0·88 | 28·30 | 25·04 |
| Jute .. | 3,114,420 | 8,298,590 | „ | 12·9 | 9·68 | 128·79 |

obtainable from the Government statistical publications. From the total thus reached has been deducted the estimated consumption of food grains by the agriculturists and their dependents, taking it to be 77·3 per cent. of the total consumption of the Province according to their proportion to the total population (*vide* Bengal Census Report for 1921). Due allowance has been made for such amount of the yield as may be set apart for being used as seeds, the proportion being estimated at 3 per cent. of the yield. The figure for total consumption of food grains for the whole Province is obtained by deducting the value of exports from the total of the estimated harvest trices.

Secondly, the total harvest price of all money crops grown in the Province is calculated in the same way as food grains, and the value thus obtained is added to the estimated value of the surplus food grains left over the estimated consumption by the agriculturists and their dependents. The total thus found represents the value of marketable crops as set forth in the first column of the table.

*The Monetary liabilities* consist of (*i*) land rent and cess taken from the Reports of the Revenue Department, Bengal, and (*ii*) the interest payable to the *mahajans*. Assuming that the figure stated by the Report of the Bengal Banking Enquiry Committee for agricultural indebtedness is correct (*i.e.*, Rs. 100 crores), the further assumption has been made that about 12 per cent. of interest is on the average realised.

*Report on Jute and Silk (1921), published by the Imperial Institute, page 3.

The relative position of jute as shown in the above table, as compared with the other chief crops of India, may not convey the real significance of the importance of the fibre, viewed from the standpoint of Bengal alone. As a comparative estimate from the latter standpoint is strictly germane to the present enquiry the following table relating to recent years has been prepared specially for the purpose:—

*Value of the average yield of crops per acre in Bengal.*

| Crop. | Value. 1929-30. Rs. | Value. 1930-31. Rs. |
|---|---|---|
| Rice (according to the harvest price of cleaned winter rice) | 66·20 | 49·40 |
| Wheat | 41·91 | 25·90 |
| Cotton | 42·00 | 27·07 |
| Linseed | 31·73 | 23·41 |
| Tobacco | 171·53 | 114·60 |
| Jute | 126·58 | 53·68 |
| Rape and mustard | 43·03 | 25·83 |
| Sugarcane | 240·09 | 182·37 |

It should be noted that though the total value of jute produced in Bengal far exceeds the marketable surplus of any other crops, its position has undergone a remarkable change in recent years in respect of the value of the crop per acre. Judged by this standard, jute comes next to both sugarcane and tobacco.

The area and yield of the crop of which about 90 per cent. is grown in Bengal (the residue being produced in the adjacent provinces of Bihar and Orissa and Assam) are shown in the following table:—

| Year. | Total acreage under jute in India. Acres. | Area in Bengal under jute. Acres. | Total yield in India. (Bales of 400 lbs. each.) | Yield in Bengal. (Bales of 400 lbs. each.) |
|---|---|---|---|---|
| 1922 | 1,800,000 | 1,528,000 | 5,408,000 | 4,746,000 |
| 1923 | 2,788,000 | 2,410,000 | 8,401,000 | 7,463,000 |
| 1924 | 2,770,000 | 2,358,000 | 8,062,000 | 7,166,000 |
| 1925 | 3,115,000 | 2,685,000 | 8,940,000 | 7,951,000 |
| 1926 | 3,847,000 | 3,321,000 | 12,132,000 | 10,652,000 |
| 1927 | 3,374,000 | 2,933,000 | 10,188,000 | 9,004,000 |
| 1928 | 3,144,000 | 2,670,000 | 9,906,000 | 8,519,000 |
| 1929 | 3,415,000 | 2,989,000 | 10,335,000 | 9,190,000 |
| 1930 | 3,492,000 | 3,031,000 | 11,205,000 | 9,886,000 |
| 1931 | 1,858,000 | 1,598,000 | 5,535,000 | 4,986,000 |

*Characteristics of cultivation.*—It will be noted from the preceding table that in respect of both area and yield jute is practically a monopoly of Bengal. It must be pointed out, however, that the condition of the supply of the fibre denotes by no means an economic monopoly which suggests effective control by the producers over the determination of the price of the monopoly product. The absence of such monopoly control is conspicuous in the case of jute and is fully explained by the conditions in which the fibre is grown.

Jute is grown on small plots of land by individual cultivators, who are mostly men of small resources. The cultivation of jute is sharply contrasted with large plantations of crop like coffee and tea, which are grown on a large commercial scale over extensive areas requiring large capital investment generally on a corporate basis. Apart from the individualistic character of the cultivation and the smallness of the scale in which the fibre is grown, another characteristic feature of jute from the agricultural standpoint is the lack of organisation among the cultivators both in regard to the production and marketing of the crop such as would ensure them a fair price for it. These characteristics together with the fact that the cultivators are, as a rule, illiterate, ignorant and hard-pressed with the burden of accumulated debts which impose serious limitations to their bargaining power, at once reveal the difficulties, under which the growers of jute labour, and suggest the urgent necessity of helping them in improving their position by organisation and adoption of improved methods of both cultivation and marketing of jute.

Though, however, the task is admittedly a difficult one, the circumstances are not completely unfavourable in regard to its accomplishment. The concentration of the jute growing areas in wide physical tracts, well known to the trade, strongly suggests the possibility of initiating necessary improvements both in the cultivation and marketing of jute. The contiguity of the individual plots is a factor which should encourage experiments in collective farming. The same factor ensures success to co-operative marketing provided the movement is started under good auspices and is given the necessary help and guidance by the Government. The essential pre-requisite to all such endeavours is, of course, the development of suitable organisations amongst the cultivators themselves, but circumstanced as the latter are, even the growth of such organisations is not to be looked for, at least within a reasonable limit of time, unless the incentive comes from outside.

## Demand for Jute: Local Industrial Consumption and Export.

Of the total quantity of jute produced in Bengal and the adjacent provinces of Bihar and Orissa and Assam, more than 50 per cent. is consumed in the mills situate in the suburbs of Calcutta while the rest is exported abroad with the exception of the inconsiderable amount of 5 lakhs of bales, which may be taken as *ex-factory* domestic consumption of the fibre. The relative proportions of the exports of jute and the purchases by local mills are shown in the following table:—

*In lakhs of bales.*

| Season (July to June). | Yield according to Government forecast. | Actual arrivals in Calcutta and Chittagong. | Exports. | Mill purchase. | Total of Exports and Mill purchase (excluding 5 lakhs of bales of ex-factory domestic consumption). |
|---|---|---|---|---|---|
| 1923-24 .. | 84·73 | 86·26 | 37·71 | 51·16 | 88·87 |
| 1924-25 .. | 81·20 | 85·47 | 38·22 | 47·89 | 86·11 |
| 1925-26 .. | 90·00 | 88·13 | 35·16 | 53·35 | 88·51 |
| 1926-27 .. | 121·87 | 120·08 | 44·48 | 74·35 | 118·83 |
| 1927-28 .. | 99·16 | 110·51 | 48·86 | 61·64 | 110·50 |
| 1928-29 .. | 103·85 | 104·42 | 48·28 | 55·55 | 103·83 |
| 1929-30 .. | 112·55 | 102·94 | 44·46 | 59·62 | 104·08 |
| 1930-31 .. | 55·66 | 101·15 | 34·26 | 62·26 | 96·52 |
| 1931-32 .. | 58·45 | 65·74 | 30·59 | 34·91 | 65·50 |
| 1932-33 .. | 79·93 | 73·41 | 29·04 | 41·87 | 70·91 |

The above table shows a marked discrepancy not only between the estimates of yield as shown in the Government forecast and the port arrivals of jute but also between each of these two on the one hand and the totals of exports and local mill purchases of jute on the other. The discrepancy in the former case is partially to be attributed to the inaccuracy of the Government forecasts, which are merely estimates of the crop, but it is also, to a certain extent, due to the accumulation of the stock in mufassil markets. The discrepancy in the latter case points to the accumulation of stock in the bazars in Calcutta. It is to be noted that the mill purchases during any particular season do not represent the amount of actual consumption by mills. On the contrary, there is a striking difference between these two from year to year, and this shows how the mills have usually a long stock at their hands. The following table sets forth the difference between mill purchases of jute and the actual consumption of the fibre by the mills for ten years 1923-24 to 1932-33:—

| Season. | Mill purchase. (Lakhs of bales). | Actual Mill consumption. (Lakhs of bales). | Difference +surplus −deficit. |
|---|---|---|---|
| 1923-24 .. .. .. | 51·16 | 50·04 | +1·12 |
| 1924-25 .. .. .. | 47·89 | 55·19 | −7·30 |
| 1925-26 .. .. .. | 53·35 | 53·44 | −0·09 |
| 1926-27 .. .. .. | 74·35 | 53·74 | +20·61 |
| 1927-28 .. .. .. | 61·64 | 56·33 | +5·31 |
| 1928-29 .. .. .. | 55·55 | 58·79 | −3·24 |
| 1929-30 .. .. .. | 59·62 | 62·46 | −2·84 |
| 1930-31 .. .. .. | 62·26 | 44·37 | +17·89 |
| 1931-32 .. .. .. | 34·91 | .. | .. |
| 1932-33 .. .. .. | 41·87 | .. | .. |

## The Jute Industry.

*A historical retrospect.*—Before proceeding to describe the present position of the jute industry in Bengal and elsewhere, we consider it necessary to briefly survey the growth and development of the industry and its incidence both on the agriculturists and the cottage handloom industry of the Province. The jute handloom industry of Bengal was in the most flourishing condition till about the middle of the last century, and actually accounted for the entire amount of the exports of jute fabric from India. As a matter of fact, before the mill industry was firmly established, the cottage industry was of unparallelled importance to the economic structure of the Province as being a lucrative source of income to the bulk of the population of Bengal, particularly in the jute growing districts of Eastern Bengal. Jute goods were then regarded as an article of much greater importance than the raw fibre in the export trade of the country. The following table from Dr. Forbes Royle's book "Fibrous Plants of India" (published 1855) showing the extent and distribution of the exports of gunny cloth and bags from Calcutta in 1850-51 and also exports of raw jute for the same year will be found very interesting in this connection*:—

| Exports to. | Jute. Mds.† | Gunnies and gunny cloth. Number. |
|---|---|---|
| United Kingdom .. .. .. .. | 768,945 | 69,636 |
| France .. .. .. .. | 13,931 | .. |
| Hamburg .. .. .. .. | 128 | 2,180 |
| North America .. .. .. .. | 9,242 | 2,290,427 |
| Coast of Coromandel .. .. .. .. | 598 | 1,955,150 |
| Malabar .. .. .. .. | .. | 2,054,075 |
| Penang and Singapore .. .. .. | .. | 1,043,600 |
| Ceylon .. .. .. .. | .. | 357,290 |
| New South Wales .. .. .. .. | 54 | 32,125 |
| Trieste .. .. .. .. | 401 | .. |
| Java .. .. .. .. | .. | 242,550 |
| Pegu .. .. .. .. | .. | 672,950 |
| Mauritus .. .. .. .. | .. | 213,980 |
| Cape of Good Hope .. .. .. .. | .. | 82,750 |
| Guam .. .. .. | .. | 15,000 |
| Arabian and Persian Gulfs .. .. .. | .. | 4,000 |
| Total .. | 793,299 | 9,035,713 |
| Value .. | Rs. 1,970,715 | Rs. 2,159,782 |

*"Romance of Jute" by D. R. Wallace (Second Edition, 1928), page 4.
†One maund=82 lbs.

But this pre-eminent position of the handloom industry was gradually lost with the ever-growing intensity of the competition from mills both at Dundee and in Calcutta. In fact the beginning of the decadence of the indigenous handloom industry can be traced to the year 1835, when after a protracted period of experiments, the first jute mill was established at Dundee. Thereafter the manufacturing factories at Dundee began to compete with the handloom industry in India, threatening the latter with ultimate extinction, which was indeed hastened by the development of a local power-driven industry. The year 1855 marked the beginning of the modern jute industry in Bengal, when the first jute spinning mills were established at Rishra near Serampore, by George Ackland, who imported the machinery from Dundee. The handloom industry, however, revealed considerable vitality and though it showed signs of continuous decline ever since 1854, the export of handloom fabrics was to be considered important enough yet for many years more. Even so late as 1880-81 the handloom products accounted for Rs. 2,69,553 out of the total value of manufactured jute of Rs. 1,13,06,716 exported during the year. Eventually, however, the competition of mills proved too much and within a decade of the aforementioned year the export of handloom manufactured articles ceased altogether.

The following scanty reference made in the Bengal and Sikkim Volume of the Census of India (1931) bears testimony to the insignificance into which the industry was found to have fallen in the past decade:—

"Jute weaving was a hereditary occupation of the *Kapali* caste but the cloth (*chot*) and bags made by them cannot compete with the hessian and gunny bags made by the mills. The looms used were almost identical with that described for blanket weaving. Rugs or *daris* are made on a similar loom either of jute or jute and cotton in Rangpur and from the same district loosely woven mats known as *fatias* are exported to Bombay and other provinces for packing."*

The establishment of the factory industry both at Dundee and in Bengal followed by the steady decadence of the indigenous handloom industry leads to the second phase of the history of jute. During the twenty years that intervened between 1835 and 1855, the years of the establishment of the modern jute industry at Dundee and in Bengal, respectively, the fibre assumed greater importance as an article of export than finished goods made thereof, and the position of the Province was reduced more and more to that of merely an agricultural country in respect of jute, the manufacturing operations being confined to Dundee. The substitution of the manual process by the mechanical was inevitable, and the consequence, however much it might be regretted from the point of view of the Bengal weavers, was not to be deplored as absolutely a tragic one, for the very natural process which spelt disaster to their industrial activities, greatly conduced to their agricultural interests by expanding the markets of jute manufactures and consequently stimulating the demand for the agricultural crop. The establishment of the new industrial and commercial importance which jute should have attained as a matter of course by virtue of the new industrial order, revealing its superior excellence as compared with

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* "Note on the processes of decaying industries," *vide* Census of India, Volume V, Part I, page 303.

such other fibres in use as flax, hemp, etc., was greatly facilitated by certain historical events like the Crimean and the American Civil wars. The former by shutting off Russian supplies of flax and the latter by depriving the manufacturers of cheap American cotton for bags, ensured the pre-eminence of jute as the best and cheapest packing medium of the world. The growing agricultural importance of jute is clearly reflected in the remarkable expansion of acreage under the crop, which even after the advent of mills increased from the quinquennial average of 2,199,000 acres for 1893-97 to 3,847,000 in 1926, the highest since recorded, showing an increase of 75 per cent.

The cultivators also have considerably benefited from the development of the industry, as is evident from the fact that the value obtained by them from the sale of this single crop has been estimated on the basis of an average of figures relating to the decade 1920-21 to 1929-30 at more than Rs. 35½ crores or approximately Rs. 7-8 per head of the population of Bengal, including men, women and children. In 1925-26, which was a year of exceptionally high prices, this average income was practically doubled, having been estimated at Rs. 15 per head. The overseas demand for both raw and manufactured jute has also considerably increased since 1850-51, when the total export of the fibre and the finished commodity amounted only to Rs. 41 lakhs as compared with as much as Rs. 80 crores in 1926-27.

No doubt all this was due to the very rapid progress which the jute mill industry has achieved both at home and abroad. The extent to which the local mill industry has expanded, though mostly under non-Indian enterprise, may be measured by the fact that at present there are 94 mills in Bengal with more than 60,000 looms, consuming on an average more than 40 lakhs of bales of jute or about 50 per cent. of the total production. In fact, though the industry was established in and near about Calcutta full twenty years after it had made its appearance in Dundee, its dimension has now outstripped the size and importance of the manufacturing concerns in Scotland at least in respect of the coarser jute goods. The pinch of competition from Indian mills was felt by Dundee even so early as 1894, when the Dundee Chamber of Commerce passed a resolution making serious allegations in respect of the laxity of the Indian Factories Act, and put the same before the Secretary of State for India. No less phenomenal was the expansion of the industry on the continent of Europe, where it was widely established before the War and began to grow at an extraordinarily quick pace, so much so, that it caused an alarm even to the jute manufacturing interests in Great Britain.*

The development of the industry continued nevertheless. Mills were started in Germany as early as 1861. At about the same time the industry came to be established in New York, while its expansion on the continent of Europe was witnessed in such places as Dunkirk, Genoa, and Trieste. In America, too, an expansion has taken place, the industry having since been established in Philadelphia. Later Japan swelled the ranks of manufacturing countries, being followed by some of the Balkan States after the Great War. The industry may thus be said to have been established on a broad basis which naturally suggests a steady demand for the raw fibre.

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* *Vide* the Memorial addressed by the Dundee Chamber of Commerce and the London Jute Association to the Bengal Chamber of Commerce on the 11th October 1916.

The comparative magnitude of the industry is shown in the following table setting forth the number of looms in each of the manufacturing countries:—

| Country. | Number of looms. |
|---|---|
| Bengal .. .. .. | 60,914 |
| Other parts of India .. .. | 1,490 |
| Total, India .. .. | **62,404** |
| Germany .. .. .. | 9,600 |
| Great Britain and Ireland .. .. | 8,500 |
| Italy .. .. .. | 5,000 |
| Belgium .. .. .. | 3,000 |
| France .. .. .. | 7,000 |
| Czechoslovakia .. .. .. | 2,000 |
| Poland .. .. .. | 1,600 |
| Russia .. .. .. | 1,000 |
| Austria .. .. .. | 1,100 |
| Sweden .. .. .. | 1,000 |
| China and Japan .. .. .. | 1,200 |
| America .. .. .. | 2,750 |
| Other places .. .. .. | 1,805 |
| Total, outside India .. | **45,555** |
| Grand total .. | **107,959** |

The distribution of the industrial consumption of jute between India and other foreign countries is shown in the following table:—

*World's consumption of jute including rejections and cuttings.*

(In Bales of 400 lbs. each.)

| | 1917-18. | 1918-19. | 1919-20. | 1920-21. | 1921-22. |
|---|---|---|---|---|---|
| Indian Mills (actual) .. | 5,380,254 | 5,075,867 | 5,162,384 | 5,53,659 | 4,303,804 |
| Indian Local (estimated) .. | 500,000 | 500,000 | 500,000 | 500,000 | 500,000 |
| United Kingdom (estimated) | 1,000,000 | 1,100,000 | 900,000 | 700,000 | 650,000 |
| America (estimated) .. | 700,000 | 800,000 | 800,000 | 800,000 | 750,000 |
| Continental (estimated) .. | 1,000,000 | 1,100,000 | 1,000,000 | 1,100,000 | 1,700,000 |

| | 1922-23. | 1923-24. | 1924-25. | 1925-26. | 1926-27. |
|---|---|---|---|---|---|
| Indian Mills (actual) .. | 4,688,615 | 5,084,214 | 5,806,426 | 5,429,164 | 5,600,000 |
| Indian Local (estimated) .. | 500,000 | 500,000 | 500,000 | 500,000 | 500,000 |
| United Kingdom (estimated) | 850,000 | 950,000 | 1,000,000 | 950,000 | 1,000,000 |
| America (estimated) .. | 800,000 | 700,000 | 650,000 | 600,000 | 700,000 |
| Continental (estimated) .. | 1,700,000 | 2,100,000 | 2,000,000 | 2,200,000 | 2,400,000 |

In Bengal the history of the industry till recent years has been one of continuous expansion, both in the number of mills and in the number of looms. The expansion was certainly not always a sign of healthy progress and, as a matter of fact, the rush of a good number of mills within the years 1872-75 threw the industry into a state of disequilibrium. Indeed, the reappearance of the danger of supply outstripping demand in 1882 was so serious that some new ventures met with premature failure. The situation made it imperative to exercise control over output and ultimately called into existence the Jute Mills Association. By 1894 the jute mills in Bengal were so firmly established and they expanded their scale of operations to such extent that they began to compete effectively with the Dundee mills in the markets of the United States of America to which reference has already been made in a previous paragraph. The War gave a further stimulus to the industry and was followed by the establishment of a large number of mills, while the loomage of the existing mills also increased. This will be evident from the following statistical table showing the number of looms in operation at different times*:—

| | | Sacking. | Hessain. | Total. |
|---|---|---|---|---|
| June 1859 | .. | .. | .. | 192 |
| June 1869 | .. | .. | .. | 950 |
| April 1877 | .. | 2,948 | 910 | 3,858 |
| December 1885 | .. | 4,900 | 1,800 | 6,700 |
| January 1890 | .. | 5,359 | 2,300 | 7,659 |
| December 1895 | .. | 6,584 | 3,117 | 9,701 |
| January 1901 | .. | 8,613 | 6,600 | 15,213 |
| January 1905 | .. | 9,786 | 11,409 | 21,195 |
| January 1910 | .. | 13,421 | 18,334 | 31,755 |
| January 1915 | .. | 15,751 | 22,603 | 38,354 |
| January 1920 | .. | 16,124 | 24,353 | 40,477 |
| January 1925 | .. | 18,344 | 31,055 | 49,399 |
| January 1926 | .. | 18,541 | 31,307 | 49,848 |
| January 1927 | .. | 19,353 | 31,001 | 50,354 |
| January 1928 | .. | 19,337 | 31,184 | 50,521 |
| January 1929 | .. | 19,502 | 31,534 | 51,036 |
| July 1930 | .. | 22,066 | 36,073 | 58,139 |
| January 1931 | .. | 22,166 | 36,373 | 58,539 |
| January 1932 | .. | 22,693 | 37,704 | 60,397 |

*Present position of the industry.*—The manufacture of jute in the Bengal mills consists only of spinning yarns and weaving fabrics of a coarse and a fine variety known respectively as "gunny" and "hessian." The portions of hessian and sacking cloth produced by the mills in

* "The Investor's India Year Book" (1932-33), page 185.

Bengal are shown by the following table setting forth the exports of different kinds of jute manufactures, during the year 1922-23 to 1931-32:—

*Export of jute manufactures.*

| Year. (April to March.) | Bags. (Number in thousands.) | Cloth. (Yards in thousand.) | | Twist and yarn (lbs. in thousand). |
|---|---|---|---|---|
| | | Hessian. | Sacking. | |
| 1922-23 .. .. | 344,232 | 1,211,862 | 42,490 | 3,507 |
| 1923-24 .. .. | 413,716 | 1,294,591 | 54,151 | 5,345 |
| 1924-25 .. .. | 425,141 | 1,394,422 | 61,866 | 1,261 |
| 1925-26 .. .. | 425,083 | 1,400,017 | 61,364 | 1,724 |
| 1926-27 .. .. | 449,090 | 1,422,547 | 80,581 | 3,078 |
| 1927-28 .. .. | 463,140 | 1,477,783 | 74,968 | 6,318 |
| 1928-29 .. .. | 497,685 | 1,503,323 | 64,971 | 4,801 |
| 1929-30 .. .. | 522,291 | 1,598,844 | 51,682 | 6,009 |
| 1930-31 .. .. | 434,046 | 1,238,690 | 32,381 | 7,341 |
| 1931-32 .. .. | 389,108 | 995,154 | 25,339 | 8,669 |

Though there has been a remarkable expansion of the jute mill industry in Bengal ever since its inception, a distinct lack of variety in the manufactures has all along remained a most striking feature of its growth. No endeavour appears to have hitherto been made by the local mills to find new industrial uses for jute beyond the manufacture of hessian and sacking cloth. This fact must be deemed significant as the mills on the continent of Europe, which were established much later than the Bengal mills, and have to pay a higher price for the raw material, are not only earning profits for themselves by devising new and more costly uses of jute as a blending material with silk or wool, but also stimulating demand for jute and consequently helping the maintenance of its price. Indeed the jute mill industry in Bengal has come to be condemned by some critics as the sole industry of importance to-day which knows its business the least.* In confining their operations to only a few manufacturing processes, the jute mills have not only failed to expand the scope of the trade, but they have also been suffering from the evils of over-production of the particular variety of jute goods manufactured by them. The absence of enterprise among the Bengal mills and the restriction of their manufacturing processes to the production of practically two varieties of goods appear to have compelled them frequently to work shorter hours and keep a certain number of looms idle. The loss threatened to the mills as a

* *Vide* Circular of the Indian Jute Mills Association on "Competition, Research and the Expansion of Markets for Jute Goods"—(No. 64D., dated the [illegible]th June 1933), in Appendix VII.

consequence has no doubt been successfully averted by the adoption of a scheme of restricted output, but the phenomenon has evidently proved seriously prejudicial to the jute trade as signifying a consequential shrinkage of demand for the raw material. This phenomenon is of great importance to the jute trade and is considered in more detail in the following paragraphs.

Though the history of the industry in recent years has been one of continuous expansion, the danger of over-production has also always been attendant on it. As a matter of fact, except for a brief period between April 1920 and December 1921, the mills have been following schemes of restricted production. The latest of these was adopted in May 1932, when the mills within the membership of the Indian Jute Mills Association came to terms with the non-Association mills regarding restriction of working hours through the intervention of His Excellency the Governor of Bengal.

The main features of the Agreement, of which the tenure was fixed from August 1st, 1932, to continue until the expiry of six months' notice, which notice could not be given earlier than 30th June, 1933, may be briefly stated. There was not only a general restriction imposed on the mills within the membership of the Association in regard to the working hours, the same being fixed at 40 hours a week against the permissible limit of 60 hours a week under the Indian Factories Act, by the single shift system, but a definite limit was also imposed in regard to the number of looms that should be worked in these mills, seals having been placed on 15 per cent. of the total number. Mills outside the Association were allowed to work 54 hours with a full complement of machinery and special latitude was provided for a number of specified mills either in regard to working hours or looms. In particular, it was laid down that during the period of Agreement, no mill except one specifically mentioned should increase the productive machinery, and even for the one specially exempted the extent of permissible increase was clearly specified.

The table on the following page shows the progress of the mills in India regarding their productive capacity since 1920* :—

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* *Vide* "Jute and Substitutes," by N. C. Chaudhury, page 232.

*Number of jute mills, looms, spindles and labourers employed.*

| | 1920. | 1921. | 1922. | 1923. | 1924. | 1925. | 1926. | 1927. | 1928. | 1929. | 1930. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| *Bengal.* | | | | | | | | | | | |
| Number of mills .. | 72 | 72 | 77 | 77 | 84 | 85 | 85 | 87 | 87 | 87 | 89 |
| Looms— | | | | | | | | | | | |
| Hessian .. | 24,353 | 24,453 | 24,985 | 28,111 | 29,732 | 31,055 | 31,307 | 31,001 | 31,184 | 31,534 | 36,245 |
| Sacking .. | 16,124 | 16,445 | 16,354 | 17,452 | 18,286 | 18,344 | 18,541 | 19,353 | 19,337 | 19,502 | 21,894 |
| Total looms .. | 40,477 | 40,898 | 41,339 | 45,563 | 48,018 | 49,399 | 49,848 | 50,354 | 50,521 | 51,036 | 58,139 |
| Spindles .. | 863,000 | 863,000 | 897,000 | .. | 1,030,000 | 1,054,000 | 1,049,000 | 1,061,000 | 1,084,000 | 1,085,000 | .. |
| Average number of persons employed daily | .. | .. | 285,000 | .. | 326,000 | 337,000 | 327,000 | 327,000 | 329,000 | 337,000 | .. |
| *Madras.* | | | | | | | | | | | |
| Number of mills .. | .. | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | .. |
| Looms .. .. | .. | 296 | 496 | .. | 565 | 565 | 566 | 753 | 807 | 889 | .. |
| Spindles .. | .. | 6,500 | 11,500 | .. | 12,900 | 12,900 | 13,200 | 17,600 | 17,200 | 20,600 | .. |
| Average number of persons employed daily. | .. | .. | 3,700 | .. | 4,600 | 4,500 | 4,400 | 5,500 | 5,600 | 5,900 | .. |
| *Bihar and Orissa.* | | | | | | | | | | | |
| Number of mills .. | ... | .. | .. | .. | .. | 1 | 1 | 1 | 1 | 1 | 1 |
| Looms .. .. | .. | .. | .. | .. | .. | 100 | 100 | 100 | 100 | 100 | 100 |
| Spindles .. | .. | .. | .. | .. | .. | 2,500 | 2,500 | 2,500 | 2,500 | 2,500 | 2,500 |
| Average number of persons employed daily. | .. | .. | .. | .. | .. | 842 | 842 | 842 | 842 | 842 | 842 |

The amount of jute that is exported abroad is, as has already been mentioned, subjected to a more varied manufacturing process than in this country. The bulk of the fibre is, of course, used in manufacturing such common stuff as hessian, tarpauline and sacking; but the fibre is also used in manufacturing shirtings, curtains, carpets and rugs, particularly in the European countries and America. It is also blended with wool, the finer qualities being used for mixing with silk and for manufacturing imitation silk fabrics as well. The coarser qualities are used in cordage, while the rejections and cuttings are also utilised in the manufacture of paper. Further new uses of the fibre that are being discovered in recent years are discussed at length in the chapter on "Substitutes and Research."

## Trade in Jute.

The importance of the trade in jute is as remarkable as the importance of the fibre to the agricultural economy of Bengal. As has been previously stated, the value of the exports of jute and jute manufactures accounts for more than 50 per cent. of the total merchandise exports of Bengal, while to the total Indian exports these two items alone contribute more than 25 percent.

The direction of the trade in jute and jute manufactures and the respective importance of the various export markets are clearly indicated by the tables appended to this chapter.*

There are two important points which a glance through these tables must bring to the forefront, *viz.*, that jute has already established itself as an important article of international commerce and also that while the markets within the British Empire were by far the most important before the War, their pre-eminence has since been lost to the markets situate outside the British Empire.

Despite the fact that jute is a monopoly product of Bengal and that it has already attained a great international commercial importance as the cheapest packing medium of the world, the trade in the fibre is not everywhere exempted from fiscal restrictions. Even in India, both raw and manufactured jute are subjected to the following export levies:—

Raw jute, per bale (400 lbs. or 5 mds.)—

Cuttings—Rs. 1-4.

Other descriptions—Rs. 4-8.

Jute manufactures, per ton (2,240 lbs.)—

Sacking (cloth, bag, twist, yarn and rope)—Rs. 20.

Hessian and all other descriptions—Rs. 32.

The duties which were first imposed in 1916 and raised to the present level by doubling the original rates, yield in normal years about Rs. 4 crores or about annas 14 per maund on an average. In addition to these duties the following cesses are also levied on jute and realised by the Calcutta Improvement Trust:—

Raw jute (raw jute, cuttings and rejections) per bale—Annas 2.

Manufactured goods, per ton—Annas 12.

The incidence of the export duty deserves to be pointed out in this connection. When the duty was first imposed, the prices of both raw

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* Page 91 *et seq.*

and manufactured jute were high, and the amount of the duty was equivalent to about one anna per rupee on raw jute and about 9 pies per rupee on hessian. In 1930 and 1931 when there was a catastrophic fall in the price of jute and jute manufactures, the duty, which is a specific one, eventually proved itself to be so high as 20 per cent. on raw jute.

Such incidence of the duty must naturally be regarded as one of grave concern to the jute trade, particularly in view of the fact that in recent years attempts have been made in a good number of foreign countries, which ere long were good customers of India in respect of jute or jute goods, to encourage the production of some local substitutes for either jute or jute manufactures by dint of fiscal protection (*vide* Appendix V). The following table* setting forth the rates of duties on raw jute or jute goods imposed by various foreign countries shows how the jute trade is subjected to fiscal hindrances abroad:—

| Country. | Unit. | Raw jute. | Yarn. |
|---|---|---|---|
| Argentine | Ad valorem. | 5 per cent. | 12 per cent. to 32 per cent. |
| Australia. | .. | Free. | 45 per cent. (Pref. Tariff 30 per cent.). |
| Austria. | 100 kg. | Free. | Below No. 8 :—I. Kr. 8—12—Above No. 8 :—Free. |
| Belgium. | 100 kg. | Free. | Frs. 33—115.5. |
| Brazil. | Kg. | Milreis 0.60. | Unbleached M. R. 140 Dyed M. R. 340. |
| Bulgaria. | 100 kg. | Free. | 100/130 Leva. |
| China. | Ad valorem. | Free. | 10 per cent. |
| Colombia. | kg. | $0.30. | $0.20—0.25. |
| Czechoslovakia. | 100 kg. | Free. | 72—240 Kr. |
| Denmark. | 100 kg. | Free. | Kr. 4—25. |
| Egypt. | 100 kg. | 4/2. | 6/2—12/5. |
| Esthonia. | Gold Frs. Per 100 kg. | Free. | 182—247. |
| Finland. | Kg. | Free. | Fin. Mks. 0.40—1.60. |
| France. | 100 kg. | Free. | Fr. 38—115—6 per cent. |
| Germany. | 100 kg. | Free. | Mk. 7. 10·50. |
| Greece. | 100 kg. | G. Dr. 1. | G. Dr. 6—40. |
| Guatemala. | 1 kg. | .. | $0.20. |
| Haiti. | Gourd per kg. | .. | 2.50—6.5. |
| Holland. | Ad valorem. | Free. | Free—8 per cent. |
| Hungary. | 100 kg. | Free. | Gold Cr. 6—24. |
| Irish Free State. | Ad valorem | Free. | 15 per cent. (Pref. Tariff 10 per cent.). |
| Italy. | Gold Lira per 100 kg. | Free. | 16.80—21.5. |
| Japan. | 100 kin. | Free. | 10 per cent. ad valorem. |
| Latvia. | Lats per kg. | .. | 1.20. |
| Mexico (Mex. Currency). | Kg. | $0.09. | $0.50. |
| New Zealand. | Ad valorem. | Free. | 3 per cent. |
| Norway. | Kr. per 100 kg. | Free. | 3/15 plus 50 per cent. |
| Paraguay. | Gold Peso per kg. | .. | 0.15. |
| Poland. | 100 kg. | General rate 10 Zloty, through Polish Port 5 Zloty. | 143—409.50 Zloty. |
| Roumania. | Lei per 100 kg. | .. | 800. |
| Spain. | Gold Pesetas per 100 kg. | .. | 22.25. |
| Sweden. | 100 kg. | Free. | Sw. Kr. 6-40. |
| Switzerland. | Frs. per 100 kg. | Free. £ T. | 8.—£ T. |
| Turkey. | 100 kg. | 7.50—10.00. | 12.50—20.50. |
| U. S. A. | Lb. | Free. | 2½-7 cents. |
| Soviet Russia. | Ad valorem. | 40 per cent. | 130 per cent. Gold Din 5—16. |
| Yugoslavia. | 100 kg. | Free. | For Retail 60. |

*Organisation of the Trade in India.*—The movement of the jute crop from the field to the port is fully discussed in the Chapter on Marketing and need not be referred to in the present survey. Attention may, however, be drawn in this connection to certain salient features of the organisation of the trade in the country. It has been previously stated how the cultivators representing the primary sellers are absolutely unorganised. Between them and the mills and ultimate consumers

*International Annual of Jute Industry (1932), pages 66-68.

there are numerous trading interests which are all very well organised and resourceful, except only those who act as collecting agents in the primary rural markets. Thus, there are associations of balers, dealers, *aratdars,* fabric brokers and shippers. The mills have a strong association of their own. This fact lends a special significance to all the problems that arise in connection with the marketing of jute and has to be constantly borne in mind.

*Recent Developments.*—It has been previously observed that though jute is practically a monopoly product of Bengal the cultivators cannot realise such prices as the conditions of production might seem to justify. Ever since the onset of the world depression jute has been witnessing a most catastrophic decline in prices which has proved ruinous to the agricultural and allied interests of the Province, the price of the raw fibre in the primary markets having, for some time, dropped to the incredibly low figure of Rs. 2-8 per maund, against an estimated cost of production of more than Rs. 5. Indeed, the price of the crop went down so low that in some instances the cultivators found themselves compelled to allow the crop to rot on the field rather than incur the cutting and other preparatory expenses which the price would not cover. The depth to which the price of baled jute (First mark) fell is unprecedented in the records of the present century—touching the level of Rs. 23 per bale of 400 lbs. The following table shows the nature of the fall in price in recent years as compared with the pre-War and the War period.

*Average Annual Price of Jute* (Calcutta).*

(Bales of 400 lbs.)

| | Rs. | A. | P. |
|---|---|---|---|
| 1910 | 40 | 1 | 10 |
| 1911 | 57 | 12 | 11 |
| 1912 | 61 | 7 | 0 |
| 1913 | 77 | 15 | 3 |
| 1914 | 77 | 12 | 0 |
| 1915 | 54 | 5 | 7 |
| 1916 | 67 | 4 | 1 |
| 1917 | 55 | 12 | 0 |
| 1918 | 71 | 6 | 5 |
| 1919 | 102 | 3 | 2 |
| 1920 | 97 | 8 | 2 |
| 1921 | 93 | 9 | 0 |
| 1922 | 87 | 13 | 5 |
| 1923 | 68 | 5 | 10 |
| 1924 | 75 | 13 | 5 |
| 1925 | 111 | 9 | 9 |
| 1926 | 98 | 11 | 6 |
| 1927 | 76 | 6 | 0 |
| 1928 | 75 | 0 | 11 |
| 1929 | 71 | 4 | 0 |
| 1930 | 50 | 4 | 9 |
| 1931 | 37 | 5 | 6 |
| 1932 | 31 | 11 | 0 |

*C. D. M. and Co., from 1910 and "Reds" from 1922. Figures supplied to the Indian Chamber of Commerce by the Director of Agriculture, Bengal, in his letter No. 8605, dated the 4th July, 1933.

The serious extent of the loss which this sharp decline in prices has inflicted on the people of the Province will be realised by referring to the following table which shows the shrinkage in the harvest price of jute during the years of depression, as compared with other marketable crops :—

| | Value of marketable crops. (In crores of rupees). | Value of jute crop at harvest price. (In crores of rupees). | Harvest price of jute per maund. Rs. A. |
|---|---|---|---|
| Average for the decade 1920-21 to 1929-30 .. .. | 72·62 | 35·72 | 9 8 |
| 1929-30 .. .. | 69·81 | 36·76 | 8 0 |
| 1930-31 .. .. | 53·28 | 17·60 | 3 8 |
| 1931-32 .. .. | 39·34 | 10·29 | 3 4 |
| 1932-33 .. .. | 32·71 | 8·62 | .. |

## Causes, Nature and Extent of the Recent Fall in Price.

The price of jute appears to have been extraordinarily low before 1828, when the export of the commodity to foreign countries commenced. Previous to this year the price of jute was quoted at Re. 1 per maund. Though it is not possible to realise the economic significance of this price without reference to the comparative price statistics of other commodities (*e.g.*, the price of rice was then about 4 annas per maund) applicable to the period, it must be admitted that the price of jute has remarkably increased since 1828, with the expansion of the export markets and the rise in the general level of prices. The price, which was recorded at Rs. 9-4 per bale (400 lbs.) maximum in 1845, jumped up to Rs. 30 per bale in 1882, whereafter there was a lull for five years witnessing a decline to Rs. 25 per bale. The decline was followed by a recovery, continuing till 1894, in the course of which the picked quality was quoted so high as Rs. 44 per bale. Since then there was again a downward trend in the curve which lasted till 1904. The price quoted for the picked quality during this period was Rs. 36 per bale, and it recorded a steady increase thereafter till 1913, the maximum price for the ordinary quality having reached Rs. 69 per bale. There was a set back during the War on account of the shortage of tonnage and other shipping facilities when the price was quoted between Rs. 67 and Rs. 40. The position considerably improved between the years 1920 and 1929, the price having gone up to Rs. 123 in 1925-26 (January). Since then an unprecedented fall has ensued owing to the advent of the world depression, the lowest price being quoted at Rs. 24 per bale in the year 1931-32.

The recent fall in the prices of jute is regarded by popular belief to be an effect of world depression in general and the over-production of the commodity itself in particular. Though expressed in such general terms conveying no idea whatsoever as to the manner in which these phenomena have affected the price of jute, the popular notion is nevertheless fundamentally true. It, however, needs to be explained as to why, though the depression has been a common factor affecting prices in general, the price of jute in particular has been much more acutely depressed than the prices of other agricultural staples in India, for it would have been more natural to expect a contrary result, having regard to the monopoly condition of jute.

The history of the present fall has to be traced back to the year 1925-26, which witnessed an extraordinarily large crop of jute. From this year onward to the year 1929-30, there was a regularly large crop of jute each year. During all this period, the mills in India and abroad consumed larger quantities of jute, the demand for jute goods remaining comparatively stationary, and thus eventually produced more jute goods than were actually used by the consumers. The result was that when in the year 1930-31, following the onset of the world depression, a shrinkage in the demand for jute goods forced its appearance, it was found that the actual quantity of manufactured as well as raw jute was far larger than what was really necessary. The crop of 1930-31 far exceeded the requirements of the season, as will be evident from the fact that it was about a million bales more than the outturn of the previous season even which yielded a surplus over actual demand. There was no market for this increased supply owing to a world-wide shrinkage of the movement of such agricultural products as wheat, rice, cotton, oilseeds, etc., brought about by a diminution of effective demand. This phenomenon of over-production combined with under-consumption was reflected in the price-level. The prices of both manufactured and raw jute naturally began to decline, the downward movement having indeed set in long before the effects of depression had begun to be felt in other countries; in fact, the price both of raw and manufactured jute declined as early as April 1929, the former recording a decline from 106 to 97 in course of a month and the latter from 139 to 125. While the price of the manufactured goods fell at first to a slightly greater extent than that of the raw material, the fall in the case of the former had nevertheless a further depressing effect on the price of the raw fibre. The manufacturing interests, moreover, readily took an alarm from such developments and addressed themselves seriously to a curtailment of production which arrested the fall in the prices of jute goods. The stock of hessians in Calcutta has come down from 23 crores of yards in the year 1931 to 7 crores of yards in the middle of 1933, and though the stock of heavy goods is slightly larger at the moment than what it was in 1931, jute manufacturers have been able to carry on much better than the cultivators. The growing interests on the other hand, being scattered all over the Province and ill-organised, could not take a similar concerted action for the curtailment of production. The only attempt made in this direction was to be found in the propaganda campaigns launched by official and non-official agencies in 1930-31 which bore a temporary effect of reducing the crop of that particular season and the following season. These reductions, however, did not help the price of jute which continued to fall, except for temporary spurts for special reasons, such as the linking of the rupee to the depreciated sterling in the third quarter of 1931. The inability of the price of raw jute to resist continuous decline can be easily explained by heavy reductions in demand, much heavier indeed than that in the supply of the fibre. Even in 1931-32, when the crop was the smallest recorded since 1923, there was hardly any improvement owing to the fall in the demand for jute products and the accumulation of heavy stocks in nearly all the consuming centres of the world, which could not be absorbed even at a very low price. A further restriction of the output was, in view of these facts, looked for, but unfortunately the season 1932-33 has again a much larger crop with the result that at the end of the season 1932-33, the stock of raw jute in the hands of the local mills is enough to meet the requirements of another 12 months, while the stock abroad is considered adequate for 6 months' consumption. Evidently, these circumstances further worsen the position of jute, prolonging the depressed condition of the jute market. The prospects of the crop for the season 1933-34 are quite good and a crop of about 80 lakhs of bales has been anticipated in the forecast recently issued by the Department of Agriculture. This quantity is slightly in excess of the estimated world requirements at the moment and quite naturally the price of raw jute is again depressed in spite of the rise maintained in the price of jute manufactures.

The cumulative result of all this has been that while as a consequence of the world-wide depression, the wholesale prices of all commodities, and particularly of the staples, have fallen to unprecedented levels in all the countries of the world, the price of raw jute, the one commodity on which the entire economic structure of Bengal depends, has shown the least amount of resistance. A reference to the following table showing the comparative price movements of raw jute and jute manufactures, and other Indian agricultural staples, will show how unique the fall in the price of raw jute has been, as compared with that in other commodities:—

*Index Number of Wholesale Prices in Calcutta of certain staple commodities.*

(Prices in July, 1914 = 100.)

| | Jute (raw). | Jute (manufactured). | Cotton (raw). | Cotton (manufactured). | Cereals. | Pulses. | Tea. | Oil seeds. | All commodities. |
|---|---|---|---|---|---|---|---|---|---|
| 1928 .. | 100 | 150 | 167 | 159 | 133 | 157 | 154 | 142 | 145 |
| 1929 .. .. | 95 | 122 | 146 | 160 | 125 | 152 | 140 | 155 | 141 |
| 1930 .. .. | 63 | 88 | 91 | 139 | 100 | 119 | 114 | 127 | 116 |
| 1931 .. .. | 49 | 76 | 83 | 123 | 78 | 89 | 86 | 82 | 96 |
| 1932 .. .. | 45 | 75 | 92 | 119 | 68 | 92 | 61 | 76 | 91 |
| 1933— | | | | | | | | | |
| January .. | 39 | 71 | 87 | 113 | 66 | 87 | 62 | 78 | 88 |
| February .. | 36 | 68 | 79 | 113 | 66 | 88 | 74 | 74 | 86 |
| March .. | 38 | 68 | 79 | 112 | 61 | 81 | 70 | 65 | 82 |
| April .. .. | 46 | 76 | 80 | 112 | 58 | 81 | 71 | 68 | 84 |
| May .. .. | 50 | 87 | 84 | 115 | 66 | 88 | 74 | 72 | 87 |
| June .. .. | 45 | 87 | 87 | 115 | 69 | 85 | 94 | 77 | 89 |

It will be found from the above table that the extent of the fall in the price of raw jute has been much greater than that of the general fall in price level; in fact, of all the commodities, the heaviest fall has always been and is still being recorded in the case of raw jute. What is more significant is the extent of the disparity in the price of raw jute and the jute manufactures almost throughout the period of falling price. The wideness of this disparity is all the more evident when contrasted with the disparity in the case of raw cotton and cotton manufactures. We are aware that a certain amount of disparity between the movement of prices of raw materials and manufactures is inevitable owing to the rigidity of the charges due to transport, labour, rate of interest and other over-head expenditure incurred in the transformation of the raw material into the finished product. "In so far as prices follow costs during a period of economic depression, the prices of manufactured products tend to fall relatively little because manufacturing industry contains a high proportion of fixed and inelastic costs such as capital charges, wages, taxes, etc., which do not fluctuate as much or as rapidly as the prices of raw materials."* While the above proposition cannot be demurred to, it appears that the margin between the price of raw jute and jute manufactures has been exceptionally wide. A paper on "Indian Prices During the Depression" published in a recent issue of the official organ of the Indian Statistical Institute† very effectively proves that the disparity between the composite price of raw jute and raw cotton and the composite price of jute and cotton manufactures in India has almost always been much greater than the disparity between the prices of raw materials and manufactures both in Canada and the United States of America, during the period of four years 1929-32. There can be no doubt that this difference in the disparity could have been shown to be even much more if the prices of raw and manufactured jute were separated from those of raw and manufactured cotton. The table which we have given above will show that the disparity between the prices of the former group was as much as 166 per cent., as compared with only 129 per cent. in regard to the latter group in 1932, the corresponding figure for the month of June, this year, the latest for which figures are available, being 193 per cent. and 132 per cent., respectively.

The above survey makes it abundantly clear that apart from the general world depression, the absence of proper organised action on the part of the cultivators, has been responsible for an excess production of jute, which, together with the fact that the cultivators, being hard pressed for ready money, are often compelled to dispose of their products without waiting for better times, accounts for the present acute and singularly depressed state of the jute market. It also proves how the restriction propaganda based on voluntary effiorts of the cultivators has not been fully effective in arresting the decline in prices, though it has been partially fruitful of appreciable results in this regard.

It is relevant to point out in this connection that besides the causes mentioned above, viz., over-production and world depression, another factor of local importance has an important bearing on the depressed price of jute. This is the artificial over-valuation of the Rupee, which took place even before the 1s. 6d. ratio was legalised. Apart from the

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*Memorandum on Production and Trade, 1925—1929-30 (League of Nations), page 95.

†Paper by Messrs. Sailendra Nath Sen and Harish Chandra Sinha published in June number of "Sankhya," the Indian Journal of Statistics.

fact that as a result of this undue appreciation of the Rupee, the same quantity of Indian goods was sold for fewer rupees, the persistence with which the Government of India tried to maintain the exchange and the heavy amount of contraction which they effected in the circulation of currency in India had the effect of further depressing the price level.

We have to refrain from discussing this issue in detail as it has been kept out of the scope of our investigation. A reference, however, to this issue is considered necessary to make it clear that the implications of the phenomenon of low jute prices cannot be fully explained without tracing its connection with the currency policy of the Government. As it has been already pointed out, jute is the only money crop on which the whole economic structure of the Province depends, and the value of the export of jute forms more than 50 per cent. of the value of its total exports. It will, therefore, be evident that the consequences of the fixation of the rupee-exchange at an unjustifiably high rate are too serious to be ignored in a study of the problem of jute. It is unforunate that the Government of Bengal precluded all questions of currency and monetary policy from the terms of reference of the Enquiry Committee*, but we take this opportunity of emphasising the necessity of adjusting the external value of the Rupee to the internal needs of the country in any scheme of a permanent solution of the problem. The fact, that the value of marketable crops of the agriculturists in Bengal has dropped to about Rs. 32 crores from an average of about Rs. 72 crores, while the fixed monetary liabilities of the agriculturist class continue at about Rs. 28 crores, demonstrates the immediate necessity of the prices of agricultural commodities being doubled in the interest of all sections of the people including the agriculturists, zemindars, *mahajans*, etc.

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* *Vide* Letter No. 3967, dated the 29th July, 1933, from the Secretary to the Government of Bengal, Agriculture and Industries Department, to the Secretary, Jute Enquiry Committee, Bengal in Appendix XVI.

# TABLES.*

(*Vide* paragraph 3, page 82.)

## *Exports of Raw Jute.*

(In thousands of bales.)

| Countries. | Pre-war average. | War average. | Post-war average. | 1930-31. | 1931-32. |
|---|---|---|---|---|---|
| United Kingdom .. | 1,691 | 1,295 | 952 | 604 | 865 |
| Other parts of British Empire | 4 | ·8 | 5 | 7 | 20 |
| Total, British Empire .. | 1,695 | 1,303 | 957 | 611 | 885 |
| United States of America .. | 535 | 523 | 483 | 297 | 275 |
| France .. .. | 428 | 198 | 357 | 500 | 290 |
| Italy .. .. | 213 | 215 | 180 | 236 | 247 |
| Brazil .. .. | 15 | 66 | 79 | 85 | 88 |
| Japan .. .. | 17 | 30 | 60 | 34 | 56 |
| Belgium .. .. | .. | 1 | 174 | 268 | 257 |
| Spain .. .. | 122 | 172 | 132 | 185 | 199 |
| Germany .. .. | 920 | 34 | 586 | 946 | 733 |
| Austria .. .. / Hungary .. .. | 250 | 13 | 2 | .. | .. |
| Other countries .. | 86 | 44 | 92 | 308 | 255 |
| Total, Foreign countrie | 2,586 | 1,296 | 2,145 | 2,859 | 2,400 |
| Grand Total .. | 4,281 | 2,599 | 3,102 | 3,470 | 3,285 |

## *Exports of Jute Gunny Bags and Cloth.*

### (*i*) *Bags, Hessian.*

(In lakhs of bales.)

| | Average of 3 war years 1916-17 to 1918-19. | Post-war average. | 1930-31. | 1931-32. |
|---|---|---|---|---|
| United Kingdom .. .. | 2,523 | 113 | 209 | 285 |
| Australia .. .. .. | 77 | 168 | 81 | 49 |
| United States of America .. | 323 | 314 | 89 | 74 |
| Argentine Republic .. .. | 84 | 16 | 3 | 2 |
| Other countries .. .. | 1,120 | 370 | 427 | 429 |
| Total (all countries) .. | 4,127 | 981 | 809 | 839 |

* *Vide* "Review of the Trade of India (1931-32)," page 225, *et seq.*

*Exports of Jute Gunny Bags and cloth—continued.*

*(ii) Bags, Sacking.*

(In lakhs of bags.)

| Countries. | Average of 3 war years 1916-17 to 1918-19. | Post-war average. | 1930-31. | 1931-32. |
|---|---|---|---|---|
| United Kingdom .. .. | 102 | 305 | 192 | 190 |
| Australia .. .. .. | 633 | 470 | 802 | 632 |
| Japan .. .. .. | 134 | 186 | 51 | 43 |
| Indo-China .. .. .. | 186 | 148 | 53 | 47 |
| Java .. .. .. | 213 | 205 | 414 | 292 |
| United States of America .. | 92 | 51 | 17 | 10 |
| Chile .. .. .. | 467 | 249 | 174 | 20 |
| Peru .. .. .. | 51 | 39 | 58 | 46 |
| Cuba .. .. .. | 210 | 235 | 243 | 155 |
| Other countries .. .. | 941 | 1,174 | 1,527 | 1,611 |
| Total (all countries) .. | 3,029 | 3,062 | 3,531 | 3,046 |

*(iii) Cloth, Hessian.*

(In lakhs of yards.)

| Countries. | Average of 3 war years 1916-17 to 1918-19. | Post-war average. | 1930-31. | 1931-32. |
|---|---|---|---|---|
| United Kingdom .. .. | 1,287 | 628 | 376 | 589 |
| Canada .. .. .. | 561 | 508 | 730 | 627 |
| Australia .. .. .. | 177 | 123 | 153 | 173 |
| United States of America .. | 7,057 | 8,810 | 8,395 | 6,909 |
| Argentine Republic .. .. | 1,134 | 1,756 | 2,046 | 993 |
| Uruguay .. .. .. | 42 | 85 | 141 | 104 |
| Other countries .. .. | 1,209 | 398 | 545 | 562 |
| Total (all countries) .. | 11,467 | 12,308 | 12,386 | 9,957 |

## *Exports of Jute Gunny Bags and Cloth—Concluded.*

### *Cloth, Sacking.*

(In lakhs of yards.)

| Countries | Average of 3 war years 1916-17 to 1918-19. | Post-war average. | 1930-31. | 1931-32. |
|---|---|---|---|---|
| United Kingdom .. .. | 103 | 113 | 26 | 32 |
| Australia .. .. .. | 74 | 52 | 31 | 25 |
| United States of America .. | 29 | 128 | 143 | 15 |
| Argentine Republic .. .. | 42 | 56 | 40 | 56 |
| Other countries .. .. | 55 | 46 | 84 | 125 |
| Total (all countries) .. | 303 | 395 | 324 | 253 |

## *Exports of Jute Bags and Gunny Cloth.*

| Countries. | Pre-war average. | War average. | Post-war average. | 1930-31. | 1931-32. |
|---|---|---|---|---|---|
| *Bags.* | | | (In lakhs.) | | |
| United Kingdom .. | 305 | 2,265 | 418 | 401 | 475 |
| Europe (excepting United Kingdom). | 206 | 688 | 299 | 287 | 303 |
| Egypt .. .. | 119 | 385 | 102 | 170 | 143 |
| South Africa (including Rhodesia). | 119 | 243 | 177 | 200 | 182 |
| East Africa (including Mauritius). | 99 | 90 | 112 | 243 | 201 |
| Australia and New Zealand | 628 | 737 | 720 | 999 | 742 |
| Java .. .. | 130 | 206 | 205 | 416 | 296 |
| Japan .. .. | 35 | 118 | 186 | 54 | 46 |
| Far East (excepting Java and Japan). | 393 | 436 | 584 | 519 | 655 |
| South America .. .. | 431 | 532 | 335 | 278 | 117 |
| Central America and West Indies. | 130 | 229 | 298 | 357 | 274 |
| Other countries .. | 796 | 747 | 607 | 416 | 451 |
| Total (all countries) .. | 3,391 | 6,676 | 4,043 | 4,340 | 3,885 |
| *Cloth.* | | | (In lakhs.) | | |
| | Yds. | Yds. | Yds. | Yds. | Yds. |
| United Kingdom .. | 423 | 1,333 | 741 | 402 | 622 |
| Canada .. .. | 333 | 534 | 508 | 731 | 633 |
| Australia .. .. | 209 | 253 | 175 | 183 | 199 |
| United States of America .. | 6,639 | 6,985 | 8,938 | 8,538 | 6,924 |
| Argentine Republic .. | 1,727 | 1,440 | 1,813 | 2,086 | 1,049 |
| Other countries .. | 369 | 1,016 | 528 | 770 | 784 |
| Total (all countries) .. | 9,700 | 11,561 | 12,703 | 12,710 | 10,211 |

## CHAPTER II.

### Regulation.

*Necessity for Regulation.*—Having surveyed the position of jute cultivation and trade as well as the condition of the jute industry, we may proceed to an examination of the most important issue that came before the Committee, namely, the control of the production of jute.

The need for adjusting supply to demand, is in the nature of an economic dictum and calls for no elaborate justification. The consuming interests represented by the Jute Mills Association, the Jute Balers' Association, etc., contend that in the case of jute there is no need for deliberate control of production for securing equilibrium between demand and supply, though it may be noted that the most important among these, namely, the jute mills, have themselves been the strongest advocates of a policy of regulated production so far as jute manufactures are concerned. The restrictions actually in force among the mills at present relate not only to working shorter hours than the permissible limit, but also to the enforced idleness of a certain percentage of the looms, kept sealed under terms of an agreement. It is relevant to point out in this connection that in 1932 when it appeared extremely difficult, if not impossible, to persuade certain mills to accept a scheme for restricted production sponsored by the Jute Mills Association, some of the members of the latter body expressed willingness even to place themselves under legislative control. Indeed, the intervention of the Governor of the Province had to be invoked. The eventual settlement, though based on an agreement between the parties, was only effected through the Governor's intervention. Thus, viewed in the light of the policy actually pursued by the mills, their contention, that there is no need for regulating supply in the case of jute, lacks conviction. If the need for regulation of production is urgent in the case of those interests which can comfortably manage their operations and are resourceful, having a great reserve strength to sustain losses, it is much more so in the case of the agriculturists who account for 80 per cent. of the population of the Province, who are utterly disorganised and are, as a rule, poor and ignorant, being least able to bear any losses in their commercial dealings.

Industrial interests are always at an advantage as compared with those of agriculture and we may quote an extract from the Memorandum to the King of Italy on the Welfare of the State and the International Chamber of Commerce:—

"It need take but little labour on the part of the statesman to perceive clearly that the present efforts of agriculture are inadequate to meet the influence of the concentrated capital and energy of the cities. The cities with their syndicates, boards of trade, chambers of commerce, unions, and federations, are solidarity personified; whereas the heterogeneous agricultural associations are feeble, inadequate and inefficient from the very constitution of their being...........".

Again Dr. Dolfuss put the case clearly when he said, "The agriculturists find themselves confronted with a compact organisation for the maintenance of the prices both of commodities and of labour, to which they are unable themselves, owing to the special character of their own development in the past, to oppose any analogous or equally effective organization." Realisation of this fact has led many countries to organise agriculturists with a view to controlling production in relation to demand, a detailed reference to which is made in the Chapter on "Marketing of Jute."

The contention almost invariably made by those who deny the need for control in the case of jute, is that the adjustment sought to be effected by regulation of supply is automatically secured by natural corrective forces. It is pointed out that the cultivators are instinctively impelled to restrict or expand the acreage under jute according as bumper crop depresses the price or a short crop raises it, so that, the phenomenon is viewed over a series of years, the supply will found to be well adjusted to demand. The phenomenon of over-production is denied from this standpoint, or at least not considered serious enough to justify control. This contention appears, in our opinion, to involve a serious deductive fallacy in so far as it asserts that, because over a series of years the surpluses and deficits balance one another, there is a perfect equilibrium between demand and supply, no hardship being entailed by the lack of adjustment in any particular year. The conclusion thus reached is directly contradicted by experience, which shows that whenever there is an excess of supply, the whole brunt of it, as reflected in a setback in price, has to be borne by the cultivators. The surplus yield is carried over to the next year in the form of stocks not in the hands of cultivators but in those of the buyers. The existence of a surplus exercises a depressing influence on prices even if the crop in the following year is restricted. In this connection the following observation of the Economic Committee of the League of Nations regarding the necessity of curtailing production as a means of alleviating the present agriculutral crisis seems to be particularly significant; "production must be controlled and maintained at a level corresponding to the requirements of consumption—in other words, a disastrous surfeit of supply must be prevented by a voluntary limitation. This affords a means of establishing prices at a level which will assure the agriculturist of a reasonable remuneration for his labour and his capital."*

It has been revealed by actual experience of the trade in jute that a large over-production in any particular year has even graver effects than are commonly imagined. The depressing effect on prices owing to the large surplus of one particular season is not merely coincident with that year, but is seen in the price movements of the next and subsequent years. The surplus leads to a heavy accumulation of stock, which takes several years to consume. Consequently, there is a reduced demand for new crops till the accumulated surplus is wiped out. The need for adjusting supply to demand must, therefore, be considered imperative. The cultivators, who have at present no dependable estimate of the probable effective demand for their crop, should not be left to the many vicissitudes of the market and the fluctuations in price. The circumstances clearly prove the necessity for a conscious effort to regulate production, though the practical working of such a scheme raises special problems which have to be carefully investigated.

The most outstanding of these problems, involving serious complications, arises out of the fact that jute is generally grown on small plots

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* Report of the Economic Committee of the League of Nations on the Agricultural Crisis in 1931, page 58.

of land by individual cultivators scattered all over the Province. Facilities for the successful operation of a scheme of control such as are found in large industries or commercial plantations organised on a capitalistic basis are markedly absent in the case of jute. At the same time it must be recognised that the large agricultural interests of Bengal in the particular crop having a unique bearing on the entire economic structure of the Province, justify, and indeed call for, extraordinary measures. The strenuous efforts made by the Governments of various countries to protect the interests of the agriculturists during the present world depression add greater point to the supreme necessity of devising a plan for the protection of jute. Almost all the advanced countries of the world to-day have been applying themselves seriously to the protection of the agricultural interests connected with such staples as wheat, cotton, etc., which admittedly are much more vulnerable than jute, and despite discouraging results due to their vulnerable position it is highly significant that a country like the United States of America does not seem in the least disposed to abate its efforts, the Roosevelt Administration being bent on great measures of a similar nature. These instances are instructive and suggest to us that no effort should be regarded as too great to safeguard the interest of the jute trade through the adoption of some suitable scheme of control.

## Methods of Regulation.

The need for control is generally admitted, but the opinions received by us in regard to the methods by which control may be effected were sharply at variance with one another. The proposals fall under three broad divisions, representing three different principles.

The first of these is opposed to any kind of compulsion and suggests that the regulation should be exercised on a voluntary basis. The *modus operandi* briefly is that there should be some agency, specially set up for the purpose by the Government, which should be entrusted with the duty of ascertaining probable world demand, and of advising on curtailment or expansion of production as may be found necessary. Such an agency should, by means of propaganda initiated with official assistance, broadcast the necessary information and endeavour to persuade cultivators to follow its advice. The supporters of this proposal point to the partial success of the propaganda launched in 1930-31 for a restriction of crop as evidence of the effectiveness of voluntary regulation.

The second of these proposals is in sharp contrast to the above and advocates compulsion by legislation. The main argument urged in support of compulsory regulation is that no attempt to control production can be effective unless measures are provided to enforce it. It is pointed out that though the prevailing maladjustment of supply to demand is to a great extent due to the ignorance of the cultivators regarding the conditions of the world market, the problem of a proper adjustment between supply and demand would not be solved merely by propaganda and persuasive methods. It is contended that restriction left to voluntary efforts of individuals would be frustrated, because the individual cultivator will be faced with an almost irrestible temptation to expand his own acreage in the hope of reaping a profit at the expense of his neighbour. The individual would thus view restriction as everybody else's business and not his own, and consequently, the realisation of the restriction of the total acreage would be extremely uncertain. It is further argued that though the propaganda for voluntary restriction may prove fruitful to some extent immediately after a fall in price due to bumper crops (in which case perhaps the cultivators themselves would spontaneously be inclined to reduce the cultivation of jute), the effectiveness of such propaganda would be extremely doubtful in any season following a year of high prices, even if the estimates for the particular season forecast a shrinkage in demand. In the United States of America a propaganda campaign for a reduction by 10 per cent. of the area of wheat met with little response.

Between these two extreme standpoints a *via media* has been suggested by the Indian Chamber of Commerce, Calcutta. They suggest that the voluntary restriction scheme should be introduced as an initial measure, and if such a scheme should fail then only should resort be had to compulsion.

## Arguments for and against Regulation.

We may now proceed to a somewhat detailed examination of some of the objections raised by witnesses to any scheme of control and in particular to any scheme of compulsory control. These objections may conveniently be dealt with under three categories: (1) the necessity for control, (2) the feasibility of any scheme of control in the light of past experience, and (3) the advisability of any such scheme.

We have already repudiated the contention that an adjustment of supply to demand, being automatically effected over a period of years, removes the necessity for some scheme of control. We may, therefore, without further comment on this point, pass to a consideration of the second and third categories.

So far as the second category is concerned, it has been observed by several witnesses that it is not *feasible* to adjust supply to demand with any degree of certainty as to the result, the reason being that, though the control of supply may be contemplated, it is impossible to make a correct estimate of the probable world demand, and that consequently, it must be futile to look for any steadiness in the price through the proposed adjustment of supply to demand. Such a contention can hardly be regarded as convincing, particularly because its advocates do not mention any specific or concrete difficulties in this connection. Their opinion seems to arise out of vague fears rather than out of practical considerations. No arguments are put forward to show that the task involves any insurmountable difficulty. Against this, it may be contended that it is only reasonable not to expect the estimates of demand in any circumstances to approach mathematical precision. Although the demand for jute is subject to variations, these are not so spasmodic as to be absolutely unanticipated. On the contrary, as Mr. J. Bowie has shown in a learned article (published in "Capital" of March 3, 1927), there are some discernible characteristics that can be traced through all the periodic fluctuations of demand. It may thus be firmly expected that an earnest endeavour to get the necessary information from consumers abroad (through such agencies as local commercial associations, Indian Trade Commissioners, and foreign organisations of jute importers), would be successful in obtaining fairly reliable data to work upon. It should be possible to secure the co-operation of the latter bodies as they are sure to realise that an estimate as correct as possible is necessary to obtain a sufficient supply of jute on the one hand and to keep the market conditions stable on the other. Assuming that a certain degree of disparity in the adjustment of supply to demand will be unavoidable, we consider that the object of control will be substantially achieved even if there is a small margin of disparity between the estimated demand and actual supply. Even in the eventuality of the yield in any particular year falling short of the demand, the mills are not likely to suffer any hardship or loss, as they always work with sufficient stock in hand.

The arguments under the third head may be enumerated as follows, and it will be convenient to dispose of each point as it occurs:—

(1) Compulsory regulation of the production of jute should not be embarked upon, in view of the alleged failures of such schemes in other countries.

In this connection it would be useful, for the purpose of appraising the economic incidence of the movement, which is still in its experimental stage, to make a survey of the operation of the restriction schemes adopted in recent years by many countries in connection with various articles of commercial importance.* A survey of the various schemes has, therefore, been made and appended to this report to facilitate a comparative study. In reviewing the schemes we have carefully kept in view only such features as have a bearing on jute, and the investigation shows that the causes of failure are to be found in:—

(*i*) the absence of monopoly control over the supply of the particular commodity in the country adopting the restriction scheme, as in the case of cotton in America and wheat in Canada;

(*ii*) the absence of concerted action among all the supplying countries and continuance of free competition among them, as in the case of cotton, wheat and coffee;

(*iii*) lapse of the contracting parties from the terms of agreement where an international agreement was made the basis of the restriction scheme, *e.g.*, the Rubber Restriction Scheme and the Tea Restriction Scheme of 1930;

(*iv*) attempts at controlling the marketable supply alone without any concomitant plan for controlling production, *e.g.*, in the case of cotton in the United States of America or coffee in Brazil.

A careful scrutiny of the special features found in our enquiry has forced on our attention certain marked contrasts to jute. The production of jute is characterised by certain peculiar and distinctive features which assure it a comparative immunity from the dangers which were singly or jointly responsible for the collapse of restriction schemes in other countries. Such special features of jute may, for the sake of convenience, be separately enumerated. In the first place, jute is a commodity which being the cheapest packing medium is almost indispensable to world trade, and, therefore, the demand for it is more or less assured. Attempts have been made both to grow the crop in other countries and to find cheaper substitutes. The former have altogether failed, while the latter have not given any substantial results. Again, jute has certain specific uses as the cheapest packing material which ensure its demand in any circumstances, irrespective of the comparative

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* *Vide* Appendix XII.

cheapness of such possible substitutes as may be discovered in future. These circumstances warrant the conclusion that if the price of jute under a scheme of control is not raised unduly high, there is little danger of its being displaced by substitutes.

Secondly, jute is practically a monopoly of Bengal and therefore the need for concerted international action, which is essential for restriction in the case of articles like cotton or wheat, does not exist in the case of jute. Thirdly, the fact that the fibre is grown in no other country and that no substitutes are easily available precludes the possibility of a restriction scheme being imperilled by outside competition. These circumstances very pointedly suggest that though restriction schemes may have failed elsewhere in connection with some particular articles, their failure cannot be taken as evidence of the inadvisability of adopting a restriction scheme in connection with jute. On the contrary, the analysis of the special advantages possessed by jute, as against commodities subjected to restriction schemes elsewhere, definitely indicates, apart from other considerations, the great likelihood of success in the case of a restriction scheme for jute. Mr. MacDougal, the foreign expert co-opted by the Indian Central Banking Enquiry Committee, must have been urged by such considerations to observe, in his note on the proposed Jute Control Corporation, appended to the Report of the Central Banking Enquiry Committee, that "Jute is the only crop of any magnitude, which, under existing conditions, lends itself to such form of control as would assure a stabilised price to the grower". This opinion finds endorsement in a Report recently published by a Study Group of Members of the Royal Institute of International Affairs entitled "World Agriculture".

"A crop which lends itself to control on the lines of limitations of output without any international co-operation being required is jute. A jute scheme is possible, since the crop can only be grown, as far as is known, in Bengal."

(2) Some of the witnesses have argued that any scheme of compulsory regulation of jute would involve a serious interference with individual liberty.

We do not consider this a serious criticism as it is of a purely academic nature. Individual liberty is meaningless except in relation to the welfare of the community as a whole. Experience has amply proved that *laissez faire* is by no means always conducive, either to the welfare of the community, or to that of the individual himself. Control or regulation of individual action is in many cases a better way of ensuring the common good, and through it also the interests of the individual. As a matter of fact, the need for such control of individual action has been definitely recognised by most modern Governments. We may cite a few examples:—

"The New Zealand and South African Export Control Boards are notable as being statutory representative bodies with compulsory powers over the marketing of the whole exportable surplus of the commodities concerned, and with powers to raise funds by making a levy on all producers of these commodities. That is to say, that dissentient minorities are compelled to adhere to the marketing policy approved of by the majority of their fellow producers, in the interest of the producers as a whole. This principle of compulsion is included in the Agricultural Marketing Act, 1931, of Great Britain, now in operation for hops; schemes are being prepared for other commodities."

"In Belgium and Denmark a series of new and stringent regulations for the marketing of eggs and dairy produce were issued in 1930 and 1931."

(3) A scheme of compulsion, it has been pointed out by some witnesses, would create a serious complication in regard to the utilisation of lands, which in a year of restricted crop, would be released from the cultivation of jute. It is contended by them that at present there are no alternative crops of a remunerative character which can be grown as a substitute for jute on the surplus lands, and that during the last two years, when restriction of the acreage under jute was brought about by propaganda, the only crop extensively grown as a substitute for jute was paddy of which the price was already too low to justify further expansion. The problem would exist equally under a scheme of voluntary restriction, but it is asserted that its implications would be palpably different under the compulsory scheme, as it would give the cultivators, in the latter case, an ostensible plea for claiming compensation. Besides, it is urged that if, as at present, paddy alone continues to be the sole alternative crop to be grown in lands released from the cultivation of jute, those districts which are mainly rice-growing would be unjustifiably prejudiced for the benefit of those whose agricultural interests are predominantly identified with jute.

We have given careful consideration to the implications of the problem as suggested by the above contention. It is beyond our resources to make any concrete suggestions regarding the alternative crops that can be profitably grown in this Province as a substitute for jute, and we think, as many witnesses have pointed out, that such suggestions should appropriately be referred to the Department of Agriculture. We may, however, point out that the problem need not be considered so serious as appears at first sight. Apart from the fact that the cultivation of sugarcane is already being tried with success in certain areas, and is indeed assured of a great expansion with the development of the sugar industry in this Province, it appears reasonable to believe, that no aggravation of the difficulties under which the cultivators now labour as a result of voluntarily restricting their crops, need be apprehended. The extreme restriction of acreage as a consequence of the low and unremunerative price of jute may reasonably be supposed to have taken place already and the problem of alternative crops is being tackled by the cultivators as best as they can, though much has to be done in this regard by the Agricultural Department through research and propaganda. The possibility of the acreage being expanded by small degrees as the world depression lifts is now greater than the expectation of further curtailment. If, however, the recurrence of a general trade depression, of equal or greater intensity than the present, be apprehended some time in the future, it should be possible, in our opinion, to explore before its advent, the possibility of suitable crops, or any non-agricultural uses for such lands as may be released from the cultivation of jute.

The extreme dependence of the agriculturists in Bengal on a single agricultural commodity like jute indicates a serious weakness in the economic structure of the Province. The removal of this is considered urgent in the wider economic interests of the Province, and though a more intensive industrialisation is regarded as the basic remedy for the disproportionate degree of dependence on agriculture in general, a relief from the perilous dependence on jute is nevertheless to be sought in a diversification of crops grown in the Province. The question of alternative crops, therefore, is a paramount problem, and ought to be tackled for graver reasons than those which suggest the cultivation of other money crops in Bengal.

(4) It has been observed by many witnesses that a scheme of compulsory control would demand, to ensure its effectiveness as well as for checking evasion, an administrative machinery too elaborate and expensive to make the experiment worth while.

Against this contention some witnesses have asserted that the magnitude and expenses of administrative machinery may be kept within reasonable limits if a suitable scheme was devised by which the actual work of distributing settled quotas and checking possible evasions could be entrusted to union boards and associations of agriculturists in the village. The functions of initiation and supervision might, in this event, be discharged by such existing agencies and officials as the Agricultural and Co-operative Departments, peripatetic staff of the Education Department, Subdivisional Officers, Circle Officers and District Board Officials. It should also be possible to enlist the co-operation and assistance of the staff of land mortgage banks, if and when these came to be established. It should be possible to devise a practicable scheme on such lines for a smooth and efficient accomplishment of the task without placing any excessive strain on the Departments and officials mentioned above; their services would be required only during a limited period of the year, practically only during the sowing season.

(5) Compulsory regulation has also been criticised on the ground of threatening oppression and harassment to the cultivators.

The apprehensions, however, can be effectively averted, if, as has been suggested above, the actual management regarding initiation of the scheme, distribution of quotas and checking of delinquencies is left to the union boards or agricultural associations which would consist of the agriculturists themselves.

The arguments put forward either against or in favour of compulsory regulations are thus generally of a vague and inconclusive character, and the only definite and concrete suggestion in this regard is made in the Bengal Jute Growers Bill* of Dr. N. C. Sen Gupta, which we have considered it worthwhile to examine.

The main features of the Bill are as follows:—

"(1) The preparation and maintenance of a complete register of jute lands by union boards. This would give the Central body a set of dependable facts in the place of the problematical forecasts we now have.

(2) The framing by a Central body of a Provincial scheme. The scheme will be framed on the basis of the probable requirements of jute next season and will lay down what percentage of the area sown in the previous season should be sown in the next. Thus, the Committee may, in a surplus year, determine that 90 per cent. of the last year's acreage may be sown next year, or in a deficit year, that an additional 12 per cent. of the last year's area may be sown.

(3) When the scheme is framed it should be communicated direct to union boards and in areas where there are no union boards to the Village Jute Board that should be established.

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*Vide* Appendix XV.

(4) Each Union or Village Board will then proceed to frame a village scheme proportionately reducing the area of each grower in case a reduction is required, and issuing new licences where increase is required, so as to reduce or increase the total area under jute in the union in the proportion required.

(5) When the village scheme is finally framed, the union will revise the jute register accordingly and issue licences for growing jute for the next season.

(6) No jute shall be grown except under licence and the growing of jute without licence will be subject to a penalty."

The provision in the above scheme that the cultivation of the crop should be permitted only on the issue of a licence renewable from year to year renders, we think, the restriction scheme as applied to jute (which is now freely cultivated by thousands of cultivators scattered over a large area) somewhat different from the case of *Ganja* or *Opium*. The enormity of the task in the former case, and the complications that would inevitably arise from the number of cultivators and plots of land brought within the scope of the scheme, point to more than a mere difference in degree between jute and crops like *Ganja* or *Opium*. Again, the provision, that the cultivation of the crop in excess of the specified quota should be made a punishable offence, threatens to reduce the position of the cultivators to one of great uncertainty. This is likely to be resented by the latter, and may lead ultimately to an unwelcome agrarian agitation. Such an eventuality is suggested by the fact that the scheme does not provide (what appears, according to the recent American example, to be a corollary to the scheme of compulsory restriction) for some compensation or guarantee (which the cultivators would demand) to indemnify them against such loss as may accrue from a mistake in the determination of the extent of restriction.

Moreover, the scheme does not provide for the contingency that may arise in a particular year when a crop raised in accordance with an over-estimate of the probable demand yields a surplus in excess of actual demand. In all likelihood the responsibility for providing the necessary finance to hold such a surplus crop, would devolve upon the Government under a scheme of compulsory restriction. We have given careful consideration to this particular issue, having due regard to the practice of countries like the United States of America and Japan, where the Governments have in fact been taking or are contemplating to take upon themselves the financial risks connected with particular trades. Although we regard these endeavours as highly laudable, emulation by the Government of this Province, appears, in our opinion, premature at the moment, owing to certain obvious limitations. We think that it will be inadvisable on the part of our Government to undertake such extraordinary risks until adequate and satisfactory storage facilities are available, such as the establishment of licensed warehouses at various trade centres. Besides, we are inclined to believe that the Government should, as far as possible, be spared the responsibility of a direct participation in the financial risks of the trade, as, unlike the Governments of countries like the United States of America and Japan, the Government of this Province have no control over currency affairs. In undertaking such financial responsibilities, the Government in this Province would not be able to adopt inflationary measures, but would presumably have to depend on either loans or taxes, mainly the former.

## Our recommendations.

These considerations lead us to make the following recommendations which embody the fundamental features of Dr. Sen Gupta's Bill. Our recommendations differ from his scheme mainly in that they do not contemplate legislation at the initial stage.

Our recommendations are:—

(1) That a Provincial Jute Committee, with such constitution and functions, as are stated hereafter, should be established at the earliest possible opportunity.

(2) That the functions of the said Committee should *inter alia* comprise, (*a*) preparation of the estimates of probable demand for jute in the ensuing year to be published before sowing commences; (*b*) apportionment of the entire jute growing area in the Province into "economic" blocks; (*c*) allotment of specified quotas of acreage to the different blocks, to be carried into effect by local agricultural associations or by other agencies such as union boards.

(3) That active steps should be taken by the Government, through the Agricultural and Co-operative Departments, union boards, as well as through non-official agencies, to encourage the organisation of agricultural associations of the nature mentioned above.

(4) That better organised, systematic and intensive propaganda should be adopted to acquaint the cultivator with, (*a*) the amount of accumulated stocks of raw jute in India and, as far as possible, in other countries, and (*b*) any other information or advice such as overhead prices of jute and acreage under jute cultivation for the last three years; this will assist him in deciding on what would be a reasonable area of jute to sow in order to secure an economic return for this produce. The existing administrative agencies such as the Agricultural, Co-operative, Veterinary and Education Departments and Union and Local Boards, whose help may be considered necessary for the purpose, should be entrusted with definite responsibility in this regard. No advantage should be lost to utilise the services of non-official agencies by enlisting their sympathy and giving them necessary facilities.

It would be useful to outline the method of working the scheme. At the outset, the Jute Committee will prepare with the assistance of experts an estimate of the probable demand for jute for the season. The same Committee will also determine the supply that would be required to meet the demand and allot specific quantities to different 'blocks' into which the whole jute growing area in the Province will have to be divided. The portion of allotment to each of the 'blocks' may be settled on the basis of the average past yield of the crop in the particular area and the proportion of the same to the total yield of the crop throughout the Province. Within each 'block' the task of the distribution of the settled quota among individual cultivators will be entrusted to some local organisations truly representative of the interests of the agriculturists or to union boards, according to rules laid down by the Jute Committee.

We believe that, based as our scheme is on the assumption of voluntary efforts on the part of the cultivators, a much more satisfactory adherence to the restrictive proposals will be ensured by it than is now possible through sporadic appeals. At the same time, improved methods of propaganda, as suggested by us, will, we hope, be adopted.

In conclusion, it may be stated that our recommendations are not contemplated to apply to all circumstances of the trade in future. On the contrary, taken along with such other recommendations as we make hereafter in connection with improved organisations as licensed warehouses and organised markets, these will be found to be conducive to the attainment of a firmer position for the trade as a whole. Our recommendations are calculated to remove some of the graver defects arising out of maladjustment between demand and supply, though a complete eradication of these may not be achieved under prevailing circumstances. An ideal adjustment, such as may be visualised, is admirably described by Mr. J. W. F. Rowe in the following words, "Instead of very low prices for a bumper crop, followed by very high prices for a short crop, it is in the interests of both producers and consumers to average out supplies and prices. This can obviously be accomplished only by holding the excess supply as a reserve stock until the short crop eventuates. If this risk is left to merchants and speculators, they will naturally endeavour to buy as cheaply as possible, and thus producers will obtain only very low prices for the bumper crop, and only average prices for the ensuing short crop, since the merchants will make good the deficiency from their reserve stocks. Hence it is argued that producers would do better to perform the task themselves, and that collectively they should be able to obtain the necessary finance more cheaply than individual merchants and speculators: thus they should reap not only the profits made by the merchants, but even greater profits". We are, therefore, impressed by the proposal of the Bengal National Chamber of Commerce regarding the establishment of an institution that should acquire control over the entire crop and dispose of them as a sole seller. The problem of such an institution (of which further discussion is made elsewhere), having the power to control production and the necessary storage facilities, presents certain difficulties which preclude the possibility of its establishment in the near future, at least so long as the agriculturists are not sufficiently organised.

We feel that the resources and organisation that are essential for the working of such a scheme are wanting at present. It does not seem advisable or possible to bring such a scheme into operation unless the cultivators themselves are fairly organised beforehand. We consider that unless the operation of the scheme is fundamentally based on the organisation and co-operation of the agriculturists themselves, any extraneous measures that may be devised for the purpose must not only prove ineffectual but also prohibitively expensive. We are satisfied that the measures recommended by us will not divert the trade from this ideal but will place it on the desired track.

## CHAPTER III.

### The Jute Forecast.

The preliminary and final jute forecasts are published in the beginning of July and the end of August, respectively, by the Director of Agriculture, on the strength of information supplied to him by District Collectors, who, in their turn, depend on ~~their revenue subordinates and, ultimately, on the presidents~~ of Union Boards. The latter receive their figures from village choukidars. It is known, however, that the estimates furnished are usually mere guesses which are always conservative and in most cases far from correct. The Director has, therefore, to depend largely on his experience and on other sources of information, in the preparation of the jute forecasts. He also utilises the information he receives from several large firms which have agents in the mufassil and prepare independent estimates for their own use.

We have received opinions from almost all sections of interests connected with jute that the one essential of forecasts, which is accuracy, has been found to be sadly wanting in the Jute Forecasts published in recent years by the Agricultural Department. It is also contended by some, especially those representing the interest of agriculturists, that the present system of furnishing estimates of the yield of the crop alone without providing any information in respect of the probable demand and stocks in the hands of consumers and traders, does not prove helpful to the cultivators; even the estimates of production are not of much value to them owing to the manner of their publication. To the traders also the official forecasts prove a fruitful source of confusion on account of their general inaccuracy. The official stamp being put on the forecast, the rates of jute are based thereon, but as the season advances, the arrivals of jute in Calcutta begin to show the mistake of the forecast. It cannot be reliably estimated how much jute is still to arrive, and this upsets all calculations. In spite of its shortcomings, and the unsteady effect it has on the market, we cannot think of abolishing the official forecast; what is required is to improve their accuracy, as far as possible.

The extent of the discrepancy between the estimates and actuals in the Government forecasts, will appear from the following consolidated table for the ten years ending 1931:—

TABLE I.

| Year. | Area (in thousands of acres). | | Revised (shown in previous year's column in next year's final forecast). | Yield (in lakhs of bales of 400 lbs each). | | |
|---|---|---|---|---|---|---|
| | Preliminary forecast. | Final forecast. | | Final forecast. | Revised (shown in previous year's column in next year's final forecast). | Actuals (arrived on the basis of exports, mill purchases and local consumption). |
| 922 .. | 1,457 | 1,456 | 1,800 | 42·37 | 54·86 | 64·36 |
| 923 .. | 2,298 | 2,313 | 2,788 | 69·96 | 84·73 | 94·21 |
| 924 .. | 2,691 | 2,733 | 2,770 | 80·45 | 81·20 | 91·65 |
| 25 .. | 2,914 | 2,926 | 3,115 | 78·51 | 90·00 | 94·07 |
| 6 .. | 3,605 | 3,630 | 3,847 | 108·89 | 121·87 | 124·07 |
| 7 .. | 3,382 | 3,371 | 3,374 | 102·30 | 102·38 | 116·11 |
| [illegible] .. | 3,166 | 3,131 | 3,144 | 99·16 | 99·56 | 110·97 |
| [illegible] .. | 3,319 | 3,317 | 3,415 | 97·67 | 103·85 | 111·44 |
| [illegible] .. | 3,507 | 3,486 | 3,492 | 112·31 | 112·55 | 103·20 |
| [illegible] .. | 1,900 | 1,858 | 1,862 | 55·60 | 55·66 | 67·04 |
| for 10 years | 2,824 | 2,822 | 2,961 | 84·72 | 90·67 | 97·71 |

The disparity in regard to yield, as shown in the above Table is quite real and of grave significance. The difference between the Final Forecasts and the revised figures shown in the next year exceeds 7 per cent. on the basis of 10 years' average, while the difference between the former and the actuals is found to be even more than 13 per cent. on the same average basis, the "actual" figures being taken as the equivalent of exports and mill purchases and also extra-factory (local) consumption estimated at 500,000 bales per year. Leaving aside the case of abnormal years of low price, when perhaps a larger stock than usual may accumulate in mufassil trading centres, such proportion of the port arrivals of jute in a particular year as is to be credited to previous year's stock in the mufassil, may be taken to be more or less constant, making a small allowance for a margin of error. Considered on this basis, the incorrectness of the forecasts must be considered serious indeed, as will appear from the following table:—

TABLE II.

| Year. | | Final forecast of the year. (A). | Actual (Exports, mill purchases and local consumption). (B). | Difference. | Percentage of difference calculated on the basis of (A). |
|---|---|---|---|---|---|
| | | (*In lakhs of bales of 400 lbs. each.*) | | | Per cent. |
| 1922 | .. | 42·37 | 64·36 | 21·99 | 52 |
| 1923 | .. | 69·96 | 94·21 | 24·25 | 34 |
| 1924 | .. | 80·45 | 91·65 | 11·20 | 13·8 |
| 1925 | .. | 78·51 | 94·07 | 15·56 | 21 |
| 1926 | .. | 108·89 | 124·07 | 16·18 | 13·7 |
| 1927 | .. | 102·30 | 116·11 | 13·81 | 13·7 |
| 1928 | .. | 99·16 | 110·97 | 11·81 | 12 |
| 1929 | .. | 97·67 | 111·44 | 13·77 | 14 |
| *1930 | .. | 112·31 | 103·20 | −9·11 | −8 |
| 1931 | .. | 55·60 | 67·04 | 11·44 | 20 |
| Average for 10 years | .. | 84·72 | 97·71 | 13·09 | 18·6 |

The disparity, as shown in the above Table, which is more than 5[0] per cent. of the estimate in a particular year, is obviously serious an[d] unjustifiable, and suggests the necessity of exercising the greatest ca[re] in preparing the forecasts to make them approximately correct wit[h] a reasonable margin of error. Otherwise, instead of being hel[p-]

*The actual is found to be less than the estimate presumably on account accumulation of stock in mufassil for low prices.

as indeed they are meant to be, the forecasts mislead the market, causing violent fluctuations, wide discrepancy with the trade's estimates of the crop giving rise to speculation. The need for more accurate official forecasts under ~~the circumstances~~, is obvious, especially in view of the fact that in spite of the present inaccuracy in the Government forecasts, trading interests in general, and the ultimate buyers in particular, depend upon the Government reports which they consider to be more authoritative and more accurate than the private estimates.

The rough and ready manner in which the estimates are prepared by the Union Boards necessarily make them inaccurate. The basic data being faulty, it becomes wellnigh impossible for the Director of Agriculture to amend them so effectively as to ensure even an approximate degree of correctness of the forecasts.

There are many, who think that the Government jute forecasts, however accurate, help only trade interests and serve no useful purpose so far as the jute growers are concerned. We do not subscribe to this view. Even if the Government forecasts were not published, other trade estimates are available, and the Government estimate is admittedly unbiassed and free to all. A good deal of this objection will disappear if the cultivator were supplied, in his turn, with such information as would enable him to decide how much jute to grow. We have made proposals to this effect in connection with the Bengal Jute Committee, embracing the supply of such information to the cultivator.

On frequent occasions the members of the jute trade in Calcutta have pointed out that in addition to the preliminary and final jute forecasts, it is desirable that interim weekly or fortnightly reports, containing information regarding the estimates of sowing as compared to the previous year, the progress of the jute crop, stocks, the effect of weather, rise or fall of rivers, pests, etc., should be published. It is contended by the trade that the furnishing of this information would go a long way to prevent undue speculation which is liable to take place on the preliminary forecast, and particularly during the long interval between the preliminary and final forecast. A certain amount of such information is already published in the weekly crop reports by the Director of Agriculture, but lack of staff in the districts has hitherto made it impossible that the information could be anything but meagre and indefinite in nature. We believe that publication of the weekly or fortnightly reports, as suggested above, will be useful and we recommend that such reports besides being published in the "Calcutta Gazette" should be available to subscribers in the form of bulletins as often and as early as possible, because time is a material factor with trade in this respect.

For several years, up to and including 1923, a staff of "Jute clerks" used to be employed from April to September in each year—to assist presidents of union boards in preparing their estimates of jute cultivation. These men were not a success, as supervision by the Department of Agriculture was difficult. We consider, however, that such difficulties will not be experienced on the establishment of the Jute Committee, as the agencies and staff that will have to be provided in connection with the regulation of the cultivation of jute, propaganda, etc., will also be available for rendering necessary assistance in the preparation of the jute forecast. A really careful annual survey of a few villages in two or three parts of a district would yield a much better basis for an estimate than anything which is at present supplied to the Director of Agriculture from the districts. Incidentally, such a survey would be of use in other ways as it need not be confined to jute.

We further recommend that as an experimental measure, and for the purpose of acquiring experience, the forecasts be published not only under the present system but also on the basis of comparisons with the previous year. This will, for some time, give two sets of figures, but will enable the authorities and the Jute Committee to ascertain where the defect lies and to introduce the necessary improvements in future,

We recommend that both the jute forecasts, as well as the interim reports, be published not only in the Government Gazette and in English papers but also in the vernacular press.

## CHAPTER IV.

### Marketing of Jute.

The marketing of jute has been the subject of much concern in recent years. The Royal Commission on Agriculture, the Central Banking Enquiry Committee and the Bengal Banking Enquiry Committee have each devoted attention to it. It is, therefore, not necessary for us to describe the entire process in any great detail, and we shall confine ourselves to giving a very general idea of the system that prevails at present.

### Internal Trade.

*Present organisation of the market.*

The cultivator sells his produce to the *Faria* or the *Bepari* at his home or at the "Hat." The *Faria* sells his stock to the *Bepari*. The *Bepari* sells to the *aratdar* or the *Mahajan* as also to representatives of the Calcutta merchants or jute balers, who maintain organisations in the mufassil. At times, the *aratdars* themselves act as agents on a commission basis. In cases where jute is despatched to Calcutta for sale, it is generally bought by the balers. This jute is either sent by mufassil merchants or *Mahajans* to Calcutta *aratdars* (when the former have no agents of establishments in Calcutta), or is brought down by Calcutta merchants. The *aratdars* in such cases generally advance a portion of the price on the Bill of Lading and sell the jute to balers. They deduct *aratdari* and other charges from the sale proceeds and hand over the balance to the mufassil merchant. Generally, the latter have their men in Calcutta to watch their interests and often to negotiate sales direct. This is what takes place in Hatkhola and some of the other markets. On the other hand, Cossipore, where also jute is sent from the mufassil, has in recent years become an auction market. Mufassil merchants and Calcutta dealers often bring their jute to Cossipore and sell it in a market that has developed around the station. There are practically no storing facilities in the locality and so the sellers have to dispose of their jute quickly on its arrival. In times of good trade there is keen demand to buy, but at times of depression, the sellers, in the absence of storing facilities and ability on their part to hold stocks, are generally at the mercy of the buyers. Cossipore is at present the most important market for the sale of loose jute in Calcutta. The Calcutta merchants do not generally buy loose jute in these markets except for speculative purposes. Generally it is the balers who purchase from these markets. The mills, as a rule, buy on forward contracts, and the jute is despatched direct to them. With few exceptions, mills buy through European brokers. These brokers have Indian underbrokers who practically do everything in connection with securing supplies from Calcutta balers or merchants. The underbrokers get a small share of the commission. The loose jute sold in Calcutta is sent either in drums of about 1 maund weight or in *kutcha* bales of 3½ and 1½ maunds.

Thus we may enumerate the middlemen in the movement of jute from the agriculturists to the jute baler or jute mills as follows:—

(1) *Faria.*
(2) *Bepari.*
(3) *Aratdar* or mufassil agent of Calcutta merchant or baler.
(4) Broker.

The functions of the *Faria* and the *Bepari* merge into each other, but the latter usually works on a larger scale. He may either be a merchant or an agent, according to whether he works on his own capital or on commission. Both purchase jute either from the cultivator in the village, or at local Hâts, and bring the fibre by boat or road either to the baler or to the godown or *arat* of an *aratdar*, depending on whether the arrangement is made with the former or the latter. Usually, the *Bepari* is sent out into the district by the up-country baler or by the *aratdar*, with instructions regarding the price he may pay. If he works on commission, he gets about 9 pies in the maund, and if he works on his own, he tries to buy from the cultivator at such a price as will leave him a profit, after meeting the price paid to the cultivator and transit charges, which are deducted from the balers' price. Sometimes the *Bepari* cannot buy from the cultivator at the price offered, and if he is working on his own, he may pay the cultivator's price, in the hope that the market will rise, or having bought the fibre he may resort to the practice of damping it so as to increase the weight sufficiently to give him the necessary profit, provided the baler does not detect the water. Usually the watering is done when the *Bepari* is working on his own. If he is acting as the agent of a baler, the latter protects him and pays the extra price which the *Bepari* has had to pay to the cultivator.

## Cost of Movements.

The entire cost of movement including all costs of transit, such as railway or steamer freight, etc., amounts to Re. 1 per maund on the average; in some cases it is as high as Re. 1-4 or Rs. 1-8 per maund, *i.e.*, the grower gets a price for his jute less by this amount than that which is paid by the jute mills or the jute baler in Calcutta.

Several witnesses have complained that the railway and steamer freight rates for jute are unduly high and weigh very heavily on the trading and agricultural interests. The Indian Chamber of Commerce pointed out that, during the present depression, instead of reducing their rates on jute, as might have been reasonably expected, some of the transport agencies actually increased their jute freight to compensate for losses on the freight earnings on other commodities. The attention of the Committee was drawn to the fact that the freight charged by the steamship companies at the time of the enquiry was even higher than what it had been in 1918, and also that all the appeals made by the traders to the railway and steamship companies for a reduction of the freight had failed.

In the interest of the jute trade, as well as of the agriculturist, we consider it essential that the freight charges for jute carried to Calcutta should be reduced during times of depression. Though a proportionate reduction may not be expected in view of fixed minimum charges incurred by the transport concerns, a material reduction from the present level is nevertheless possible. Last year, the transport charges amounted to 30 or 40 per cent. of the selling price of the fibre Presumably, it is this fact that accounted for the much larger quantity of jute than usual being sent to Calcutta in country boats, in which case the freight was ½ to 1/3 of the railway freight. While the country boat offers a cheaper means of transport, it has certain limitations, since transport by these boats involves to a much larger extent the dangers of delay and accidental loss. While the former need not be considered as a serious defect in a stable condition of the market, the latter is more serious and can be minimised only by devising necessary insurance facilities. Special investigation should, in our opinion, be made by the insurance companies and the traders regarding the feasibility of providing insurance facilities that will greatly encourage country boat traffic to the great advantage of the jute trade. We also deem it necessary that the Local Government should urge upon the railways and steamship companies to give more sympathetic consideration to the claims pressed on them for a reduction in the freight on jute.

## Allowances.

The custom of giving allowances by the sellers is as common in dealings in jute as it is in the case of other commodities. Some of these are:—

(a) "Excess", commonly about 1 seer in the maund.

(b) "Sample", commonly about 1/8 seer per maund,

(c) "Kabari", commonly about 1/5 seer per maund.

(d) "Bachhat", commonly 1/5 seer per maund.

(e) "Dhalta" or "Dholka" is an allowance for dryage in districts where jute is brought to market in a more or less damp condition.

All these allowances are of ancient origin, and in no district do they all apply.

*Excess.*—Formerly it used to be the custom to deliver 103 maunds against an order for 100 maunds, on the principle of the "baker's dozen" in England. Now-a-days, the excess is taken into consideration in fixing the price of jute, and it may be contended that the seller is not a loser by reason of this practice.

*Sample.*—Theoretically, a sample is a portion exacted by the buyer in sampling a consignment of jute.

*Kabari.*—It is a kind of gratuity or commission given by the seller to the buyer's purchasing staff.

*Bachhat.*—This is connected with the weighing of the consignment. At the end of weighment, any residue, not equivalent to the smallest weight used, is not counted in the weighment.

"Sample", "Kabari" and "Bachhat" are very small items.

It is sometimes represented that these allowances are the means used by buyers in victimising the person from whom they buy jute. But as already remarked, each represents a very old and recognised custom, and in every case the buyer has to pay a correspondingly higher price on account of allowance. Whatever that may be, it would, we think, avoid considerable misunderstanding and trouble and make for simpler working, if all the allowances were abolished. The buyers in that case would probably make separate charges for the services for which allowances are claimed at present.

## Weights and Measures.

In Bengal, as in other Indian provinces, weights and measures differ from district to district, and though, generally, they are common in their respective areas, the difference between the standard weights and the local ones exposes the cultivators to the danger of being cheated by the dealers. The most objectionable feature of dealings in the mufassil markets is not, however, so much the variety of weights as the short weights given by *Farias*, *Beparies* and sometimes even by Calcutta merchants. It has been brought to our notice that properly made weights are not often used in certain market centres. No doubt the cultivator is at present more familiar with the local weights and with prices quoted in regard to them, than he would be with prices quoted for standard weights, but it cannot be denied that such differences in weights often offer opportunities of cheating. To guard against this possibility, upcountry agents of baling firms invariably convert the price of the standard maund at which jute is quoted at Calcutta, to that corresponding to the local weight before giving buying instructions to the *Bepari*. The extent of the chaos that prevails in this respect can be gathered from the fact that as against 80 tolas which make a standard seer, a local seer may vary from only 60 tolas to 110 tolas.

## Standards of Quality.

Jute is perhaps the only commodity in the world having no fixed standards of quality. In the mufassil, business is mostly done on inspection, and in the Calcutta markets ready jute is sold to the *pucca* balers also mostly on inspection. The jute mills enter into forward contracts with the Calcutta merchants on the basis of fixed standards, but very often the grade specifications are rendered completely ineffectual by the purchasing policy of the mills, which compels the sellers to deliver superior qualities of jute against contracts for lower grades, with the result that for all practical purposes the standards vary from season to season, and often even in the course of one season. Serious complaints have been received by us from the trade about this state of affairs. Evidence has been given to show that as a result of this forced depreciation of higher standards, it is not only the Calcutta merchant that loses, but also the agriculturists who are not exempted from its adverse repercussions. In regard to the sale of jute in the mufassil by inspection, it appears that although the agriculturists are fairly shrewd in making distinctions of quality they frequently lose on the transactions. We shall return to this question later.

## Criticisms.

The following are the criticisms that are made in regard to the movement of jute:—

1. The agriculturist is not in direct contact with the big merchants.

2. The agriculturist works in an atmosphere of suspicion and is not satisfied that the price he obtains is one which he may rightly expect.

3. The system of allowances, mentioned above, increases the agriculturist's suspicion.

4. The differences in weights, and the absence of standard weights and scales, do not enable the cultivators to calculate properly the price that they should get on the basis of the prevailing Calcutta price, and engender a suspicion that their goods have not been properly weighed.

5. The absence of fixed standards leaves the question of quality in great uncertainty. Nobody at any time knows where he stands.

6. The agriculturist does not obtain proper information about the demand for jute, or the prevailing rates at other centres, or at the Calcutta market.

### Remedies.

The following remedies have been suggested to us:—

1. Co-operative sale societies should be started among the cultivators.

2. Regulated markets should be established.

3. Arrangements should be made to give the agriculturist suitable information about the demand for jute and prevailing rates.

4. Weights should be standardised.

5. Standards of quality should be definitely fixed.

We shall deal with these suggestions *seriatim*.

### Co-operative Societies.

As has already been mentioned, each individual cultivator sells his jute to the *Faria* or *Bepari*. He does not generally come in direct contact with the Calcutta merchant or the jute baler or the jute mills; though it may be possible in some cases for the jute cultivator to sell his jute direct to the representatives of the Calcutta merchant or jute baler (none of the jute mills send representatives to the mufassil for the purchase of jute), it is not feasible for the individual cultivator, in the present circumstances, to deal direct with the merchant or baler. If a cultivator tries to sell direct to the jute baler or the Calcutta merchant, the underlings of the baler or merchant try to take undue advantage of the cultivator. It has not been possible for us to enquire into the correctness of statements to this effect made by witnesses, but the feeling exists among the cultivators.

At the present moment, it cannot be doubted that the agriculturist lives in an atmosphere of darkness, ignorance and helplessness. Both from the cultural and progressive points of view, it is necessary that an endeavour should be made to improve his position. It is the duty of the Government to endeavour to bring knowledge, progress, ideas and hope into his home. The solution may be full of difficulties but the duty, both of the Government and of the people, is not ended merely by pointing out the difficulties, it is also incumbent upon them to devise and adopt means to overcome the difficulties.

So far as the sale of jute by the cultivators is concerned, the best solution lies in the establishment of co-operative societies for the purpose of collecting jute from the cultivators and selling it to the big merchants. These societies would collect jute from all their members, assort them according to qualities and sell the whole according to quality to the merchants. They should not buy jute from the cultivators, as such purchase would be directly opposed to the principle of co-operation, and may involve the societies in financial loss. We believe, that the failure of the co-operative jute sale societies in the past is due to their purchasing jute and having to bear the risk of fall in prices.

As the cultivators are in the habit of receiving full value in exchange of their jute, it may be necessary for the co-operative societies to advance, say, 60 per cent. of the current value to the cultivators upon delivery of the crop. The societies should not, however, hold the jute for any length of time, but should sell it at the earliest possible opportunity. They should not run the risk of market fluctuations. The question of financing the co-operative societies, which must be considered essential to their proper functioning, is discussed in a subsequent paragraph.

It has been contended that the movement of jute by the co-operative societies may not be found to be cheaper than it is under the present system. If so, it would not be due to any inherent or irremovable defect in the system, and we fail to see why, with the advantage that should come from co-operative working, the expenses should not ultimately come down and a better price not realised for the cultivator. The matter is of sufficient importance to justify the formation, in the first place, of experimental village jute societies under the supervision of the Co-operative Department, who should assist and guide them on the right lines. If the necessary facilities are provided and proper attention and supervision given, we see no reason why co-operative jute societies should not prove to be a great boon to the people, not only in the sale of jute but also by extending their activities subsequently in other directions, as for instance, in purveying to the requirements of the people and helping the cottage industries.

## Regulated Markets.

The evidence of jute balers and buyers before the Committee is that marketing in the mufassil is satisfactory and that there is no necessity for reform. This has been repudiated by the growers before our sub-committee which visited the jute districts, and if we may rely on the authority of the various Committees and Commissions, we can have little doubt that the present marketing arrangements are chaotic, antiquated and prejudicial to the interest of the growers. The Royal Commission on Agriculture, which dealt with the subject in detail, recommended in their report the establishment of properly regulated markets for jute. Even before the publication of the report of the Commission, the need for the establishment of regulated markets in India had been stressed by competent observers*. Most of the witnesses appearing before us have endorsed the proposal for organising regulated markets, and after giving their proposals very careful consideration, we are completely in agreement with their views. After the very thorough examination of the question by the Agricultural Commission, and successful working of the regulated markets in Berar, the Central Provinces, Bombay and other centres, a detailed discussion on this question would be deemed superfluous; but as certain questions have been raised in the Majority Report, regarding the benefit of regulated markets to the cultivators, we have thought it advisable to deal with the subject at some length.

The principle underlying the proposal for the establishment of regulated markets is that of collective dealing which avoids or reduces the element of cut-throat competition. It is only by this means that the cultivators of specified areas could be brought together in a central place and thereby enabled to negotiate more satisfactorily

* Annual Report of the Indian Central Cotton Committee for the year 1923.

with a large number of buyers; these latter would not then have the cultivator at a disadvantage as they now have in dealing with them individually in isolated villages. Standardised weights and measures, and the possession of reliable market information would also serve to remove many of the existing handicaps of the cultivators. As the Royal Commission on Agriculture rightly point out, "where the cultivator is in a position to dispose of his produce in a market, however limited its scope and badly organised its character, he obtains a much better price for it, even when the cost of transport is taken into consideration, than when he disposes of it in his own village."* The Commission arrived at this conclusion after a careful examination of the marketing conditions of the various provinces, and their statement is fully corroborated in the report of Mr. T. N. Ray,† who was deputed specially for the purpose of our enquiry to study the regulated cotton markets in the Central Provinces. A perusal of the letters‡ from Mr. Plymen, Director of Agriculture, Central Provinces, to our Chanrman, and the note** on the subject by the Acting Director of Agriculture, Bombay, also point to the same conclusion. We find from Mr. Ray's Report that, though it is not possible to evaluate the benefit that accrues to the growers from the sale of cotton at the regulated markets, "opinion seems to be unanimous that the present regulated markets are an improvement over the non-regulated ones."

Mr. Plymen points out from his experience of the regulated markets in Berar that the cultivators prefer to sell in the markets where they are assured of a "more square deal", and where all deductions, etc., are strictly regulated than in the villages. Being represented on the market committees, they are also enabled to prevent or check buyers from cheating them, and to get fairer price for their products than would otherwise be possible. Mr. Plymen is further of opinion that in spite of some defects which still exist in the management of the regulated markets in Berar, irregularities and victimisation of small men are less than they used to be before the establishment of such markets.

Similar views are expressed in the note by the Acting Director of Agriculture, Bombay, who, referring to the operation of the regulated market at Dhulia says *inter alia* that "there are now no unauthorised deductions or trade allowances, the contents of the carts being actually weighed and accounted for. Previous to the regulated market, there was no control over the weights, and cotton weighing less than a maund or fractions of a maund was not weighed and was unaccounted for." Continuing he says, "the object to secure to the cultivator better prices, fairer weighment, freedom from illegal reductions, has, to a large extent, been served by the regulated market at Dhulia."

These references amply testify to the beneficial effects of establishing properly regulated markets in large numbers. The factors which operate at present against the scattered and illiterate cultivators can be removed to a great extent by the setting up of these markets, and we strongly recommend that the question of establishing regulated markets should be taken up by the Local Government at an early date. We recognise that, for various reasons, it may not be immediately possible to start regulated markets in all the centres, but we believe that the

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* Royal Commission on Agriculture, Report, paragraph 326.
† *Vide* Appendix XIV (b).
‡ *Vide* Appendix XIV (a).
** *Vide* Appendix XIV (c).

object would be, to some extent, achieved, if a beginning be made by establishing a number of such markets at the more important centres. The indirect effect of this step on the general tone of the market can hardly be exaggerated. The very knowledge that a fair deal would be obtained at a neighbouring regulated market will create in the minds of the cultivators a feeling of confidence, and strengthen their bargaining power as against the buyers, thereby inducing them to hold on their crops till better price is realised.

Undoubtedly, all the objects of setting up regulated markets have not been fulfilled in Berar, the Central Provinces, or Bombay. We shall presently deal with these cases, but to conclude from this fact, that the movement has totally failed or that little good will accrue from the establishment of regulated jute markets in Bengal, is, in our opinion, not justified. We have the testimony of such authoritative bodies and persons as the Indian Central Cotton Committee, the Royal Commission on Agriculture, the Directors of Agiculture of the Central Provinces and Bombay and Mr. T. N. Ray, as to the benefits which have accrued to the cultivators from operations in the regulated markets. The Agricultural Commission, indeed, were so greatly impressed with the actual results, as also with the potentialities of the regulated markets, that they strongly recommended the establishment of such markets in other provinces than the Central Provinces and Bombay, and for other commodities than cotton. The fact, that due to defective rules or defective management the cultivators have not been able to reap the fullest benefit, hardly detracts from their undoubted merits.

The consuming interests will also, in our opinion, find it profitable to operate in these regulated market, as frauds are sometimes perpetrated on them by the cultivators, who resort to various subterfuges, adulteration and the mixing of different qualities of jute or damping the fibre with water. Such malpractices would cease on the establishment of properly regulated markets, and as the Agricultural Commission point out, "the buyer is much more likely to obtain satisfactory quality in such markets than by any other method of purchase."

We recognise that conditions are not favourable in certain places for setting up regulated jute markets immediately, but the difficulties are neither many nor insuperable. We are definitely of opinion that these difficulties (of a minor nature) should not be allowed to stand in the way of the establishment of regulated markets at an early date. It has, for instance, been suggested that—

(1) the vast area over which jute is cultivated makes it impracticable for the establishment of regulated markets;

(2) the large number of small cultivators, each producing a few maunds of jute, may not find it profitable to take advantage of the facilities afforded by regulated markets;

(3) the cultivators will be disinclined to resort to regulated markets because of (*a*) the difficulty of transport, and (*b*) the convenience of the cultivators in disposing of their crop in the village, without taking the trouble of sending it to the regulated market situated at some distance.

We do not agree that the extent of the area under cultivation of jute has any relation to the question of regulated markets. Even if the area were more extensive, the difficulty, as is envisaged, could be met by establishing a larger number of markets in important centres. The area actually under jute cultivation is, as a matter of fact, much smaller than that under cotton in the Central Provinces and Berar. Taking India as a whole, we find that in 1930-31, the total area under the cultivation of cotton was 14·201 million acres, as against 3·402 million acres of jute. Corresponding figures for cotton in the Central Provinces and Berar and jute in Bengal during the same year were 4·750 million acres and 3·028 million acres, respectively. It is thus clear that even if we admit the theoretical soundness of the argument that a scheme of regulated markets depends for its success upon the comparatively small extent of the cultivated area, which indeed we cannot accept, circumstances are more favourable in Bengal than in the Central Provinces and Berar, where regulated markets are being run fairly successfully.

The argument that a large number of small cultivators, each producing a very small quantity, may not find it profitable to operate in regulated markets appears *prima facie* convincing, but it loses force on a closer scrutiny. It will be found from the *Estimates of the Area and Yield of principal crops in India for 1931-32* that the smallness of the average holding of jute cultivators of Bengal is more than amply compensated by the larger yield of jute per acre. The normal yield per acre of cotton (ginned) in the Central Provinces and Berar is only 102 lbs. as against 1,331 lbs. of jute in Bengal. This higher yield has resulted in the *per capita* production of jute in Bengal being worked out at a fairly satisfactory figure (about 48 maunds) from the point of view of the regulated markets. The cultivators producing smaller quantities would combine with one another and send their combined crop for sale in the regulated markets, and co-operative jute sale societies, each of which should comprise a few villages, will help and facilitate the combination. Those who would not combine with others in pooling their output will, of course, have to sell their crops, as at present, individually, but even they would stand to gain considerably as a result of the general improvement of the tone of the market, consequent on the successful operation of regulated markets in the neighbourhood. We consider that if regulated markets are properly managed, the resulting benefit will be shared alike by the big and the small cultivators.

Coming next to transport charges, it may be pointed out that with the establishment of regulated markets in suitable localities, the extensive network of rivers and canals in the jute districts will facilitate the transport of the fibre at a very cheap rate. It appears from the report of Mr. T. N. Ray that in Berar, cultivators "who have more than a cartload to sell have been known to have travelled up to 30 miles." We are convinced that if the cultivators are assured of a fair deal and a fair price, they will not hesitate to incur a small expenditure on account of transport for the conveyance of their goods to the regulated markets. It is also likely that local bodies like District and Local Boards will take steps to improve the system of communications between the interior villages and the centres in which markets are established.

The convenience of the cultivators in disposing of their crop in the village itself and their unwillingness to take the trouble of going to the regulated markets, situated at some distance from their village, will not, in our opinion, seriously affect the usefulness of organised markets. The advantage of freedom from the fraudulent transactions, in the matter of weights, prices, allowances, etc., will act as a spur and inducement to the cultivators, to put up with whatever little inconvenience they may feel in conveying their goods to the regulated markets. On the other hand, we consider that if, as we suggest, reliable market information is supplied in the regulated markets, and if licensed warehouses are set up at centres, adjacent to or near the regulated markets, the cultivators will be only too glad to take advantage of these facilities. It is quite possible that the benefit of regulated markets may not be appreciated at the beginning, as the cultivators may not, in all cases, be sufficiently conversant with the extent of benefit that is likely to result from them. They may not feel inclined to take advantage of the regulated markets at first, but we are convinced that if several markets are at once set up in important centres, and if they are properly worked to the utmost advantage of the cultivators, and, further, if the results of the working of these markets are broadcast, the cultivators in other areas will themselves come forward and demand the establishment of such markets.

We have given our careful consideration to the question as to whether these regulated markets should be established under special provincial legislation, or whether the purpose would be equally well served by authorising the municipalities or other local bodies to set up such markets in their areas. We are of opinion that this matter should not be left to the local bodies, as in that case, apart from leaving the markets to be opened at the option of the various local authorities, it will also be difficult, if not impossible, to ensure that the interests of the cultivators would always be properly safeguarded. In the first place, the cultivators, as a rule, have very little voice in the administration of these local bodies, which are practically dominated by other interests; secondly, the local bodies, being mainly interested in the financial aspect of these markets, cannot be expected always to look to the interests of the cultivators in those cases in which their revenues are at stake. Again, if the organisation and regulation of the markets be left entirely in the hands of local bodies, they will lack uniformity in their function. We are of opinion that these markets should be established and function under a uniform set of rules and regulation under one central body established by legislation, and we therefore recommend that special legislation on the lines of the Central Provinces Cotton Market Act of 1932* (published as an Appendix to the Questionnaire issued by us) be passed at an early date.

We now come to the question of the constitution of the market committees. As has been pointed out by the Agricultural Commission, the partial failure of the regulated markets in Berar was due to certain provisions in the constitution of the markets which had the effect of debarring *bona fide* cultivators from being elected to the market committees. The Commission had made certain definite recommendations in this behalf, in purusance of which, the Central Provinces Cotton Market Act, passed towards the end of last year, provides that not less than half the members of the market committees should be elected by cotton growers, who have further been so defined as not to include dealers or brokers in cotton, although such persons may grow cotton. This does not, however, mean that the traders have been excluded from the market committees in the Central Provinces. As a matter of fact, they have been given their due share of representation. We would emphasise that the cultivators, being more vitally interested

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***Vide* Appendix 1-A.

in the sound management of the markets, should be allowed to elect at least half the number of the members of the committees.

The law should provide that when a regulated market has been established at a certain place, no unauthorised markets should be allowed to exist within the area of the former or within a specified distance therefrom. The reason why we recommend this is that whenever a regulated market is set up in any area, efforts may be made by interested parties to set up a rival market in the neighbourhood and take other steps to divert the cultivators from the regulated market to the unauthorised one. If no effective check is imposed, the whole object of the regulated market will be frustrated. The prohibition will mean no hardship to the cultivators who should be left free to dispose of their products in any way they like and wherever they please. Initially no area should be definitely specified for the regulated markets with the idea that the entire jute crop grown within such area should be sold in that particular market. Such a restriction at the beginning would be inadvisable, being likely to raise suspicion in the minds of the sellers. It will be better to make the sellers feel that the organisation is useful to them, and if properly conducted, these markets will certainly win the favour of the raiyats. The reputation established by a market committee is an important factor, and no efforts should be spared on the part of such a committee in building up a sound reputation for themsélves among the cultivators. It has been the experience of the Agricultural Department in the Central Provinces, that cultivators do not hesitate to travel long distances, in order to go to a really good regulated market even when they have other markets nearby, which are not well reputed.

Finally, as regards the cost of maintaining the regulated markets, the ideal is that they should be self-supporting and maintained by a levy of scheduled fees on weighing and grading. It is premature to say, before having actual experience of the working of such markets, whether the ideal position would be attainable at the initial stage, though we believe the circumstances are particularly encouraging. It may be that, in the existing circumstances, the raiyats at times do realise good prices and that the middlemen suffer loss; that, however, is extremely infrequent and it can hardly be denied that even in such cases, suspicion lurks in the mind of the cultivator. To take a pessimistic view, the charges to the raiyats may prove slightly high at the beginning, but eventually they would assuredly be capable of reduction. The underlying purpose of our proposals is to bring the raiyats as close as possible to the actual consumer in order to bring about a comparatively stable condition in the trade. Above all, the raiyats will have the satisfaction that they get the right price in the conditions prevailing in the market. Even the pooling of the crops of small individual growers would not, in our opinion, present any serious difficulty, as we believe that with slight education the men in charge of the operations of the co-operative credit societies would soon become acquainted with the standard grades of the fibre.

## Arrangements for Information.

One of the important functions that will fall within the scope of the regulated markets is the proper dissemination of market information regarding jute among their respective constituents. The need for such information as well as the agency by which the same should be compiled have been considered elsewhere. With reference to the regulated markets, in particular, we recommend that the following information should be made available through these markets to the cultivators:—

(1) Stock in Calcutta and outside India.

(2) Prices in Calcutta from day to day.

(3) Amount, value, source and destination, etc., of imports and exports.

(4) Weather reports.

(5) Any other relevant news regarding jute.

## Standardisation of Weights and Measures.

We have already referred to the needless complications and unevenness in practice, as between market and market, arising from the variety of weights and measures in vogue in different parts of the Province. While it is probable that the cultivators, being more familiar with local weights and prices, do not actually suffer much hardship in selling their commodities, we nevertheless consider that a reform in this respect is urgently called for, not only to avoid chances of fraud practised by unscrupulous dealers, but also in the larger interests of trade and commerce. There has, no doubt, been no great demand from the general public for the standardisation of weights and measures; we do not also deny that the inertia of public opinion may be too great to allow any reforms being effectively enforced; it is, however, significant that we have met with no opposition from any quarters to the proposal that weights and measures should be standardised by law.

We recognise the difficulties that stand in the way of a scheme of standardisation of weights and measures being successfully operated. The Government of India appointed a committee in 1913 to investigate into the subject, and the committee made certain valuable recommendations. But no effect could be given to them, as a common standard for the whole of India could not be enforced owing to the obstacles presented by the existence of different local customs in different areas. Later on, difficulties arising from financial stringency prevented the implementing of measures contemplated in the Berar and Bombay legislations in regard to weights and measures which have since been enacted. We recognise the force of these difficulties, but we are of opinion that if it be not possible to enact and enforce an all-India legislation immediately, action should be taken by the local Government, and monetary consideration should not be allowed to postpone the adoption of a common standard, at least for jute. In view of the economic importance of the fibre, we strongly recommend that the standard weight should be introduced as early as possible by law, at first, in the jute trade only. Its extension in other directions may be postponed for the time being, if circumstances do not warrant such extension to other commodities. It will no doubt involve, as we have already pointed out, some difficulty to administer any legislative act enjoining standardised weights and measures, but we do not consider this to be insuperable, and we believe that much can be achieved by determined progressive efforts.

We have already recommended that at regulated markets standard weights only should be permitted to be used. The formation of co-operative sale societies will further help the progress of ideas in favour of standard weights. We would further recommend that standard weights should be introduced wherever possible, e.g., in municipalities, jute buying centres, baling centres, etc. We have no doubt that if a uniform system in weights and measures be successfully enforced in these centres as well as in the regulated markets, its adoption in other centres and interior villages will only be a matter of time. We also recommend a systematic propaganda in favour of standardisation; if the cultivators and traders are fully acquainted with the advantage of a system of standard weights, the prejudice against it will soon die out.

## Standardisation of Quality and Grade.

The question of fixing standards of quality in connection with loose jute has been specially referred to our Committee by the Government in their letter, dated 2nd March 1933, from the Joint Secretary to the Government of Bengal, Commerce and Marine Departments.* We have received much evidence on this question. There is a large volume of evidence given before us that the absence of fixed standards of quality and the change in the standards from time to time adversely affect all the sellers of jute including the agriculturists. The Indian Jute Mills Association, however, think that there should be no interference with trade in this matter and that in future they would see that fixed standards of quality are maintained. We regret to find, however, that in spite of the fact that for several years the Indian jute mills have been pressed to maintain uniform standards of quality, this has not been done. It has been brought to our notice that even while our deliberations were going on, the jute mills had been attempting to change the standards. R's, L.R.'s and X.L.R.'s have been in vogue this season. In recent months, the jute mills have been insisting on buying L.R.'s and X.L.R.'s only for August and September, knowing full well that these qualities do not arrive in these months. The jute mills have been doing so with the intention that R's quality will have to be delivered under contracts for L.R.'s. This is done in spite of the repeated undertakings given by the jute mills to maintain the standards and in spite of the past agitation on the subject.

The Federation of Indian Chambers of Commerce and Industry, at their meeting held in December 1928, recommended to the Government that the proposed Central Committee for jute should, amongst other things, try to promote legislation for the fixation of permanent standards of quality for all dealings in jute. At its next annual meeting, the Federation passed the following resolution:—

"In the opinion of the Federation, the absence of definite standards of quality for dealings in jute is very harmful to the interests of the cultivators and to the large body of merchants engaged in the jute trade. The Federation, therefore, requests the Government of India to take early steps to bring about the establishment of a Jute Grading Board on the lines of the Philippine Grading Board for hemp."

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* *Vide* Appendix XIII.

At a meeting of the various jute interests, namely, importers, balers, shippers and brokers, held in Calcutta on the 25th January 1929, which was presided over by Mr. D. P. Khaitan, the following resolution was passed:—

"That the Government of Bengal should introduce legislation at the earliest possible opportunity to fix definite standards of quality for all dealings in jute as has been done by the United States of America Government by passing the Cotton Standard Act."

This resolution too has been specially referred to us by the Government of Bengal.

The Bengal Provincial Banking Enquiry Committee went into this question and recommended that owing to the loss suffered by the cultivators, the standards should be made definite by some special legislation "on the lines of the American Cotton Standards Act."

The Central Banking Enquiry Committee discussing the question of fixation of jute standards also observed: "In view, however, of the great importance to the producer, the standards should be fixed as early as possible, and we further recommend that the local Governments concerned should take prompt steps for the fixation of proper standards of jute."

In spite of such definite recommendations of the Bengal Provincial Banking Enquiry Committee and of the Central Banking Enquiry Committee, we regret to find that, not only no legislation has been introduced on the subject, but changes in the standards of quality during one season and from year to year have continued at the same pace as before.

The Indian Chamber of Commerce in their letter, dated the 25th July 1932, to the Secretary to the Government of Bengal, Commerce Department, rightly stated as follows:—

"As a result of the agitation carried on by the Bengal Jute Balers Association, the pressure of public opinion and at the recommendation of the Bengal Chamber of Commerce, the Indian Jute Mills Association on the 22nd June 1929 issued a circular No. 64D, according to which the marks for all future seasons, whatever the quality of the season, were to be 1's, 2's, 3's, and 4's and 'Rejections' were to be the lowest mark. The Jute Mills Association have not adhered to this circular of theirs with the result that standards have continued to change as before, and the sellers of jute are in the same disadvantageous position in which they were before the circular was issued. Even during the season 1929-30, a new grade, called 'Low Rejections', was invented. In the season 1930-31, another grade, called X.L.R.'s, was introduced. As a result of these two new grades, 'Rejections' which, according to the circular referred to above, was to be the lowest mark has now become the highest mark. In the season 1931-32, there was very little business for the grade 'Rejections', and almost all dealings have been carried on under the grades L.R.'s and X.L.R.'s."

The letter proceeds to say "a joint meeting of the Calcutta Jute Balers Association and the Bengal Jute Dealers Association was recently held, and it was unanimously resolved that no contract should be made with the jute mills except on Warp and Weft guarantees. We understand that the mills refuse to buy on the new terms and are keeping out of the market to force the sellers to sell to them on the "standard of the mark" basis which has been condemned by even some of the mills as very unfair basis of dealing."*

The Bengal National Chamber of Commerce, in their letter, dated the 22nd April 1929, to the Government expressed very strong opinion on the subject and we cannot do better than quote the same here. The letter runs as follows:—

"The Committee of the Chamber have given the proposal their most anxious consideration and generally approve of the principle underlying the same. The various standards which serve as the basis of transactions are almost an essential need for the modern era when markets are being daily widened and are assuming an international character through improved methods of organisation. In the opinion of the Committee, there can hardly be any objection to the principle of standardisation as it seeks no more than to check unfair dealing in commercial transactions. It is now an accepted principle of Economics that the fluctuation in the value of money is undesirable in so far as it unsettles the normal conditions of trade by either giving it an artificial stimulus or by acting as an impediment to its healthy growth. It is on this ground that the inflation or deflation of currency, when either is artificial and is not designed to maintain the level of prices, is viewed with grave concern by particular sections of the trading community. Such manipulation of currency must be regarded as most objectionable as it hoodwinks the public by tampering with the value of their moneyholding when they have not the least knowledge of the fact and are still relying on the money unit as the standard of value. If that is so in the case of money, it is no less imperative that the qualities of commodities should be standardised, for it is quite easy to see that an unsteadiness in respect of the latter has the same effect as a fluctuation in the value of currency. In fact, the two are identical phenomena relating to price which is an equation between money and commodity, only, that they have reference to the opposite sides of the equation.

"The Committee of the Chamber are, however, aware of the fact that it is not expedient to multiply the number of standards indefinitely and that sometimes reliance has to be placed on the prevalent customs of the market and even on individual integrity. But so far as jute in Bengal is concerned, the Committee are emphatically of opinion that it does not come under the category of ordinary goods and that it deserves special consideration on more than one ground. Jute constitutes the most important commercial product of the province and the interests involved in the fibre directly or indirectly affect almost the whole population of Bengal. Then, perhaps, it is the one article in which the dealers are divided into various camps of conflicting interests and of remarkably unequal strength. On the one extreme, are the poor, ignorant and isolated cultivators, and, on the other, the closely knit group of the powerful non-Indian shipping houses, whose monopoly of information regarding the world market and immense financial resources and the consequent staying capacity put them on a vantage ground. The combination of these two circumstances alone is sufficient to establish the need for such a legislation as will guarantee the *bona fides* of all dealings in jute, at least so far as the quality of supply is concerned.

* *Vide* enclosure to the letter from the Government of Bengal, Commerce Department, Appendix XIII.

It has been brought to the notice of the Committee by some members of the Chamber that the quality of jute to be tendered against contracts of sales under specified grades varies in different seasons, and that even in one particular season such changes of quality are not altogether unknown. The Committee of the Chamber understand that these changes give the suppliers almost a surprise and that they invariably entail a loss on them by requiring them to deliver a better quality than had been originally contracted for. The loss incidental to such arbitrary changes has its natural repercussions on the whole jute trade and it is sought to be shifted backward over to the minor intermediate vendors till at last it reaches the cultivators. The Committee of the Chamber condemn such manoeuvres and accord their support to the proposal which seeks to ensure fixity of qualities by an Act of Legislature."

We have in fact found that, except the Indian Jute Mills Association, all other commercial organisations are in favour of fixing the standards of loose jute. The representatives of the Indian Jute Mills Association, when giving evidence before our Committee, were asked to give reasons for their opposition to the fixation of standards, but all that they could say was that they did not want any interference with the trade. Nor did they state what measures they proposed for adoption so that the standards may not change from year to year. Agitation on this question has been going on for a pretty long time, but still to all intents and purposes the standards have always been varied ; it is, therefore, difficult for us to accept the proposition that the matter can any further be left to the trade itself.

We may at this stage explain how the standards change and how such change adversely affects the interests of the sellers including the agriculturists. We shall assume that a season begins with grades called 1's, 2's, 3's, 4's and "Rejections." The production of 1's by the cultivator is very small being barely 1 per cent. of the whole, and is bought only by the jute balers. 2's also represent a small quantity not exceeding 2 per cent. of the total crop and is bought only by the balers. 3's, 4's and "Rejections" are bought both by the jute mills and the balers. The jute mills are the most important buyers of these grades, and it is they who buy under forward contracts on the basis of the grades. At the commencement of the season, sellers begin to sell under forward contracts to the jute mills for the grades 3's, 4's and "Rejections". Suddenly, in the middle of the season, the mills refuse to buy 3's and expect the quality corresponding to 3's to be delivered under contracts for 4's and the quality corresponding to 4's to be delivered under contracts for "Rejections", and the quality corresponding to "Rejections" to be delivered under contracts for a new grade called "Low rejections." The result is that under outstanding contracts for 4's and "Rejections", which were entered into at rates lower than for 3's and 4's, the better qualities, namely, 3's and 4's, respectively, have to be delivered. The Calcutta sellers to the jute mills naturally make their best endeavours to buy the better qualities of 3's and 4's in the mofussil at lower rates in order that they may minimise their losses under the contracts for 4's and "Rejections" entered into at lower rates. It is obvious that as a result of this process, which continues from year to year, all the sellers including the cultivators suffer. It is further obvious that the sellers are helpless in the matter and cannot get the jute mills to observe the propriety of keeping the grades stabilised, as actually happens in every other trade. The jute mills enjoy the advantage by reason of the fact that they consume about 60 per cent. of the total production of jute. The sellers do not object to the jute mills fixing the standards according to their own choice, but they rightly demand that once the standards are fixed, the mills should strictly adhere to them in actual transactions.

In the course of our discussion some trade members of the Committee suggested that the following standards may be adopted:—

| | Hessian warp. | Sacking warp. | Weft and cuttings. |
|---|---|---|---|
| | | | Per cent. |
| *White jute*— | | | |
| Fine .. .. .. | 60 | 20 | 20 |
| Superior .. .. | 40 | 40 | 20 |
| Tops .. .. .. | 20 | 60 | 20 |
| Middles .. .. .. | .. | 70 | 30 |
| Bottoms .. | Without guarantee. | | |
| *Daisee and Tossa*— | | | |
| Superior .. .. | .. | 90 | 10 |
| Tops .. .. | .. | 80 | 20 |
| Middles .. .. | .. | 50 | 50 |
| Bottoms .. .. | No guarantee. | | |

We approve of the above standards subject to certain modifications. No separate specifications should, in our opinion, be made for the two kinds of warps as "Hessian" and "Sacking." Such specifications of the warps will make the matter unnecessarily complicated and we think that the provision for the sacking warp alone should suffice. Further it appears that the gap between the "middles" and the "bottoms" is rather too wide, and it seems necessary to have another grade between the two.

We recommend that legislation should be passed to fix the standards and that no alteration should be made therein unless the Government is satisfied that any change is necessary. The essence of the proposal is that in future new names should not be allowed to be invented or used, and that all transactions in loose jute (except ready on the basis of samples) must be done on the basis of the aforesaid standards.

In making the recommendation, however, we feel that it may be impossible by law alone to force the mills to buy what they do not require or what they do not wish to buy. So long as the mills carry big stocks of jute they can sit outside the market for a considerable time and thereby force the sellers to accept their terms. What is essential is a change in the attitude of the mills. This attitude will change if and when the foreign consumers take increasing quantities of jute and also when stocks of the mills are reduced.

In this connection, we may refer to the fact that all the contracts for the sale of jute to the mills include a clause for arbitration by the Bengal Chamber of Commerce. This system operates to the disadvantage of the traders who are not members of the said Chamber. When either party to a dispute is a Chamber member of the Bengal Chamber of

Commerce, the institution fees payable are only Rs. 32. On the other hand, when neither party to the contract is a Chamber member of the Bengal Chamber of Commerce, the amount of institution fees payable is Rs. 200. Even the fact that a party is a member of any of the associations affiliated to the Bengal Chamber of Commerce does not entitle him to have arbitrations held at the reduced fee. Obviously, this is very unfair, and unjust to the large number of parties who do not belong to the Bengal Chamber.

There is a stronger argument against the system. We have received evidence that the arbitrators in most cases do not pass qualities on the basis of the standards prevailing at the time of the making of the contracts but as they prevail at the time of the due date. We want to make it certain that the standards should be properly maintained and no such injustice as aforesaid may be done at any time. The only way in which we think that the maintenance of standards can be ensured is to provide by legislation that final arbitrations as regards the quality of loose jute shall be held by four arbitrators drawn from panels supplied by the four Chambers of Commerce, namely, the Bengal Chamber of Commerce, the Bengal National Chamber of Commerce, the Indian Chamber of Commerce and the Muslim Chamber of Commerce, and that no party to a contract shall contract himself out of this legal provision. When the Jute Committee recommended by us is appointed, such arbitrations may be held under the auspices of the Jute Committee, that is to say, the Secretary of the Jute Committee may act as the Registrar of the Tribunal of Arbitration. Until the Jute Committee is appointed, an *ad hoc* officer may be appointed for the purpose of acting as the Registrar of the Tribunal of Arbitration.

## Financing the Marketing of Jute.

We have not so far discussed the financial aspect of the problem of the marketing of jute. In a wide sense, this aspect of the problem may be regarded to fall within the scope of rural or agricultural finance which has been fully discussed by the Banking Enquiry Committees. The recommendations of the aforesaid Committees are valuable as much in connection with jute as with other agricultural crops, and are therefore relevant to the present investigation. For the same reason, it may be suggested that whatever defects may be found, in the matter of financing the marketing of jute, would be removed with the reorganisation and development of the banking system of the country. While endorsing the principle underlying this suggestion, we feel that it does not warrant the conclusion that all attempts at improving the financial facilities in connection with the marketing of jute must need be postponed till a general reorganization of the banking system for the whole country is undertaken. On the contrary, we consider it necessary to point out that jute presents certain special features which indicate the feasibility of piece-meal action and immediate possibility for initiating the desired banking reforms. This is all the more necessary as our recommendations on the reorganisation of the jute trade will not yield the desired result of securing a fair price to the cultivators unless the financial handicaps now suffered by them are also substantially removed. One of the factors that operate at present towards depressing the price of jute is the fact that the cultivators are often compelled to dispose of their stock of jute immediately after harvesting the crop, in disregard of the condition of the market. The reasons for such hasty sale of the crop by cultivators are twofold, *viz.*, the lack of a safe storage where the crop can be kept for any length of the time, and the urgent necessity for getting ready cash which is not obtainable otherwise than by the sale of jute. To obviate these two difficulties, and to strengthen the bargaining power of the cultivators, so that they may obtain a fair price for their crop, licensed warehouses have been established in almost all the important agricultural countries, notably, the United States of America. The necessity for the establishment of such warehouses in India has also been recommended by the Central Banking Enquiry Committee. The Bengal National Chamber of Commerce has, in its evidence before us, also stressed the necessity of establishing licensed warehouses in connection with the marketing of jute. We have recommended in Chapter II that the production of jute should be regulated, and we believe that the scheme which we have suggested will, if adopted, result in a more or less successful adjustment of supply to demand. The adjustment between the seasonal supply and demand will not, however, do away with market fluctuations from day to day. The price of jute in the primary markets would still move up and down according to the conditions of effective demand and supply on the day, though, of course, a better adjustment between the seasonal supply and demand would exercise a subduing effect on the intensity of the daily fluctuations. In particular years, a small surplus may appear in the seasonal supply itself which will be required to be kept off from the market, for a forced sale of this surplus would demoralise the trade causing a heavy fall in prices. Obviously, what is required to meet such contingencies is to devise some methods by which the cultivators may be helped to hold their crop until there is effective demand for it so that a fair price may be ensured to them. The establishment of a series of licensed warehouses is admittedly the most effective device in this regard, as supplying the necessary storage facilities; the cultivators can in such circumstances store their crop in these warehouses by payment of a small rent, and such storage facilities, together with the attendant financial facilities, discussed elsewhere, would enable them to wait for a much longer time than would be possible, if they were to do it themselves unaided. The financial advantages, that would accrue to the cultivators from the establishment of licensed warehouses conferring a credit value on their stock of jute, are, in fact, even more important than the storage facility. At present, the cultivators experience great difficulty in getting any advance against the security of the crop, except, and that too rarely, at ruinous rates. The loans obtained from money-lenders are secured by the general assets of the borrowing cultivator. The money-lenders again do not feel encouraged to give any loans to the cultivators on the security of their jute crop, as they cannot acquire any transferable right or control over it, such as is possible in the case of baled jute, tea, etc. If such right or control were obtainable in the case of raw jute through the device of licensed warehouses, the money-lenders would not only find it a sound investment to provide loans to the cultivators, but also increase the value and extent of their services to the latter by supplementing loanable funds by transfer of the warehouse receipts, as and when necessary. The whole system is now rigid and disjointed to a degree, and the desired correlation between the several links in the chain can be effected if the potential credit, of which jute can be the basis, is fully realised. Jute in a cultivator's land cannot obviously form the basis of this credit. The object can be achieved by the establishment of licensed warehouses issuing transferable receipts against stock of jute lodged with them. If our previous recommendations regarding regulation of the production of jute and standardisation of the qualities of the fibre are given effect to, the crop will be assured of a minimum determinable value and consequently the receipts issued by the warehouses will be recognised as good security for loans, making allowance for a safe margin. The transferability of these receipts will enable the holders to get suitable advance from money-lenders, commercial banks, etc.

We have considered the difficulties referred to in this connection by the Central Banking Enquiry Committee, particularly those relating to the grading and mixing of stocks of different parties. So far as these difficulties relate to the difference in grades, we trust that our recommendations in regard to the standardisation of quality will, if carried out, be sufficient to meet the objections. As regards pooling, although the resources and information at our disposal do not enable us to pursue the issues involved in the problem in detail, the success with which it has been tackled in other countries warrants, in our opinion, the conclusion that it would not present any insuperable difficulty. We agree with the Banking Committee that experiments should be made at selected centres, and that the benefits arising from warehouses should be brought home to the agriculturist by experimental establishments as well as by intensive propaganda and education. The success of these experimental institutions will, in our opinion, effectively encourage the widespread establishment of similar institutions by private enterprise.

We do not propose to go into a detailed examination of a scheme for licensed warehouses, as the question has already been discussed thoroughly by the Central Banking Enquiry Committee (*vide* paragraphs 280-283 of their Report). We think, there are some favourable circumstances in Bengal which point to the possibility of successfully running warehouses for jute on a profitable basis. In the first place, the storing of jute would not be an altogether strange phenomenon in this Province, and though it has been of no advantage to the cultivators so far, storage facilities are even now being provided by *aratdars* for merchants, after jute has left the cultivators' hand. These *Aratdars* may be induced to start licensed warehouses. Secondly, the fluctuation in the price of jute, even in the course of the same season, is so remarkable and the potentiality of a rise in price, through restriction of saleable supply of the fibre by retaining a part thereof in warehouses, is so likely that jute may be regarded as just the sort of commodity that will bear the cost involved. Thirdly, the establishment of organised markets, as have been recommended by us, will effect such concentration of buying and selling operations that the warehouse owners will be assured of having adequate business to earn a profit from their investment. Fourthly, the supply of the necessary capital for starting warehouses in the mufassil may be forthcoming from the big zemindars in the Province, who are increasingly becoming conscious of the comparative unremunerative character of investment in land, and are, therefore, likely to take advantage of the new scope for investment in warehouses. The fact that many of them have *Kutcheries* in various centres and are themselves the owners of market places should act as a special inducement in this matter.

Thus, having regard to the urgent necessity for providing storage facilities and the special advantages available in this Province, we recommend that steps should be taken without delay to establish licensed, warehouses on an experimental basis. The initiative in this direction should be taken by the Provincial Government, who should, as recommended by the Central Banking Enquiry Committee, also consider the desirability of advancing long term loans at concessional rates of interest to co-operative societies to build godowns in centres which provide good markets.

## Central Marketing Organisation.

In the preceding paragraphs we have made various suggestions for the improvement of marketing and other conditions of jute which are likely to benefit the raiyat and all concerned, such as regulation of jute cultivation, regulated markets, licensed warehouses, co-operative societies, etc. We do not, however, presume that the full potentialities of the jute trade from the standpoint of the Province will be realised by the proposed measures alone, though, we must make it clear, that the improvements anticipated from the initiation of the latter are none the less to be desired as immediate objectives. The interest of the Province is, in our opinion, predominantly identified with the interests of the agriculturists, not only for the fact that jute is produced on a widespread individualistic scale by the latter, forming about eighty per cent. of the population, and is the most important commercial crop of the Province, but also on the ground that this particular crop is of singular importance to the financial fabric of the entire Province as sustaining, in a very effective manner, the economic welfare of the non-agricultural interests as well, including the industrial and trading interests, and even of the various learned professions. It is necessary, therefore, that the importance of the subject from this viewpoint should be duly recognised, and this suggests that the potentialities of the trade should be fully explored, even though these may call for a radical change in the present organisation of the trade and may not, therefore, be immediately realisable. In the following paragraphs we propose to discuss the question in detail, so that the significance of our proposals, as well as the limitations thereof, may be correctly understood.

At the outset, we should point out that though the consideration of the jute problem from the standpoint of the Province must be agricultural in its outlook, it is not to be regarded in the narrow sense of being sectional in its interpretation and being opposed to the trading or manufacturing interests. On the contrary, this standpoint is fundamentally based on a proper estimation of the interdependence of supply and demand, and also on due recognition of the principle that the strengthening of the selling interests must not retard the interests of the buyers in such a manner as to impair the trade itself, on which alone the interests of the sellers can possibly thrive.

Looking at the jute problem from this viewpoint the fact that impresses itself on one's mind is the monopoly character of the fibre suggesting the feasibility of achieving a complete rationalisation of the entire trade. The principle of rationalisation in agriculture which, as a new category in economic thinking, is engaging the serious attention of various modern Governments during the present depression, applies perhaps to no other agricultural staples with greater force than to the case of jute. The meaning of this principle of rationalisation is very clearly stated by the Economic Committee of the League of Nations in the following words:—

"A large number of experts are of opinion that it would be desirable, in accordance with a resolution of the World Economic Conference of 1927, to organise the markets in agricultural products on rational lines. The crisis, they think, would be alleviated if agriculture were organised like other forms of economic effort. The organisation of sales would improve the situation. These experts attach the utmost importance to the rational organisation of the marketing of commodities by the producers, programmes of foreign purchasing and sales being drawn up and measures being taken to ensure the carrying out of such programmes, either directly or through co-operative societies or private traders. They see the salvation of agriculture in such systematic organisation for the marketing of products, and they hail as steps in this direction the formation of grain pools and the cereal monopolies which have been set up or are in preparation in a number of countries together with the national organisations established in several countries for the sale of live-stock, butter, cheese, bacon and eggs."*

The opinions of experts mentioned in the lines quoted above have transcended the realm of mere theory, and have in fact been translated into schemes of rationalisation, vigorously pursued in many countries under direct encouragement and support of the Government. As is pointed out by the Economic Committee of the League of Nations: "A large number of countries are undoubtedly tending to organise the sale of their agricultural products in the direct interest of the producers and this organisation frequently takes the form of centralised supervision. Many Governments are instigating or supporting the necessary action for the improvement of collective organisations for the sale of products or for the extension of markets. The purchase and sale of products through centralised organisation will enable, they think, the conclusion of bargains on terms which are reasonable alike for the consumer or for the producer."† The Economic Committee have not mentioned the names of the countries or of the articles in connection with which such centralised scheme of control is being adopted, but we think that the adoption of such a scheme in the case of jute has immense potentialities not only for the monopoly condition of its production, but also for the fact, that in so far as a more or less steady demand is ensured to jute as being the cheapest packing medium of world trade, the working of the scheme is not likely to meet with any hazard. Our attention has been drawn to the fact that it is not an emergency like a War or financial crisis alone that has inspired particular countries to embark on such schemes of control; but that these have advisedly been incorporated in the State policy of some countries even in normal years. In Canada, for example, though initially as an emergency measure to meet the exigency of the War, a Board of Grain Supervisors was set up in May 1917 to control the marketing of the wheat crop, it soon came to be succeeded in July 1919 by the Canadian Wheat Board with more extensive powers. It differed from the preceding Board of Grain Supervisors as being a

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*Report of the Economic Committee of the League of Nations on "The Agricultural Crisis," page 62.

Ibid page 63.

marketing instead of a merely regulating and price-fixing body, and was to be distinguished from similar institutions established in the United States of America and Australia. The Canadian Board differed from the United States Grain Corporation as being vested with a statutory monopoly in the selling of the entire crop for both domestic and export consumption. From the Australian Wheat Board, as well, it was to be distinguished, as unlike the latter it was not designed to function in co-ordination with State or Provincial Wheat Boards. The *modus operandi* of the Canadian Board is briefly stated in the following words: "The plan adopted involved the establishment of a compulsory national pool with the Board as a sole selling agency. Producers received on delivery an initial payment of $2·15 per bushel and a participation certificate. Fixed 'spreads' between street and track wheat and between the different grades were maintained by the Board throughout the period of control,"* a minimum value being offered for the redemption of the certificates for avoiding depreciation before maturity. It is significant that though the Board was dis-established after the termination of the specified period of one year, the demand has been insistent on the part of the grain growers in Canada to revive the scheme of centralised sale, which has, in fact, been since rehabilitated, though in a different form. Not to speak of countries like the United States of America, Canada and Australia, which have large agricultural interests, even in Great Britain, the method of marketing agricultural products by pooling the resources of individual cultivators and selling the same through a central agency has come to be favoured and has actually been provided for in the Agricultural Marketing Act of 1931. The Act provides that schemes, either national or regional, for the marketing of agricultural produce may be submitted to the Minister of Agriculture by persons "substantially representative" of the producers, both as to numbers and proportion of the product. "When a scheme is adopted it is in the hands of a Board which consists of those persons named in the scheme, together with two representatives of the Ministry of Agriculture. An election of a Board by the registered producers must be held within twelve months. The Board is authorised to buy or sell or adopt for sale (which is not intended to cover manufacture) the regulated produce. It may require the product to be sold only through the Board. It may sell or hire appliances, seeds, etc., to producers. It may determine quality, price, grading, packing and destination. It may inspect the property of registered producers and demand estimates and returns. It may encourage agricultural co-operation, research and investigation. A Board is not intended to have share capital but it must create by levies or otherwise a fund to meet expenses, make advances, equalise profits, etc. It has power to create a floating charge on any agricultural stock vested in the Board."†

We presume that these events and tendencies must have influenced Mr. McDougal, the Foreign Banking Expert, in the formulation of his scheme for a Jute Corporation which comprises a plan of centralised purchase and sale of jute. (*Vide* Appendix I-C). The merits of the scheme, which has been adversely criticised by most of the principal witnesses, need not be examined here in detail as we do not

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*Grain Growers' Co-operation in Western Canada (Harvard Economic Studies 1932) by Herald S. Patton, page 196.

†Year Book of Agricultural Co-operation (1932).

propose to make any recommendation regarding the immediate initiation of a scheme of concentrated purchase and sale of jute. We, however, consider that the various measures suggested by us will lead to circumstances specially favourable to the initiation of such a scheme. In particular, our recommendations regarding regulation, marketing and the institution of a Jute Committee are so calculated to foster organisation among the cultivators and to place the trade on a sound and organised basis that the adoption of a centralised scheme at a later stage may be deemed quite feasible, when the necessity would arise of formulating a concrete scheme.

## Export Trade.

Jute is exported in the form of *pucca* bales of 400 lbs. each. The balers sell the goods to the shippers and are, in many cases, their own shippers. Business is done with Dundee on the Dundee Association's contract and with most other countries on the London Jute Association's contract. In case of disputes under the Dundee contract, arbitrations are held by the Dundee Association. In case of disputes under the other contracts arbitrations are held by the London Jute Association and the buyers in the various countries have to send a few bales to London for the purpose of arbitration being held. The baler gives to the shippers what is called a letter of Home Guarantee, the effect of which is that the baler binds himself to pay any allowance that may be awarded in case of a claim being made. Up to a short time ago, the letter of Home Guarantee also included what is called the "invoicing back" clause, the effect of which was that in case an allowance was awarded over a certain percentage and the foreign buyer refused to take delivery of the goods subject to an allowance he had the right to invoice back the goods at a rate slightly favourable to the buyer as compared to the rate prevailing in the market at the time. But for some time the invoicing back clause has been omitted from the letter of Guarantee.

Up to two years ago there were serious complaints in the trade to the effect that allowances awarded by the London Jute Association were too favourable to the buyers and were not justified by the condition of the goods. But during the last two years serious complaints have not been made in that direction. We hope that the London Jute Association will not in future give cause for serious complaints so as to compel drastic action being taken in this country in the protection of the interests of the traders.

Our attention has been drawn to the practice prevailing in the Philippines in regard to hemp as also to the practice prevailing in the United States as regards cotton. Basing opinion on the same, it has been suggested to us that legislation should be passed in this country providing for inspection of each parcel of jute before it leaves India, and the grant of a certificate by a suitable authority if the jute to be shipped was found satisfactory and that such certificate should be binding on all the parties. Such a procedure would undoubtedly prevent inferior jute from being shipped from India and thereby strengthen the reputation of India as regards the quality of goods supplied, and would also prevent unjustified claims from being put forward by the buyers. It would also be helpful to countries like Japan and America who find it very inconvenient to despatch bales of jute to London for arbitration being held. We recommend this for consideration by the Government and the people interested, in order that at least better considered opinion may be formed over the question. When the Jute Committee, that we recommend in this report, is established, we recommend that it should give its special attention to this subject.

## Futures Market.

Our remarks on marketing would remain incomplete if we did not make a reference to the problem of futures trading in jute. The subject was not included in the questionnaire issued by our Committee, as, at the time when the questionnaire was being framed, the matter was engaging the attention of a non-official representative committee appointed, at the instance of the Bengal Chamber of Commerce, by the various commercial interests in Calcutta connected with jute to investigate and report, "(1) whether a Jute Futures Market is necessary in the interest of any branch of the trade, and, if not, (2) whether steps should be taken to render any Futures Market illegal, or (3) to recommend an improved form of Jute Futures Market." It may be said that the interests represented on this non-official committee (some with extreme views and conflicting standpoints) ensured that their recommendations would not be unduly influenced by any particular sectional interests. Also, the committee being composed of diverse interests directly concerned in the problem, would be more capable of understanding this intricate subject, than any non-commercial body and it might confidently be expected to deal with the question thoroughly. For these reasons it was, in our opinion, advisable to postpone consideration of the matter till the publication of the report of the aforesaid non-official committee.

The Jute Futures Committee have made certain unanimous recommendations for an organised Jute Futures Market. They, as is clearly pointed in their Report, kept prominently before them the consideration, that all sections of the jute trade may have an effective voice in the management of the market and the framing of bye-laws, to prevent, as far as possible, the adoption of bye-laws which place any section of the trade at a disadvantage. Accordingly, they proposed to initiate the desired reforms by making certain changes in the management of the East India Jute Association. The scheme suggested by them provides, for a period of transition, that instead of being elected by the members of the Association itself, the members of the Governing Body of the East India Jute Association be nominated by all sectional organisations interested in or affected by trading in jute futures, the organisations comprising balers, shippers, loose jute dealers, mills, brokers and growers of jute. Specific details of the scheme are contained in the Report of the Jute Futures Committee appended to this report and need not be re-iterated here. (*Vide* Appendix VI).

However, since the publication of the abovementioned Report, opinions have been forwarded to our Committee, urging that the existing futures markets, both jute and hessian, have been operating to the serious prejudice of the jute trade. We need not examine these criticisms afresh as they have already been considered by the Jute Futures Committee. We are struck by the similarity in the nature of the controversy to that generally found between certain interests in almost all the countries on the subject of dealings in commodity futures. Mr. G. Wright Hoffman, Consulting Economist to the Grain Futures Administration of the United States, Department of Agriculture, has described the attitude of these different interests almost in the manner of enunciating a universal proposition. He said that "the farmer has generally opposed the practice of future trading (particularly if prices are low or declining), the intermediate merchandising groups have usually favoured the practice and the consumer has taken little active interest except to complain occasionally when prices are high."* We are inclined to view the opposition as the outcome of a natural development found in almost every country prior to the establishment of markets in futures but to the extent these criticisms relate to the operation of existing markets, we find definite measures have been proposed by the Futures Committee to establish them on a satisfactory basis of organisation. It has been reported to us that the East India Jute Association have adopted some of the recommendations of the Futures Committee. The recommendation as regards the constitution of its Board of Directors could not, it appears, be adopted by the Association as the result of other associations not agreeing to nominate Directors.

It must, however, be pointed out in this connection that though the Futures Committee were unanimous in regard to their detailed recommendations, opinions in the Committee were divided on the basic question of the necessity for a futures market in the jute trade.

The necessity for organised futures markets for important commercial articles, including both agricultural and mineral products, has long been recognized all over the world. The justification of such markets lies in the insurance which these provide against trading risks and is succinctly put in the following words by the Committee on Trading in Futures appointed by the International Chamber of Commerce. "A properly organised futures market can and in many trades does minimise this inevitable trading risk by providing the machinery for the transfer and spread of the risk among a body of professional risk bearers or speculators. The genuine trader is thus able to a large degree to ensure to himself a normal trading profit and to insure himself against exceptional unforeseen losses."

Evidently, the trading risks, referred to, are those which arise from fluctuations in price which necessitate anticipatory dealings or what is known in market parlance as "speculation." So long as the trading risks are there, operations in a futures market or speculation must be considered to be of great advantage and help to the trade, much in the same way as insurance provides a safeguard against other forms of risk or contingency. Whatever the consequences of speculation to individual parties, it has to be noted that the existence of futures market is justified from the point of view of the economic welfare of the community in general and stability of industry and trade in particular. The futures market, it is asserted, ensures, by providing scope for speculation, a comparative steadiness of price as the buying and selling in such a market is influenced by anticipations of the entire seasonal supply and demand. This steadiness of price, as well as the facilities which the futures market provides for continuous buying and selling, and for

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* "Future Trading upon Organised Commodity Markets" by Hoffman, page 5.

information relating to the amount of produce exported, the amount consumed, the amount shipped to terminal markets, the extent of cultivation in various countries, prospective yields, transportation cost, weather, etc., (in fact everything which can possibly enter the supply and demand equation) is unquestionably of great economic advantage to the community as a whole. On the traders and industrialists the futures market confers an inestimable benefit by providing facilities for hedging.

While thus, generally speaking, the value of trading in futures is fully admitted, its necessity in the case of jute has been questioned by some on the ground that jute is a monopoly of Bengal and therefore the need for insurance against fluctuations in price (such as may be essential in regard to a commodity having several competing sources of supply) does not arise. Theoretically correct, there is no need for a futures market in respect of a commodity which is under effective monopoly control; the supplier is then in a position to regulate the price himself and at the same time to give the trade the necessary advantage of contracts for future delivery. The argument, however, does not hold in regard to the jute trade in the present circumstances, for, as we have pointed out elsewhere, jute is not strictly an economic monopoly owing to the ignorance and disorganised condition of the cultivators, who compete among themselves for the sale of their individual crops often at unreasonably low prices. Their ignorance of the market conditions as well as their incapacity to hold the crop place them entirely at the mercy of the formidable groups of buyers. A futures market would in such circumstance be considered valuable as it would not only widen the extent of the market but also provide helpful information as to the trend of the world demand for jute, information which is not now usually available to the cultivator. In particular, we would remark that the need for a futures market in jute seems justified, in the prevailing circumstances at least, by the fact that fluctuations in the price of jute are no less violent than in the case of other staple commodities for which such markets have been established.

Our conclusions may be summed up as follows: A futures market offering scope for speculation, is justifiable because it is recognised that it provides several advantages,—widening the market, facilitating trade information, maintaining a comparative steadiness in price by hedging facilities and avoidance of violent fluctuations. But to be really valuable as an institution of national importance, it must be advantageous to all the members of the community concerned, including agriculturists, traders and manufacturers. So far as trade information is concerned, the need for a futures market in jute is minimised by the fact that the task of compiling and disseminating such information is, according to our proposals, entrusted to the Bengal Jute Committee. But the necessity of the futures market would still be considered imperative for hedging operations and steadiness in price, much to the benefit of the agriculturists. In view of these considerations, we are of opinion that a futures market conducted on sound principles is a necessary link in the present organisation of the jute trade.

In suggesting the need for a jute futures market, we must, however, make it thoroughly clear that the principles of its operations should be so regulated as not to entail any prejudice to the interests of the cultivators. We draw pointed attention in this connection to the very significant remark of Mr. A. B. Cox of the United States Bureau of Agricultural Economics, quoted in paragraph 190 of the Report of the Bengal Provincial Banking Enquiry Committee, that, "the essentials for a satisfactory hedging market are, (1) a continuously liquid market, one where contracts may be executed at any time, (2) a broad market, one that will permit the purchase and sale of a comparatively large volume of goods with a minimum of fluctuation in price, and (3) *a market on which all interests in the trade are properly represented, so that prices are made to move as nearly in accord with supply and demand conditions, as possible.*" The first two tests are satisfied by the East India Jute Association. As regards the last we understand that the Association is prepared to welcome the representation of all sections of the trade on its Board.

The importance of adequate representation of agricultural interests on the futures market leads us to elucidate further our observations on the necessity for a futures market in jute. The increasing concern for agriculturists shown in recent years by the Government in every country is already tending to lower in the public estimation the advantages offered by them and it has been asked whether futures markets should not be replaced by a monopoly organisation of the cultivators as a more efficient and fruitful national economic institution. Even in countries where well-organised futures markets in staples have established themselves with agriculturists adequately represented on them, the question of improving the present organisation is being seriously contemplated. As has been observed by an eminent author on agricultural economics, "at the present time it would seem that the hope of improvement lies in the better education of all parties concerned, and possibly in a farmers' organisation which may do one or two of both things, *viz.*, either gain the control of a large amount of grain and feed it gradually into the market or enter the exchange as a dominating influence. With wide information and desire for stability they might do what no other agency is powerful enough to do in the way of holding sales to a level governed by an intelligent balancing of demand and supply. Of these possible solutions there is much hope that the first in a modified form may come to pass. It might well happen that the second influence could be put into practice at the same time."* Obviously, the second development suggests monopoly control, which may be found exceedingly difficult, if not impossible, in the case of other articles of international commerce (articles which are drawn from many sources) but which in the case of jute must be regarded as feasible in view of the conditions governing the supply of this fibre. An organisation of the jute growers on such lines, or the initiation of any scheme designed to concentrate the sale of the jute crop of the entire Province in one agency, would undeniably bear out our contention that the monopolistic nature of the jute output would obviate the necessity for a futures market.

As, however, a monopoly of this description, or scheme for concentrating the sale of jute, offers little chance of achievement in the near future, the need for a futures market for the present remains unaffected. But in any case, the need for safeguarding the interests of the agriculturists is clearly emphasised by the trend of world opinion in regard to futures markets.

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* "Marketing Agricultural Products" by B. H. Hibberd, page 154.

Our attention has been drawn to the suggestions of some conditions regarded as essential in the organisation of a jute futures market in a memorial submitted by the London Jute Association to the Secretary of State for India. These conditions are:—

(1) The Statutory appointment of a representative jute trade organisation.

(2) All sales and purchases of jute should be the subject of written and stamped contracts in the prescribed form.

(3) Dealers should have the right to demand delivery of the produce mentioned in the contracts within a reasonable period.

(4) Fixation of minimum quantity of jute below which no transaction should be valid in law.

We approve of all these conditions, but we think that the organisation of the market itself may without much risk be entrusted to private initiative. Making allowance for this, the conditions appear to be fulfilled by the East India Jute Association. We would have been satisfied if all the Associations had accepted the recommendations of the Futures Committee and nominated their representatives on the Board of the East India Jute Association. But they cannot possibly be compelled to do so even by legislation. We have not overlooked the fact that in the prevailing circumstances of the trade the cultivators would not be induced to operate on the market, nor be widely represented on the Governing Body except through representatives of the Jute Growers Association. Though the organisation of the proposed market thus falls short of the ideal we have held up, we give it our support on the ground that the position of the agriculturists would be adequately strengthened, even apart from it, by the measures we have recommended in connection with the regulation and marketing of jute. We, therefore, recommend that the proposals of the Jute Futures Committee be given a trial, provision being made for alteration and modification in the light of experience and with the approval of all the interests concerned. We consider that legislation is unnecessary at this stage.

As regards the Hessian Futures Market, we find that our colleagues have condemned the same in one sentence, *viz.*, "The Committee can see no justification whatsoever for a Hessian Futures Market" and have given no reasons for their opinion. We do not at all agree with them. As a matter of fact, this question was never discussed by the Committee.

# CHAPTER V.

## Jute Substitutes and Research.

Several witnesses, including the Indian Jute Mills Association and the Calcutta Jute Fabric Shippers Association, have, in their evidence before the Committee, stressed the growing competition with which jute is confronted from other fibres as well as mechanical devices dispensing altogether with the use of jute. A fairly comprehensive discussion of the subject is contained in the Report of the Sub-Committee appointed by the Jute Mills Association some time ago. As it appears as an appendix* to this report, only a brief reference to some of its salient points need be made here for the purpose of appraising the present position correctly, particularly in regard to the sources and the nature of the competition.

The chief articles mentioned in the Report as competing with jute are paper, cotton, sisal, hemp and flax; the use of grain elevators being also mentioned in this connection. Competition from paper bags is reported to have already reached serious proportions, its effect being most keenly felt in the United Kingdom, South Africa, Australia and America in connection with the cement trade. It is estimated that the loss caused to the jute industry in Bengal on account of this change over to paper in the United Kingdom and South Africa alone exceeds 20 million cement bags per annum. The use of hessian for packing dried fruits is also reported to have been largely displaced in Australia by a product known as "Sisal Kraft", consisting of two sheets of brown paper reinforced by sisal fibre. The displacement of jute by cotton bags, particularly in America, is reported to be as substantial as in the case of paper. It is estimated that whereas the consumption of bags in America was formerly 90 per cent. burlap and 10 per cent. cotton, the ratio to-day is nearer 70 per cent. burlap and 30 per cent. cotton. The circumstances to which this change is attributed are briefly that the diminished demand for cotton has stimulated American cotton interests to take active steps to foster the adoption of cotton bags and bagging in preference to jute, both internally and in foreign markets. It is pointed out in particular that the low price of cotton during recent times, its lightness and the consequent saving in freight, its greater strength and its more attractive appearance, especially from the point of view of retail traders, have contributed to the success of the campaign to extend the use of cotton.

The Report also draws attention to the experiments that are being made to replace jute by the local manufacture of sisal bags in East Africa, by the manufacture of sacks from hemp in the Philippine Islands, by the manufacture of woolpacks from flax in New Zealand, and also by the use of other miscellaneous fibres, such as canamo in Chile, and Kendyr, Kenaf and Ramie in Russia. The competition arising from these, however, is not considered to have been effective, except to a small extent, and the future expansion of these fibres is still regarded uncertain.

Unlike the use of these latter kinds of fibres, the construction of elevators and bulk handling of grains, which are calculated to dispense with the use of packing materials, are considered to be of greater consequence to the jute trade, as threatening a serious curtailment of the demand for jute goods. These devices are already in vogue in Canada, United States, Argentine and Australia, and the Report points out the

* *Vide* Appendix VII.

possibility of a progressive displacement of jute by this means, owing to the insistence of the propaganda for the adoption of bulk handling in the United States, and even more so in Australia.

The forces which, according to the Sub-Committee of the Jute Mills Association, are responsible for these changes in the jute trade, are the loss of advantage hitherto possessed by jute in its comparative cheapness, and the fiscal policy pursued by several Governments to balance their imports and exports. To the latter cause are attributed the endeavours of certain countries to produce and encourage the use of some of the competitive fibres. The Sub-Committee concludes that even a return of more normal times will not necessarily result in restoring the trade to its former condition of prosperity, unless active measures are taken by the jute mill industry to improve the quality of its output in response to the demands of its consuming markets and to seek ways and means of fortifying itself against the inroads which have been made upon it by substitutes.

The observations of the Sub-Committee of the Jute Mills Association have received our close consideration, and as a result we consider it necessary, in order to help our analysis of the situation, to make a distinction between the competition of substitutes as affecting the raw material and that as affecting goods manufactured from jute. It is relevant to point out that the substitutes and contrivances referred to by the Sub-Committee of the Jute Mills Association are not at all of the same nature, for while some of them aim at reducing the import of the raw material from India in accordance with a policy of general import restriction, others are calculated actually to displace jute goods. In the former category must be placed the efforts made in the direction of growing jute in other countries, and also the experiments made in growing competing fibres like flax, hemp and sisal. It is significant that none of these efforts have hitherto attained so much success as to affect sensibly the demand for jute. The experiments to grow jute elsewhere on a commercial basis have demonstrably failed, while the results so far obtained from the use of substitute fibres have not proved much of a menace to the jute trade. Attempts have been made to grow jute in Java, America and West Africa, but have all failed. A small quantity of jute is reported to be grown in China, but even in that country it is not regarded as of any commercial importance. As a matter of fact, China imports a large quantity of jute goods from India every year. Experiments have also been made in Brazil and the Sudan to grow jute but these also proved ineffectual. It, therefore, appears that there is no immediate fear of the crop being introduced in other countries. Indeed, it is difficult to imagine a more suitable country than Java, where climatic and labour conditions are strikingly similar to those of India, but even in Java the crop could not be successfully grown. If alternative fibres and other areas for growing jute have not been discovered in the past when high prices ruled for jute, it is hardly likely that they can offer any real economic menace to jute to-day when prices are so depressed. Under the conditions prevailing during the last three years, with jute selling at an extremely low price, the danger of substitution is not likely to appear. Thus, as an immediate danger to jute, the possibility of substitution by other fibres need not be seriously considered at present, but it must not be understood that the danger might not arise sometime in the future, or that no steps should be taken to counter the possibility of such a threat to jute in the future.

While the position of the raw fibre is thus comparatively immune, a real danger threatens jute goods, as a result of the invention of economical devices such as grain elevators, or of cheaper containers made of synthetic materials like paper. An inroad is also to be apprehended from the competition of substitutes, which, while not superior to jute goods from the point of view of price, may be given an advantage under a protective fiscal policy.

It has to be admitted that some of these substitutes have reduced the demand for jute goods, and indeed the reduction threatens to be of a permanent nature. In order, however, that their potentialities may be correctly understood, their economic implications may be briefly examined. To take the case of the synthetic substitutes first. Science has made vast strides in recent years, and the Great War has so stimulated research in this direction that we must expect continuous effort in search for cheaper substitutes. Lacking, as some countries do, the natural raw materials required for the manufacture of certain important articles, they are compelled, in order to ensure a supply of those articles, to resort to such materials as may be found in their country, which may, by scientific processes, be adopted to the manufacture of the required articles.

Apart from a natural inclination towards scientific advancement and discoveries, the economic factor constitutes an important urge in scientific research in commercial fields and the desire for substitutes, and in this price plays the dominant part. High prices stimulate, and in fact provoke, scientific research for substitutes on the part of countries dependent on others for their supplies of any commodity. In so far then as price is the decisive factor in determining the use of synthetic substitutes in place of jute goods, the permanent effects of the competition cannot be definitely ascertained until the restoration of the normal conditions of trade, when, perhaps, the relative prices of jute and the synthetic materials may not be so encouraging to the use of the latter as it is at present. The advantage of those which may still retain their competitive power may be considerably reduced by improvements made in jute manufacture. Only those having decisively greater economic advantage would, of course, succeed in displacing jute.

The danger arising from the competition of goods manufactured from fibres like sisal, hemp, flax, etc., in certain countries which are determined to encourage them for national economic purposes is no doubt real, but even here the implications are apt to be exaggerated. It is possible to take steps to prevent their widespread development from injuring the jute industry irreparably. And here again price would be the deciding factor. A country may be inclined to encourage at a sacrifice the growth and use of a particular fibre which may be employed in place of jute, but if the price of such a fibre proves too high in comparison with jute the desire is likely to be restrained and kept within reasonable limits; otherwise the burden on the consumers may be too great. If the goods made out of that fibre are used for wrapping or bagging a commodity that is exported from that country, the extra cost may seriously affect the ability of the commodity to compete in the export markets against those of other countries which use cheaper jute packings. If a wide margin between the prices of jute and its competitors can be maintained, the danger from this direction will also be effectively checked. It must be remembered, however, that present costs cannot be regarded as permanent, and, therefore, do not form a guide for the future. Countries growing these other fibres will try their utmost to reduce their costs of cultivation and manufacture, but however much they may reduce the costs, the fact cannot be ignored that in regard to certain specific uses jute would still continue to hold its own, irrespective of price, by reason of the special qualities of the fibre itself.

The use of grain elevators, however, points to the danger of a permanent displacement of jute goods in connection with the handling of grains. The danger in this regard is to be distinguished from those involved in the use of substitutes, as such contrivances stand quite apart from the category of substitutes for which comparative prices within narrow margins act as the decisive factor. A reduction in the demand for jute goods entailed by such inventions must be regarded as inevitable, but these would not still warrant a pessimistic view of the future of the jute trade. The fields that may be lost to the jute trade in this way may be amply compensated for by possible extension of the uses of the fibre and jute goods in directions that now remain unexplored. And unless these are determined, it is difficult to pronounce how far the substitutes and contrivances that are now threatening to displace jute or jute goods, will inflict a permanent injury on the jute trade. No doubt in recent years the export of jute and jute manufactures have considerably dwindled away, but it is not possible to determine, as has been pointed out by Dr. D. B. Meek, Director General of Commercial Intelligence and Statistics, how far the shrinkage in the present volume of exports is to be attributed to the effects of the world depression and how far to the adoption and intrinsic merits of the substitutes. In assessing the effects of the latter heed must be given to the fact that simultaneously with the adoption of substitutes, new uses are being discovered for jute, opening up new channels for the expansion of the trade. Though the extent of its displacement by substitutes may at present be greater than the extent of stimulation given to the trade by newly discovered uses, it is still premature (in so far as no serious attempt has yet been made in this country by the mills to find new uses for the fibre) to anticipate the relative proportions of the two, some years hence. The results of the experiments that have been made in recent years in some foreign countries lead one to believe that the potentiality for expansion in jute is as great as that for displacement by substitutes.

It is deplorable that the jute mills in Bengal have not so far exerted themselves to meet the situation created by the recent competition of substitutes. They should have realised that for many years they have been producing far below their total capacity and that if ever the jute mill industry is to work anything approaching full time again and to attain to the prosperity of the past, they should long have taken active steps to retain their existing business and to seek new uses and new outlets for their fabrics. The need for inventing new uses and discovering new markets should have been considered imperative to stabilise the industry and for its progressive expansion, also to make up for markets that may be lost through the use of substitutes or owing to the restricted use of jute as a result of wider adoption of new and improved methods of storing and transporting grain, etc., *e.g.*, grain elevators and the bulk handling and transportation of cereals.

Even if substitutes and new methods of storing and transporting were not making any inroads upon the markets for its products, any well organised and live industry would always be trying to expand its markets by finding out and encouraging new uses for its products. The jute industry's indifference to this aspect of its development has been amazing. The fact that all the experiments at finding new commercial uses for jute have hitherto been made in other countries amounts to a strong condemnation of the management of the mills in India. It is significant that the Sub-Committee of the Jute Mills Association should make a comment of this nature in reference to the criticism that there is no industry in the world which knows so little about its business as the jute industry. The Sub-Committee has observed that "whatever the truth contained in the statement, the manufacturing side of the industry certainly lacks an organised system of following up the uses to which its products are ultimately applied, and it has so far made no endeavour either to keep in direct touch with consumers or to push the sale of its goods in competition with others." The industry in this country has no organisation for carrying on research, in spite of the fact that it has been so immensely profitable and that financially it should easily have been possible for them to establish a Jute Research Institute long ago.

"New markets, new uses, new possibilities" should be watchwords of the trade. There are various directions in which research might yield fruit. The possibilities of using jute fabrics in road construction have hardly been explored. The use of "duplexed", or paper lined jute bags, if popularised, would extend its use in the storage and transportation of many kinds of chemicals, food-stuffs, tobacco, etc., for which at present ordinary jute sacks are not considered suitable. Chemically treated jute fabrics may make it possible to utilise them for purposes for which the use of jute is now forbidden by law or custom. The rubber proofing of jute tissues offers obvious possibilities. The use of treated jute fabrics for roofing and insulating purposes requires careful investigation and is likely to yield valuable results. The furnishing and unholstery trades offer other large outlets. It is, however, reassuring that a section of the jute industry has been paying greater attention to the manufacture of such things as carpets, *ashans*, prayer-mats, etc., with commendable success. The use of these goods is spreading rapidly and is assured of further expansion.

It should be clear from what has been stated in the preceding paragraphs that the question of research is of great significance to the future of the jute trade. While the need for research would be essential, even in normal conditions, to maintain the stability and encourage the expansion of the jute trade, the threat of substitutes must render the question one of supreme importance. We recommend the establishment of a Research Institute by the Jute Mills Association and believe that such an Institute as well as the Jute Committee, recommended by us hereafter, would be the proper and competent agencies to be entrusted with this urgent problem, to which they should be enjoined to apply themselves promptly and intensively. To avoid duplication of work the Jute Committee may take up research work in the search for new outlets for jute and jute goods, the collection of statistics and information and the maintenance of touch with developments affecting the trade; while the Research Organisation of the Jute Mills may devote itself to technological research designed to improve the quality and variety of the mill manufactures. We repeat that no avoidable delay should defer the commencement of the research, which must be regarded as of vital importance.

With the institution of intensive research to expand the demand for jute by seeking new markets and new uses, an attempt must be made simultaneously to reduce the cost of jute and jute goods in order to fortify their position in the existing markets. Successful attempts made in this direction would greatly enhance the competitive power of jute and jute goods against the substitutes that have come into use in recent years. The cost of growing the fibre can be reduced by the adoption of better agricultural methods and cheaper agricultural credit. The immediate need for reducing cost is, however, more urgent in the case of jute manufactures. The gap that now exists between the price of the fibre and the price of the finished product is disproportionately wide and has indeed been a regular feature of the trade, as will be evident from the following table:—

| | Harvest price of jute per ton. | Calcutta jute price per ton. | Average price per ton of jute manufactures exported. |
|---|---|---|---|
| | Rs. | Rs. | Rs. |
| 1920-21 .. .. | 164 | 214 | 641 |
| 1921-22 .. .. | 164 | 214 | 465 |
| 1922-23 .. .. | 273 | 323 | 602 |
| 1923-24 .. .. | 246 | 296 | 569 |
| 1924-25 .. .. | 328 | 378 | 640 |
| 1925-26 .. .. | 513 | 563 | 726 |
| 1926-27 .. .. | 225 | 275 | 618 |
| 1927-28 .. .. | 225 | 275 | 606 |
| 1928-29 .. .. | 246 | 296 | 627 |
| 1929-30 .. .. | 218 | 268 | 543 |
| 1930-31 .. .. | 97 | 147 | 414 |
| 1931-32 .. .. | 89 | 139 | 333 |

The disproportion in the difference between the harvest price of jute and the price of jute manufactures, as shown in the above table, not only gives point to the claim of the cultivators for higher and more reasonable price for the crop than they obtain at present, but it also justifies the contention that the responsibility of meeting the competition of substitutes devolves primarily on the mills, on whom is laid the necessity of reducing the price of their manufactured goods by strict economy in working rather than by seeking to lower the price of the fibre which they buy. The fabulous profits made in the past by the industry has been responsible for the growth of an air of indifference in the industry and an insensibility to danger. This attitude must be discarded and the Jute Mills Association must strain every nerve to maintain a low level of prices, in sheer self-interest, if nothing else.

Our attention has been drawn in this connection to a report that the Dundee and continental mills have recently been enabled to compete with the Calcutta jute mills by replacing their goods in markets which up to now had been regarded as Calcutta's close preserves. We have not been able to verify the report but we consider that the Indian Jute Mills Association should investigate the matter carefully.

We would, in this connection, refer to another promising direction in which the manufacture of jute might be developed. Though the handloom industry in Bengal (which was in a flourishing condition even so late as the middle of the 19th Century), fell into decadence upon the establishment of the factory industry, there is no reason to believe that its potentialities have been completely exhausted, beyond all hope of revival. It may be true that in respect of the standardised goods which can be brought under the mechanical process of manufacture, the cottage industry has got to surrender to mill competition, but there are many articles like *satranchies*, carpets, etc., which can still find a profitable market provided the necessary facilities and sufficient encouragement are ensured. The potentialities in this direction remain unexplored and await vigorous research and propaganda. We call special attention to the immense benefit which a successful rehabilitation of the handloom would bring to the jute trade and the agricultural interests of the Province, and we recommend strongly that the Jute Committee, when established, should make strenuous efforts to develop the use of jute in the handloom industry.

# CHAPTER VI.

## Jute Committee.

*Nature and Scope.*

The suggestion of a Bengal Jute Committee owes itself to the recent discussions on a Central Jute Committee for India that arose out of the observations of the Royal Commission on Agriculture (contained in paragraph 65 of their Report) in regard to the necessity of establishing such an institution for jute on the lines of the Central Cotton Committee. Though the terms of reference of the present enquiry specifically mentions the constitution of the proposed Committee on a provincial basis, the opinions received from the witnesses in regard to its composition and functions have in many cases professedly been formed with reference to the original conception of a Central Jute Committee. It is necessary, therefore, to trace the development of the conception since the publication of the Report of the Agricultural Commission.

At the outset, the grounds on which the Agricultural Commission proposed the formation of a Jute Committee may be referred to. The same, together with other relevant observations of the Commissioners in this regard, are very succinctly put in the following words:—

"To the general principle that the trade concerned should provide the funds required for any research on the product in which it is interested beyond that undertaken in the normal course by the agricultural departments, we would make one important exception. Jute is at present a monopoly of India but there is no guarantee that it will remain so. The danger that an artificial product may be discovered and placed on the market at a price which will enable it to replace jute has to be faced. The history of indigo is a striking illustration of the possibilities in this direction. The situation is one which demands constant watchfulness. For jute to retain its present position, it is necessary that every effort should be made to improve quality, outturn and methods of manufacture and to maintain the relative cheapness of jute as compared with other fibres. Unless this is done, there is an ever present risk that jute will cease to be cultivated and that a blow at the prosperity of Bengal will be struck from which it will take long to recover. In these circumstances, we consider it most desirable that a Jute Committee which would watch over the interests of all branches of the trade from the field to the factory should be formed. The constitution of such a Committee should present no difficulty as it should be as easy to obtain as satisfactory a personnel for it, composed or representatives of the agricultural departments of the three provinces concerned, of growers, merchants and manufactures, as it has been for the Indian Central Cotton Committee. This is a matter in which the Government of India are very closely interested as they derive a large income from the export duties on raw and manufactured jute. These duties brought in a revenue of nearly four crores of rupees in 1926-27. In addition, there is a small cess of two annas a bale on raw jute and twelve annas per ton on manufactured jute, the proceeds of which go to the Calcutta Improvement Trust. In view of the fact that the export duty brings in so large a revenue to the Imperial Goevrnment which is, therefore, very directly interested in the prosperity of the jute industry, we consider that this is a case in which the expenditure on additional research and on the promotion of the interests of the trade generally should be met from central funds. Our recommendation thus is that a Central Jute Committee should be formed on the lines of the Indian Central Cotton Committee and that it should be financed by an annual grant of Rs. 5 lakhs. The necessary link between the research work on jute and all-India research work would be provided by the appointment of the Chairman of the Council of Agricultural Research as Chairman of the Central Jute Committee."

The above proposals were made the subject of a communication addressed by the Government of India on the 27th June, 1929, to the Government of Bengal in which the latter were asked to elicit the opinion of local commercial bodies with particular reference to the personnel of the proposed Jute Committee. The opinions then received were sharply at variance with one another, those expressed by the European commercial interests* being strikingly conflicting with the views of the Indian commercial bodies. The views of the former group were most emphatically and elaborately put forward by the Indian Jute Mills Association, since re-iterated before us by the latter with no modifications whatsoever except that on the present occasion these were expressed with reference to a Provincial Jute Committee. The standpoint represented by the Jute Mills Association and other European commercial bodies is that the functions of the Jute Committee should be primarily confined to *research* and that it should act in *a purely advisory capacity*, without interfering in any way with functions belonging to the trade itself. These interests claim that their standpoint is endorsed by the Government of India, who, in their subsequent communication on the subject in 1931, inviting opinion from Provincial Governments, and through the latter, from commercial associations, observed that "such questions as jute growing, jute futures and the like are primarily matters for the trade and if the Central Jute Committee considered that action in respect of them were needed in the interest of jute growers, it would be for them to convince the trade of its desirability."† Not only so, the Jute Mills Association goes even further to suggest that a provision should be made to the effect that no decision of the Committee with regard to the exercise of its functions should be effective unless the decision was supported by each of the commercial bodies represented on it, and that failing such unanimity in the trade itself, the Jute Committee should be of a purely advisory nature. Subject to these conditions, the aforesaid Association suggests that the functions of the Jute Committee should be confined to agricultural, technological and economic research, the improvement of crop forecasting and statistics, the production, testing and distribution of improved seeds and the dissemination of information in the interest of the jute industry in India.

The above standpoint, so strongly advocated by the Indian Jute Mills Association, has been pressed on us as being the actual recommendation of the Royal Commission on Agriculture and also of the Government of India, who, in inviting opinion on the constitution and functions of the Central Jute Committee, indicated its character as being primarily a research institution.

On the other hand, it has been pointed out to us, with equal emphasis, by certain sections of the Indian commercial interests that ever since the original communication on the subject started by the Government

* *Vide* Appendix IX.
† *Vide* Appendix X, page 138.

of India in June 1929, a very vital difference of opinion has been subsisting in regard to the status and functions of the proposed Jute Committee, the need for which has been almost universally admitted. It cannot, therefore, be claimed, though the Government of India proposed in their reference to the subject in 1931 to circumscribe the functions of the Jute Committee primarily to research, that any definite and final decision had been reached in regard to this point. On the contrary, we find that the standpoint taken up by the Jute Mills Association was very effectively challenged by the Bengal National Chamber of Commerce at the inception of the controversy in 1929. Replying to the letter of the Government of Bengal with reference to a communication of the Government of India (No. 1069 Agri., dated the 27th June 1929) the aforesaid Chamber observed: .

"This interpretation of the object and scope of the Central Jute Committee unduly circumscribes its functions and leaves no chance for the latter to introduce any necessary changes in the organisation of the trade in Jute. The Committee of the Chamber are definitely of opinion that it has never been the object of the Royal Commission on Agriculture to set up a Committee with such innocuous functions, as would confine it to experiments on research alone. However vaguely the arguments and recommendations of the Royal Commissioners may have been worded, they clearly laid it down, 'that a Central Jute Committee should be formed on the lines of the Central Cotton Committee,' which would have '*to watch over the interests of all branches of the trade from the field to the factory*.' This would necessarily entail very heavy responsibilities on the Jute Committee, which in such circumstances would be required, like its counterpart in the cotton trade, to carry on research and market surveys, advise the Government with regard to agricultural and commercial policy underlying jute cultivation and jute trade, and maintain a bureau of statistical and other information. Such must have been the anticipation of the Royal Commission on Agriculture with regard to the functions of the Jute Committee, and the Committee of the Chamber presume that this interpretation of the scope and functions of the proposed Jute Committee has been tacitly accepted by the Government of India who have invited suggestions with reference to the Cotton Cess Act of 1923. The preambulatory statement of the Indian Cotton Cess Act which assigns the grounds of the enactment as 'to provide for the creation of a fund to be expended by a Committee specially constituted.........for the improvement and development of the growing, marketing and manufacture of cotton in India' is alone sufficient to dispel the notion that the Jute Committee is proposed to be a mere adjunct to the existing research institutions. The Committee of the Chamber consider it necessary that a definite pronouncement to this effect should be made by the Government of India."

When in 1931, the discussion of the subject was re-opened by the Government of India suggesting that "the functions of the Committee should be confined to agricultural, techonological and economic research, the improvement of crop forecasting and statistics, the production, testing and distribution of improved seed, enquiries and recommendations relating to banking and transport facilities and transport routes and the improvement of marketing," a protest was again made by the aforesaid Chamber in the following words:—

"Regarding the functions of the Committee, the proposals of the Government of India that these should be confined to agricultural, technological and economic research, the improvement of forecasting and statistics, enquiries and recommendations relating to banking and transport facilities and transport routes and the improvement of marketing, are extremely disappointing to this Chamber as these must be to all Indian sections of the trade as also to the agricultural interests. The Committee of this Chamber had from the very inception of the idea reposed much hope on the services of the Jute Committee which was contemplated to set right the woeful condition of the trade arising from the absence of any settled standard of quality and the disorganised condition of the growers of jute. In fact, in their opinion, the constitution of a Jute Committee was called for primarily for the benefit of the cultivators, whose economic dependence on this particular crop can hardly be exaggerated. The benefit sought for was the improvement of the marketing conditions such as would enable them to obtain a fair percentage of the export price. No amount of agricultural research, nor any desirable improvement of the transport facilities would enable them to obtain this fair price so long as the handicaps relating to the conditions of sale are not removed. The expectation was therefore roused by the constitution of the proposed Central Jute Committee that it would address itself to the task of ensuring better conditions of marketing jute by initiating legislation regarding definite standards of quality as also by setting up organised markets in the various mufassil trade centres. The Government of India have put forward a most dangerous principle that the proposed Committee should not be given any powers of interference with the organisation of the trade relating to such matters as grade specifications of the fibre, the organisation of a futures market, etc., which, in the opinion of the Government, may be taken care of by the trade itself. They have. therefore, proposed that if the Central Jute Committee ever considered that action in respect of these matters were needed in the interest of the jute growers, it would be for the Committee to convince the trade of its desirability. The result of divesting the Committee of any real power in this direction would be to reduce it to the position of a merely scientific body with advisory functions. In the existing disorganised condition of the trade, entailing losses of crores of rupees to the helpless cultivators, the potentiality of such a Committee would be quite insignificant. The Committee of the Chamber would, therefore, most emphatically urge that the Government of India should thoroughly reconsider their proposal regarding the functions of the Committee so as to make it a really useful institution by investing it with powers of effective control over the conditions of the jute trade."*

Almost identical objections were raised on this point by other Indian commercial bodies.

Thus, according to this standpoint a Jute Committee is contemplated to be a comprehensive organisation with a wide scope, having control over the entire jute trade "from the field to the factory." The argument specially urged in favour of this standpoint is that neither the existing conflicts between sectional interests, nor the grave defects arising out of the ignorance, poverty and disorganised condition of the cultivators can be removed unless the task of co-ordinating the various interests and of safeguarding the interests of the cultivators is vested in a representative body possessing necessary statutory powers. For obvious reasons it would be impossible for the Department of

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* *Vide* Report of the Bengal National Chamber of Commerce for 1931 (Appendix I, pages 20-29).

Agriculture or any other department of the Government to achieve the aforesaid difficult tasks. Besides, to ensure smooth working and fruitful results, it is necessary that the task of initiating the various reforms and re-organisations should be entrusted to a single authority having the insight into the necessity and significance of a proper correlation of these, and also possessing the resources for carrying these into effect with the least possible friction. Evidently, the best device in this regard should be to set up an institution consisting of members representing agricultural, trading and manufacturing interests, or precisely, what the constitution of the proposed Jute Committee is contemplated to be. This conception of the Jute Committee deserves, in our opinion, an unqualified support not only for securing the desired harmony between the various interests connected with jute but also to ensure an efficient, correlated and harmonious working of the various changes recommended by us. We believe that the acceptance of such a scheme would not in essence detract from the principle that matters of importance to the trade should be left to be decided by the trade itself, as the proposals of the Jute Committee, constituted as it will be on a fairly representative basis, would themselves represent the decision of the trade. To preclude, however, the risk of the interests of particular sections being ignored by the numerical strength of the rest, such as is pointed out by the Jute Mills Association, we recommend that in cases of a difference of opinion between the representatives of various sectional interests in the Committee, the decision of the latter shall take effect only on sanction by the Government.

*Functions.*

Thus the functions that should be appropriately entrusted to the proposed Jute Committee must be much wider in scope than is suggested by "research." We think that the functions that should belong to a properly constituted Jute Committee fall under three different categories, viz., *Research* (agricultural, industrial and commercial relating to the finding of either new uses or new markets for jute), *Information and propaganda,* which comprise education of agriculturists, preparation and publication of forecasts, dissemination of market intelligence, propaganda for regulation of crop as well as for expansion of market, etc., and *Control* extending to survey of markets, inspection of stocks, administration of organised markets when these are established, regulation of the standards of quality according to law, arbitration in disputes, etc. Evidently, for discharging such diverse responsibilities the Jute Committee will require the assistance of special Sub-Committees composed, as a rule, of its own members, a provision being made to the effect that if and when it is considered necessary, non-members may also be co-opted. The nature of the functions stated above makes it incumbent that the special statute, which will bring the Jute Committee into existence, must also confer executive powers on the Committee and ensure full co-operation between it and the various Government Departments (*e.g.*, Agricultural, Industries and Co-operative) and officials whose assistance may be considered necessary to facilitate the working of the Jute Committee.

*Constitution.*

Regarding the constitution of the Committee, the opinion has been expressed by some members of the Enquiry Committee that instead of being set up on a provincial basis it should be an all-India institution established on the lines of the Central Cotton Committee, such as was originally proposed by the Government of India. The arguments adduced in favour of this suggestion are that a Committee set up for all the jute growing provinces would be more effective and that the scheme for a Central Jute Committee being still under the consideration of the Government of India, it would be better to leave the matter for decision by the latter, in which case, the Jute Committee would be in a position to take up its function immediately being given the necessary financial support, while a Provincial Committee, having to depend primarily on the allotted quota of the jute export duty to the Provincial Government, would have to await the inauguration of the constitutional reforms. We are unable to endorse this view on very obvious grounds. Our conception of the function and responsibility of the Jute Committee is so different from the original proposal of the Government of India that the standard of effectiveness has an altogether different connotation as applied to it from what may be contemplated by the supporters of a Central Committee. Besides, we consider the functions to be so fundamental in the whole conception of the matter that we regard it impossible to surrender the claims of these functions to what immediate financial advantage may be obtained from the Government of India in the form of a concession from the export duty. Even in regard to the possibility of getting immediate financial help from the latter, we feel sceptical about the Government of India themselves taking any definite action at this stage of imminent reforms in the constitution.

We, therefore, recommend the constitution of a Bengal Jute Committee, laying special emphasis on the functions we have proposed for it. Our recommendation for a Provincial Committee is influenced by the idea that a Jute Committee entrusted with the specific functions suggested by us would be able to function most efficiently, only if it is put under the control of the Provincial Government. At the same time we recognise the usefulness of the co-operation of all the jute-growing provinces in respect of certain functions of the Jute Committee, particularly those relating to the regulation of production, and we propose that while the establishment of the Jute Committee should not be made dependent on a prior agreement of the Governments of the various jute-growing provinces, it should be kept open to the latter to extend their co-operation in the matter, in which case they should also be given the right of representation on the proposed Jute Committee according to the magnitude and importance of their interests in jute. Making allowance for such contingencies in future we recommend that the proposed Jute Committee shall have a membership composed of as follows:—

(1) Minister of Agriculture, Bengal (*Chairman—ex-officio*).

(2) One representative of the Imperial Council of Agricultural Research.

(3) Director of Agriculture, Bengal (*ex-officio*).

(4) Director of Industries, Bengal (*ex-officio*).

(5) Registrar of Co-operative Societies (*ex-officio*).

(6) One representative of the Indian Jute Mills Association.

(7) One representative of the Bengal Chamber of Commerce.

(8) One representative of the Bengal National Chamber of Commerce.

(9) One representative of the Indian Chamber of Commerce.

(10) One representative of the Muslim Chamber of Commerce.

(11) One representative of Jute Growers Association.

(12) to (14) Three representatives of the jute-growing interests.

We recommend that the last three should be nominated, pending the development of *bona fide* agricultural associations, by the Government from a panel of names submitted by the co-operative societies and *panchayats*.

The Secretary of the Committee should be a wholetime officer having extensive knowledge of the agricultural and commercial problems of the Province. The Committee should also be assisted by a staff of technological experts and statisticians.

*Finance.*

In regard to the financial resources of the Committee, reference has already been made to the proposal of the Government of India suggesting the amount of Rs. 5 lakhs in connection with the Central Jute Committee. The amount was presumably estimated to meet the expenses of research alone. In view, however, of the more extensive scope of functions proposed by us for the Committee, it may appear reasonable to provide for much larger expenses for the Committee as recommended by us. It is not possible to specify the additional amount that may have to be provided on this score, as the same can be suggested only after some experience has been obtained of the working of the Jute Committee on the lines proposed. We are, however, confident that the additional expenditure would not be prohibitively large and should indeed be quite moderate in view of the fact that an effective liaison being established between the Jute Committee and the various Government departments, the former should be able to discharge its functions largely through the existing administrative channels.

Regarding the source of finance, the original suggestion made by the Government of India in connection with the Central Jute Committee was to relinquish their claim upon a portion of the jute export duty equivalent to Rs. 5 lakhs per annum, so that the Provincial Government might levy a cess on jute yielding the corresponding amount. It is confidently expected that the position in this regard will materially change with the inauguration of the constitutional reforms under which the Government of Bengal will get a share (amounting to about half) of the jute export duty, the residue being contemplated to be retained by the Government at the centre, though claims are at the same time being continuously pressed to relinquish the entire proceeds of the duty to the Provincial Government. It is premature to say how the question will be settled finally. Should it, however, be decided to reserve a share of the duty to the Federal Government, we consider that the latter should, in accordance with the principles underlying the original proposal of the Government of India, contribute from its general revenues the amount of Rs. 5 lakhs to the funds of the proposed Bengal Jute Committee. Whatever may be required in excess of this amount in view of the comprehensive functions proposed for the Jute Committee, will have to be raised by the imposition of a local cess on jute. It may be pointed out that according to the estimate made in this regard by the Government of India, even a moderate rate of one anna per bale would yield an annual revenue of more than Rs. 5 lakhs on the basis of the normal yield of the crop. The income derived from these sources should thus prove substantial in discharging the responsibilities of the Jute Committee with a view to improve the condition of the trade. To provide the expenses of any large capital programmes, or to meet any emergency, it may be possible even to devise a scheme of raising loans. The improvements towards which the funds thus raised should be spent must, as a rule, be conducive to such rise in the price of the fibre as to justify a slight increase in the rate of the cess in order to meet the interest and sinking fund charges.

## SUMMARY.

For convenience of reference we summarise our conclusions as follows:—

*Survey of the present condition of Jute (Agriculture—Industry—Trade).*

(*i*) Although the acreage under jute is conspicuously smaller than that under rice, jute is the pre-eminent commercial crop of Bengal, accounting for about half the total value of exports from Bengal and contributing, normally, more than 25 per cent. of the total value of Indian exports.

(*ii*) Comparative importance of jute is also borne out by the values obtained by the agriculturists in Bengal for the marketable surplus of various crops grown in the Province.

(*iii*) In respect of the value of principal crops per acre in Bengal jute comes next only to sugarcane and tobacco.

(*iv*) Jute is to be regarded as a "monopoly" of Bengal only in the sense that the bulk of the fibre is grown only in this Province; it does not, however, denote, having regard to the conditions in which the crop is grown and marketed, an "economic monopoly", which suggests effective control by the producers over the determination of the price of the monoply product.

(*v*) Though the jute growers are at present disorganised, certain characteristics of the cultivation of jute suggest the feasibility of organising them, provided the movement is started under good auspices and is given the necessary help and guidance by the Government.

(*vi*) Of the total crop of jute more than 50 per cent. is consumed in the mills in Calcutta, while the rest is exported abroad with the exception of an *ex factory* domestic consumption of 5 lakhs of bales.

(*vii*) Before the establishment of the factory industry, hand weaving of jute on a cottage industry basis was in the most flourishing condition till about the middle of the last century and, as a matter of fact, accounted for the entire amount of exports of jute fabric from India.

(*viii*) The history of the factory industry in Bengal, though marked by vicissitudes, is one of progressive expansion.

(*ix*) Though Dundee is the original home of jute mills, the dimension of the local industry has outstripped the size and importance of the manufacturing concerns in Great Britain, particularly in respect of the coarser jute goods.

(*x*) The jute mill industry has now established itself in several countries in Europe, and also America and Japan.

(*xi*) Though there has been a remarkable expansion of the jute mill industry in Bengal ever since its inception, a distinct lack of variety in the manufactures has all along remained a striking feature of its growth.

(*xii*) The danger of over-production has consequently been frequently a most disturbing feature of the jute mill industry in Bengal.

(*xiii*) Of the amount of jute that is exported abroad, a large proportion is used in manufacturing shirtings, curtains, carpets and rugs, and other costly fabrics of mixed silk and wool.

(*xiv*) The statistics relating to the export of jute show that while the markets within the British Empire were the most important before the War, their pre-eminence has since been lost to the markets situate outside the British Empire.

(*xv*) Despite the fact that jute is a monopoly product of Bengal, the export trade in the fibre is subjected to tariff hindrances in and outside India.

(*xvi*) Except the cultivators, all other interests connected with the jute trade are well organised.

(*xvii*) There has been a catastrophic decline in the price of jute during the last three years, inflicting a serious loss on the people of Bengal.

(*xviii*) Though the depression has been a common factor affecting prices in general, the fall in the price of jute has been much more acute owing to over-production and accumulation of stock than in the case of other agricultural staples in India.

(*xix*) While the manufacturing interests have successfully averted loss, by restricting production, the cultivators who were unable to initiate organised action could not avail of such remedy, except to a very limited extent, when they curtailed production under persuasion by propaganda in 1930-31.

(*xx*) As jute accounts for about half the total value of the exports from Bengal, the heavy fall in its price and the consequent distress are also to be ascribed to the artificial over-valuation of the Rupee. It is necessary that the prices of agricultural commodities be doubled.

*Regulation of Production.*

(*xxi*) The need for adjusting supply to demand is of the nature of an economic dictum.

(*xxii*) Realisation of the fact that agriculture, as compared to industrial interests, needs special protection, has led many countries to organise agriculturists with a view to controlling production in relation to demand.

(*xxiii*) The contention that, in the case of jute, supply is automatically adjusted to demand by natural corrective forces, involves a deductive fallacy and is contradicted by experience.

(*xxiv*) Actual experience of the trade reveals that a large over-production of jute in any particular season keeps the price depressed for several years owing to a heavy accumulation of stock and this suggests the necessity of regulating production.

(*xxv*) The strenuous efforts made by the Governments of various countries to protect the interests of the agriculturists during the present world depression add greater point to the necessity of devising a plan for the protection of jute.

(*xxvi*) Three methods of controlling production are suggested, viz., on a voluntary basis, by compulsory regulation and adoption of compulsory measures after an initial trial of voluntary restriction.

(*xxvii*) The objections raised against regulation may be dealt with under three categories, (1) the necessity of control, (2) the feasibility of any scheme of control, and (3) the advisability of any such scheme.

(*xxviii*) Against the criticism that it is not possible to make a correct estimate of the probable demand, it may be contended that the object of control will be substantially achieved even if there is a small margin of disparity between the estimated demand and actual supply.

(*xxix*) The argument that regulation of the production of jute should not be embarked upon in view of the alleged failures of restriction schemes hitherto adopted in many countries in connection with various articles of importance such as cotton, coffee, etc., is rebutted by the fact that jute is distinguishable from these other commodities by its monopoly condition of supply, which assures its comparative immunity from the dangers which were singly or jointly responsible for the collapse of restriction schemes in other countries.

(*xxx*) The criticism that any scheme of compulsory regulation of jute would involve a serious interference with individual liberty is also answered by pointing out that regulation of individual action is in many cases a better way of ensuring the common good and through it also the interests of the individual.

(*xxxi*) The problem arising in connection with the utilisation of lands to be released from jute cultivation need not present any insurmountable difficulty and is one that has to be tackled even on the wider economic consideration of strengthening the economic position of the Province by a diversification of crops so as to relieve its extreme dependence on the single crop of jute.

(*xxxii*) The argument that a scheme of compulsory control would demand a too elaborate and expensive administrative machinery is answered by pointing out that the magnitude and expense of the administrative machinery can be kept within reasonable limits if the actual distribution of quotas and checking of evasions are primarily entrusted to associations of agriculturists and the task of initiation and supervision is discharged by suitable existing administrative agencies.

(*xxxiii*) The above criticism also meets the objection raised on the ground that the initiation of compulsory regulation may prove a source of oppression and harassment to cultivators.

(*xxxiv*) The concrete scheme of regulation comprised in the Bengal Jute Growers Bill of 1931, involves certain problems which suggest its adoption at this stage inadvisable, particularly in view of the difficulties that would arise from the requirement of issuing license to individual cultivators year to year, and also from the absence of control of the Provincial Government over currency affairs.

(*xxxv*) Our recommendations omitting legislative control at the initial stage, but fundamentally based on certain proposals regarding the institution of a comprehensive organisation so as to ensure the effectiveness of regulation even on a voluntary basis, are contained in page 104.)

*Jute Forecasts.*

(*xxxvi*) The one essential of forecasts is accuracy which has been found to be remarkably wanting in the jute forecasts published in recent years by the Agricultural Department.

(*xxxvii*) Instead of being helpful to the trade, the official forecasts often mislead the market, causing violent fluctuation and speculation owing to a discrepancy with the trade's estimate of the crop.

(*xxxviii*) The present inaccuracy of the forecasts appears to be due to the rough and ready manner in which the estimates furnished by the Union Boards to the Director of Agriculture are prepared, though it is reported that the inaccuracy is also to be attributed to the present methods of preparing the estimates through official channels alone, without consulting the commercial interests as fully as is considered desirable.

(*xxxix*). The supply of necessary information to the cultivators regarding the probable demand for jute is provided for in our recommendations pertaining to the constitution of a Bengal Jute Committee.

(*xl*) We recommend that interim weekly or fortnightly reports containing information regarding the estimates of sowing as compared with the previous year, the progress of the jute crop, stocks, the effect of weather, rise or fall of rivers, pests, etc., should be published in the "Calcutta Gazette", and in English and vernacular press and made available to subscribers as early as possible.

(*xli*) Regarding the necessary staff, the agencies and staff that will have to be provided to the Jute Committee in connection with the regulation of the cultivation of jute, propaganda, etc., will also be available for rendering necessary assistance in the preparation of the jute forecast.

## *Marketing of Jute.*

(*xlii*) There is a series of middlemen who participate in the movement of jute from the agriculturists to the jute baler or jute mills, viz., *Farias*, *Beparis*, *aratdars* or mofussil agents of Calcutta merchants or balers and brokers.

(*xliii*) The average cost of movement, including the cost of transit being so high as above Re. 1 per maund, we consider it necessary that the freight charges for jute carried to Calcutta should be reduced during times of depression, and possibilities of encouraging boat traffic examined by devising necessary facilities for insurance.

(*xliv*) Although the various kinds of allowances represent old and recognised customs requiring, as a rule, the buyer in each case to pay a correspondingly higher price on account of the allowances, we think that much misunderstanding and trouble will be avoided and a simpler working ensured if all the allowances were abolished.

(*xlv*) The cultivators are at present familiar with the varied forms of local weights and with prices quoted in regard to them, but it cannot be denied that such difference in weights often offer opportunities for cheating.

(*xlvi*) The jute mills enter into forward contracts with the Calcutta merchants on the basis of "standards," but very often the grade specifications are rendered completely ineffectual by the purchasing policy of the mills.

(*xlvii*) The expansion of co-operative sale societies among the cultivators as a means of establishing a direct contact between growers and merchants should, in our opinion, be specially encouraged, but such sale societies should not run the risk of market fluctuations and must, as a rule, sell their respective stocks at the earliest possible opportunity.

(*xlviii*) We fully endorse the recommendation of the Royal Commission on Agriculture for the establishment of properly regulated markets for jute, such as have been successfully established and run in connection with cotton in Berar, the Central Provinces and Bombay, and recommend that initially a few markets should be established on an experimental basis.

(*xlix*) The criticism, that a large number of small cultivators may not find it possible to take advantage of regulated markets, is answered by pointing out that while many among such cultivators will be enabled to operate in such markets through co-operative societies, even those keeping aloof would benefit from the general improvement of the tone of the jute trade that would follow from the establishment of regulated markets.

(*l*) Similarly, the argument that the cultivators will be disinclined to resort to regulated markets because of the difficulty of transport is rebutted by the fact that the network of rivers and canals in the jute districts provides facilities for transport at a very cheap rate.

(*li*) We consider that if the organisation and regulation of the markets be left entirely in the hands of local bodies they will lack uniformity; we, therefore, recommend that a special legislation on the lines of the Central Provinces Cotton Market Act of 1932, should be passed by the Government of Bengal at an early date.

(*lii*) In our opinion, the cultivators, being more vitally interested in the management of the markets, should be allowed to elect at least half the number of the members of market committees.

(*liii*) The Act should provide that when a regulated market has been established at a certain place, no unauthorised markets should be allowed to exist within the area of the former or within a specified distance therefrom.

(*liv*) We recommend that arrangements should be made to supply the regulated markets regularly with necessary information regarding stock in Calcutta, prices in Calcutta from day to day, weather reports, etc.

(*lv*) We recommend that standardised weights should be used not only in the regulated markets, but also in municipalities, jute buying centres, baling centres, etc.; we also recommend a systematic propaganda in favour of standardisation.

(*lvi*) The Banking Enquiry Committees (both Central and Provincial) recommended standardisation of the qualities of jute by legislation: similar proposals were urged upon the Government by various commercial interests including the Federation of Indian Chambers of Commerce and Industry, but no action in this regard has been taken so far.

(*lvii*) We recommend that legislation should be passed to fix the standards and that no alteration should be made therein unless the Government is satisfied that any change is necessary.

(*lviii*) We recommend that the legislation should provide that, pending the establishment of the Jute Committee, final arbitrations regarding the quality of loose jute shall be held by arbitrators drawn from panels supplied by the Bengal, the Bengal National, the Indian and the Muslim Chambers of Commerce.

(*lix*) To provide a necessary supplement to the re-organisation of marketing methods and practices proposed by us, and to strengthen the bargaining power of the growers of jute, we recommend the establishment of licensed warehouses furnishing suitable storage facilities, such as will enable the cultivators to deposit their stock in the warehouses and get temporary financial accommodation, not otherwise available against the crop of jute, by discounting the warehouse receipts with money-lending agencies; such warehouses may initially be established on an experimental basis.

(*lx*) The unique bearing of jute on the whole economic fabric of Bengal and the monopoly condition in which the fibre is grown strongly indicate the necessity and feasibility of a complete rationalisation of the entire jute trade, though such rationalisation may not be immediately achievable.

(*lxi*) Rationalisation of the agricultural industry is increasingly being adopted in many advanced countries that are tending to organise the sale of agricultural products in the direct interest of producers, the purchase and sales being transacted through a centralised organisation serving the interest of both producer and consumer; the importance and potentialities of jute require that such a scheme of rationalisation should be visualised as the ideal organisation of the jute trade.

(*lxii*) We are impressed by the proposal that following the example of the hemp trade in Phillippines and the Cotton trade in the United States of America, legislation should be passed in this country providing for the inspection and certification of jute exported, and we recommend this for consideration by the Government and the people interested in order that better considered opinion may be formed over the question. We also recommend that when the Jute Committee proposed by us is established, it should give special attention to the subject.

(*lxiii*) A futures market offering scope for speculation is justifiable because it provides several advantages—widening the market, facilitating trade intelligence, maintaining a comparative steadiness in price by hedging facilities and avoidance of violent fluctuations.

(*lxiv*) There is a real need for a futures market in jute in the prevailing circumstances of the trade, as fluctuations in the price of jute are no less violent than in the case of other staple commodities for which such markets have been established.

(*lxv*) We endorse the suggestions of the London Jute Association as essential to the organisation of a Jute Futures Market, viz., that the organisation should be established by statute, that all sales and purchases should be the subject of written and stamped contracts in the prescribed form, that dealers should have the right to demand delivery of the produce mentioned in the contracts within a reasonable period and that a minimum quantity should be fixed, below which no transaction should be valid in law. The organisation of the market itself may, however, in our opinion, be entrusted without much risk to private initiative. The other conditions are satisfied by the East India Jute Association.

(*lxvi*) For a detailed scheme we endorse the proposals made by the Jute Futures Committee appointed at the Conference of jute interests held under the auspices of the Bengal Chamber of Commerce and we recommend that the same should be given a trial making necessary provision for alteration and modification in the light of experience.

*Jute Substitutes and Research.*

(*lxvii*) We do not wholly agree with the view stressed by several European commercial associations, including the Jute Mills Association, that jute is threatened with displacement by other competing fibres or synthetic materials, as well as mechanical devices for bulk handling which altogether dispense with the use of Jute.

(*lxviii*) A scrutiny of facts reveals that the position of the raw fibre, which has been attempted to be grown in various countries, such as Java, America and West Africa with no success, is comparatively immune; a real danger, however, threatens jute goods, arising from the use of such synthetic materials as paper, mechanical contrivances like grain elevators, and the protective fiscal policy deliberately adopted by several countries to encourage local manufacture of substitutes.

(*lxix*) The danger from the competition should not, however, be exaggerated as the determining factor to regulate the course of the development of the phenomenon in future will be the comparative price, in respect of which jute is ultimately likely to stand on a vantage ground against most of the substitutes used, particularly after the disappearance of the present depression.

(*lxx*) It is difficult to pronounce how far the substitutes and contrivances that are now threatening to displace jute or jute goods, will inflict a permanent injury on the jute trade; for the fields that may be lost to the jute trade in this way may be amply compensated for by possible extension of the uses of the fibre and jute goods in directions that remain unexplored.

(*lxxi*) Though confronted with competition from substitutes, and compelled for years to produce below their total capacity, the jute mills in India have hitherto shown striking indifference in the matter of finding new uses for jute almost all of which are creditable to foreign manufacturers.

(*lxxii*) While the question of research, for which we recommend the establishment of a research organisation by the jute mills, is of great significance to the future of the jute trade, an attempt must be made by the mills to reduce the cost of jute goods; such reduction is deemed justifiable in view of the disproportionately wide gap between the harvest price of jute and the price of jute manufactures.

(*lxxiii*) There is no reason to believe that the potentialities of the handloom industry have been completely exhausted, and we recommend that the Jute Committee, when established, should make strenuous efforts to develop the use of jute in the handloom industry.

*Bengal Jute Committee.*

(*lxxiv*) The suggestion of a Bengal Jute Committee is to be traced to the Report of the Royal Commission on Agriculture who recommended the establishment of an Indian Central Jute Committee to keep a watch over the interests of the jute trade from the field to the factory.

(*lxxv*) While the proposal of the Royal Commission was circulated by the Government of India for eliciting opinion of Provincial Governments and the commercial community, the European commercial bodies in Bengal strongly urged that the proposed Jute Committee should be a mere advisory body and that its functions should be primarily confined to research; the Indian commercial bodies, on the other hand, were most emphatic in their opinion that the responsibility of keeping a watch over the interests of the trade from the field to the factory required that the scope and functions of the Jute Committee should be much wider and that the Committee should be invested with effective powers of control over the trade as a whole.

(*lxxvi*) We approve of the view taken on the subject by the Indian commercial bodies, as the wider responsibilities and functions are necessary not only for securing a harmony between the various interests connected with jute but also to ensure an efficient, correlated and harmonious working of the various changes proposed by us.

(*lxxvii*) The functions of the Jute Committee recommended by us fall under three different categories, viz., Research, Information and Propaganda, and Control.

(*lxxviii*) Our detailed recommendation regarding the constitution of the Jute Committee is given on page 154.

(*lxxix*) While the Royal Commission on Agriculture anticipated an annual expenditure of Rs. 5 lakhs for a Central Jute Committee, the wider scope and functions recommended by us for the Provincial Committee will necessarily entail a larger expenditure; an effective liaison however, between the Jute Committee and the various Government departments will enable the former to discharge its functions largely through the existing administrative channels and so to keep the additional expenditure within reasonable limits.

(*lxxx*) The source of finance of the Jute Committee will depend upon the allocation of the prevailing jute export duty under the ensuing constitutional reforms; should it be decided to reserve a share of the duty to the Federal Government, we consider that the latter should contribute from its general revenues the sum of Rs. 5 lakhs to the funds of the Bengal Jute Committee, the amount being supplemented, if necessary, by the imposition of a local cess on jute or by loans.

NALINI R. SARKAR.

N. RAJABALLY.

D. P. KHAITAN.

N. C. SEN GUPTA.

M. A. MOMIN.

*The 15th November 1933.*

*Signed subject to a note of dissent.

# Note of Dissent by Dr. N. C. Sen Gupta, M.L.C.

## Introductory.

1. I regret to have to differ from my colleagues on two fundamental points, viz., those relating (1) to restriction of jute, and (2) to co-operative organisation of the sale of jute. I give below my opinions on these two questions. The substance of this note was circulated in writing to the members of the Committee, but I regret to find that neither of the two reports makes any attempt to meet the arguments herein set out.

With regard to my proposal for the compulsory control of the production of jute, it is somewhat disconcerting to find that the majority of my colleagues, who have signed the Minority Report, while they have put forward the strongest arguments in favour of compulsory restriction have wound up by recommending only regulation on a voluntary basis. Their apprehension on the score of unlicensed production of jute being a criminal offence is absolutely baseless. For, on a reference to my Bill (*vide* Appendix XV) it would be found that the penalty for producing or dealing in unlicensed jute is only a fine, imposed by a village tribunal, in order to neutralise the profit that such grower might otherwise make.

I wish also to point out that the experience of the past few years is ample proof that mere propaganda and recommendation is absolutely futile for securing a control of jute which everybody agrees is desirable.

I also note with regret that in formulating their opinions on this question both the wings of the Committee seem to have agreed to ignore totally the opinions expressed by witnesses from the mofussil, including high officials like District Magistrates and Deputy Directors of Agriculture, down to cultivators, which were overwhelmingly in favour of compulsory restriction.

## I.—Regulation of cultivation of jute.

2. It has been agreed by my colleagues of both wings that it would be of great advantage if the crop could be regulated with reference to the expected demand for it. It has been noted that the lack of adjustment between supply and demand has been responsible for great fluctuations. Every year of exceptional high prices has been followed by an excessively high acreage which has led to a slump lasting for several years till the old stocks have been consumed. This would not have been possible if the production could be adjusted to the demand. It is, therefore, agreed by the entire Committee that some steps should be taken to ensure that the sowing should correspond to the expected consumption.

It has been agreed likewise that there should be a central organisation, representing all jute interests, one of whose functions would be to estimate, on the basis of available data, what area of land could be profitably cultivated with jute in the following season and to pass on the information to the cultivators in a form intelligible to them.

3. We shall assume, therefore, that a Central Committee is established and that in January or February the Committee decides that a certain percentage of the area under jute in the previous year should be cultivated. Then this information is widely disseminated in the jute growing districts.

The investigations to be made by the Central Committee and the dissemination of that information would involve some expenditure which should not be incurred unless and until we can say that it would result in the desired regulation.

In order that it may do so it is first of all necessary that the data upon which the Committee proceeds are absolutely reliable, and secondly, that there is a reasonable chance of the Committee's recommendations being properly implemented.

4. The only way, apart from legislative restriction, is propaganda. But experience has shown that propoganda alone is of extremely small value to induce the cultivator to grow a short crop.

During the past two years a most intensive propaganda was carried on, both by the Government and by non-Government agencies. This was followed by a substantially reduced acreage, but, be it noted, not low enough to raise prices substantially.

It would be idle to pretend that the propaganda was no help at all, but, its importance in achieving a reduction of crop should not be exaggerated. For, on looking at the prices and the acreage of past years we find that, apart from any propaganda, every phenomenal drop in price was followed by a remarkable drop in the acreage, just as a high price immediately led to a rise in acreage. It would therefore be wholly injustifiable to think that the reduction in acreage has been due to propaganda rather than to the ruinously low prices. The more instructive fact is that last year in spite of intensive propaganda about 20 lakhs bales more jute has been grown than in the previous year. Similarly, it is also instructive that when the Congress carried on an intensive propaganda, while there was a short crop in the year after the prices were low, a large crop followed in spite of propaganda when the prices improved.

5. The fact is that with the vast number of wholly unorganised cultivators spread over an enormous area, no scheme of voluntary and unregulated restriction can possibly succeed. As witness after witness has stated before us, when restriction of crop is very much talked of every cultivator thinks of making a small private gain by growing a little more crop than the others and thus frustrates any scheme of reduction. The only thing that effectively teaches them is a ruinous price for their crop.

6. A restriction of the crop by compulsory legislation is, therefore, clearly indicated as the only possible solution once we agree, as we have done; (1) that the value of the jute crop is a matter of fundamental importance to the economic life of Bengal; (2) that a fair and steady value can only be maintained if, along with other measures, the cultivation of the crop can be regulated according to the expected demand; and (3) that there should be such regulation.

7. I need only draw attention to the practically unanimous opinion of all persons in the mofussil, who have given their evidence, in favour of legislative restriction, including among them jute growers, jute-merchants, Presidents of Union Boards, Deputy Directors of Agriculture, District Agricultural Officers, Circle Officers, Chairmen and

Members of District Boards, and District Magistrates. It is futile to brush aside all this testimony as ignorant, for a study of a great deal of this evidence shows much practical and theoretical knowledge and a far deeper grasp of the actual conditions in the villages than we can pretend to.

8. Witnesses who have spoken against legislative regulation, notably balers, mill owners and shippers, have generally contented themselves with their *ipse dixits* and have put forward no cogent reasons against legislative restrictions, beyond vague suggestions of oppression and harassment which are easy to provide against. One witness, Mr. Hughes, has seen in a scheme of restriction possibilities of far greater complications in land laws which are wholly imaginary. For no one ever suggested that a yearly licence to grow jute will be a permanent right attached to the land which might open up large questions of title to be litigated in civil suits.

Dr. Meek in his evidence expressed himself in favour of regulation by means of co-operative societies and he went so far as to say that he would have it made compulsory that a jute grower should be compelled to be a member of a co-operative society. He did not visualise that that would necessarily involve legislation to the effect that no one should cultivate jute unless he was a member of a co-operative society.

9. Several witnesses suggested that regulation of cultivation could be effectively made through co-operative societies. There can be no doubt that this could be done on Mr. MacDougall's scheme under which practically the Jute Corporation will be distributing quotas of jute to be cultivated among the various co-operative organisations. It could also be done if by any means all the production of jute could be brought into the hands of a complete co-operative organisation. I should most strongly advocate working up to such an ideal.

But the following things must be remembered:—

(1) Such an elaborate organisation will take years to build up. And it may well be that by the time the organisation is built up jute may cease to have the commercial value it now has.

(2) It would be impossible to bring all jute cultivators or even the bulk of them into any co-operative organisation until their indebtedness to *mahajans* is removed or substantially reduced.

(3) The financing of such a co-operative system would be a very big proposition which can only be effectively solved by years and years of steady work.

The problem of regulating the crop according to demand is, on the contrary, an urgent necessity.

10. Jute at the present moment enjoys an exceptionally favourable position. It is a practical monopoly of Bengal and it is a prime necessity of the whole world. So long as this position lasts, regulation of the crop and a rational organisation of its trade can easily place the cultivator, as well as everybody in the province as a whole, in a position of great economic advantage.

11. The advantageous position which the crop now occupies cannot, however, last for ever. Already the use of elevators threatens to make a substantial inroad upon the sphere of the use of jute. Substitutes are being eagerly sought all the world over and paper has already become

a rival which deserves consideration. A day will surely come when jute will have to take its place among various competitors and perhaps be threatened with extinction unless in the meantime the production and marketing of jute is so organised that it may hold its own against competition. We must visualise this distinct possibility and make up our mind to make our hay while the sun shines and, if possible, so to arrange matters that by a co-ordinated effort at regulated production, a study in cheap production and improved fibre and other devices we may place jute above fear of competition.

12. Effective and not amateurish regulation is, therefore, an urgent and immediate problem and one, on the solution of which depends all the other problems relating to jute.

Immediately, the regulation of jute can only be achieved by compulsory legislation.

This can only be done on lines of my Jute Bill,* the main features of which are—

(1) The preparation and maintenance of a complete register of jute lands by Union Boards. This would give the central body a set of dependable facts about actual acreage and possible volume of crop in the place of the problematic forecasts, we now have.

(2) The framing by a central body of a Provincial scheme. The scheme will be framed on the basis of the probable requirements of jute next season and will lay down what percentage of the area sown in the previous season should be sown in the next. Thus the Committee may, in a surplus year, determine that 90 per cent. of the previous year's acreage may be sown next year, or in a deficit year, that 120 per cent. of the previous year's area may be sown.

(3) When the scheme is framed it should be communicated direct to Union Boards, and, in areas where there are no Union Boards, to the Village Jute Board to be established.

(4) Each Union or Village Board will then proceed to frame a village scheme proportionately reducing the area of each grower in case a reduction is required and issuing new licences where increase is required, so as to reduce or increase the total area under jute in the union in the proportion required.

(5) When the village scheme is finally framed the union will revise the jute register accordingly and issue licences for growing jute for the next season.

(6) No jute shall be grown except under licence and the growing of jute without licence will be subject to the penalty of a fine imposed by the village tribunal, so that the expected profit from unauthorised growing may be neutralised.

13. There have been various criticisms of this scheme or any other scheme for regulation of the crop. These have been dealt with in the Minority Report, but I shall briefly give my own answers to them:—

I. It has been said that no such scheme has ever succeeded anywhere in the world.

My answer is—

(*i*) No other article has the advantage of being a monopoly. The failure of similar schemes with regard to cotton or wheat or other things

* *Vide* Appendix XV.

in respect of which restriction schemes were tried, none of which is a monopoly, is no indication that a similar scheme for jute will fail.

(*ii*) In spite of these failures, the world is still full of schemes for regulated production, we need not pretend to be wiser than the rest of the world.

(*iii*) It is not a fact that every scheme of regulation has been a failure. The coffee scheme of Brazil has been partially successful, and the rubber restriction scheme of the British Empire was successful. Regulated production has worked successfully for ages in India in respect of opium and *ganja*. *Ganja* is produced on a comparatively small area but opium, at one time at any rate, used to be produced over vast areas. Only recently a scheme has been formulated for restricting the production of tea. But it must be remembered that the production of tea has always been restricted, inasmuch as no man could grow tea on his lands except by a special licence.

*Ganja* and opium are deleterious drugs, but tea is not. Tea is grown in big plantations, but *ganja* and opium are grown by small cultivators spread, in the latter case, over far wider areas than are covered by jute.

In the case of *ganja* and opium the existence of an elaborate preventive service has been necessary. But, as the jute scheme is directed towards benefiting the cultivators the prevention may be entrusted to the people themselves. The Union Boards or Village Boards will be willing and eager preventive agencies. Such supervision as is necessary will be supplied by Circle Officers and Thana Officers. But if experience shows that the agency of Union Boards is insufficient, a sufficient preventive agency can be provided and the cost of it will be worth incurring in view of the enormous stake.

(*iv*) Lastly, the criticism with reference to the world's experience regarding regulated production loses sight of the great experiment in planned and regulated production that has been successfully carried out in Russia. It is no answer to say that Russia is communist. For, a substantial part of the agriculture in Russia is still proprietory. And, planned and regulated production in Russia has been carried out on proprietary lands as well as on State farms. If that far more extensive and ambitious programme could be successfully carried out in Russia there is no reason why the much smaller problem of jute regulation could not be solved in Bengal.

II. The second objection that has been raised is that the effective working out of the scheme will require an elaborate preventive agency. I do not think it will, for the reasons I have stated before. But should a preventive agency be required, it will have to be active only for about a month or two in the sowing season. Fifty rupees for each union would be a liberal allowance for the purpose. And I am sure that the licence fees and fines realised by each union will adequately cover the cost. As regards the superior staff, all that will be required would be supervision of the work of the Union Boards for a month or two. This can be managed by a temporary diversion of the regular executive staff, and possibly the excise staff, with a very small addition where necessary. The cost would not be prohibitive.

III. The argument most often urged with regard to this scheme is that it will lead to oppression and harassment by the Union Boards, and in a modified form this argument reappears towards the end in the Minority Report.

With regard to this aspect of the question the persons most competent to express an opinion are the mofussil people and mofussil officials. And they have almost to a man supported compulsory restriction. Those who have intimate acquaintance with the life in the villages and the character, temper and predilections of people there, have definitely repudiated the suggestion. I maintain that on this matter their opinion is entitled to the utmost weight.

Then again, looking at the scheme of my Bill it would be seen that there is precious little opening for corruption, oppression or harassment. There will be a register of jute lands with their cadastral survey numbers and the lands under jute each year will be marked on the cadastral survey map and a licence will be given for the cultivation to the raiyat. There will be little option left to the Union Boards in the grant of licences. They must reduce proportionately and the proportion will be fixed by the Calcutta Committee. Where an increase is sanctioned new licences will be granted. Even here the discretion of the Union Board may be curtailed by definite rules which will be known to cultivators.

When once a licence has been granted, no person could be falsely prosecuted—because the licence would precisely define the land.

So I fail to see what scope there is in all this for any oppression or harassment. Once in a time there may be a case of individual hardship perhaps—which cannot be avoided in the best of laws. But the remote possibility of such individual hardship is no argument against a scheme which would be immensely beneficial to cultivators as a body.

It has also been said that there will be a great deal of corruption and evasion of the law.

As I have said, on this scheme by which the villagers will be made the guardians of their own interests, the scope for corruption and evasion would be extremely narrow. And, if the well known and widespread corruption in the offices of the Government and of all Courts of Justice in the country is no argument for the abolition of the Police or Revenue Offices or Courts of Law, the much slenderer possibility of corruption in connection with jute regulation ought not to frighten us.

In any case, I should suggest that the possibility of corruption in this connection may be safely tested by practice. If regulation is started on the lines suggested and the experience of a year or two shows that there is any extensive corruption or evasion, remedies may be found from the same experience. If the case is too bad the experiment may be altogether abandoned.

No real danger can be anticipated from introducing a scheme of regulation which the people loudly want. The risks suggested are not such as would in any measure disturb the social order or involve loss to the community as a whole. On the other hand success in the adventure would mean continued prosperity of the people of all grades so long as the economic value of jute lasts. Under these circumstances the experiment is certainly worth making.

IV. I need hardly waste much time over the criticism that the restriction scheme will take away the liberty of the cultivator to grow what he will. If it is in his interest that his liberty in this respect should be restricted, no modern legislature would hesitate to do so. As matters stand, this restriction of liberty already exists not only in respect of *ganja* and opium, but also in respect of tea.

An argument worthy of more serious notice is that the effect of any scheme of restriction would be to take away from jute a certain quantity of land and in this connection the question of a profitable alternative crop arises. If there is nothing suitable which the cultivator may grow on the land thus thrown out he may lose.

To start with, I must say that the problem looks far more formidable on paper than it is in fact. During the last three years, the acreage under jute has been reduced to the lowest figure since 1921 and there is little prospect of any further shrinkage below this limit being required in any year unless the world demand for jute shrinks considerably. And if that contingency happens jute will necessarily be reduced. Apart from that possibility, if regulation is taken in hand just now, the question before the Central Committee would be, not of further restriction of acreage but probably of the extent to which new licences could be issued. The problem, in other words, would be not one of throwing out land already under jute, but of a judicious extension of cultivation so as not to exceed the profitable limit.

Once the adjustment has been made, the restriction, which may be decided on in any particular year, can only be comparatively small, and there will be no difficulty in finding uses for the small quantity of land thus thrown out. In the past, the area under jute has varied from 14 lakhs acres to over 38 lakhs acres, and wherever the area has fallen the cultivator has found little difficulty in finding use for the surplus land.

The question of finding substitute crops for the lands is thus of importance, far less in this connection than in connection with the general question of improvement of the condition of the peasantry in Bengal. But I do not for one moment doubt the vast importance of the study of the question by the Department of Agriculture as a part of a great programme for putting the lands of the province to their best use.

So studied, I am sure the problem will yield profitable solution to earnest research. At the present moment, if means could be found for more profitable utilisation of about 10 lakhs acres, a great deal will have been achieved. And, just at the present time sugarcane is a crop which can be grown on at least one lakh acres with profit, provided that the cultivation goes hand in hand with the establishment of large sugar factories of which Bengal alone could support about twenty. Besides, plenty of land will be needed for growing fodder for pasturage, if an intensive programme is carried on for developing dairy farming in Bengal as suggested by the Live Stock Expert of the Government of Bengal. Dairy farming will need improvement of the breed of cattle and providing ample and nourishing food for them. So, too, other uses may be found for land if other industries based on agriculture are established in Bengal. There will be no occasion for our feeling ourselves burdened with more land than we can utilise if systematic research for economic development of Bengal is made on right lines, and great programmes initiated for working out that development.

But, as I have said, the question of finding alternative crops, while it is of great importance for the general economic advancement of the province, is, at the present moment, of little importance in connection with the regulation of jute, as the area under jute has pretty nearly touched the lowest possible limit, and, given a judicious regulation, there will be little need in future for restricting cultivation.

In this connection, reference has been made sometimes to the fact that there are some lands on which nothing but jute can be grown. Such lands are extremely few. In some cases again this exclusiveness has been caused by extraneous circumstances such as the clogging of the land with water-hyacinth, which is itself a preventible cause.

But in any case where there is land which cannot be used to grow anything but jute, any scheme of restriction must leave out that land for jute. It would be quite possible for a Union Board formulating a scheme for restriction to let alone such lands and let the reduction fall upon other lands of the same cultivator. In the very rare case where the only land of one cultivator is such land, he may be permitted to grow jute on it without curtailment and a scheme made for his compensating the other cultivators on whom the restriction is increased on that account.

VII. It has been suggested that by the time when the sowing commences it may be difficult to anticipate accurately the demands of the trade in the ensuing season and to regulate the production of the crop accordingly.

It has been conceded, however, that in normal years there will be no difficulty in anticipating the probable demand. And possibly, a more accurate forecast may be made if a systematic report of stocks can be had from Indian and overseas consumers. It is only in abnormal years that the anticipations may fall far out of the actuals.

The most satisfactory solution of that difficulty is suggested by Mr. MacDougall. If the Jute Corporation negotiates with consumers before the sowing season and gets from them actual tenders for purchase of jute, there would be no difficulty about regulating the crop accordingly.

Unless that scheme is given effect to, there will be an occasional lag. In some years the supply will fall far short of the demand with the result that prices will shoot up. In other years the supply will be greater than the demand and the prices will tend to go down.

In the former case there will be no harm done. Excessively high prices if steadily maintained may have the effect of ousting jute from the world market. But high prices in one year, if brought down in the next will not have the same effect. If, therefore, there is a remarkable shortage of output, the only thing necessary would be to adjust the acreage next year, and no harm will be done.

If, on the other hand, production is substantially in excess of the demand so as to depress the prices abnormally, what will be necessary is that the excess stock must be withheld from the market, and the stock so withheld will have to be taken into account in framing the programme for sowings in the next year.

All that would be necessary therefore to meet the comparatively rare contingency of a maladjustment of demand and supply, would be to authorise and enable the Central Committee to buy and stock for the year the excess jute. A scheme of regulation of the crop without this safeguard would necessarily be incomplete.

While this particular objection is one which can thus be easily met, I may point out that, in any case, it is a most feeble argument against regulation of cultivation. Apart from any scheme for systematic regulation, the trade and the growers between them do make some sort of regulation. When high prices rule, cultivation expands, and when prices are low the acreage drops and the trade tends to hold stocks. This adjustment is neither systematic nor regular. So that a year of over-production is often found to depress prices for three or four years. In cases of short crop and a resultant rise in prices the adjustment is usually more rapid.

So, even if things are left as they are there will be years of short crop and years of over-production. Only, when such an occasion arises an immediate adjustment is not possible. The chances of the calculations of growers remarkably falling out of facts are assuredly greater with the present-day unsystematic regulation than when those calculations are made for him by an expert committee.

So that while maladjustments between demand and supply must occur both with and without regulation, (1) the chances of such maladjustment will be smaller where there is systematic regulation, and (2) the evil effects of such maladjustment could be immediately checked and remedied if there is public regulation on the lines suggested.

14. I am therefore decidedly of opinion that while no cogent reasons can be put forward against the scheme for regulation of crop, the welfare of the cultivators and of the community generally urgently demands the regulation of the jute crop on the lines suggested by me.

I am all the more strengthened in my opinion by the vast volume of evidence which shows an insistent demand from the mofussil for regulation of jute cultivation on the lines suggested. While, in my judgment sound economic reasons justify the scheme of regulation, there are equally strong political reasons why this great volume of opinion from the jute growing districts should be given effect to, at least as an experiment.

15. What is suggested is only a measure of rationalisation of the prime industry of Bengal. The whole world is busy rationalising and rationalisation and planned production must be the key to the economic situation of the world in the immediate future and, India must fall into line with the rest of the world. As Sir J. C. Coyajee points out in his Foreward to the booklet, "*Current Economic Problems*", published by the Publicity Board: "India will have to be getting busy at the task of rationalisation on the side of industry

and agriculture—a 'rationalisation both on national and international lines.''

## II.—Co-operative Sale of Jute.

16. There can be no doubt that the organisation of the entire jute business on co-operative lines would be an ideal arrangement. There is no doubt also that it ought to be the policy of the Government to work up to that ideal.

17. The failure of the Co-operative Jute Sale Societies, however, appears to have frightened some people and created a bias against any co-operative venture on a large scale. And the suggestion that has been made before us is that the next effort ought to be confined to the creation of small co-operative societies of villagers for the joint sale of their stock at the market.

At the outset, I should point out that we have no materials before us to enable us to pronounce judgment on the winding up of the Co-operative Sale Societies, or to decide how far the losses suffered by them were due to mere misfortune, or to fault of the personnel, or to any inherent defect in the system. In the absence of the records of those societies which have not been placed before us, we cannot consider it to have been established that a co-operative venture on a large scale is unsound or impracticable.

18. With regard to the suggestion about small co-operative societies, I have some difficulty in appreciating what exactly these are meant to be like and what precise purpose they would serve. I take it that it is not contemplated that these should also be credit societies. I am definitely of opinion that credit and sale should not be combined in the same society, and, for precisely the same reason, I should oppose the combination of supply and sale in the same society. There is a certain measure of risk involved in each of these kinds of societies and the combination of these would mean that a misfortune in one department might engulf the entire enterprise.

The village sale society would therefore be, I take it, a pure sale society or an enterprise for the joint sale of the members' stock of jute.

19. Such societies can only operate on the basis of cash purchase of jute from members, for few jute-growers can afford to sell on credit. The question of separate financing of these societies has therefore to be faced and the question, as I shall presently point out, is not free from difficulty.

20. Supposing that the necessary finance is available, and such a society is started, what could such society do? It could not afford to have its own godown or to hold the stock against a more favourable market. It must sell quickly. In other words it will do what the *faria* does. The *faria* goes into the market, ascertains the prices ruling there and then goes into the village, makes his purchases and forthwith brings the stock into the market and sells them.

The profits of such business are exceedingly small and the business is not without its attendant risks. For, between the date of purchase and that of sale, no matter how short the interval is, the prices may fall. And, as the society must sell, it will then have to sell at a loss.

Besides, for such benefit that a society of this type can confer on its members it is hardly worthwhile forming a co-operative society. That purpose may be equally well achieved by an agreement between the villagers to bring together all the stock they want to sell on any particular day, and then after weighing each man's jute, to entrust some of them with the task of selling it in the market on that very day. The co-operative society seems to be a too complicated machinery for doing this simple job.

21. Co-operative societies would serve little useful purpose unless they could, by pooling the resources of individual growers, give them the capacity to hold the stock against a favourable market and to sell at the best market.

22. Small co-operative societies of the type above referred to have been tried in the early days of co-operation with reference to jute. Those early societies failed, principally because they were small and had neither the capacity to hold their stock, nor that of seeking the best market for their crop. The difficulties of marketing the stock of these societies were found to be very great. For the *farias* and *beparis* have vested interests and established connections with purchasers at the markets. To break through that ring and establish direct business with the purchasers requires an amount of resources and staying power which these societies cannot have.

23. Further, the difficulty of financing these village sale societies, on the basis of their total independence of the credit banks, would be very great. Such societies can only be formed on the basis of unlimited liability and the measure of their credit will be the combined credit of their members. Such credit will often be found to be very small and in most places already pledged to the hilt to the *mahajans* or credit societies. Hypothecation of the stock is hardly possible in such societies, and the central banks will not, I am afraid, be found ready to finance these ventures. Even if they were willing, the question of their assistance is ruled out by the low ebb at which their own finances, stand at present.

24. Besides, the only basis on which such societies can possibly work would be upon the assumption that each member brings all his crop to the society. There does not appear to be any means for enforcing such an obligation except in co-operation with a credit society. If there is no such obligation, the society cannot make any arrangements for a regular sale of the stock on the basis of a wholly uncertain supply.

These are some of the difficulties which would seem to be insurmountable if we propose to start only small village societies on a non-credit basis.

25. To ensure success in co-operative sale the following conditions seem to me to be essential:—

(1) there must be an assured supply of the crop;

(2) there must be assured purchasers to whom the crop could be sold straight off.

And, to make these societies yield any real profit, it is further necessary that—

(3) these societies must have some interest in the ultimate profit made by the purchaser; and

(4) that the entire adventure should be sufficiently capitalised to weather the storms of fluctuations in price, or that by some means, the prices should be stabilised and such fluctuations kept under check.

All this can only be achieved, not by small village societies standing alone, but by a great co-operative system, at the top of which will be a great wholesale organisation which will have sufficient capital to withstand losses due to fluctuations in the market.

Without such a large scale organisation the starting of small village sale societies, in the vague expectation that they will be able to find buyers, would be almost to invite failure, at any rate, unless a sufficiently large number of such societies are formed in an area like the Mymensingh district, which will, between them, command the bulk of the stock and thus dominate the market.

26. I shall now briefly outline the organisation which, in my judgment would be effective and adequate for the purpose.

In the villages, sale societies should be formed with members who are also members of the credit societies.

Each credit society should make it a condition of the loans granted by it that the borrower must sell his crop to the sale society and that the crop shall be deemed to be hypothecated to the credit society, over and above the existing personal liability of the borrower.

When the crop is brought to the sale society it should be weighed and assorted and a receipt given to the member for the jute supplied showing its value. When that receipt is brought to the credit society, the latter will give the customer credit for the value of the jute as shown in the receipt.

The sale society will hold the jute as hypothecated to the credit society and must pay to the credit society the amount for which credit has been given against its receipt with interest upon the sale of the stock.

At the top of the whole organisation there should be a wholesale society dealing directly with mills and buyers for the foreign market. This society should have a large share capital subscribed principally by the affiliated societies with a large reserve of uncalled capital. Its working capital may easily be provided by debentures with a floating charge on the entire business if there is some sort of Government guarantee for the interest in the early years.

The wholesale society will have its branches or affiliated societies in important markets to which the village co-operative societies will sell their jute at market prices, with the prospect of getting bonuses out of profits at the end of the year. The wholesale society will finally assort and bale the jute and sell to mills and foreign buyers.

27. This organisation should in my judgment be kept in view and steadily worked up to. Without an assured purchaser like the wholesale society at the top it would be risky to start co-operative village

societies. But such societies may be started if definite and binding contracts can be made beforehand with buyers on behalf of these village societies that the former would buy all the jute that may be brought by these village societies at market rates.

28. It would be worthwhile to notice here that the creation of co-operative societies to embrace the bulk of the jute growers will be a slow and difficult process. Apart from the question of educating the people in ideas of co-operative sale, there are other difficulties of a serious nature. The cultivators of the jute growing areas are almost to a man heavily indebted to *mahajans* and the bulk of their lands are under mortgage. This takes away their freedom to dispose of their crop as they choose and, if they join a society on the basis of a hypothecation of the crop, they may easily find themselves frustrated by the *mahajan* enforcing his mortgage. Besides, in a great many cases the cultivator grows his crop as a *bargadar* on another's soil. He would not have the liberty of disposing of the crop on such land unless the owner of the land is also roped in.

29. Besides, in a great many cases it will be found difficult to admit the cultivator into any co-operative society. Before a man can be taken into an unlimited liability society he must be found to be solvent, and before any such society can be registered its property and debts statement must show a satisfactory balance in his favour. Too often, however, the cultivators cannot be deemed to be solvent by such tests.

30. The problem of extension of co-operation is thus inseparably bound up with that of removing agricultural indebtedness. Unless some scheme is evolved for an equitable adjustment and gradual liquidation of the existing debt, co-operation in any shape or form cannot make much headway.

N. C. SEN GUPTA.

Report of Khan Bahadur M. Azizul Huque, M.L.C.

## Report of Khan Bahadur M. Azizul Huque.

Whilst concurring generally in those chapters and paragraphs which are purely descriptive of the special features of the jute problem in this province, I regret, I am unable to agree with the recommendations either of the majority or of the minority reports in their entirety. My main reasons will appear from the note below. I have tried as much as possible to avoid any elaborate historical presentation in this note, as much of it will appear from both the minority and the majority reports.

### Average Yield.

According to the estimate made in the majority report, the average yield of jute is said to be about 16 maunds per acre. Other things remaining the same, this may be correct as an estimate of possible yield and in a normal year for a land of fairly good fertility with sufficient manure. But it has to be remembered that the production of jute is subject to so many varieties of natural and climatic influences that the Bengal cultivator hardly ever gets the above average. Heavy rains, drought, unequal distribution of rainfall, insect pest, flood, tornado, all adversely influence the yield of jute. The experts of the Agricultural Department are of opinion that it is only once in ten years that one comes across a properly distributed rainfall in the province of Bengal. It also happens that sometimes even an apparently unconnected incident affects the average yield of the crop. Mr. Gasper of Messrs. M. Sarkies & Co. (James Finlay & Co.) informed the Committee that since the construction of the Assam Bengal Railway bridge below Mymensingh, the bridge has so impeded the flow of water in the Brahmaputra "by bottling up the river," that there had been high floods in recent years causing deterioration in the quality of the jute. For reasons connected with the war, the original number of spans was reduced by two and the bridge is narrower than what it should have been, and this has affected the height of the crop in the locality and in most cases has also been causing a tendency to midbark.

The Committee examined a number of jute growers in the jute districts of this province. It appears from their evidence that 16 maunds yield is much higher than the average outturn even in the fertile regions of this province. The testimony of a good number of jute growers was that their average yield was only about 3 to 4 maunds per bigha, or about 9 to 12 maunds per acre. Considering the various climatic and natural factors that a Bengal agriculturist has to meet with, an average yield of 12 maunds per acre seems to be nearer the mark. The question of average yield was also very carefully enquired into during the cadastral survey and settlement operations in some districts. Their estimates were:—

13 maunds per acre in Jessore.

13 maunds per acre in Nadia.

15 maunds per acre in Dacca.

16 maunds per acre in Mymensingh.

10 maunds per acre in Rajshahi.

## Cost of production.

Though the normal cost of production of jute found a place in the questionnaire of the Committee, practically the subject has not received any treatment in either report. From the point of view of the grower, an investigation into the cost of production of jute in relation to the price receipt by the grower is of paramount importance.

According to a note supplied to the Bengal Provincial Banking Enquiry Committee in 1929-30 by the Director of Agriculture, Bengal—and the Chairman of our Committee was then the Director of Agriculture—an acre of jute, assuming an average season and good average ability on the part of the cultivator, requires the following labour:—

| | Man days. | Bullock days. |
|---|---|---|
| Preparation of land .. .. | 14 | 27 |
| Weeding .. .. | 25 | .. |
| Harvesting .. .. | 20 | .. |
| Extracting, etc. .. .. | 23 | 2 |
| Total .. | 82 | 29 |

The Director of Agriculture, on the basis of the then prevailing wages, calculating at the rate of 11 to 12 annas for man, and 12 annas for a pair of bullocks, estimated that the cost of jute production per acre was as follows:—

| | Presidency, Burdwan and Rajshahi Divisions. | | Dacca and Chittagong Divisions. | |
|---|---|---|---|---|
| | Rs. | A. | Rs. | A. |
| Cost of human labour .. .. | 56 | 6 | 61 | 8 |
| Bullock power .. .. | 21 | 12 | 21 | 12 |
| Seed .. .. | 3 | 0 | 3 | 0 |
| Manure .. .. | 10 | 0 | 10 | 0 |
| Rent .. .. | 6 | 0 | 6 | 0 |
| | 97 | 2 | 102 | 4 |

The cost per maund was thus estimated at Rs. 6-8 per maund, on the assumption of 16 maunds yield per acre, and this did not take any note of the value of land, union rate or interest liability of the Bengal cultivator. Even if we assume that to-day the wages of man have fallen to 6 annas and the bullock charges to 8 annas per pair and the value of seeds necessary has come down to Re. 1 and the value of manure to Rs. 6, the average would come to—

| Rs. | A. |
|---|---|
| 30 | 12 |
| 14 | 8 |
| 1 | 0 |
| 6 | 0 |
| 6 | 0 |
| 58 | 4 |

or an average of Rs. 3-10 per maund on 16 maunds yield or Rs. 4-3 on 14 maunds yield.

It may be noted here that the Committee also examined a number of witnesses in mufassal districts: We had testimony before us of growers, *beparis*, *farias*, traders, Presidents of Union Boards selected by the District Magistrates or other district officials. It is true that most of these people do not keep any detailed accounts of their cost of production but their estimates may be taken as fairly correct as regards cost of production. This may not include items which should have been calculated but it does not err on the side of excess. Their estimate about average outturn can certainly be very safely relied upon, as in every case, we enquired from them as to their total jute acreage of the previous season with the outturn of that season. It will be noticed that the average outturn per bigha is almost the same in every district being 2½ to 3 to 3½ maunds, the best outturn being 4 maunds. The average cost of production varies everywhere from Rs. 3-8 to Rs. 6 per maund, as will appear from the following summary:—

| | | Average outturn per bigha. | Cost of production per maund. |
|---|---|---|---|
| | | Maunds. | Rs. |
| Narayanganj .. | Grower .. .. | 3½ to 4 | 4 to 5 |
| Dacca .. | *Faria* grower .. .. | 3½ | 4 to 4½ |
| | | 2 | 5 to 6 |
| Mymensingh .. | *Bepari* grower .. | 3 | 3½ |
| | *Faria* grower .. | 3 | 4½ |
| | President (grower) .. | 3⅓ | 4½ to 5 |
| Serajganj .. | Grower .. .. | 4 | 5 to 6¼ |
| Rungpur .. | Ditto .. | 4 | 6 |
| Dinajpur .. | Ditto .. | 3 | 5 |

## Jute price.

Admittedly the most characteristic feature of the jute problem; is that the grower is not fully remunerated to-day in money value. Apart from its direct economic consequence, the purchasing power of the people is affected by the low proportion of the money value of this crop that reaches the grower.

Critics will probably question—if jute is not a remunerative crop, why the cultivators are not growing any other crop? Why is it that in spite of vigorous restriction propaganda jute production shows no sign of reduction? An answer to this is to be found in the fact that in Bengal, agriculture has such a restricted scope that jute is for all practical purposes the only money crop for the Bengal peasant. He has practically no other crop to go upon to get cash money for his needs. The days of barter are gone. A cultivator may have all other commodities in plenty but he still requires ready cash money to meet his cess, tax, rent liability, and to face his other credit liabilities, as much as to purchase his other domestic requirements. He has no other money crop. Indeed this restricted feature of Bengal agriculture has been a veritable curse for him. From economic point of view, the policy of concentration upon one crop is bound to quicken the pace of economic crisis, when the potentialities of alternative products are neglected. More specially when the only dependable second or money crop is a crop like jute it spells disaster in a bad year for everybody—the Government as much as the people. In such circumstances the cultivator to get cash money has to grow more and more jute even if it falls below the remunerative point. As a parallel to the present situation, one can look back to the nineties of the last century. From 1895 to 1897, there was a record of successive acreage increases in American cotton in the face of the minimum prices of a little over 5 cent. per pound. The acreage cost of producing cotton over a period of years was in the neighbourhood of 15 per cent. per pound, yet cotton was bought at eleven.

Bengal is so entirely dependent upon one commodity for its prosperity, that there is probably no other country in the world which is so utterly dependent upon one crop—except probably some parts of Egypt. Poor jute prices affect every trade, profession and occupation, every section of people is hard hit. When conditions are bad, it is not necessary to find out why. The disease is obvious. All that is necessary is to find a cure.

There is no one factor responsible for depressing the jute price for the grower; several reasons have contributed to depress this price for the cultivators. The first is that there is always more jute in the market at the season time than what the market can absorb. There is no holding power on the part of jute growers and the jute market at a particular season or period is always glutted with much more jute than what the competitive level can justify. Jute is the only money crop of importance in Bengal. Everyone look upon jute harvesting time as the season of the year. The landlord, the *mahajan*, the credit bankers, the local authorities all put their pressure on the growers for the collection of their dues and all at once. The grower is confronted with all his creditors. The absence of continuous credit facilities in rural areas aggravate the situation and the grower brings all the jute he has at once for cash money. If there were a steady and free flow of jute fibres all the year round the jute price would have probably been slightly firmer than the present. The mills therefore always have a huge surplus stock purchased in easy market, and are thus naturally in a position to dictate prices. The inevitable consequence of all these is the decline of jute prices. To add to these, there is the world economic depression, exchange difficulties and the decline in international trade and commerce.

Has there been any overproduction? An answer to this will be found in the following table:—

*1923-33.*

| | Bales. | Bales. |
|---|---|---|
| Actual arrivals of jute in Calcutta and Chittagong .. .. .. | | 93,811,000 |
| Exports .. .. .. | 39,368,000 | 91,678,000 |
| Actual Mill consumption .. .. | 52,310,000 | |

Taking figures of last ten years, the production is certainly not more than the demand, if we take account of the quantity needed for domestic consumption. Even if the figures of the last few years are taken into consideration, as is given in the following table, it will be apparent that for the year 1930-31, which created an abnormal disturbance in the economic conditions of the world, the local production of jute has not been more than what the world requires.

| | Arrival in Calcutta and Chittagong. Bales. | Exports. Bales. | Actual mills consumption. Bales. | Total. Bales. |
|---|---|---|---|---|
| 1929 30 .. .. | 10,294,000 | 4,492,000 | 6,246,000 | 10,738,000 |
| 1930-31 .. .. | 10,115,000 | 3,407,000 | 4,437,000 | 7,844,000 |
| 1931-32 .. .. | 6,574,000 | 3,108,000 | 4,437,000 | 7,545,000 |
| 932-33 .. .. | 7,341,000 | 2,904,000 | 4,437,000 | 7,341,000 |

It seems to me, therefore, that it is a mistake to suppose that there is really any more production of jute than what the world requires. The supply is still within the bounds of demand. But if in spite of this, the growers are not getting their full remunerative prices, it is because the growers are scattered, unorganised and unable to influence prices in modern economic conditions against powerful purchasing concerns which determine the prices of raw fabrics. The huge surplus stock gives the purchasing concerns power to dominate prices.

Within the last ten years the mills have purchased 6,10,34,000 *lakhs* of bales while they have consumed only 5,23,10,000 *lakhs* of bales. They have thus a surplus stock of 97,24,000 bales at hand—at least a surplus stock of over a year's requirements. The sellers are naturally to receive such prices as the purchasers choose to pay.

The solution of this disorganised condition to lift jute price out of the abyss of depression is to make a rational plan for the marketing of jute on an organised basis. The consumers are highly organised bodies. They have always got enough to hold on for a year. At the time of harvest, they can afford to stay out of the market and exploit the helplessness of disorganised growers who must immediately and all at once dispose of their produce. I must make it clear that I do not thereby attach any blame to the purchasers. Business is no philanthropy and in business economics one is always entitled to purchase at the lowest price, if he can arrange it, just as a seller is entitled to sell things to his best advantage. Prices are bound to operate adversely against the grower in such a situation. Until there is some authority or organisation on behalf of the growers able to negotiate on equal terms with the purchasers, the inevitable result, in so far as growers are concerned, will be the same, whether the production is restricted to half or one-fourth.

It is true that it will take some time to evolve such an organisation that will effectively deal on behalf of the growers. But in the meantime, there must be a representative Jute Committee primarily representing the interests of the growers which shall year after year study the likely world demand and carry on a vigorous propaganda to restrict crops if necessary on the basis of world demand. Even though there is no actual overproduction, restriction seems to me the only feasible scheme to raise the price of jute in present circumstances. This restriction must, for the first 5 years, be purely on a voluntary basis. But if in spite of the propaganda covering a period of 5 years, the restriction or regulation scheme is not successful, law must intervene at that stage to devise penal remedies to make restriction successful. I am not against legislation against production as an absolute proposition. But I am for voluntary efforts at the early stage. If the end to be achieved is not gained by voluntary efforts, the legislature must intervene to set things right. I have absolutely no fear of the administrative difficulties even to deal with millions. With a will behind, a determined Government can always deal with every kind of administrative difficulty, neither does the argument of village officials misusing their power and victimising the *raiyats* have any weight with me. The difficulty is often exaggerated much beyond its possibility and I believe it is possible to evolve a system to avoid any such danger. But legislature should intervene only after organised voluntary efforts are given a chance to operate, and a fair time.

## Regulation and Legislation.

While I am of opinion that for some time legislation is not necessary to regulate jute crops but that voluntary efforts should be made to restrict jute cultivation, I must make it clear that the mufassal opinion, as has come before us, is almost unanimously and emphatically in favour of such restriction by legislation. The restriction propaganda for the past few years has not achieved any appreciable result. Enthusiasts for voluntary restrictions have been already feeling disheartened at the comparatively small result, and judged by estimate of acreage, the propaganda for restriction has failed. At Narayanganj, we were informed that "restriction of jute by legislation will not be taken amiss by the cultivators but on the other hand they would welcome it. They would take the entire culturable area of the village and divide it among themselves proportionately. If the cultivators do not obey, the law would intervene." "If asked our opinion, we would say that there is no other alternative than to legislate restriction of jute cultivation." At Dacca we were informed that "if any cultivator is prosecuted for transgression, there will not be any objection. It will be the duty of the members of the Union Board to inspect as to whether the requisite quota is followed or not. We think there will be no chance of victimisation or fraud. We do not visualize that it will be necessary for the Circle Officer to inspect all the cases, but only suitable ones with a view to keep watch over the activities of the Union Boards." At Mymensingh the Committee had the same reply: "We have no objection, if production of jute is restricted by Government legislation. It will be a great boon to the people if Government restricts jute cultivation by legislation and empowers Union Boards with it." No better reply could have been given on this point than what Nizabat Maulvi, Md. Faizuddin and Pachu Moral, three cultivators of Mymensingh, without a moments hesitation, said: "We expect that when the people will exercise their franchise in Union Board elections, they will see that they must return the best men as their own interest is involved, and we expect that this consciousness is bound to come within 5 years. It will not do if there is a mere order from the Collector; there must be a specified law from Government; when people accept all punishment under law, we do not see why they should object to the enforcement of such a law."

The only place where legislation was not wanted was at Serajgunge, where they did not like to have restriction by legislation. I have quoted these *in extenso* to emphasise that rural opinion is no less cognisant to-day about the need of restriction if necessary by legislation. Rural opinion would not feel any sudden feeling of resentment or scent any danger if legislation is thought fit to be resorted to—if at all necessary in the interest of the growers.

The pathological cure in the way of lifting jute out of the abyss of depression is to broaden the basis of agriculture. The soil of Bengal is not poor for secondary money crops. If the activities of the agricultural department get even a partial outlet in finding out and vigorously carrying on propaganda in favour of other secondary crops and in the same manner as the department pushed on Chinsura green and Kakya Bombay, and if there is concurrent industrial utilisation of some of the agricultural products of Bengal, the Bengal cultivator will once again regain his true economic position.

A little careful study of the variety of soil conditions, climatic factors and rainfall in this province will not make it difficult to find out such secondary crops. Would it be a long vision to hold that in northern Bengal, the prosperity from tea might be well supplemented by production of improved tobacco? Is it too much to hope that it is possible to utilise the entire quantity of tobacco leaves of Rangpur and neighbouring areas now sent out to Burma, Madras, and other places? Shall Bengal always depend for sugar upon other provinces? Is it not possible to concentrate sugar cultivation and to develop sugar factories in some of the districts of Western and Central Bengal? Is it not possible to develop the neighbouring districts of Calcutta in the growth of potatoes, groundnuts, English vegetables and fruits—quite apart from developing dairy products and poultry?

Let Bengal be divided into economic zones for developing suitable money crops with greater industrial utilisation for these crops instead of concentrating upon one crop. The Bengal politician, administrator and economist must all combine to make Bengal a little less dependent upon Bombay textiles, United Provinces sugar, Burma and Madras cheroots. Let the tariff policy of the Government of India bring some benefit to Bengal as producer. I am not at all in favour, as has been suggested in the majority report, of additional staff being given to the Department of Agriculture merely to investigate other alternative crops which the cultivators can take up in Bengal. This should not require any elaborate research or investigation, and even the present staff should be enough to tackle the problem of propaganda. In these respects, the agencies of the district, local and municipal boards of Bengal and the co-ordinating help of other Government officers—such as Co-operative Inspectors, Veterinary Assistant Surgeons are absolutely essential and should be utilised, and special efforts should be made to enlist their active sympathies and interest. Some amount of money may of course be necessary to meet consequential expenses and probably a little more in initial years. But all this is not such as to require funds to an appreciable extent or to need an elaborate additional staff.

## Jute Committee.

I have been more alarmed at the shape which the proposed Jute Committee is gradually taking. I am very strongly of opinion that there must be a Jute Committee and certainly a Bengal one. I am even in favour, and very strongly in favour, of sending from time to time travelling agents on behalf of the province, and at the cost of the Bengal provincial finance, to study abroad the jute situation. But I have not yet been able to understand how the trade justifies its position by insisting that "there must be no question of imposing an additional burden on the trade in respect of the provision of the necessary finance" and yet claiming that the proposed Jute Committee should consist of ten representatives of trade interests against only two representatives of growers. The proposal of Messrs. Dutt, Sinha and Arshad Ali is

## Regulated market.

I am in full agreement with the minority report about regulated market. It is absolutely essential that there must be legislation to organise regulated market in rural markets and I do not see the feasibility of organising any such market without legislation. I would not have been so strongly in favour of regulated market but for the fact that throughout jute districts, we had evidence of growers pointing to the need of regulated market. We were told at Narayanganj that the cultivators do not generally know Calcutta prices; that they do not get any correct information, that the cultivators do not get full benefit of any rise in market. We were told at Dacca that if the cultivators bring jute direct to the firms, they cannot get proper weight, that the growers are practically compelled to sell through *bepari*, "as otherwise so many difficulties are put in our way if we venture to come and sell jute direct to firm." "If we bring jute direct to the firms, we are first to make up the loss of weight, secondly to pay a portion to the weighman, the Durwan, the Babus and a portion as Kabari." If the growers bring their jute directly to the firms then they never get opportunity of seeing the weight and often additional weights are placed, which if protested, would result in troubles for the man who brings in jute."

We were frankly informed by a witness at Narayanganj that cultivators do not get correspondingly increased price when prices in Calcutta rise and "that is where the real business lies." "If the Calcutta price rises by one rupee, we raise the price at Narayanganj by 12 annas; the cultivators probably get less." Another witness was equally frank, "if the Calcutta price rises by one rupee, the tendency to raise the price at Narayanganj will be by 8 to 10 annas. On the other hand when the Narayanganj price rises by 8 annas, the *beparis* raise it by 2 annas".

Another batch of witnesses informed that the firms would not accept such small quantities of jute as growers offer.

The need of a regulated market at an early date will be manifest if this mufassal evidence is scanned through.

## Regulation of production in other countries.

It is interesting to note that since the economic depression has set in, every country in the world has taken up the problem of marketing as of paramount importance in all schemes of national economy. The Agricultural Marketing Act was passed by the British Parliament in 1931 providing for national or regional schemes for the marketing of agricultural produce. Under the Act, schemes are to be submitted to the Ministry of Agriculture and, after certain preliminaries, the scheme in its final form has to be approved by a resolution of both Houses of Parliament. A Board is then set up under certain regulations. The Hop Marketing Board has already been established under the Act. A Bacon-pigs Marketing Scheme, the Scottish Milk Marketing Board Scheme, Perthshire Raspberry Crop Scheme have been already submitted to the Ministry and a Milk Commission has been appointed to tackle the production problem. The treasury has placed a Fund of £ 500,000 for England and £ 125,000 for Scotland in the hands of the Agricultural Marketing Facilities Committee for the working of the schemes to be granted as short term and long term loans.

At a recent annual meeting of the Tasmania State Council of the Agricultural Bureau, which is the official body representing organised production, consideration was given to the question of securing legislation to provide for compulsory marketing. There are Western Australia Wheat Pool, Tasmania Potato Marketing Board, Tasmania State Meat Board to control entire overseas export of fat lambs. In 1923, Queensland constituted a Committee of direction for Fruit Marketing by special legislation. Under regulations recently issued by the Board of Trade, New Zealand is to establish a Wheat Purchase Board to control all dealings in wheat throughout New Zealand, to form a compulsory pool to maintain a price in the home market of from 4*s*. 3*d*. to 4*s*. 6*d*. per bushel and an export price 2*s*. 6*d*. per bushel.

New Zealand had further its Fruit Growers Federation which exported 1,596,058 bushel cases of apples and pears year before last. The Federal Council of Switzerland had drawn up an ordinance in September 1931 regulating production of cheese for exports to ensure its being of absolutely first quality. By an order in February 1932, a central organization for butter has been constituted to purchase home produced butter at prices to be fixed by Department of Public Economy and to control imports. In June 1930, a law was passed in Scandinavia constituting a National Council representing existing marketing organizations, commercial interests and consumers' movements with a view to have better marketing of agricultural produce. The Hungarian Government has introduced a modified State wheat purchasing scheme through co-operative societies. A central organization has been set up for the exchange of Roumanian salt and petroleum against Bulgarian tobacco. In June 1929, the Agricultural Marketing Act was passed in America creating Federal Farm Board with the object of promoting a series of national organisations each of which is to function as the sales agency of an agricultural commodity. The nationals now planned and financed are:—

Farmers National Grain Corporation, National Wool Marketing Corporation, American Cotton Co-operative Association, National Live-stock Marketing Association, National Fruit and Vegetable Exchange.

The Farm Board has spent several million dollars and has loaned several hundred millions in its programme for developing the movement, and its latest activities are now known to everybody. A recent law at Peru has made compulsory the formation of agricultural societies by all those engaged in farming either as owners or tenants—one society for each district, to be formed on the initiative of the Provincial Governors and under the control of the Ministry of Agriculture. In 1929, a compulsory Consortium of the Rice Industry was established in four provinces of Spain, other provinces having the option of joining it, the members of the Consortium being the cultivators, owners of fields, and exporters. The marketing of Primary Products Act has been passed in New South Wales to organise the entire marketing of a particular primary product. Eggs, rice and honey have been already brought under the Act. The State Marketing Bureau has been instituted in 1927 in New South Wales under the above Act to prepare rolls of producers of a commodity, where there is a demand for a marketing Board, to conduct polls. It carries on researches, circulates marketing notes through its broadcasting system, prepares crop forecasts, studies economy of production and price. An Act on similar line in Queensland has constituted 15 boards to control marketing of entire products, viz., in cotton, wheat, fruits, maize, barley, butter, egg, pig, cheese, pea-nuts, honey, arrowroot, brown millet, and canary seeds.

This will make it clear how the marketing problem is being tackled in other countries of the world. If Bengal tries to solve the problem of only marketing jute, Bengal would go a long way towards economic advancement and welfare.

M. AZIZUL HUQUE.*

*The 22nd December 1933.*

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* I had to write out this note with very bad health and amidst successive domestic ships and I regret if I have not been able to write out more fully as I had originally ended.—M. A. H.

# APPENDICES.

## APPENDIX I.

### Questionnaire.

*N. B.*—(*a*) Individuals and Associations are specially requested to note that they are only expected to reply to those questions covering subjects or matter with which they have practical experience or in which they have responsible interest.

(*b*) It is hoped that replies will be submitted not later than 15th March 1933.

### Regulation—

**Q. 1.** Do you think the production of jute requires regulation?

**Q. 2.** (*a*) Do you think it possible to regulate the jute crop with reference to the expected demands of the market?

(*b*) What would be the main object and likely effect of such regulation? Would it be to raise, or to steady, prices of the raw fibre?

**Q. 3.** If you do not believe it is possible to regulate production please give reasons. Do the reasons against the possibility of regulation refer to present circumstances only, or do they imply that regulation would in no circumstances be feasible?

**Q. 4.** Do you know of any scheme of control of production, or export, of raw material, which has been successful in this or in any other country? In what respect is the case of jute similar or dissimilar?

**Q. 5.** What are the factors which in your opinion depress the price of jute? Is it a fact that prices have been poor only at times of financial or other crises, rather than that low prices are due to over-production?

**Q. 6.** If a jute regulation scheme were adopted, do you think there would be any danger of competition from substitute crops, either in India or in other countries? If such competition is likely, please explain how it would affect the jute industry in Bengal?

**Q. 7.** Do you consider that cultivators would voluntarily come under a scheme of regulation of the jute crop?

**Q. 8.** Is there any reason to believe that an attempt to regulate production on a voluntary basis would fail on the ground that any success achieved in one year would tend towards inducing increased sowings in the following year?

**Q. 9.** What are your views regarding regulation made compulsory by legislation? Have you any suggestions to offer regarding the outline of such legislation?

**Q. 10.** How would you propose to implement compulsory regulation? Would you desire to utilize any of the following:—

(*a*) Union Boards, (*b*) Co-operative Societies, (*c*) Zamindars, (*d*) Any other agency?

**Q. 11.** If widespread evasion of jute regulation procedure is apprehended, do you think it could be checked if the purchase of jute were concentrated in a Jute Marketing Board which might be able to detect increase in total yield and therefore in total acreage?

**Q. 12.** In the event of regulation of jute cultivation being arranged for the province of Bengal, would it be necessary to secure the co-operation of Governments and organizations in Bihar and Assam?

**Cultivation and production of jute—**

**Q. 13.** In the case of a decrease in the area of jute, what alternative crops instead of jute would you suggest for low lands and high lands? What steps do you consider could be taken to encourage the raiyat to grow such alternative crops?

**Q. 14.** Do you consider Government, and other, propaganda during the last two sowing seasons has had any effect in keeping down the area of jute under cultivation? Should such propaganda be continued? If you consider such propaganda could be made more effective in any way, please make suggestions.

**Q. 15.** What do you consider is the normal cost of cultivation and yield per acre of jute, and of alternative crops respectively, in different parts of Bengal?

**Q. 16.** In view of present day conditions, what would you consider a fair price level for jute which would bring a reasonable return to the cultivator growing it?

**Q. 17.** What are, in your opinion, the chief factors which have brought about the fall in the prices of raw jute and of manufactured jute in Bengal.

**Q. 18.** Jute is meeting with competition from paper and other substitutes. Jute bags are also being displaced by the use of elevators and bulk shipment in transit. In view of these circumstances, and in order to enable manufacturers to meet this competition, do you agree that agricultural research and propaganda, to assist the grower in producing better jute, and to lower his cost of production, should continue unabated by the Department of Agriculture? If you consider the Department of Agriculture could be assisted in this work by other agencies please make suggestions.

**Marketing—**

**Q. 19.** Do you consider the present system of compiling and publishing the jute forecast satisfactory and beneficial from the point of view of (*a*) the growers, (*b*) balers and mill-owners, and (*c*) middlemen? If so, how? If not, why not? In the latter case what changes would you suggest?

**Q. 20.** Are the present forms and methods of grading and marketing jute in the mufassal satisfactory, from the point of view of (*a*) growers, (*b*) balers and mill-owners, (*c*) middlemen, and (*d*) the community generally?

**Q. 21.** Do you consider it feasible to establish organized markets for jute in the various districts similar to those which have been provided for cotton in the Central Provinces and Berar by the Central Provinces Cotton Market Act of 1932 (Appendix I-A)? What would be the approximate number of such markets in Bengal, and the area served by each of them? Would such markets be advantageous to the cultivators?

**Q. 22.** Is there any means, such as the formation of village co-operative societies, whereby the raiyat can be brought more closely into touch with the jute baler, thus eliminating the middlemen and middlemens' profits?

**Q. 23.** Explain in detail the work and method of the various middlemen, such as the *Faria* and the *Bepari*, both as merchants and as commission agents, giving their remuneration in all forms in which it may exist.

**Q. 24.** Do you think there is any relation between the low price the cultivator is getting for his jute and the multiplicity of the middlemen?

**Q. 25.** Are there any marketing customs which you consider detrimental to the raiyat? If so, how could these be abolished?

**Q. 26.** Do cultivators pledge or sell their crops before they are harvested? If so, how long before harvest are they pledged? What are the terms on which the crop is pledged?

**Q. 27.** From whom do cultivators borrow? Would it be correct to say that in the large majority of cases the creditors are also the ultimate buyers of the crops? If so, do you think that it in any way affects the price which the cultivator is able to obtain? Have you any suggestions to offer regarding the provision of better credit facilities to the grower?

**Q. 28.** Is it possible to bring the whole system of marketing jute into the hands of a co-operative organization? If so, describe on what basis the organization should be made and how it could be financed? Please frame your answer in the light of the experience gained from the working of the co-operative jute sale societies.

**Q. 29.** What are the terms on which jute is sold to Dundee, the Continent, Japan, and other countries?

**Q. 30.** Are there any fixed standards of quality on which business is done for export? Who fixes those standards? Do the standards vary from year to year? Where are arbitrations held? Who appoints the arbitrators? Please give your views regarding home guarantee and the invoicing back clauses.

**Q. 31.** What improvements would you suggest in the methods adopted at present in the export trade? Do you consider that it is feasible to fix standards by legislation, under which a body of recognized standing would be set up to inspect all consignments of jute, and grant certificates, which would be authoritative and final in regard to the jute inspected?

**Q. 32.** Have you any scheme to suggest for improvements in the present methods of dealing in jute? Would a system of standards adopted on the lines of the American Cotton Standards Act of 1923 (Appendix I-B) be suitable for *pucca* bales in Bengal? Give details of any scheme you would suggest.

**Q. 33.** Are the various methods of marketing jute in Calcutta satisfactory? *e.g.*:—

Please explain the system at present prevailing in dealings in loose jute purchased by (*a*) jute balers, and (*b*) jute mills. Are there any fixed standards?

**Q. 34.** Is it a fact that standards or grades are sometimes changed, even in the middle of a season?

**Q. 35.** Do you advocate that fixed standards for loose jute should be fixed by legislation or otherwise? Please explain any objections which there may be to such a scheme.

**Q. 36.** What standards would you suggest and what authority do you think should supervise the working of the standards?

**Q. 37.** What is your opinion on Mr. McDougal's marketing scheme as published in the Report of the Central Banking Enquiry Committee (Appendix I-C)? If you advocate any other marketing scheme please state the lines on which it would work, particularly with regard to the financial aspect.

**Q. 38.** Do the growers of jute at present receive any market information? If so, in what form? If in your opinion the position is not satisfactory, can you suggest any practical method, by which growers, as well as merchants, and manufacturers, could be supplied with information regarding market conditions both here and abroad?

**Q. 39.** Would the same agency be able to supply information regarding stocks, complaints from buyers regarding quality, etc.? What type of market information would, in your opinion, be of most value to the grower?

**Q. 40.** Can you suggest how reliable information can be made to reach the grower rapidly? Do you think that wireless telegraphy with loud speakers at certain centres would be of assistance?

**Q. 41.** Do you consider it advisable or practicable to have a scheme by which, in the event of a possible slump in the market, jute could be purchased and held back from the market for the time being? If so, should this be done by Government or by private agency? Do you think that it would be helpful if Government announced its willingness to buy and stock jute at a minimum price fixed by it? If you agree that some such proposal should be given effect to, will you please estimate the probable cost of working the scheme and indicate how funds for the purpose could be provided?

**Q. 42.** Do you approve of the suggestion for carrying out market surveys for jute, and also for the appointment of special marketing officers, as recommended by the Royal Commission on Agriculture? If so, what functions would you suggest should be entrusted to the marketing officers, and what benefits would you expect from their surveys?

**Jute Committee—**

**Q. 43.** Do you think it necessary to create a Jute Committee for Bengal on the lines of the Central Jute Committee recommended by the Royal Commission on Agriculture?

**Q. 44.** What functions would you propose should be entrusted to such a Committee with reference to the cultivators, the traders and the mills? What should be the status of the Committee and how should its functions be co-related to the different interests involved, and to the Agriculture and other Departments of Government?

**Q. 45.** Could such a Committee function without the co-operation of other Provincial Governments, like those of Assam and Bihar and Orissa where also jute is grown? If not, how can the co-operation of those other governments be secured?

**Q. 46.** How should such a Committee be financed?

**Competition from substitutes and research—**

**Q. 47.** Can you give particulars, and, if possible, figures, showing how trade has been lost to the jute industry through competition from substitutes; also by the use of elevators and bulk shipment in the grain carrying trade? Is the loss likely to be permanent?

**Q. 48.** Have the substitutes in question captured the trade by reason of—

(*a*) better durability,

(*b*) cheapness, or

(*c*) stability in prices from year to year?

**Q. 49.** What are the comparative costs and conditions of production of these substitutes and jute? If the former enjoy any special advantages to-day, are these advantages likely to be permanent? Will the general competitive ability of such substitutes increase or decrease as time goes on, and why?

**Q. 50.** Have you any suggestions to put forward with a view to regaining the trade lost by reason of such competition?

**Q. 51.** Can you suggest other uses to which jute might economically be put?

**Q. 52.** Can you say if Calcutta mills are equipped to manufacture the goods which you have in mind?

**Q. 53.** In view of the losses which the jute trade is meeting as a result of competition, do you think a Research Department should be instituted without delay, to help manufacturers to overcome the difficulties which might attend the making and marketing of new jute products, and the improvement of present methods of manufacture? If so, by whom should the Department be financed?

**Q. 54.** Do you think propaganda in other countries should be undertaken by the jute trade?

**Q. 55.** What form should this propaganda take?

**Q. 56.** Should special representatives be appointed in various countries who would keep the trade posted with statistics, etc., and explore other avenues for new business?

**Q. 57.** Who would finance this work?

**Q. 58.** How would the activities of such representatives be co-ordinated so as not to interfere with the present selling arrangements of Calcutta shippers?

# APPENDIX I-A.

(*Vide* Questionnaire, Q. 21).

## CENTRAL PROVINCES ACT NO. IX OF 1932.

## THE CENTRAL PROVINCES COTTON MARKET ACT, 1932.

[Published in the "Central Provinces Gazette," dated the 12th November, 1932.]

### TABLE OF CONTENTS.


Preamble.

SECTIONS.

1. Short title.
2. Extent.
3. Definitions.
4. Establishment of cotton market.
5. Market committee.
6. Power to make rules.
7. Bye-laws.
8. Sub-committee.
9. Contract how executed.
10. Cotton market fund.
11. Purposes for which fees collected by market committee may be expended.
12. No trade allowance permissible unless recognized by rules or bye-laws.
13. Market committee to be a body corporate.
14. Bar of suit in absence of notice.
15. Power to borrow.
16. Supersession of market committee.
17. No private market to be opened in or near places declared to be cotton markets.
18. Penalties.
19. Offences to be triable only by first class magistrate.
20. Disposal of fines and institution of prosecutions.

# CENTRAL PROVINCES ACT NO. IX OF 1932.

## THE CENTRAL PROVINCES COTTON MARKET ACT, 1932.

[Published in the "Central Provinces Gazette," dated the 12th November, 1932.]

*An Act to provide for the establishment and better regulation of cotton markets in the Central Provinces.*

WHEREAS it is expedient to provide for the establishment and better regulation of the recognized open markets for the purchase and sale of cotton in the Central Provinces;

AND WHEREAS the previous sanction of the Governor-General required by sub-section (*3*) of section 80-A of the Government of India Act and the previous sanction of the Governor required by section 80-C of the said Act have been obtained for the passing of this Act;

It is hereby enacted as follows:—

**1.** This Act may be called the Central Provinces Cotton Market Act, 1932. **Short title.**

**2.** This Act shall apply to the whole of the Central Provinces. **Extent.**

**3.** In this Act, unless there is anything repugnant in the subject or context,— **Definitions.**

(*i*) "cotton" includes ginned as well as unginned cotton; **"Cotton."**

(*ii*) "cotton market" means a market established under section 4 of this Act; **"Cotton market."**

(*iii*) "grower of cotton" shall not include a dealer or broker in cotton, although such a person may grow cotton. If a question arises whether any person is a grower of cotton or not for the purpose of this Act, the decision of the Deputy Commissioner of the district in which the person permanently resides shall be final; **"Grower of cotton."**

(*iv*) "prescribed" means prescribed by rules or bye-laws made under this Act. **"Prescribed."**

**4.** (*1*) The Local Government may, after consulting the district councils, local boards, municipalities, sanitation panchayats, notified area committees and village panchayats in the areas affected, or upon a representation made by them or by growers of cotton within such areas, by notification, declare that any place is a cotton market established under this Act. **Establishment of cotton market.**

(*2*) Every such notification shall define the limits of the cotton market so established and may for the purposes of this Act include within such limits such local area as the Local Government may prescribe.

**Market Committee.**

**5.** For every market there shall be a market committee. The market committee shall be constituted as prescribed and shall consist of not less than ten and not more than sixteen members. Of these, not less than half shall be persons elected by cotton growers of such area as the Local Government may prescribe. One shall be elected by the district council or the local board of the district in which the market is situated in the manner prescribed, one by the municipality, notified area committee, village sanitation panchayat or village panchayat, whichever may be the local body within whose area of authority the market is situated, and the remainder shall be elected by the traders in the cotton market in such manner as may be prescribed.

**Power to make rule.**

**6.** *(1)* The Local Government may, either generally or specifically for any cotton market or group of cotton markets, make rules consistent with this Act for the purpose of the management and regulation of such cotton markets under this Act.

*(2)* In particular and without prejudice to the generality of the foregoing power such rules may provide for or regulate—

(*i*) the election of members of the market committee, the number of members to be elected by each of the bodies or groups of individuals referred to in section 5, and the manner of election, the preparation and revision of lists of voters from time to time, and the term of office of such members ;

(*ii*) the qualifications and disqualifications of voters and the candidates for election ;

(*iii*) the powers to be exercised and the duties to be performed by the market committee ;

(*iv*) the election of the chairman and vice-chairman of such committee, their powers and term of office ;

(*v*) the filling of casual vacancies in the office of members or in the office of chairman or vice-chairman of the market committee ;

(*vi*) the management of the cotton market and the prescribing of fees by the market committee, and, subject to the provisions of this Act, the collection and disposal of such fees ;

(*vii*) the issue by the market committee of licences to brokers, weighmen, measurers, surveyors and warehousemen and other persons using the cotton market and fixing the fees leviable by them, the form in which and the conditions under which such licences shall be issued, and the fees to be charged for such licences ;

(*viii*) the place or places at which cotton shall be weighed or measured, and the kind and the description of the scales, weights and measures to be used at such place or places ;

(*ix*) the periodical inspection, verification, correction, regulation and confiscation of scales, weights and measures in use in the cotton market ;

(*x*) the trade allowances which may be made or received by any person in any transaction in a cotton market ;

(*xi*) the preparation of plans and estimates for works proposed to be constructed partly or wholly at the expense of the market committee, and the grant of sanction to such plans and estimates ;

(*xii*) the form in which the accounts of the market committee shall be kept, the manner in which they shall be audited and the time or times at which they shall be published ;

(*xiii*) the preparation of an annual budget and its submission for sanction, and the reports and returns which shall be furnished, by the market committee ;

(*xiv*) the disposal of any surplus or part of surplus funds of the market committee ;

(*xv*) the time, place and manner in which a contract between buyer and seller is to be entered into and the money is to be paid to the seller ; and

(*xvi*) generally, for the guidance of the market committee and for carrying out the purposes of the Act.

(*3*) Any such rule may, when necessary, provide that any contravention thereof or of any of the conditions of any licence issued thereunder shall be punishable, on conviction by a competent magistrate, with a fine which may extend to five hundred rupees.

(*4*) All rules made under this section shall be subject to the condition of previous publication. A copy of the draft of the proposed rules shall be laid on the table of the Central Provinces Legislative Council. The Local Government shall give the Council an opportunity of discussing them, and shall take into consideration any resolution concerning the same which may be passed by the Legislative Council before finally publishing them in the "Central Provinces Gazette."

**7.** (*1*) Subject to the rules made by the Local Government under the last preceding section, the market committee may, in respect of the cotton market under its management, make bye-laws for— Bye-laws.

(*i*) the regulation of the business,

(*ii*) the conditions of trading,

(*iii*) appointment and punishment of its officers and servants,

(*iv*) payments of salaries, pensions, gratuities, and leave allowances to such officers and servants, and contributions by them, to any provident fund which may be established for the benefit of such officers and servants, and (*v*) the delegation of powers, duties and functions of the sub-committee, if any, appointed under section 8;

and may provide that contravention thereof shall be punishable by a competent magistrate with a fine which may extend to fifty rupees.

(*2*) All bye-laws made under sub-section (*1*) shall be subject to the condition of previous publication and no bye-laws shall take effect until it has been confirmed by the Local Government.

**Sub-committee.**

**8.** The market committee may appoint from amongst its members a sub-committee for the performance of any of its duties or functions.

**Contract how executed.**

**9.** (*1*) Every contract entered into by the market committee shall be in writing and shall be signed on behalf of the market committee by the chairman and two other members of the market committee.

(*2*) No contract other than a contract executed as provided in sub-section (*1*) shall be binding on a market committee.

**Cotton market fund.**

**10.** All moneys received by a market committee shall be paid into a fund to be called "The Cotton Market Fund" and all expenditure incurred by the market committee under or for the purposes of this Act shall be defrayed out of the said fund; any surplus remaining after such expenditure has been met shall be expended as may be prescribed in the rules made in this behalf.

**Purposes for which fees collected by market committee may be expended.**

**11.** Subject to the provision of section 10, all fees collected by the market committee under this Act or the rules made thereunder shall be expended only on—

(*1*) the maintenance and improvement of the cotton market;

(*2*) the construction and repair of buildings which are necessary for the purposes of such market or for the health, convenience and safety of the persons using it;

(*3*) the planting of trees, rearing them, making arrangements for providing water to the persons and cattle coming to the market, and like purposes;

(*4*) the meeting of establishment charges, including payments and contribution towards provident fund, pension and gratuities of the officers and servants employed by the market committee;

(*5*) the preparation and revision of voters' lists, and the election and by-elections of the cotton market committee;

(*6*) with the previous sanction of the Local Government, any other purpose whereon the expenditure of the cotton market fund is in the public interest; ~~and~~

(*7*) the expenses incurred ~~in auditing the accounts~~ of the committee.

**12.** (*1*) No trade allowance, other than an allowance prescribed by rules or bye-laws made under this Act, shall be made or received by any person in any transaction in a cotton market established under this Act, and no civil court shall, in any suit or proceeding arising out of any transaction in any such cotton market, have regard to any trade allowance not so prescribed. **No trade allowance permissible unless recognised by rules or bye-laws.**

(*2*) Any purchaser who makes deductions on account of *dharmadaya*, *gorakshana*, or similar other objects shall be liable on conviction to a fine which may extend to fifty rupees for each offence.

**13.** Every market committee shall be a body corporate and shall have perpetual succession and a common seal and may sue and be sued in its corporate name, and shall be competent to acquire and hold property, both movable and immovable, to lease, sell or otherwise transfer any such property which may have become vested in or been acquired by it, and to contract and to do all other things necessary for the purpose of this Act : **Market committee to be a body corporate.**

Provided that no committee shall permanently transfer any immovable property except in pursuance of a resolution passed at a meeting by a majority of not less than two-thirds of the members of the committee.

**14.** (*1*) No suit shall be instituted against any market committee or any member, officer or servant thereof or any person acting under the direction of any such committee, member, officer or servant for anything done or purporting to be done under this Act, until the expiration of two months next after notice in writing, stating the cause of action, the name and place of abode of the intending plaintiff and the relief which he claims, has been, in the case of a committee, delivered or left at its office, and in the case of any such member, officer, servant or person as aforesaid, delivered to him or left at his office or usual place of abode, and the plaint shall contain a statement that such notice has been so delivered or left. **Bar of suit in absence of notice.**

(*2*) Every such suit shall be dismissed unless it is instituted within six months from the date of the accrual of the alleged cause of action.

(*3*) Nothing in this section shall be deemed to apply to any suit instituted under section 54 of the Specific Relief Act, 1877.

**15.** (*1*) Every market committee may, with the previous sanction of the Local Government, raise the money required for carrying out the purposes of this Act on the security of any property vested in and belonging to such committee, and of any fees leviable by such committee under this Act. **Power to borrow.**

(*2*) The conditions in which such money shall be raised and the time within which the same shall be repayable shall be subject to the previous sanction of the Local Government.

Supersession of market committee.

**16.** (*1*) If, in the opinion of the Local Government, a market committee is not competent to perform, or persistently makes default in the performance of, the duties imposed on it by or under this Act, or exceeds or abuses its powers, the Local Government may, after giving such committee an opportunity for explanation, by an order published in the "Central Provinces Gazette," declare such committee to be incompetent, or in default, or to have exceeded or abused its powers, as the case may be, and may supersede it.

(*2*) When a market committee has been superseded, all members of the committee shall, as from the date of the order, vacate their offices as members.

(*3*) When a market committee has been superseded, all property and rights vested in it shall, subject to all charges and liabilities affecting the same, vest in Government :

Provided that, if no new committee is constituted for the cotton market under section 5, all property that shall remain after the satisfaction of all debts and liabilities of the superseded market committee shall vest in the local authority of the area in which the cotton market is situated for the purpose of any object of public utility in the said area.

No private market to be opened in or near places declared to be cotton markets.

**17.** Whenever the Local Government has, by a notification under section 4, declared any place to be a cotton market, no person shall, notwithstanding anything contained in any enactment for the time being in force, within the area of such cotton market or within a distance thereof, to be notified in the "Central Provinces Gazette" in this behalf in each case by the Local Government, set up, establish or continue or allow to be continued any other market for the purpose of the purchase and sale of cotton.

*Explanation.*—A person shall not be deemed to set up, establish or continue or allow to be continued a place as a market for the purpose of the purchase and sale of cotton if he sells his own cotton outside the premises set apart by the market committee for the purpose of purchase and sale of cotton.

Penalties.

**18.** Whoever, in contravention of this Act, sets up, establishes, continues or allows to be continued any market for the purpose of the purchase and sale of cotton, shall be punished, on conviction by a competent magistrate, with fine which may extend to five hundred rupees, and, in case of a continuing breach of the provision of section 17, with fine which may extend to one hundred rupees for each day after the first during which the breach continues.

Offences to be triable only by first class magistrate.

**19.** No offence under this Act or under any rule or bye-law made thereunder shall be triable by a magistrate other than a magistrate of the first class.

Disposal of fines and institution of prosecutions.

**20.** All fines and damages recovered from an offender shall be paid to the market committee. Prosecutions under this Act may be instituted by any person duly authorised ~~in writing by the market~~ committee in this behalf.

# APPENDIX I-B.

## History of the adoption of Universal Standards for American Cotton.

As far back as 1874 representatives of the various American Cotton Exchanges met in conference in Augusta, Ga., to consider the adoption of a uniform standard of classification of cotton for the United States. As a result of the recommendations then made, certain standards prepared by an Expert Committee were agreed upon, and all the American Exchanges took them up—then known as "Standard American Classifications"—during the next season. Their use, however, was only temporary. One by one the Exchanges abandoned them, until at last only the New York Cotton Exchange still made use of them after a few years. This Exchange continued to use these standards till it adopted, on 20th October 1914, the permissive official standards established by the Department of Agriculture in 1909.

Official help in cotton standardisation work may be said to have commenced definitely in May 1908 when, for the first time, the Act making appropriation to the Department of Agriculture "contained an item for the express purpose of enabling the Department of Agriculture to undertake systematic work in cotton standardisation and carried authority to establish an *official standard for the nine grades of white American cotton.*" The preparation of these standards was done by a Committee consisting of prominent men in the various branches of the cotton trade and experienced classers from important markets, and the Committee had at its disposal for this purpose cotton from various portions of the United States cotton belt, as well as copies of the standards of many of the cotton exchanges, both American and foreign. The standards established under this Act were purely permissive, their adoption and use having been wholly voluntary as there was no statute to make them obligatory upon any portion of the industry. "These official grades were, therefore, never formally promulgated, nor was any campaign undertaken to secure their adoption and use by the trade." The trade on the other hand, considered that the standards for the lower grades were "too full," and did not typify cotton of the eastern belt. In the circumstances these standards never came into general commercial use, and instead of replacing the different existing standards of classification they simply added one more to the numerous standards already in use.

Great diversity existed among the standards adopted by the various exchanges. At Liverpool there were three separate sets of standards for Upland, Gulf and Texas cottons, while in America standards of classification, basis grades, and differences between grades differed from market to market; and in some markets the standards were changed from year to year. "Thus a standard became a variable measure of quality and quotations based thereon were confusing and misleading."

Matters became worse when in June 1913 the American and European Cotton Exchanges prepared and recommended to the trade of the world a new international standard, and later in May 1914 a meeting, at which nearly all the United States Exchanges were represented, passed a resolution requesting the Department of Agriculture to adopt the proposed international standards. This served as a real eye-opener, and made it quite clear to the Department that the permissive standards issued in 1909 could not be forced upon the industry, and that any new system of classification should replace entirely the 1909 grades.

Just at this time another effort was made by the United States Congress to comply with the long-standing demand for an attempt by it to remedy the abuses in some or all of the "futures" exchanges. The Cotton Futures Act of 18th August 1914 was the result. The Act imposed generally on all contracts for sale of cotton for future delivery a tax of 2 cents for each pound of cotton involved, and then exempted from the tax contracts that complied with either of two specific sets of conditions aimed to correct the evils of future dealing that existed. The first of these (section 5) provided for the use in all contracts of grades of the "Official Cotton Standards" of the United States promulgated by the Secretary of Agriculture under section 9 of the Act, and the second condition (section 10) required that the contract should specify all the material terms relating to the true description of the cotton involved. Thus section 9 of the Cotton Futures Act of 1914 made it practically compulsory on the cotton future exchanges in the United States to use only the official cotton standards in all transactions on and after February 18, 1915. The Act itself did not make it mandatory but the provision of exemption from the super-tax made it self-executing. Another important section was section 11 which imposed a similar tax on all orders from the United States for future contracts on foreign exchanges unless the form of contract prescribed in section 5 was used.

Under the Cotton Futures Act the Secretary of Agriculture was "authorised, from time to time, to establish and promulgate standards of cotton by which its quality or value may be judged or determined, including its grade, length of staple, strength of staple, colour, and such other qualities, properties and conditions as may be standardised in practical form." In the preparation of the standards for grade the objective of the Department was to prepare a standard which would be comprehensive, covering all white cotton of American growth, and suitable for adoption both in the United States exchanges and foreign exchanges. Hence the Department had to reject the so-called "International Standards" or "Liverpool-Upland Standards" for various reasons, the chief of which was that these standards were more or less tinged. In view, however, of the necessity of enlisting the co-operation of Liverpool and the European cotton exchanges to the use of a uniform standard, the Department sent representatives to these exchanges with copies of the standards to induce them to accept the Official Cotton Standards.

In November 1914 the American delegates went to Liverpool to confer with the Cotton Association there. The chief difficulty in arriving at an understanding appears to have been the fear of Liverpool that the move on the part of the United States was a deliberate attempt to oust her in due course from the supremacy she had held in the cotton trade of the world. The conditions put forward by the Liverpool Association for the acceptance of the Official Standards were

(1) that the United States Government should guarantee not to undertake to certificate or arbitrate shipments of cotton sold to Europe, (2) that Liverpool and the United States Government should submit standards to the other periodically and try to adjust disagreements or discrepancies by mutual concessions, (3) that the sole monopoly of preparing and selling standards in Europe must be granted to Liverpool, and (4) that orders from the United States for future contracts on foreign exchanges should be exempted from the tax. No agreement was reached between the parties on these points as the United States Government wanted (1) to keep the questions of standards and arbitrations entirely distinct, (2) to regard the types of standards kept in vacuum in Washington as representative of the true standards, (3) not to confer on Liverpool the exclusive right to prepare and sell duplicates of standards in Europe, and (4) not to interfere with the powers of the Congress in this respect. The discussions, however, helped to convince Liverpool that the one set of standards prepared by the United States Department of Agriculture was comprehensive enough to replace the separate Liverpool sets for Upland, Gulf and Texas cottons, and that Washington was agreeable to maintain the credit of Liverpool by letting the world know that the proposed standard was reached by agreement with Liverpool and to change the name of the standard into "Washington-Liverpool Standards."

In December the American delegates reached Bremen and conferred with representatives of the exchange there. The Bremen Exchange's demands, *viz.*, (1) that compressed cotton also should be used in the preparation of standards, (2) that bales representing the grades should be supplied to them for the preparation of copies, and (3) that the southern spot markets in the United States should adopt these standards, were easily met and a complete understanding of the situation was gained at the end of the Conference. At Havre in January 1915, there was less difficulty and the members present at the Conference stated that no criticism of the standards could be made. In the meanwhile on December 15, 1914, the Official Cotton Standards of the United States were established and promulgated by the Secretary for Agriculture, the nine grades being Good Ordinary, Strict Good Ordinary, Low Middling, Strict Low Middling, Middling, Strict Middling, Good Middling, Strict Good Middling and Middling Fair.

The determination of the standards was an equally difficult task. For several years previous the Department had been carrying on extensive investigations and surveys throughout the cotton-growing States. During these surveys the samples collected systematically at stated intervals from typical markets ran into several thousands, and showed the varying characteristics of the cotton produced. From the samples collected in each State a set of types was made showing each grade from Middling Fair to Good Ordinary. This collection clearly demonstrated the possibility and feasibility of making a single set of standards, consisting of 12 types each in the nine grade boxes representing the whole of white American cotton. To compare with this collection the Department also had in their possession copies of the proposed International Standards of the old Liverpool Standards, and of local standards from various markets in the South. It was with such abundant material and with the help of several expert classers of the New York and New Orleans Cotton Exchanges that the specialists of the Department eventually worked out the actual details of the standard. In addition the Department very carefully elaborated an apparently foolproof system to ensure the complete reliability of the perpetuation of the standards, both in the original key-set and the copies. From the purchase of cotton intended for the preparation of the standards up to the disposal of the prepared sets every operation, and environmental conditions likely to affect such operations are carefully regulated and controlled to produce uniformity.

The position in early 1916 was that all the more important spot markets and exchanges in the United States had adopted the Official Cotton Standards, though none of the European exchanges nor Liverpool had done so. Hence, so far as the foreign exchanges were concerned the attempt on the part of the United States Government to force their Official Cotton Standards upon the foreign exchanges through the operation of section 11 of the Cotton Futures Act was not successful, and section 11 of the Act appears to have remained a dead letter for about two years. In August 1916, the Cotton Futures Act was therefore re-enacted, the most important amendment being the omission of section 11.

In the meanwhile, by an order of the Secretary of Agriculture, dated January 28, 1916, standards for colour in the various grades of American Upland cotton were also established as under:—

Good Middling Yellow Tinged.

Strict Middling Yellow Tinged.

Middling Yellow Tinged.

Strict Low Middling Tinged.

Low Middling Yellow Tinged.

Good Middling Yellow Stained.

Strict Middling Yellow Stained.

Middling Yellow Stained.

Good Middling Blue Stained.

Strict Middling Blue Stained.

Middling Blue Stained.

The re-enactment of the Act in August 1916, however, necessitated the re-establishment of the same standards for grade and colour on August 12, 1916.

No further attempt was made till 1921 to make the Official Cotton Standards of the United States universally adopted. In the meanwhile, the boll-weevil was well established in the whole of the cotton belt, and to save the cotton crop from the enormous ravages caused by this pest the methods and processes of cotton production had to be changed. With the hastening of the maturity of the crop, the average colour of lint became brighter, and the lint less stained as the crop could be harvested before rain and frost set in but, on the other hand, even high grade cotton without the spots caused by the larvæ of the boll-weevil became rare. Hence, in spite of the express wish of the cotton trade of the world and the policy of the United States Department of Agriculture not to alter the standards at any time, it became necessary to adjust the standards to the crop, the nature of which had been so profoundly affected by the changed conditions of growth. At the same time, it was brought to light that the Official Cotton Standards which in 1915 were identical with those of Liverpool were not so in 1921, while the Liverpool standards had remained unchanged. It became evident, therefore, that the United States, whose prosperity was intimately connected with the prosperity of her cotton production industry, had to devise means whereby her farmers could be freed from the domination of the foreign consuming markets, which failed to recognise the changed conditions under which cotton was grown in the United States.

On 1st June 1921 the Fulmer Bill, which later became the United States Cotton Standards Act of 1923, was introduced in the House of Representatives. The Bill did not have an easy passage in the American Legislature, having had to be twice introduced with minor changes. It finally received the assent of the President on March 4, 1923. In the meanwhile, by an order of the Secretary on July 26, 1922, the existing standards established under the United States Cotton Futures Act had been revised and became effective from August 1, 1923, and consequently under section 6 of the United States Cotton Standards Act these standards automatically became the standards for the purposes of this Act.

The provisions of this Act are for the most part permissive; but the most important section, *viz.*, section 2, is mandatory, and compels all transactions in grade in interstate and foreign commerce to be in accordance with the grades established under it. This law compels every merchant, shipper, buyer, and trader in the United States in every transaction, quotations of cotton for shipment, publication of prices, and in classification of all cotton in interstate and foreign commerce to use the official cotton standards of the United States only, provided the quality of the cotton involved is of, or within the range of, the official cotton standards of the United States. The other provisions of this Act have been designed chiefly to enforce the main provision referred to.

The main reason for such drastic action by the United States Congress is clearly stated by Mr. Wm. R. Meadows of the United States Department of Agriculture who, on March 24, 1923, when addressing the Texas Cotton Association at Dallas, said: "As a practical matter you, gentlemen, are shipping and have been shipping against standards with which you are not furnished copies. If you had purchased standards of the Liverpool Cotton Association, it would have cost you $600 to get the complete set. When American cotton reaches the other side, it is arbitrated against an unknown standard before a board of men who represent the buyer and on which no American shipper has any American representative." He emphasised the dependance of the United States on her cotton exports for her prosperity and her international status and added "such a large part of our annual exports should not be shipped against standards with which American cotton shippers are not familiar and be arbitrated by any set of men who represent the buyer exclusively and on which final tribunal we are denied representation." In reply to this argument Liverpool interests retorted: "The Americans were dissatisfied with the arbitration of Liverpool and now they expect the whole world to be satisfied with the final word of Washington officials; in other words, the alleged defective system of Liverpool is grafted on to Washington without first consulting the buyers."

The effect of the United States Cotton Standards Act on the existing practices in the cotton trade was bound to be far-reaching. When the law came into effect bills of lading, warehouse certificates, shipping documents, insurance contracts, newspaper and private quotations of cotton by grade, invoices and all other documents were required to be stated in accordance with the official cotton standards. If not, these documents had no legal status and were not enforceable in a court of law. Since about half the American crop is marketed in Liverpool and other European cotton exchanges, the passage of the Act presented problems of vital importance to the American export trade, and to foreign cotton exchanges. It was at once clear that if no workable basis was arrived at between the United States Government and the foreign exchanges on the question of standards which could be recognised and adopted by both parties, great hardship would be experienced by those dealing in American cotton. The Department of Agriculture was no less conscious of its responsibility in the matter. Early in 1923, therefore, Charles J. Bond, Agricultural Commissioner, United States of America, travelled through Europe and held meetings with the various Cotton Exchanges and with the International Cotton Federation, with the object of convincing the exchanges of the usefulness of common standards. A series of Conferences also took place in the United States during the months of April to July between the representatives of the Department of Agriculture, and delegates from representative producers, shippers and spinners' organisations in the United States. In the meanwhile a Conference of the European Cotton Exchanges was held at Liverpool in May 1923, and it was decided to send a delegation to America with a view to negotiating with the highest authorities in Washington, in order, if possible, to arrive at some working arrangement under the Act.

A Conference was therefore called at Washington on June 11, 1923, at which representatives from the leading cotton exchanges of Europe met representatives of the American cotton trade and officials of the Department of Agriculture. The European Exchanges at the Conference took exception to the official standards of the United States for length of staple, and to their relinquishment of the right of arbitrating in disputes arising out of shipments from the United States. As the representatives of the American trade present at the Conference agreed not to press the matter of arbitrations, the Department of Agriculture proposed that if the European Cotton Exchanges adopted the official cotton standards for grade and colour as universal standards, the Secretary of Agriculture would take such action as was necessary to vest in the members of the boards of appeal of Liverpool, Manchester, Havre and Bremen Cotton Associations the authority to determine finally the true classification, as to grade and colour of cotton of American growth exported from the United States. This proposal was largely accepted in principle by the Conference, but later after a careful examination of the official standards the Liverpool Cotton Association pointed out that certain revisions were necessary in the standards for Good Middling, Strict Middling, Middling and Strict Low Middling so as to raise their grade slightly in order to be universally acceptable. This the Department of Agriculture agreed to do, and the boxes of standards as finally approved by all the representatives present were set aside and the Secretary of Agriculture forthwith promulgated them under the authority of the United States Cotton Standards Act as the Official Cotton Standards of the United States, henceforth known as "Universal Standards," effective August 1, 1924.

In this connection, it has to be emphasised that in spite of comprehensive and rigorous legislation it took no less than ten years for the United States Department of Agriculture to get the standards for

American cotton universally adopted, and then only after making considerable concessions to foreign interests. The terms on which the workable basis has been arrived at are embodied in an agreement to which the Department of Agriculture, the Cotton Associations at Liverpool, Manchester, Bremen, Rotterdam, Havre, Barcelona, Ghent and Milan and the Federation of Master Spinners' Associations, Ltd., are signatories. The main points in the agreement are (1) that during the time the agreement remains in force, the Department of Agriculture shall not revise or change the standards before such modifications have been considered at a meeting at which the Associations will be given an opportunity to attend. At such meetings the Associations have 50 votes and the Department 50 votes out of a total of 100 votes; and (2) that the Department of Agriculture shall authorise from time to time the members of the Committees of the respective Associations to exercise the powers of a board of examiners in matters of classification of cotton in dispute, and their award to be final.

In 1924 an agreement supplementary to the above was entered into between the same parties, the object being to provide for the presence of the signatories once every year (later changed to once every two years) at Washington at the expense of the Department of Agriculture to approve the copies of standards. No doubt the reason for this further safeguard was to establish and maintain confidence in the integrity, comparability and uniformity of copies of the original universal standards, as it was considered that in spite of the very elaborate arrangements and great precautions taken to preserve the character of the original key-set from the ravages of time, the physical appearance of the original samples constituting the universal standard might change in storage.

## United States Cotton Standards Act.

(Approved March 4, 1923, 42 Statutes at Large, page 1517.)

An Act to establish and promote the use of the official cotton standards of the United States in interstate and foreign commerce; to prevent deception therein, and provide for the proper application of such standards; and for other purposes.

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,* that this Act shall be known by the short title of "United States Cotton Standards Act."

*Section 2.*—That it shall be unlawful (*a*) in or in connection with any transaction or shipment in commerce made after this Act shall become effective, or (*b*) in any publication of a price or quotation determined in or in connection with any transaction or shipment in commerce after this Act shall become effective, or (*c*) in any classification for the purposes of or in connection with a transaction or shipment in commerce after this Act shall become effective, for any person to indicate for any cotton a grade or other class which is of or within the official cotton standards of the United States then in effect under this Act by a name, description or designation, or any system of names, description or designation, not used in said standards: *Provided,* that nothing herein shall prevent a transaction otherwis lawful by actual sample or on the basis of a private type which is used in good faith and not in evasion of or substitution for said standards.

*Section 3.*—That the Secretary of Agriculture may, upon presentation of satisfactory evidence of competency, issue to any person a license to grade or otherwise classify cotton and to certificate the grade or other class thereof in accordance with the official cotton standards of the United States. Any such license may be suspended or revoked by the Secretary of Agriculture whenever he is satisfied, after reasonable opportunity afforded to the licensee for a hearing, that such licensee is incompetent or has knowingly or carelessly classified cotton improperly, or has violated any provision of this Act or the regulations thereunder so far as the same may relate to him, or has used his license or allowed it to be used for any improper purpose. Pending investigation, the Secretary of Agriculture, whenever he deems necessary, may suspend a license temporarily without a hearing.

*Section 4.*—That any person who has custody of or a financial interest in any cotton may submit the same or samples thereof, drawn in accordance with the regulations of the Secretary of Agriculture, to such officer or officers of the Department of Agriculture, as may be designated for the purpose pursuant to the regulations of the Secretary of Agriculture for a determination of the true classification of such cotton or samples, including the comparison thereof, if requested, with types or other samples submitted for the purpose. The final Certificate of the Department of Agriculture showing such determination shall be binding on officers of the United States and shall be accepted in the Courts of the United States as *primâ facie* evidence of the true classification or comparison of such cotton or samples when involved in any transaction or shipment in commerce. The Secretary of Agriculture shall fix rules and regulations for submitting samples of cotton for classification providing that all samples shall be numbered so that no one interested in the transaction involved shall be known by any classifier engaged in the classification of such cotton samples.

*Section 5.*—That the Secretary of Agriculture may cause to be collected such charges as he may find to be reasonable for licenses issued to classifiers of cotton under section 3 and for determinations made under section 4 of this Act, and the amounts so collected shall be used by the Secretary of Agriculture in paying expenses of the Department of Agriculture connected therewith.

*Section 6.*—That the Secretary of Agriculture is authorised to establish from time to time standards for the classification of cotton, by which its quality or value may be judged or determined for commercial purposes, which shall be known as the official cotton standards of the United States. Any such standard or change or replacement thereof shall become effective only on and after a date specified in the order of the Secretary of Agriculture establishing the same, which date shall be not less than one year after the date of such order: *Provided*, that the official cotton standards established, effective August 1, 1923, under the United States Cotton Futures Act shall be at the same time the official cotton standards for the purpose of this Act unless and until changed or replaced under this Act. Whenever any standard or change or replacement thereof shall become effective under this Act, it shall also, when so specified in the order of the Secretary of Agriculture, become effective for the purposes of the United States Cotton Futures Act and supersede any inconsistent standard established under said Act. Whenever the official cotton standards of the United States established under this Act shall be represented by practical forms, the Department of Agriculture shall furnish copies thereof, upon request, to any person and the cost thereof, as determind by the Secretary of Agriculture, shall be paid by the person making the request. The Secretary of Agriculture may cause such copies to be certified under the seal of the Department of Agriculture and may attach such conditions to the purchase and use thereof, including provision for the inspection, condemnation, and exchange thereof by duly authorised representatives of the Department of Agriculture, as he may find to be necessary to the proper application of the official cotton standards of the United States. Any moneys received from or in connection with the sale of cotton purchased for the preparation of such copies and condemned as unsuitable for such use or with the sale of such copies may be expended for the purchase of other cotton for such use.

*Section 7.*—That in order to carry out the provisions of this Act, the Secretary of Agriculture is authorised to cause the inspection, including the sampling, of any cotton involved in any transaction or shipment in commerce, wherever such cotton may be found, or of any cotton with respect to which a determination of the true classification is requested under section 4 of this Act.

*Section 8.*—That it shall be unlawful for any person (*a*) with intent to deceive or defraud, to make, receive, use, or have in his possession any simulate or counterfeit practical form or copy of any standard or part thereof established under this Act; or (*b*) without the written authority of the Secretary of Agriculture, to make, alter, tamper with, or in any respect change any practical form or copy of any standard established under this Act; or (*c*) to display or use any such practical form or copy after the Secretary of Agriculture shall have caused it to be condemned.

*Section 9.*—That (*a*) any person who shall knowingly violate any provision of section 2 or 8 of this Act, or (*b*) any person licensed under this Act who, for the purposes of or in connection with any transaction or shipment in commerce, shall knowingly classify cotton improperly, or shall knowingly falsify or forge any certificate of classification, or shall accept money or other consideration, either directly or indirectly for any neglect or improper performance of duty as such licensee, or (*c*) any person who shall knowingly influence improperly or attempt to influence improperly any person licensed under this Act in the performance of his duties as such licensee relating to any transaction or shipment in commerce, or (*d*) any person who shall forcibly assault, resist, impede, or interfere with or influence improperly or attempt to influence improperly any person employed under this Act in the performance of his duties, shall, upon conviction thereof, be deemed guilty of a misdemeanour and shall be fined not exceeding $1,000, or imprisoned not exceeding six months, or both, in the discretion of the Court.

*Section 10.*—That for the purposes of this Act the Secretary of Agriculture shall cause to be promulgated such regulations, may cause such investigations, tests, demonstrations and publication to be made, including the investigation and determination of some practical method whereby repeated and unnecessary sampling and classification of cotton may be avoided, and may co-operate with any department or agency of the Government, any State, territory, district, or possession, or department, agency, or political subdivision thereof, or any person, as he shall find to be necessary.

*Section 11.*—That wherever used in this Act, (*a*) the word "person" imports the plural or the singular, as the case demands, and includes an individual, a partnership, a corporation, or two or more persons having a joint or common interest; (*b*) the word "commerce" means commerce between any State or the District of Columbia and any place outside thereof, or between points within the same State or the District of Columbia, but through any place outside thereof, or within the District of Columbia; and (*c*) the word "cotton" means cotton of any variety produced within the continental United States, including linters. When construing and enforcing the provisions of this Act, the act, omission, or failure of any agent, officer or other person acting for or employed by any person, within the scope of his employment or office, shall in every case be deemed also the act, omission, or failure of such person as well as that of such agent, officer, or other person.

*Section 12.*—That there are hereby authorised to be appropriated out of any moneys in the Treasury not otherwise appropriated, such sums as may be necessary for carrying out the provisions of this Act; and the Secretary of Agriculture is authorised, within the limits of such appropriations, to appoint, remove and fix the compensations of such officers and employees, not in conflict with existing law, and make such expenditures for rent outside the District of Columbia, printing, telegrams, telephones, law books, books of reference, periodicals, furniture, stationery, office equipment, travel, and other supplies and expenses as shall be necessary to the administration of this Act in the District of Columbia and elsewhere.

*Section 13.*—That if any provision of this Act or the application thereof to any person or circumstances is held invalid, the validity of the remainder of the Act and the application of such provision to other persons and circumstances shall not be affected thereby.

*Section 14.*—That this Act shall become effective on and after August 1, 1923.

# APPENDIX I-C.

## Note on Proposed Jute Control Corporation.

[BY MR. A. P. MCDOUGALL, C.B.E., CHAIRMAN AND MANAGING DIRECTOR OF MIDLAND MARTS, LIMITED, AND CHAIRMAN OF MIDLAND WOOL GROUPERS' LIMITED, FORMERLY PRESIDENT, CO-OPERATIVE FARMS TRADING SOCIETY IN SCOTLAND.]

In recent years attempts have been made to control the price of rubber, coffee and wheat by different methods. All have failed for reasons which are well known.

Jute is the only crop of any magnitude which, under existing condition, lends itself to such a form of control as would ensure a stabilised price to the grower. Many Indian economists have pointed out that it is a monopoly and that therefore it should be possible to secure to the producer a paying price. If it is a monopoly to India, then this ought to be possible. There is reason to believe that it is. Attempts have already been made in Java to establish the crop there, and also in America and West Africa, but they have failed. It would be difficult to imagine a more suitable country than Java—the climate and soil in parts not dissimilar and cheap labour. In any case it is not grown in any other part of the world, though it has in the past been a paying crop of great value. There is, therefore, justification for believing that so far as the producer is concerned it is a monopoly crop, as long as the price is not raised unduly.

There is also some ground for suggesting that the manufactured article has to a considerable degree a monopoly. There are only two products in competition with it—hemp and paper. The former costs several times more and is too expensive to enter into competition with the ordinary jute product. Paper, up to the present, is only in competition with jute for cement bags, and the demand for jute would only be endangered if monopoly powers were used to raise the price unjustifiably beyond an economic figure. But it is no less possible that a well equipped research association could discover other purposes, as yet unknown, for which jute could be used.

It is possible with jute to regulate production. Further all exports can be cleared through two ports—Calcutta and Chittagong.

To enable control to be effective, it would be necessary to take the following steps—

A jute Corporation shall be established. with powers to fix prices for the raw material, to eliminate unnecessary costs of distribution, to control output and, if necessary, to undertake distribution and effect all payments. The capital of the Corporation shall be held by the Provincial Governments in jute growing areas in proportion to the average areas grown. The management shall be vested in a directorate representing the various interests involved. The constitution of the Directorate shall be as follows:—

(1) Overseas manufacturers—Two representatives for Europe. One representative for America.

(2) Indian Jute Mills Association—Two representatives.

(3) Calcutta Baled Jute Association—One representative.

(4) Calcutta Jute Shippers Association—One representative.

(5) Calcutta Jute Dealers Association—Two representatives.

(6) Bengal Jute Association—One representative.

(7) Directors of Agriculture to represent the cultivator. Five representatives.

(8) Representative of Banking interests—One. Full executive powers shall be vested in the Directorate.

**Note.—The interests of the producer will be fully safeguarded by the Government holding the entire capital of the Corporation and having the power to dissolve the Corporation in the event of monopoly powers being used adversely.**

This is merely the outline of a scheme for stabilisation of price and control of production. If the producer and the business interest are ready and willing to contribute the Share Capital, then the Government share may be diminished as the other interests increase the Share Capital.

If the constitution of the Board is not suited to local conditions it may be examined and modified suitably.

Prices shall be fixed in advance in consultation with the various interests involved. Manufacturers and export balers (on behalf of their clients) shall be bound to purchase all their requirements through the Corporation at the stated price.

The Corporation shall be responsible for all surplus jute and shall withhold same from the market unless for purpose which shall not be in competition with the manufartured jute fabric.

Producers shall be formed into local associations, which shall be co-operative societies and subject to the rules and regulations of such. They shall be responsible for the collection and transport of supplies to local depots. The collecting associations shall also be responsible for distributing all payments to their members.

At each local depot the representative appointed by the local association shall take over the jute by weight from the members. It shall then be handed over by him to the *bepari*. Each lot to be moved and kept separate. The *bepari* shall be responsible for delivery to the central depot as taken over by him. Each individual parcel shall be reweighed and priced under the existing system. The final price to the grower shall then be determined and credited to his account.

Payment of 75 per cent of the price fixed by the Corporation shall be made to the association on delivery and weighment of the jute to the local depot. The balance shall be paid when taken over by the central depot purchasers after assortment.

Each association shall keep an exact record of output of all members and of the acreage of their holding. They shall employ a competent manager. The records of the associations shall be regularly inspected by officials of the Corporation. The Corporation shall have powers to settle all disputes. The association shall limit or increase the output of each member *pro rata* according to the requirements of the Corporation.

Each consignment received by the association from its members shall be weighed and marked at the point of collection.

It would be advisable to use the existing channels of trade, as the agents of the Corporation on a commission basis. Agreements to be entered into for stated periods.

After the raw material is in store it is a matter of ordinary business routine to supply, by whatever channels are decided on, the requirements of manufacturers throughout the world. Existing storage capacity shall be made use of. It may be found necessary to erect extra accommodation for the handling of surplus jute. Manufacturers will have nothing to gain by refusing to take their year's supply, to the limit of their storage capacity, whenever the material can be despatched to them.

Manufacturers shall notify the Corporation of their requirements at the beginning of each season, and shall be bound to take the amount specified. The difficulty of financing the season's requirements by the Corporation would largely disappear. Jute at fixed prices would then be recognised as a safe security. The banks as at present could hold a lien on the goods. The banker and the manufacturer should therefore welcome the proposal of fixing prices, as it relieves them both of great uncertainty. Manufacturers, having been relieved of existing speculative risks in purchasing their raw material, would be in a position to devote all their energies to improving their technical and sales organisations and to reducing their costs of production. It is well known that the speculative risks of purchasing requirements of raw material are a distinct handicap to manufacturers. The retail price of the manufactured article would not be influenced to any appreciable extent by the difference of say four rupees per maund on the raw material.

It is not inconceivable that under proper organisation material reductions could not be made in the cost of distribution.

The yield of jute in Bengal in 1928-29 was 43,000,000 maunds and its value at 9 rupees was £29,000,000. In 1930 the average price was about Rs. 4/4/- landed Calcutta. It has been calculated that the cost of distribution is Rs. 2/8/- per maund apart from speculation and profits. One rupee per maund means £3,250,000. It is unnecessary at this stage to enter into further details with regard to the distributing organisation which should be set up. It is merely a matter of sound business organisation and efficient accounting. The magnitude of the control need not prejudice the proposal.

The greatest difficulty will be found in the control of the crop output, but it is by no means insuperable. The allocation can be based on the previous output of the ryot. Restriction is no hardship where land can be used for growing other crops. Where other crops cannot be grown on, it is calculated at 45 per cent. of the land, the ryot can leave a small proportion of his land fallow. A certain income from jute is of much greater value to him. Legislation would be necessary. Powers would be required even to the extent of refusing to allow any but recognised growers to cultivate the crop.

Surplus in any given year of 50 per cent. need be no serious handicap. A considerable carry over is indeed necessary and is doubtless the ordinary practice of the trade. Gladstone once said that "Faint heartedness was the master vice of the politician." If it can be proved that the economic difficulties are not insuperable, then the benefits of such a scheme to the Indian ryot, and perhaps to the world, are such that however great the administrative difficulties, it should be put in operation.

The existing methods of distribution are—

(1) The Cultivator.
(2) The *Faria* and *Bepari*.
(3) Merchants (Marwaris and European).
(4) Mills, balers and shippers.

There are only three grades—

(1) Standard (1st quality).
(2) Lightening (2nd quality).
(3) Hearts (3rd quality).

The variation in price is approximately as follows—

When 1st—Rs. 30 per bale.
When 2nd—Rs. 27—Rs. 27/8 per bale.
When 3rd—Rs. 23—Rs. 24 per bale.

The greatest difficulty in establishing a successful jute control will probably arise from the taking over of existing stocks apart from the growing crop of the ryot. The whole position must be very carefully investigated and a decision arrived at as to whether it would be sufficient to leave them for disposal through the ordinary channels of trade. If control is confined to the crop in the hands of the cultivator then there will be considerable speculation in the stocks held by the merchants and traders. If the present level of prices is taken at four rupees per maund, merchants would hold up the stocks against the price that is fixed for control. They would receive a gratuitous profit of—say Rs. 4/- per maund if the price was fixed at Rs. 8. This would result in many millions of pounds being made by the merchants without any risk to themselves. Moreover, the merchant in holding up the stocks for a rise would disorganise the demand through control.

It may, therefore, be necessary to take over existing stocks. It has been suggested that in order to overcome the difficulty of the manufacturer having made forward sales contracts—that he should be allowed a six months supply of jute. In the event of any manufacturer having any more jute in stock, the samples should be taken over by the Corporation. In the event of any manufacturer having less than a six months' supply in hand, he would be given the balance, at the price jute is taken over by the Corporation from the merchants. Manufacturers who refuse to hand over any quantity beyond a six months' supply would be informed that if they refuse to do so control prices would be raised against them to the extent to one to two rupees per maund. A fair profit would be allowed to the merchants on the stocks in their hands, and all stocks would have to be declared.

It has been suggested that the *farias* and the *beparis* would withhold stocks of jute in their hands to hand over to the Corporation in the following year's crop at enhanced prices. It may be that a comparatively small percentage of jute could be manipulated in this way, but all traders will be licensed and the Corporation will have power to cancel the license of any merchant or trader who does not comply with the requirements of the Corporation. *Farias* and *beparis* must also declare their stocks. In the event of any *bepari* endeavouring to manipulate his supplies, his license would be withdrawn. The right to withdraw a license gives the Corporation great powers. It would mean that in future the *bepari* would be out of business. The stocks in the hands of the *bepari* which could not be traced would amount to a very small percentage of the whole. As the Corporation will make a considerable profit on jute taken over, the financial stability of the Corporation would not be effected by a comparatively small proportion of illicit stocks having to be taken over in the following year's crops. We are informed on good authority that old jute can be spotted with comparative ease, if so, *farias* and *beparis* will run great risks. They will probably find that it is not worth their while.

Payments to the cultivator will be made in the following way— Associations as we have already suggested will be established to which will be attached groups of villages. One cultivator from each village shall be appointed to the Committee of Management. A Secretary Manager shall be elected by them and shall be their paid servant. He shall be responsible for keeping all books and transacting all correspondence between the Corporation and the society; he shall be responsible for organising the collection of jute on given days. He shall also be responsible for supervising the area of jute grown according to the requirements of the Corporation. Each member of the Committee shall in his own village assist in arranging the allocation in the village.

When a crop is ready for delivery, the Corporation will fix three collecting days during the season for each association, the jute will be taken by the cultivators to the appointed depot. It shall be weighed in the presence of the Manager and at least one of his Committee and the *bepari* or *faria,* whose business it will be to convey the jute to a central depot. Each consignment as weighed will be labelled with the name of the grower. The weight shall be invoiced in the books in the ordinary way. A servant of the Corporation or preferably of the bank will attend each collection with cash in hand. As each lot of jute is weighed and taken delivery of, the grower shall receive a cash payment of 75 per cent. of the fixed price.

The *beparis* shall be responsible for delivering the jute as taken over by him to the central store. A responsible official of the Corporation shall then re-weigh each consignment and price it for quality according to trade custom. The remaining percentage due to the cultivator shall be paid to him on the next day of collection. At the end of the season any balance due to the cultivator for his last consignment shall be sent to the Committee of Management of his association for distribution amongst the members.

It has been suggested that this method is not possible in practice because of the magnitude of the task involved. We shall examine it in detail.

In the 1921 census the number of population supported by jute agriculture is given at 4·2 millions. For the purpose of calculation let us assume that ¼ of that number are cultivators; this gives us one million. Let us make a further assumption that there is an average of 20 cultivators in each village (the average number we are informed on good authority is considerably more) and that the average number of villages which could be formed into a jute collecting depot would be 20, we have therefore to deal with 50,000 villages and 2,500 selling associations. Allowing for 3 collections and 3 bank assistants at each collection to do the necessary book-keeping and effect payment, a staff of five or six hundred would be ample. I am informed on the best of authority that the banks could provide this staff with ease and that insurance of the money in transit could be effected at a rate of 3/32 per cent. a trifling charge.

Apart from all other considerations, any schemes that would enable the cultivator to handle the actual money which his produce realises, is deserving of the most serious consideration by all who are interested in his welfare. Credit Co-operative Societies might eventually take over the work of payment, but this would take some years; the actual collecting associations would be run as co-operative societies though formed compulsorily, but in the initial stages it would be advisable to pay over the monies direct to the cultivator as suggested.

## APPENDIX II.

### Table and Graph of Observed and Adjusted Prices of Jute (*vide* page 7 of the Report).

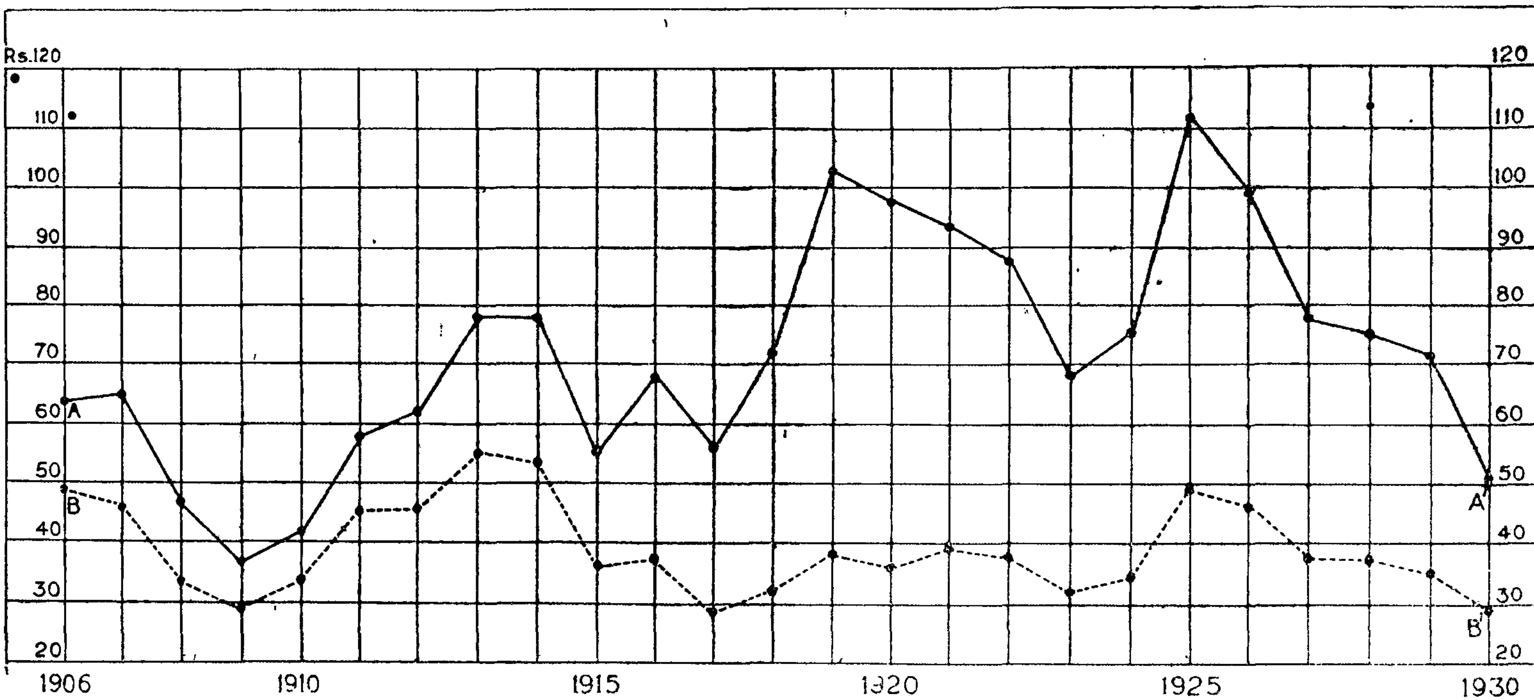
TABLE.

| Year. | Average annual price of raw jute in Calcutta per bale of 400 lbs. in rupee, C.D.M. group before 1922 and "Reds" from that year.* | Adjusted price of jute (i.e., observed price in column 2 × 100, divided by the general index number of prices† for the corresponding year). |
|---|---|---|
| 1 | 2 | 3 |
| 1906 .. .. .. | 63·07 | 48·89 |
| 1907 .. .. .. | 64·86 | 47·34 |
| 1908 .. .. .. | 46·10 | 33·41 |
| 1909 .. .. .. | 36·11 | 29·12 |
| 1910 .. .. .. | 41·11 | 33·70 |
| 1911 .. .. .. | 57·81 | 44·81 |
| 1912 .. .. .. | 61·44 | 44·85 |
| 1913 .. .. .. | 77·95 | 54·51 |
| 1914 .. .. .. | 77·75 | 52·89 |
| 1915 .. .. .. | 54·35 | 35·76 |
| 1916 .. .. .. | 67·26 | 36·55 |
| 1917 .. .. .. | 55·75 | 28·44 |
| 1918 .. .. .. | 71·40 | 31·73 |
| 1919 .. .. .. | 102·20 | 37·03 |
| 1920 .. .. .. | 97·51 | 34·70 |
| 1921 .. .. .. | 93·56 | 39·64 |
| 1922 .. .. .. | 87·84 | 37·86 |
| 1923 .. .. .. | 68·36 | 31·80 |
| 1924 .. .. .. | 75·84 | 34·32 |
| 1925 .. .. .. | 111·61 | 49·17 |
| 1926 .. .. .. | 98·72 | 45·70 |
| 1927 .. .. .. | 76·38 | 37·81 |
| 1928 .. .. .. | 75·06 | 37·34 |
| 1929 .. .. .. | 71·25 | 35·10 |
| 1930 .. .. .. | 50·30 | 29·42 |

*These figures are taken from the table relating to Average Annual Wholesale Prices of Staple Commodities in India, of the Statistical Abstract for British India (Annual).

†The general index number of prices is taken from the "Index Number of Indian Prices and its addenda (quinquennial)."

## Graph representing observed and Adjusted Prices of Jute.




A — A'—Observed price of jute in Calcutta per bale of 400 lbs. in rupees and decimals of a rupee, C. D. M. group before 1922 and 'Reds' from that year.

B — B'—Adjusted price of jute in Calcutta per bale of 400 lbs. in rupees and decimals of a rupee.

## APPENDIX III.

(*Vide* page 8 of the Report.)

### An attempt by the Director of Land Records, Bengal, to estimate the cost of the minimum staff required to carry out compulsory jute restriction in an average district.

The area under jute normally is not a large percentage of the total cropped area of any district as the figures in the table below will show. In Bankura, Birbhum and Chittagong there is no jute, or the quantity so small as to be negligible. In Burdwan the quantity is small but I believe very high class.

The proposal that a restriction on cultivation of jute should be imposed by legislation and the restriction enforced by an official staff will, in my opinion, be far more costly than any benefit accruing to the state.

Referring to the Revenue Secretary's note the procedure outlined consists of two parts. The first operation is to find out the percentage culturable area, (*a*) district by district, (*b*) subdivision by subdivision, (*c*) thana by thana, (*d*) village by village, and lastly (*e*) *khatian* by *khatian*. Further, it would be almost essential to fix this figure in terms of jute growing culturable area, for all the culturable area is not suited to the cultivation of jute. Unfortunately the settlement records do not show this and the figures which were obtained in the Khasra are not now available. It is, however, possible to find from the Milan Khasra and Juniswar statements of each district the area found under jute for (*a*), (*b*), (*c*) and possibly (*d*) above. It is therefore only the khatian figure that is not at all available.

The cost of preparing the khatian abstracts and preparing copies thereof for publication corresponds largely to the part cost of Attestation Janch. The cost of Attestation Janch is approximately Rs. 20 per square mile. That operation consists in checking of every entry, abstraction of statistics for rent and area and entry into certain forms. The abstraction of these figures would cost about half to two-thirds of the total or, say, Rs. 10 to Rs. 13 per square mile.

This operation once done would not need to be done every year but only minor corrections made somewhat similar to maintenance which could be done by the staff employed for the other part of the work.

The second part of the operation is the distribution of the allotment for the district between the subdivisions, thanas, villages and finally cultivators, and the issue of licenses; later on inspection to see that the license has not been exceeded.

Assuming that the allotment for a district is made by the Director of Agriculture on a basis of acres this must be divided between subdivisions and/or thanas by a responsible officer at headquarters. I do not think any special officer would be required for this; but the Collector could do this and general inspection in the course of his ordinary duties, and depute a responsible officer to make careful inspections to check dishonesty.

In subdivisions on the other hand I think a responsible officer not lower than Sub-Deputy Collector would be essential. Where area of the subdivision is small one between two would do. For each thana an executive subordinate, paid sufficient to place him beyond temptation, would be required. His duties would be the actual issue of licenses, distribution village by village and khatian by khatian. Examining his duties, it would be necessary for him to calculate what area any individual should be allowed on the proportion of his holding to the whole area of the village. Presumably, applications would first be taken and only those applying would be allowed licenses. This would reduce the calculation to be made. Assuming that the jute officer (executive subordinate) is able to proportion out the area to be cultivated by each tenant who has applied it will be necessary for him to point out the area in the field, unless the tenant is able to understand and read the cadastral map. (A great many can). Applications would have to be put in by 1st October as the issue of licenses village by village would take at least two months and they must be issued before the middle of January when ploughing starts provided there is any rain. During February, March and April (and even into May in some areas which is the last month for sowing) it would be necessary for him to tour and see that other plots than those licensed had not been sown with jute. They would thus be employed not less than 9 months per annum. Allowing one month for gazetted holidays (Pujas and X'mas) and one month's leave earned per annum there would be one month left in which records, *firisti*, etc., would be made.

To return to the issue of licenses. In an average district of 3,000 square miles with 1,000 plots and 300 interests per square mile there are 30 thanas. The percentage of the cropped area under jute varies in different districts as the table placed below will show. The average jute growing district may be taken as having 12 per cent. of the cropped area under jute. In each thana of 100 square miles there would therefore be 12 per cent. of 100,000 plots under jute normally, or 12,000 plots. Assuming that the executive jute officer can visit 100 per day it will take him 120 days or 3 months. I have taken the figure at 100 as the standard outturn for a *bujharat kanungo* who has many entries and surveys to check but on the other hand moves consecutively from plot to plot while the jute officer could not do so. He would have to start on the issue of licenses not later than middle of October. He would have 15 days in which to allot the village areas and prepare his *khatian* distribution. He would require a staff of not less than 1 clerk on Rs. 30-35, one orderly on Rs. 12 and two peons, to send intimation to villages, on Rs. 13. Total monthly cost of staff per thana would therefore be—

| | Rs. | |
|---|---|---|
| Jute Executive Officer on fixed pay, including travelling allowance .. .. .. .. | 200 | |
| Licence clerk .. .. .. .. | 35 | |
| Two peons .. .. .. .. | 26 | |
| Orderly .. .. .. .. | 12 | |
| Total .. | 273 | |
| For 30 thanas 30×Rs. 273=Rs. 8,190 per month .. | 98,280 | per annum. |
| *Add* the cost of 4 sub-deputy collectors one for each subdivision at Rs. 275 (4×12×275) .. .. | 13,200 | |
| Travelling allowance at Rs. 100 for 5 months (100×5×4) | 2,000 | |
| Total cost recurring per annum .. | 1,13,480 | |
| *Add* indirect charges— | | |
| Forms and stationery .. .. .. | 1,000 | |
| Leave and pension at 25 per cent. approximate .. | 25,000 | |
| Contingencies—House rent for officers .. .. | 10,000 | |
| Grand Total .. | 1,49,480 | |
| Initial cost of preparing abstracts .. .. | 30,000 | |

~~I~~ consider these figures bed rock bottom.

The other point raised is one of the subject of literature on cost rates. The Settlement Manual gives a sample estimate, and in the department annual report cost rates for various branches of the work in settlement are given.

| District. | Normal percentage of cropped area under jute. |
|---|---|
| Bakarganj .. .. .. .. | 2·4 |
| Bogra .. .. .. .. .. | 12·4 |
| Burdwan .. .. .. .. | 0·8 |
| Dacca .. .. .. .. .. | 15·7 |
| Dinajpur .. .. .. .. | 5·5 |
| Faridpur .. .. .. .. | 14·8 |
| Hooghly .. .. .. .. | 12·0 |
| Howrah .. .. .. .. | 9·0 |
| Jalpaiguri .. .. .. .. | 11·6 |
| Jessore .. .. .. .. | 8·7 |
| Khulna .. .. .. .. | 2·2 |
| Malda .. .. .. .. .. | 3·0 |
| Midnapore .. .. .. .. | 0·6 |
| Murshidabad .. .. .. .. | 2·1 |
| Mymensingh .. .. .. .. | 15·9 |
| Nadia .. .. .. .. .. | 4·5 |
| Noakhali .. .. .. .. | 3·5 |
| Pabna .. .. .. .. .. | 12·2 |
| Rajshahi .. .. .. .. | 6·3 |
| Rangpur .. .. .. .. | 14·47 |
| Tipperah .. .. .. .. | 15·4 |
| 24-Parganas .. .. .. .. | 6·1 |

## APPENDIX IV.

(*Vide* page 19 of the Report.)

### London Jute Association Arbitration Fees.

On the urgent representation of the Calcutta balers, the committee undertook the revision of the number of bales necessary for arbitration purposes and of the fees payable and the following schedule was agreed, subject to clause 14 (*b*) of the Contract Forms:—

| | Quality. | | | | | Condition. | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Bales to be examined. | Heads. | Fees. | | | Bales. | Fees. | | |
| | | | £ | *s.* | *d.* | | £ | *s.* | *d.* |
| 125 B/s. One number .. | 3 | 60 | 3 | 3 | 0 | 5 | 3 | 3 | 0 |
| 125 B/s. Assortment .. | 4 | 80 | 3 | 3 | 0 | 6 | 3 | 3 | 0 |
| 250 B/s. One number .. | 5 | 100 | 4 | 4 | 0 | 7 | 4 | 4 | 0 |
| 250 B/s. Assortment .. | 6 | 120 | 5 | 5 | 0 | 8 | 5 | 5 | 0 |
| 375 B/s. One number .. | 6 | 120 | 5 | 15 | 6 | 8 | 5 | 15 | 6 |
| 375 B/s. Assortment .. | 8 | 160 | 6 | 16 | 6 | 10 | 6 | 16 | 6 |
| 500 B/s. One number .. | 8 | 160 | 7 | 7 | 0 | 12 | 7 | 7 | 0 |
| 500 B/s. Assortment .. | 10 | 200 | 8 | 8 | 0 | 14 | 8 | 8 | 0 |
| 750 B/s. One number .. | 10 | 200 | 9 | 9 | 0 | 14 | 9 | 9 | 0 |
| 750 B/s. Assortment .. | 12 | 240 | 10 | 10 | 0 | 16 | 10 | 10 | 0 |
| 1,000 B/s. One number .. | 12 | 240 | 12 | 12 | 0 | 16 | 12 | 12 | 0 |
| 1,000 B/s. Assortment .. | 14 | 280 | 13 | 13 | 0 | 20 | 13 | 13 | 0 |

In claims for quality and condition the fees to be charged are those for quality *plus* 50 per cent.

The scale of charges was also carefully revised and it was agreed to reduce the Appeal Fee to £5 on quantities of 250 bales or less.

## APPENDIX V.

(*Vide* page 83 of the Report.)

**Memorandum showing the countries which, according to the latest information available in the Commercial Intelligence Department, have during recent years increased or imposed duties on jute sackings and hessians and the rates of such duties.**

1. **Ceylon.**—Gunnies and gunny cloth which were formerly admitted free of duty were made liable to a duty of 10 per cent. *ad valorem* with effect from 6th February 1932.

2. **Federated Malay States.**—With effect from 11th November 1931 a duty of 10 per cent. *ad valorem* was imposed on all jute goods other than thread and gunnies, which were formerly admitted free of duty. Since the exemption from payment of duty has also been extended to yarns and waste.

3. **Gold Coast.**—Bags and sacks ordinarily imported for the packing and transport of West African produce were formerly exempt from payment of duty there being a duty of 10 per cent. *ad valorem* on other jute manufactures. This rate was subsequently raised first to 12½ per cent., later to 15 per cent. *ad valorem*. Again with effect from 1st March 1932 a duty of 2*d.* each was imposed on bags and sacks specified above and the rate of duty on other jute manufactures was further increased to 20 per cent. *ad valorem*. Further, a surtax of 5 per cent. of the rates is applicable to both the above categories from the same date.

4. **Anglo-Egyptian Sudan.**—Jute manufactures which were formerly assessable at 8 per cent. *ad valorem* now pay a duty of 10 per cent. *ad valorem* except on sacks which are still assessed at the old rate of 8 per cent. *ad valorem*.

5. **British Guiana.**—Jute manufactures except empty bags and sacks, which were admitted free of duty, were assessable at 16⅔ per cent. *ad valorem*. In January 1929 a duty of 2 per cent. *ad valorem* was, however, imposed on empty bags and sacks and certain packing materials imported for the purpose of packing or containing goods of local production.

6. **Fiji.**—Bags and sacks (over 2 bushels) and other jute manufactures were formerly assessable at 1 sh. per dozen and 15 per cent. *ad valorem*, respectively, but in 1931 the duties were changed as under:—

| | |
|---|---|
| Bags and sacks, 2 bushels and under ... | 20 per cent. *ad valorem*. |
| Bags and sacks, not otherwise enumerated ... | Free |
| Other Jute manufactures ... | 20 per cent. *ad valorem*. |

7. **British Honduras.**—Formerly empty bags and sacks were admitted free of duty and other jute manufactures were liable to a duty of 5 per cent. *ad valorem*. In 1929 the duty on all classes of jute manufactures was raised to 10 per cent. *ad valorem* exemption

from payment of duty being granted in favour of only such empty bags and sacks as are to be re-exported filled with produce. In 1932 a surtax of 25 per cent. of the existing duty was imposed on jute manufactures.

8. **Trinidad.**—Prior to 29th November 1929 empty bags and sacks, and other jute manufactures were liable to a duty of 7½ per cent. and 10 per cent. *ad valorem*, respectively, *plus* a surtax of 7½ per cent. With effect from the said date the surtax was removed and bags used in packing the agricultural products of the Colony were placed on the free list. A surtax of 10 per cent. was again reimposed in 1930 on jute manufactures.

9. **Germany.**—Close-woven tissues of jute (unbleached and bleached) were previously assessable at 19 to 57 RM (according to warp and weft content) and 96 RM respectively per 100 kilos. With effect from 6th September 1932 these were made liable to duty at 30 to 70 RM and 120 RM, respectively, per 100 kilos.

10. **Netherlands.**—The duty on jute fabrics and bags which was formerly 5 per cent. *ad valorem* was raised to 6 per cent. *ad valorem* with effect from 29th January 1931. New sacks and other unused packing goods intended for re-export after having been filled in the Netherlands are, however, exempt from duty.

11. **Belgium.**—With effect from 27th March 1932 an additional duty of 15 per cent. *ad valorem* is being levied on tissues of jute and used cloth sacks for packing goods imported empty, the substantive rates of duty on these being 120 to 200 Fr. per 100 kilos (according to number of threads) and 5 per cent. *ad valorem*, respectively. The substantive duty on other kinds of cloth sacks for packing goods is the same as that of the fabric of which these are composed with an increase of 10 per cent.

12. **Italy.**—Unbleached plain tissues of jute which are assessable at 28·8 gold lires per 100 kilos have been made liable to an additional duty of 15 per cent. *ad valorem* with effect from 25th September 1931.

13. **Yugoslavia.**—With effect from 1st June 1932 the duty on jute tissues having in warp and weft in a square of 1 cm. side 18 threads or less and on sacks made of such tissues was raised from 25 and 32 to 28 and 35 gold dinars, respectively, for 100 kilos.

14. **Poland.**—Recently there has been no change in the Polish Tariff in regard to jute or burlap sacks and tissues of jute for sacking and packing purposes. But under the Decree, dated 21st December 1931, the import into Poland of jute yarns and tissues was prohibited during 1932 except the admission of a restricted quantity during January and February. It is not known if the operation of the Decree has been further extended. It is also reported that the Polish Government is considering the question of prohibiting the import, *inter alia*, of raw jute also with a view to encourage the production of flax and its subsequent manufacture into bags, sacks, etc. No definite information as to the final decision of the Government is yet available.

15. **Lithuania.**—The duty on jute sacks and coarse jute bagging and sacking cloth which was 0·30 litas per kilo was raised from 29th

March 1931 to 0·60 litas and from 11th June 1932 to 1·00 litas per kilo.

16. **Spain.**—A surtax of 10 per cent. of the duty was imposed, with effect from 28th December 1929, on plain or twilled fabrics and other jute fabrics, whether sewn or made up or not, which were till then assessable at rates varying approximately from 0·52 to 5·18 pesetas and 0·92 to 1·38 pesetas, respectively, per kilo. With effect, however, from 30th August 1930 jute sacks used to contain goods are exempt from the surtax.

17. **Portugal.**—An additional tax of 20 per cent. was imposed, with effect from 26th February 1932, on packing cloth and burlap, and on sacks and bales serving as packing for goods, if made of fabrics generally used for the purpose, which were till then assessable at 0·30 and 0·045 escudos, respectively, per kilo.

18. **Iraq.**—With effect from 9th November 1930 an additional duty of 1/10th of the duty was imposed on packing materials (including gunnies and hessian cloth) and jute textiles (including gunnies and hessians when not intended for packing) which were prior to that date assessable at 11 per cent. and 15 per cent., respectively.

19. **Java.**—Piecegoods and stuffs of jute were formerly assessable at 10 per cent. *ad valorem*. The duty was increased by 10 per cent. during 1931, by 20 per cent. during 1932, and by 50 per cent. from 15th June 1932 to 31st December 1933.

20. **Japan.**—Under Law No. 4, dated 15th June 1932, the duty on tissues of jute having in a square of 5 mm. side in warp and weft up to 20 threads, and on gunny bags (other than old which are free) which was 2·50 to 7·40 yen (according to number of threads) and 2·55 yen, respectively, per 100 kin was raised by 35 per cent.

21. **Egypt.**—Woven fabrics of jute, and jute bags (new or used and empty or full) were previously liable to a duty of 8 per cent. *ad valorem*. Jute bags containing certain specified fertilisers were, however, exempt from payment of duty. Under Decree of 12th May 1932 these were made liable to an additional duty of 1 per cent. *ad valorem*. Further, under Decree of 1st June 1932 these were made assessable at the specific rates of £E. 1·200 and £E. 0·250, respectively, per 100 kilos. The exemption in favour of jute bags containing fertilisers remains in force under the new Decree also.

22. **Columbia.**—Sacks and tissues for packing were formerly liable to a duty of pesos 0·20 per kilog *plus* various surcharges amounting to 17·81 per cent. of the basic customs duty. These rates were revised in 1931 grey jute cloth for packing and jute sacks for packing being made liable to a duty of 0·40 and 0·35 pesos, respectively, per kilo. The new duties are inclusive and replace the former surcharges.

23. **Chile.**—The duty on jute burlaps containing 8 threads or less in a square of 5 mm. side, and on jute bags for holding grain or other articles which was formerly 0·05 and 0·10 peso, respectively, per kilo was raised by 50 per cent. in accordance with a new Customs Law promulgated on 10th March 1933. It is also reported that these duties were to be further increased, with effect from 1st April 1933, to 0·80 and 1·00 pesos, respectively, per kilo. Duty-free import is, however, permitted when such materials are consigned to the Agrarian

or Mining Credit Bank and are necessary to supplement the national production. Sacks for the transport of nitrate for export are also exempted from the increased duties. It is understood that this step has been taken to encourage the cultivation of canamo (a local fibre) and the manufacture therefrom of fabrics as a substitute for jute manufactures.

24. **Peru.**—Prior to 1st January 1930 unbleached tissues and sack cloth of jute containing up to 10 threads in warp and weft in a square of 6 mm. side were assessable at 0·05 soles per kilo and new or used jute sacks for goods were admitted free of duty. With effect from the said date the duty on the former was raised to 0·10 soles per kilo and a fresh duty of 0·03 soles per kilo was imposed on the latter.

25. **Mexico.**—Formerly (1) unbleached coarse tissues of jute of any weave containing up to 32 threads in warp and weft in a square of 2 cm. side were assessable at rates varying from 12 to 20 centavos (according to weight) per kilo and (2) bags made of the above tissues were assessable at the same rates but were liable in addition to a surtax of 10 per cent. These duties were subsequently modified and in July 1928 the duty on (1) above was 0·24 to 0·40 centavos per kilo, and on (2) above was 0·27 to 0·45 centavos according to the weight of the original tissues, there being no surcharge. In 1931 these rates were further changed, unbleached, or bleached tissues (coarse) of jute of any texture having in warp and weft up to 16 yarns or threads per square cm. being made assessable at 0·45 to 0·80 centavos per kilo according to weight per square metre and sacks of jute cloth, bleached or unbleached, of the same specification as tissues above being made liable to duties varying from 0·50 centavos to 0·85 centavos per kilo according to weight per square metre.

It may be noted in this connection that along with the increase in import duties in 1928 certain local goods were, for the first time, subjected to higher customs duties when exported other than in bulk or in bags of native fibres. Sacks are considered as made of native fibres if they contain at least 40 per cent. of pita, ixtle, hanequen, palma or other fibres grown in Mexico. By the Decree of 23rd March 1929 an additional preference in the matter of export duty was given to articles packed in containers manufactured solely from native fibres, an intermediate rate being assigned to articles packed in containers made from at least 40 per cent. of native fibres.

(NOTE.—In the above statement only such rate or rates of duty have been given as apply to goods the produce or manufacture of British India.)

With reference to the previous note regarding proposals to replace imported containers by local products it is reported that by virtue of decree-law, No. 288 of the 26th July 1932, published in the "Diario Official" of the 12th August, the duty on sacks and sacking appearing under sections 419 and 300 of the Customs Tariff will be raised as from the 1st September 1933 to 1·80 peso per gross kilo instead of 0·10 peso and 0·05 peso per gross kilo to which articles in those sections are now subject. It will, however, be observed from the enclosed copy of a translation of the decree in question, that sacks and sacking consigned to the Agrarian and Mining Credit Banks are to enter duty free provided their importation is necessary to supplement national production. Sacks for transporting nitrate abroad are also to be exempt from duty since they cannot be manufactured in Chile.

2. With the object of further stimulating the development of a sack making industry in Chile, machinery used in the preparation of fibres or the manufacture of sacks is exempted from import duties for a period of 2 years. At the same time the President of the Republic is authorised to reduce or suppress the duty on textile fibres, and seeds of fibrous plants.

3. At present sack making in Chile, is, as previously explained, in an experimental stage and no sacks are yet manufactured on a commercial scale. One of the main obstacles in the way of the development of this new industry is the difficulty of finding the foreign exchange with which to purchase the necessary machinery and equipment. Messrs. Gibbs and Co. are endeavouring to float a company to manufacture sacks from canamo, but their negotiations are being held up by their inability to obtain some £30,000 to acquire plant from suitable British firms with whom they are in close touch. They hope, however, to solve this problem mainly by exporting Chilean products.

4. As regards the interest of the Sociedad Industrial de Los Andes, mentioned in the note under reference, in extending their activities to sack making. It is understood that they have made little progress owing to shortage of capital. It will be recollected that this concern recently acquired for experimental purposes a British loom for weaving sacks.

5. Unless, however, definite arrangements are made within the next few weeks for the purchase of the necessary plant, the full programme for the manufacture of sacks will have to be postponed for another year, since the canamo for the next harvest must be sown between the middle of September and the end of October. The extensions in the area sown with canamo necessary to supply the needs of the proposed industry will not, of course, be made unless the establishment of mills is definitely guaranteed.

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## CHILE.

### Decree-Law No. 288 of 26th July 1932 increasing the import duties on sacks (published in the "Diario Official" of 12th August 1932).

(*Translation.*)

In view of previous dispositions and the studies carried out by the Department of Manufacturing Industries of the Ministry of Developments and by the Ministry of Agriculture, and in accordance with decree-law No. 127 of 4th July 1932, for stimulating production and:

Considering that article 2 of law No. 5092 of 18th March 1932 requires the employment, within a period of two years, of containers fabricated with national raw materials, and that it is necessary and desirable in the national interest to encourage forthwith the cultivation of canamo and to put into operation existing canamo spinning mills in order that they may be adapted to the manufacture of fabrics for containers the following decree-law has been resolved and dictated:—

*Article 1.*—Commencing from the 1st April 1933, sacks and sacking which are imported under sections 419 and 300 of the Customs Tariff will pay one peso and eighty centavos, of sixpence per gross kilo, respectively.

Sacks imported for the purpose of transporting nitrate abroad will not be subject to the provisions of the above articles.

*Article 2.*—There will be exempt from the payment of import duties, the sacks and sacking indicated in Article 1 of the present decree-law provided they arrive consigned to the Agrarian Credit Bank or the Mining Credit Bank and up to the quantity necessary to meet, in conjunction with the national production, annual consumption requirements.

There will also remain exempt from duties, for a period of two years, the looms and machinery intended for the manufacture of sacks and sacking for containers; plant for preparing and harvesting textile fibres and spares and tools for those articles, always provided that they cannot be constructed in the country and whose construction the Ministry declares not desirable by supreme decree.

*Article 3.*—The President of the Republic is authorised to increase, lower or suppress import duties on textile fibres and seeds in a manner to be determined by the "reglamento" regarding the present decree-law.

*Article 4.*—The President of the Republic after receipt of advice from a Commission consisting of a representative of the Ministry of Development, who will preside, one of the Ministry of Agriculture, the manager of the Agrarian Credit Bank, and a representative of each sack factory which has at least an annual output capacity of four hundred thousand kilos of sacks and sacking, will fix periodically maximum and minimum prices for the sale of canamo seeds, of fibres, sacking and sacks intended for containers, in conformity with the type and qualities which the "reglamento" establishes.

*Article 5.*—The Director-General of Statistics shall, on the request of the Commission mentioned in the preceding article, demand from the farmers, manufacturers and traders, a verified declaration of the stocks at any given moment of the articles referred to in the present decree-law.

*Article 6.*—Infringements of the present decree-law will be penalised by fines of one hundred to three thousand pesos or by confiscation of the goods or both, all of which will be carried into effect judicially in accordance with the respective "reglamento."

*Transitory Article.*

(1) The Agrarian Credit Bank is authorised to import immediately two million five hundred thousand kilos of sacks and sacking to satisfy immediate consumption needs and is empowered to effect payment according to the dispositions established in decree-law No. 127 of 4th July 1932.

(2) Up to the 1st September 1933, the minimum and maximum prices of dressed canamo fibres are fixed respectively, at one hundred and one hundred and thirty pesos per metric quintal.

# APPENDIX VI.

## Jute Futures Market.

(*Vide* pages 28 and 135 of the Report.)

BENGAL CHAMBER OF COMMERCE.

(*Jute Futures Market Committee.*)

ROYAL EXCHANGE,
*Calcutta, 21st February 1933.*

To the Committees of :—

(1) Bengal Chamber of Commerce,
(2) Bengal Jute Dealers Association,
(3) Bengal Jute Growers Association,
(4) Bengal National Chamber of Commerce,
(5) Calcutta Baled Jute Association,
(6) Calcutta Baled Jute Shippers Association,
(7) Calcutta Jute Dealers Association,
(8) Calcutta Jute Fabrics Shippers Association,
(9) East India Jute Association, Ltd.
(10) Gunny Trades Association,
(11) Indian Chamber of Commerce,
(12) Indian Jute Mills Association,
(13) Jute Balers Association,
(14) Jute Fabric Brokers Association,
(15) Marwari Association.

Gentlemen,

At the informal conference held in the Royal Exchange, Calcutta, on 16th September 1932, and at which your Chamber/Association was represented, a discussion took place in connection with the existing Jute Futures Market, and a resolution was carried unanimously in the following terms:—

"That a Committee be set up forthwith to report (1) whether a Jute Futures Market is necessary in the interests of any branch of the trade, and, if not (2) whether steps should be taken to render any Futures Market illegal; or (3) to recommend an improved form of Jute Futures Market."

In order to carry out the purposes of this resolution, the conference appointed a Committee of six from the representatives then present, namely, (1) Mr. H. P. Bagaria, (2) Mr. P. E. R. Hoerder, (3) Mr. D. J. Leckie, (4) Mr. H. A. Luke, (5) Mr. Lachmipat Singh Kuthari and

(6) Mr. N. R. Sarker, with power to elect their own Chairman. It was agreed that this Committee should report in due course to the Associated Bodies represented at the conference, with a view to a further conference being held to consider the Committee's recommendations. The approval of the preponderating majority of the representatives who attended the Conference was subsequently extended to the Committee to co-opt two additional members, at their discretion, and Messrs. G. Euthymopulo and D. P. Khaitan thus joined the Committee deliberations. At the first meeting of the Committee on the 30th September 1932, Mr. N. R. Sarker was unanimously appointed Chairman. Mr. H. A. Luke resigned his seat at the end of November on account of his departure for England on leave, and Mr. D. King was nominated by the Calcutta Jute Dealers Association to fill the vacancy.

We have met on seven occasions to consider the points arising out of the terms of reference made to us, and we now beg to submit the outcome of our deliberations as follows:—

(1) *Is a Jute Futures Market necessary in the interests of any branch of the trade.*—While recognising the fact that there still exists among us a difference of opinion as regards the necessity for a Jute Futures Market, we are nevertheless of the opinion that if effect is given to our proposals, which follow, for the modification of the constitution and functions of the East Indian Jute Association, Ltd., the present Jute Futures Market, so modified, may become a helpful link to the Jute Trade of Calcutta.

(2) *The question as to whether steps should be taken to render any Futures Market illegal* does not arise, having regard to the opinion expressed above in regard to the necessity for a Jute Futures Market.

(3) *Our recommendations for an improved form of Jute Futures Market* have now to be submitted, and we have pleasure in placing on record the fact that the recommendations which follow are unanimous.

(*a*) *The reformed Jute Futures Market—Constitution of the Governing Body.*—In considering this important question from all angles of vision, we have kept prominently before us the essential consideration that any scheme we may put forward must ensure that all sections of the Jute Trade have effective voice in the management of the market and the framing of bye-laws, in order to make certain that such bye-laws will not place any section of the trade at a disadvantage in its dealings. With this object in view, we have evolved a scheme, on the lines of the Bombay Cotton Futures Market, which we put forward as a constructive effort towards a solution of the difficulties connected with the present Jute Futures Market. Under this scheme all (1) Balers, (2) Shippers, (3) Loose Jute Dealers, (4) Mills, and (5) Brokers desirous of operating in futures would become members of the Association, comprising five electoral panels of these different sections of the trade. Each panel, irrespective of the numbers therein, would elect two representatives to serve on the Governing Body on which Jute Growers would also be represented by two nominees of the Bengal Jute Growers Association. The Governing Body would thus consist of twelve members who would be representative of the entire Jute Trade.

To give to the different sections of the Jute Trade sufficient time to study the working of the reformed Jute Futures Market, we suggest that, for a period of two years beginning from the 1st of May 1933 to the 30th of June 1935, the members of the Governing Body of the East India Jute Association, Ltd., instead of being elected by the members of that Association, should be nominated by the different sectional organisations in the manner hereinafter mentioned:—

| | | | |
|---|---|---|---|
| (1) *Balers*—One Baler to be nominated by the Calcutta Baled Jute Association | ... | ... (1) | 2 |
| One Baler to be nominated by the Jute Balers Association | ... | ... (1) | |
| (2) *Shippers*—To be nominated by the Baled Jute Shippers Association | ... | ... | 2 |
| (3) *Loose Jute Importers*—One to be nominated by the Calcutta Jute Dealers Association. One to be nominated by the Bengal Jute Dealers Association | | ... | 2 |
| (4) *Mills*—To be nominated by the Indian Jute Mills Association | ... | ... | 2 |
| (5) *Brokers*—To be nominated by the East India Jute Association, Ltd. | ... | ... | 2 |
| (6) *Growers*—To be recommended by the Bengal Jute Growers Association | ... | ... | 2 |
| Total | | ... | 12 |

If, as a result of two years working, the Trade is satisfied, the various interests concerned can join the East India Jute Association Ltd., as members: and, from the third year onwards, the Governing Body will be elected by the different panels in the membership of that Association, i.e., irrespective of the total number of members in a particular panel, each panel will be entitled to elect two directors; and the two representatives of the Growers will be nominated by the Bengal Jute Growers Association.

If however, the experience of the Trade is not satisfactory, it will always be open to the various interests represented, to withdraw their co-operation from the Jute Futures Market.

The decision of the Governing Body in all matters pertaining to changes in the Rules and Regulations of the Association, and also in the contract form, should be final.

(*b*) *Tribunal of Arbitration.*—We suggest that there should be an independent Tribunal of Arbitration on the panel of which there should be nominees of the Bengal, Bengal National and Indian Chambers of Commerce, to deal with paper Arbitrations, but that disputes as regards quality might be arbitrated upon by arbitrators appointed by each party. This suggested Tribunal and connected questions will require to be considered by the Governing Body, but, if so desired, the East India Jute Association, Ltd., could appoint a Registrar of the Tribunal who would select the arbitrators from the list of names on the arbitration panel.

(*c*) *Hedge Contracts.*—At present dealings in the East India Jute Association, Ltd., are made on the basis of the "Firsts" quality. The terms of the contract vary considerably from those of the contract of the Calcutta Baled Jute Association the most important differences being that, in cases where buyers do not elect to give shipping instructions, sellers have to tender a Pucca Delivery Order and have to hold that jute on account of the buyers for a certain period. As a result of this, the price for the East India Jute Association, Ltd., contract is invariably higher than that of "Ready First." Shippers cannot thus "hedge" in this market. We propose that the present contract of the

East India Jute Association, Ltd., should be replaced by an appropriate contract, more in conformity with the Calcutta Baled Jute Association contract, with considerable changes made in the latter to make it available for use as a "hedge" contract. The most important changes would be the provision of periodical payment of margins, the settlement of differences, and the deletion of the clause regarding cancellation of the contract under certain conditions. Trading may be done on the basis of "Firsts" as at present. We realise that it should be left to the discretion of the Governing Body to introduce emergency measures of a temporary nature for use in exceptional cases, and in times of emergency, such as "bull" and "bear" raids.

(*d*) *Delivery Periods as apart from the Settlement Periods.*—The business carried on at present in the East India Jute Association, Ltd., is for September, December, March and May shipments. We have considered whether there should be Delivery Periods of two or three months, and we suggest that the Governing Body might be recommended to give a trial to two monthly periods, *i.e.*, six delivery periods within one year, with a view to judging by results whether any alteration is necessary.

(*e*) *Periodical payment of margins.*—Under existing arrangements it is the practice of the East India Jute Association, Ltd. to make weekly settlements. We have considered the desirability or otherwise of accepting this weekly arrangement, and we have decided to recommend that a trial should be made with fortnightly settlements, that is to say, a settlement every two weeks.

We suggest, in conclusion, that this report should be submitted, at the earliest opportunity, to the associated interests represented at the Conference held on 16th September 1932, with a view to a further Conference of these interests being held on Wednesday, 22nd March 1933 at 3 p.m. in the Royal Exchange, Calcutta. It would facilitate matters considerably, if those associated interests who have suggestions to put forward, would kindly submit their suggestions to the Secretary, Jute Futures Market Committee, at Royal Exchange, Calcutta, not later than Wednesday, 15th March 1933.

We are,

Gentlemen,

Yours faithfully,

NALINI R. SARKER, *Chairman.*
H. P. BAGARIA.
G. EUTHYMOPULO.
D. P. KHAITAN.
D. KING.
LACHMIPAT SINGH KUTHARI.
D. J. LECKIE.

A. C. DANIEL, *Assistant Secretary.*

Mr. P. E. R. Hoerder having left for England on leave on 16th February 1933 does not sign this report.

N. R. SARKER, *Chairman.*

## JUTE FUTURES MARKET COMMITTEE.

(Replies to Circular No. 585, dated the 28th February 1933).

*Jute Futures Market: Committee's Report.*

(1) *Dated 6th March and 24th March from the Calcutta Jute Fabrics Shippers' Association.*—No comments to offer. Generally admitted by shippers that a futures market does not benefit legitimate trade.

(2) *Dated 11th March from the Bengal Chamber of Commerce.*—No comments to offer.

(3) *Dated 13th March from the Marwari Chamber of Commerce.*—It appears, however, that there is no reference in the Committee's Report to Associations dealing in 5 and 25 bales. Their terms of reference were wide enough to include such Associations and my Committee consider it desirable that the Committee should be asked to frame recommendations regarding these Associations also.

Under the recommendation of the Committee, the Growers are to be represented on the Governing Body of the reformed Jute Futures Market by two nominees of the Bengal Jute Growers' Association. This body however does not really represent the Growers and should not therefore have a place on the Governing Body. In the opinion of my Committee, the Director of Industries should be authorised to select two representatives for the Jute Growers.

The Committee recommend that there should be an independent Tribunal of Arbitration on the panel of which there should be nominees of the Bengal, Bengal National and Indian Chambers of Commerce. It is well-known that the Marwari community is very largely interested in the jute trade and this Association is the principal public body representing all the various interests of that community. It is therefore very necessary that there should be nominees of this Association also on the panel of the proposed Tribunal of Arbitration.

As regards the Committee's recommendation for introducing a system of fortnightly settlements in place of the present system of weekly settlements, my Committee are of opinion that the object being to check unrestricted trading, the system of periodical payment of margins should be abolished together.

(4) *Dated 14th March from the Jute Balers' Association.*—A very big majority of the members of my Association feel that the present operations in the East India Jute Association, Ltd., and the other Jute Fatka Markets are detrimental to the interest of the Jute Trade and the modifications suggested by the above Committee will make little change in the nature of such harmful operations.

(5) *Dated 14th March from the Indian Chamber of Commerce.*—The Committee of the Chamber are in general agreement with the recommendations made by the Jute Futures Market Committee and have no criticism to offer. They trust that these recommendations will meet with the unanimous approval of the Conference and be given effect to at an early date.

* * * * * * *

(6) *Dated 13th March from the East India Jute Association.*—I am directed to inform you that my Committee have considered the above

report and have no criticism to offer in connection therewith. They accept the suggestions made by the Committee.

*  *  *  *  *  *  *

(7) *Dated 15th March from the Jute Fabric Brokers' Association.*—No comments to offer.

(8) *Dated 15th March from the Bengal Jute Growers' Association.*—I beg to inform you that my Committee approve of the suggestions made in the report of the said Committee.

*  *  *  *  *  *  *

(9) *Dated 15th March from the Gunny Trades Association.*—I am directed to inform you that the Committee approve the report and have no criticism to offer on the subject.

*  *  *  *  *  *  *

(10) *Dated 20th March from the Calcutta Baled Jute Shippers' Association.*—The Committee have carefully considered the report in consultation with members of the Association, and they have discussed it in the light of the views which were expressed on their behalf at the meeting on 16th September. The Association was represented on that occasion by its then President, Mr. P. E. R. Hoerder, who pointed out that in a monopoly product such as jute a futures market was not only unnecessary but was harmful to the interests of the trade as an encouragement to over-trading and violent fluctuations under speculative influence. "Over a long period of years," he stated, "the only really healthy period which could be called to mind, as enabling the baling community to conduct a normal simultaneous export business at a profit, had been the interval which had elapsed between the suspension of the old futka market and the opening of the new futures market under the auspices of the East India Jute Association. The Calcutta Baled Jute Shippers' Association would welcome a return of similar conditions for a stipulated time as an experimental measure. It had every confidence that results would convince all sections of the trade of the benefits which would accrue from the abolition of fatka."

The Committee of the Association see no reason, as a result of their consideration of the report, to alter in any way the views expressed by Mr. Hoerder; and they regret that the Association cannot see its way to endorse the recommendations contained in the report, because in the opinion of the Association the scheme put forward would simply operate to strengthen considerably the constitution of the East India Jute Association without effectively curbing the speculative and other undesirable features connected with such a futures market for jute.

(11) *Dated 20th March from the Calcutta Baled Jute Association.*—Copies of the Report have meanwhile been issued to members of the Association, who met to consider the recommendations contained in it on Tuesday last, the 14th March, when a resolution in the following terms was adopted:—

> "That this meeting is not in favour of recognising officially the futures market as at present constituted and does not desire to support the suggestions of the Jute Futures Market Committee."

The resolution represents the views of this Association with regard to the recommendations contained in the report of the Committee which was appointed as a result of the informal meeting held under the auspices of the Chamber on 16th September last.

* * * * * * *

(12) *Dated 27th March 1933 from the Bengal Jute Dealers' Association.*—In the special General Meeting of the members of this Association held on the 18th instant at the Board Room of the Jute Balers' Association after lengthy discussion the following resolution was adopted:—

> "A very big majority of the members of the Bengal Jute Dealers' Association are of opinion that the recommendations of the Jute Futures Market Committee even if given effect to will not materially improve the nature of operations in the East India Jute Association, Limited, which are definitely detrimental to the interest of the Loose Jute Trade."

* * * * * * *

(13) *Dated 27th March from Indian Jute Mills Association.*—As has been stated, the report and the recommendations contained in it have been carefully considered by the interests which this Association represents. The Association is of opinion that the recommendations contained in the report for an improved form of jute futures market will not to any material extent, or with any lasting effect, place a check on the speculative and other undesirable features attaching to the present futka market. The Committee regret therefore that in the circumstances this Association cannot see its way to endorse the recommendations which are now put forward.

(14) *Dated 25th March 1933 from the Bengal National Chamber of Commerce.*—The Committee of this Chamber have given their careful consideration to the issues raised and give their general approval to the decisions of the Futures Committee.

* * * * * * *

(15) *Dated 28th March 1933 from the Calcutta Jute Dealers' Association.*—I am directed to acknowledge the receipt of your letter, dated 28th February 1933, inviting an expression of this Association's views on the recommendations contained in the report issued by the Jute Futures Market Committee which was appointed as a result of the informal conference held under the auspices of the Chamber on 16th September 1932.

2. The report has been carefully considered by the Committee and I am to say that they regret they cannot see their way to endorse the recommendations contained in the report because, in their opinion, the scheme put forward would simply operate to strengthen considerably the constitution of the East India Jute Association without effectively

curbing the speculative and other undesirable features connected with such a Futures Market for jute.

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**Letter, dated Calcutta, the 21st March 1933, from the Marwari Jute Sellers' Association, to the Bengal Chamber of Commerce.**

The attention of the members of our Association has been drawn to the contents of the above Report published in "Capital." We read therefrom that a few modifications in the existing operations in the East India Jute Association are recommended, the effect of which would be that this speculative market will be given the dominating position over the real trade. There is perhaps no two opinions among the *bona fide* businessmen engaged in the trade of jute from field to factory that the operation in the East India Jute Association has been working definitely against the interest of the ryots and the loose jute sellers in as much as they encourage the balers to sell pucca bales at Re. 1 to Rs. 2 below cost of production, which equally means loss to the ryot and the loose jute sellers.

We are therefore desired by our Association to convey to you the grievances which our members have and to request you to put forth our condemnation of such Fatka Markets in the ensuing conference to be held on the 22nd instant to consider the Report.

We do not know how our association was not invited to participate in the deliberation of the conference although it is working as old as 50 years at Phulbagan under Saheb Bazar and Ruthtolla section of the Eastern Bengal Railway.

**Letter, dated Calcutta, the 21st March 1933, from the Hatkhola Banijya Hitaisini Sava, to the Bengal Chamber of Commerce.**

It has come to the knowledge of my Association that a Committee was appointed by the representatives of a few Associations whose meeting was held under the auspices of your Chamber to report on the effect of the Jute Futures Markets on actual trade. It is a matter of great regret that our Association whose members represent the entire jute trade at Hatkhola was not invited to join the said conference. My Association has since learnt that the Committee so appointed has submitted a report we do not know whether evidence was taken by the Committee. In absence of this we beg to convey our views to you and to ask you to kindly put the same in the coming meeting on the 22nd inst.

My Association is strongly of opinion that the activities of the speculation markets in Calcutta are a great detriment to the real interest of the actual trade. My Association is further inclined to think that few Associations dealing in *bona fide* trade will take exception to it. It is only a class of speculators that are *bona fide* by these markets to the serious disadvantage of the whole trade from beginning to the end. My Association, therefore, request you to kindly take particular note of the view of the trade and not of the men connected in the Futka Markets and to take such steps that these injurious activities come to a stop as early as possible.

# APPENDIX VII.

(*Vide* pages 33, 39 and 141 of the Report.)

Circular No. 64-D., dated Calcutta, the 5th June 1933.

From—D. C. Fairbairn, Esq., Assistant Secretary, Indian Jute Mills Association.

To—All Members of the Association.

## Competition; Research; and the Expansion of Markets for Jute Goods.

I am directed to refer to circular No. 35-D., dated 18th March last on the subject of the growing competition which Calcutta jute goods have experienced during recent years from different sources. The circular explained that the Association Committee had decided to refer the question for examination to a special Sub-Committee consisting of Mr. H. H. Burn, M.L.C., Chairman, Mr. P. S. Macdonald, Mr. S. K. Scott, and Mr. W. A. M. Walker, together with two representatives of the Calcutta Jute Fabrics Shippers Association, namely, Mr. A. R. Ramsay and Mr. J. P. Anastasiadi. And in asking for the views of members generally, the circular pointed out that the investigation it was proposed to undertake would include within its scope all questions relating to competition from substitutes such as paper, cotton, flax, sisal and other fibres; competition from grain elevators and other sources; the possibilities of research and propaganda being undertaken to meet this competition; and an examination of the ways and means whereby the market for Calcutta jute goods could be expanded.

The Sub-Committee appointed for the purpose have carefully considered the question in all its aspects, on the basis of the information which has been available to them. The first point which has impressed itself upon the Sub-Committee is that the market for jute goods has been, and is being, definitely affected by competition; and they have arrived at the conclusion that unless effective measures are taken at an early date to retain the trade which the Industry now holds, to regain some of the markets which have been lost to substitutes, and to explore other avenues for new business, the jute mill industry of Bengal is faced with the prospect of a gradual but steady decrease in the use of the fabrics which it produces. Stress has on different occasions been laid on the decline which has set in, but at the risk of repeating what has already been emphasised by the Association during recent years, the Sub-Committee propose to bring together as briefly as possible the available information on the subject, so that the mills may be able to review the position in its true perspective. The Sub-Committee's investigation has fallen under three distinct heads, namely, (*a*) an examination of the competitive influences at work against the jute industry of Bengal; (*b*) a survey of the present methods of manufacture and the respects in which these fail to meet the demands and requirements of consuming markets; and (*c*) constructive proposals which they put forward for the consideration of the mills and which they believe will assist in meeting the decline in trade referred to above.

### A. Competitive influences at work against the Industry.

The entry into the world's markets, on a commercial basis, of substitutes for jute goods is at the present time the principal cause of anxiety, and the basic reason for this is that jute has lost, for the time being at any rate, its principal recommendation, namely, its comparative cheapness. Other factors, such as the prevailing economic depression and the present international fiscal situation, throw their weight into the scales against jute. There is, for instance, the urgent need at the present time of many countries to balance their exports and imports: a number of countries which produce some of the competitive fibres to which reference is made below—or which manufacture paper—feel that they can achieve a reduction in imports by encouraging the production and use of these fibres and by lessening—or perhaps eliminating—the importation of jute and jute goods. The Sub-Committee's investigation of the subject leads them to the conclusion that even a return of more normal times will not necessarily result in restoring the trade to its former condition of prosperity, unless active measures are taken by the jute mill industry to improve the quality of its output in response to the demands of its consuming markets and to seek ways and means of fortifying itself against the inroads which have been made upon it by substitutes. The principal sources of competition at the present time are the following, and it is proposed to review each briefly, where possible amplifying the information given by means of the extracts from correspondence and other papers which form the appendices to this circular:—

(*a*) *Paper* (*see Appendix I*).—Competition from paper bags has affected the demand for jute goods principally in the United Kingdom, South Africa, Australia and America. Paper interests have, during recent years, carried out an extensive campaign in favour of the adoption of their goods at the expense of jute, and this has been responsible for a considerable loss of trade in jute bags, not only in the major industries, but also—and perhaps to a greater proportionate extent—in the retail trades which formerly used large quantities of small makes of jute bags for the marketing of their goods. But the principal loss to the Calcutta mills has undoubtedly been in respect of the cement trades of the United Kingdom, South Africa, America, Germany and Denmark. "......We believe today" states a recent article on the subject "not less than 80 per cent. of the cement manufactured in Denmark is packed in paper sacks, whereas in England not less than 85 per cent. is packed in similar containers, and in America where cotton is so cheap 40 per cent. of cement is packed in paper sacks, about 50 per cent. in cotton bags and the remainder in steel drums or wooden casks." The position in the United Kingdom is understood to be that, except for special requirements, the entire cement trade has in recent years turned from jute to paper containers. Similarly in South Africa, members of cement combines have agreed to use only paper bags in future and are erecting their own factories for the manufacture of paper containers locally. According to information which was supplied to the Association in May 1932 the annual consumption of bags by the cement trade of the Union of South Africa is in the vicinity of three millions. Since then—as recently as November last—a local Import House received information from a South African buyer to the effect that, when their existing stock of jute bags was exhausted, they intended to change over to paper, involving a heavy loss of business to this particular

Calcutta firm. A conservative estimate places the loss to the Jute Industry of Bengal involved in this change-over to paper in the United Kingdom and South Africa alone, at upwards of twenty million cement bags per annum.

It should be noted also that wide hessians have been displaced largely in the Australian dried fruit trade by a product known as "Sisal-kraft," which consists of two sheets of brown paper reinforced by sisal fibre and which at present competes with 72″ hessian. It is quite probable that competition of this nature may extend to other fruit producing countries. Another recent development is with regard to a water-proof paper bag which has been placed on the market presenting special advantages to the agricultural industry. The Australian sugar trade is also looking towards the possibility of paper bags though it is understood that the price factor at the present time makes serious competition from this source unlikely. Additional information on these and other uses for paper is contained in the papers published in appendix I to which attention is invited.

(*b*) *Cotton* (*see Appendix II**).—A recent estimate states that cotton bags and bagging have displaced gunnies in America to the extent of anything up to ten per cent. Another estimate is that, whereas the consumption of bags in America was formerly 90 per cent. burlap and 10 per cent. cotton, the ratio to-day is nearer 70 per cent. burlap and 30 per cent. cotton; and the source of this information adds that even when conditions return to normal, it is not expected that gunnies will regain more than half of the trade now captured by cotton in America. The circumstances in which this change has taken place briefly are that the diminished demand for cotton has stimulated American cotton interests to take active steps to foster the adoption of cotton bags and bagging in preference to jute both internally and in foreign markets. The low price of cotton during recent times, its lightness and the consequent saving in freight, its greater strength and its more attractive appearance especially from the point of view of the retail trades, have contributed to the success of the campaign carried out in its favour. Jute goods in short—and this applies throughout, in the consideration of substitutes—have to a large extent lost their former advantage of comparative cheapness.

Further evidence on the increased use of cotton in America is contained in Appendix II to this circular, but it is appropriate to quote in detail here the following extracts from the sixth (1932) annual report of the Cotton Textile Institute Incorporated, New York:—

(1) With regard to cotton bags the report states:—

"The Institute has devoted special attention during the past year to extending the uses of cotton bags. The practicability of the 15-pound cotton bags for packaging potatoes is now well demonstrated. The use of cotton bags for potatoes, first introduced in Maine, has now extended

* Please see also the following articles published in the report issued by the Association in 1932 in connection with the Ottawa Conference, *viz* :—

(*i*) Cotton Bags in the wholesale Grocery Trade.
(*ii*) Cotton Bagging for cotton.
(*iii*) Cotton Bags in the Fertiliser Industry.
(*iv*) Cotton Bags and other containers in the wholesale Grocery Trade.
(*v*) Use of cotton bags as containers of potatoes.
(*vi*) Use of cotton bags and other containers in Flour Mills of United States of America—1931.

to Idaho, Minnesota, Michigan, New York State, Prince Edward Island and Canada, as well as to some of the sweet potato growing districts of the South. The country's largest grocery chain last year handled more than two million pecks of potatoes put up in cotton bags and already has purchased more than three million 15-pound bags for this year's use. In spite of various factors, including discriminatory freight rates, which have retarded the use of cotton bags for citrus fruits, progress has nevertheless been evident. One large chain store organization, after last year's trial success, has purchased 50,000 8-pound bags, as an initial order for part of its present season's requirements."

"In the case of cotton bags for the shipment of nuts there are several new customers of outstanding importance. The California Walnut Growers Association, reputed to be the world's largest shipper of nuts, and in control of 90 per cent. of the California nut acreage, has bought 75,000 100-pound bags and 400,000 4-pound bags, which will take care of more than 12 per cent. of this season's walnut crop. The adoption of cotton bags by this group follows their trial in 1931, on an experimental basis, and this is a typical result of the Institute's persistence in seeking new users and markets."

"The North Pacific Nut Growers Co-operative Association is further experimenting this year with cotton bags which have been furnished to its members. In 1931 a satisfactory reaction from their customers followed their use of the small cotton pockets on a limited scale. Likewise, the National Pecan Marketing Association is using cotton bags of various sizes to a greatly increased degree."

"The purchasing department of one of the largest factors in the New York Produce Market has requested the Institute's co-operation in the development of an open-mesh polished yarn bag for the put-up of onions in 50-pound units. Several bag manufacturers are collaborating in endeavours to produce a bag of this type at a competitive price on which quotations have been requested in lots of from 100,000 to 500,000 units."

"Consideration is being given at this time as to the proper course of action to be taken toward discouraging the re-use of cotton and other bags for the shipment of *flour and salt*. This practice is confined to the baking trade although a recent survey by the Cotton Marketing Division of the United States Department of Agriculture reveals that of all flour produced in 1931 only 13 per cent. was packed in second-hand containers of all kinds. Such bags were limited to the 98-pound, 110-pound and 140-pound sizes. New cotton bags of various sizes carried more than 60 per cent. of that year's production."

(2) Cotton baling for piece-goods is dealt with in the report as follows:—

"Freight tariffs now permit a much wider use of cotton fabrics for baling cotton piece-goods, yarns, and such garments as overalls, that are commonly shipped in bales. Initial steps were taken in the Southern Classification territory during the latter half of 1931. Similar action was later taken in other territories. Representatives of the Institute have appeared at hearings of the Standard Classification Committee and have presented arguments in favour of more liberal regulations. Effective September 20, 1932, freight classifications have been revised in favour of cotton baling materials in all freight classification territories. The Superintendent of the Eastern Steamship Company advises that there has been a 12 per cent. to 15 per cent. increase in the cotton baling materials on shipments passing through his terminal since September 1, 1932. Similar favourable reports have come from railroad freight officials."

(*c*) *Grain Elevators*: *bulk handling*.—A considerable volume of information is available on this subject and this is set out in detail in Appendix III to this circular. The facts, as they appear from the papers contained in the appendix, are that elevators and bulk handling of grain at centres in Canada, the United States, Argentine and Australia, have been in use for a considerable time and have proved satisfactory from the point of view of the cost to those making use of the silos. Agitation in favour of the adoption of bulk handling is very insistent in the United States and even more so in Australia. Silos are already in extensive use in New South Wales and the further adoption of the system is likely. Bulk handling had also been the subject of a recent investigation in Victoria by a Committee of experts who have recommended the construction of terminal silos at 160 stations at a cost of over £2,000,000, capable of dealing with 12,180,000 bushels of wheat. A scheme of the same type, it is understood, has been formulated for Western Australia; and though it has failed for the time being to find the support of Government, private interests have been responsible for the erection of a large number of temporary silos in the Fremantle zone and are endeavouring to establish further bulk handling facilities in that area. Writing in this connection to a Calcutta House during March of this year, an Australian buyer remarks that, if this is carried through, practically half the Western Australia normal crop will be handled in bulk next season. Similarly, the Argentine Government have had under consideration a scheme involving expenditure to the extent of £22 million to provide, within five years, a chain of grain elevators. This scheme, it is understood, has failed for the present to find the requisite financial support, but the reports indicate the extent to which bulk handling is likely to develop when funds are available for the construction of the necessary plant, and the position cannot be ignored that the more general adoption of the system is certain as time goes on. The Australian position has been put concisely as follows:—

".........the urgent necessity for cutting down costs and cheapening production has seized upon Australia and they see in bulk handling a method of effecting this. Australia takes from Calcutta yearly some 150,000 bales of cornsacks for wheat and it is possible that the necessity for all these with the exception of a bare third, will be eliminated."

(*d*) *Sisal* (*see Appendix IV*).—During 1932 information was supplied to the Association with regard to an attempt being made to replace the imports of jute bags into East Africa by the manufacture locally of sisal bags. Enquiries made at the time showed that both East African and Mexican raw sisal were on a competitive basis with *raw* jute as regards price; but the information then available was insufficient to enable the Association to arrive at an opinion as to the extent to which the woven material was likely to be successful in competing with jute manufactures. The general opinion at present is that, in the existing circumstances, sisal is unlikely to be a serious competitor against jute on account of its higher cost of production and manufacture—except in the form of "Sisalkraft" to which reference is made above, and in the form of a substitute for jute cuttings in the manufacture of cotton bagging in America. The possibilities of sisal should not, however, be under-estimated, as its freer use may affect Calcutta's trade in Liverpool twills to South Africa.

Further interesting information as to the ability of sisal to compete with jute is contained in appendix IV.

(e) *Hemp.*—A recent report indicates that the manufacture of sacks from hemp is increasing in the Philippine Islands, and a more serious feature of this movement is involved in the recent agitation for the imposition of a heavy tariff on jute and jute fabrics to assist the local hemp industry.

(f) *Flax.*—During 1932 the attention of members was drawn to a scheme for the manufacture of woolpacks from New Zealand flax, the intention of the promoters apparently being in the first place to endeavour to meet the requirements of New Zealand and thereafter to enter the Australian woolpack market in competition with jute goods. Information has also recently been received to the effect that the Government of Poland are considering the imposition of further restrictions on the import of raw jute into that country with the object of developing the flax industry.

(g) *Miscellaneous Fibres.*—Canamo in Chile, and Kendyr, Kenaf and Ramie in Russia may be mentioned as fibres whose development on a commercial basis may ultimately affect the market for jute goods. An interesting article in connection with these Russian fibres was published in the August 1931 issue of the Paper and Twine Journal and a copy of it is reproduced in appendix V to this circular for the information of members, together with an article entitled "Substitutes for Indian Jute" by F. I. Oakley reproduced from "Jute" 1931.

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Four main reasons are adduced for the inroads which substitutes have made upon the jute industry. Of first importance are cheapness and stability of price, both of which are illustrated particularly in the case of paper bags which have kept at a comparatively steady price level, whereas jute bags have been subject to frequent and wide fluctuations. The other two reasons which may be advanced are (a) better durability, as in the cases of cotton and sisal, and (b) the desire of certain countries to utilise their internal resources wherever possible to the elimination of jute and jute fabrics. But whatever the causes, there is undoubtedly at the present time a wave of investigation to find something better than jute; something which is more suitable to the needs of individual consumers; something which is not subject to the disadvantages that apply in the case of jute. The situation may be eased by commodity prices returning to the relative proportions they held before the present period of depression, so placing jute in its former position of being the cheapest packing material in the world; but the question which the mills are asked to face is—Can they sit back and wait for this to occur? The improvement for which the mills look may not come; or it may be long delayed. At the moment, the mills are producing very far below their total capacity, and if ever the jute mill industry is to work anything approaching full time again and to prosper as it has in the past, the mills—it seems—must take active steps to retain their existing business and to seek new uses and new outlets for their fabrics. This, as has been stated, is the conclusion at which the Sub-Committee have arrived as a result of their examination of the position as it now exists.

## B. Methods of manufacture and expansion of markets.

The general attitude of the Calcutta mills towards the special needs and requirements of their consuming markets, and towards the complaints that have been received regarding their manufactures, is a factor which has a direct bearing on the ability of the trade to recover the ground which has been lost. Referring to this aspect of the position at the Annual General Meeting of the Association on 29th January 1932, Mr. D. J. Leckie, then Chairman of the Association, said:—

"There is another very important matter which I want to refer to. It concerns the quality of the goods produced by the Calcutta Mills. During the past few years there have been recurring complaints from various centres which import our products. Possibly as long as such complaints are couched in general terms instead of stating particular instances which can be traced, the tendency may be to look upon them as hardy annuals, but while it is as well to stress the fact that buyers have the remedy in their own hands either by adopting a system of "grouping," or by submitting such cases to arbitration, nevertheless I take this opportunity of reminding members that the basis of our trade has always been price coupled with a good article of genuine average quality. If we do not treat complaints with the consideration they deserve, our customers may go elsewhere for their requirements, and I need hardly say our trade will suffer. It is no use treating a complaint made in general terms as the concern of the next party. Every mill in such case is implicated, and in the eyes of dissatisfied customers, every mill is suspect. I commend this to the serious attention of all members."

This subject was also referred to by Mr. J. Sime at the last annual meeting of the Association on 24th January 1933, as follows:—

"The Committee take this opportunity to impress upon Mills that our goods are being more carefully examined than ever before—especially sacking goods for Australia and Java. The complaints generally centre round the shotting and condition of the cloth and bags on arrival. The Committee remind members that adequate steps should be taken to ensure a class of goods being delivered according to specification which will gratify all buyers and entirely prevent the recurrence of complaints regarding the quality and conditions of the goods supplied."

*General complaints.*—The complaints received during recent years are readily classifiable under two broad heads—(*a*) those which are common to almost all makes of goods, and (*b*) those which relate to the particular disadvantages of jute bags and wrappers from the point of view of the individual industries which now make use of them. Under the first head come complaints with regard to inferiority of quality and manufacture generally; irregularity in size and shortages in length; variations from standard weight; joined cloth; shortages in bales; colour; and inferior sewing. A reference to the annual reports for recent years will show how numerous complaints on these and other grounds have been; and how it has been pointed out, from time to time, that the Customs requirements of Australia and South Africa demand compliance with a prescribed standard if woolpacks and corn-sacks are to gain admittance into these countries.

*Special complaints.*—Under the second heading referred to above, are the complaints that have been received in increasing numbers recently, specifying the respects in which jute manufactures have been found to be unsuitable or unsatisfactory for the purposes to which they are applied in particular industries. The outstanding example of this is to be found in the wool trade.

*Woolpacks.*—For a number of years past the complaint has been made that damage is caused to the contents of woolpacks by small pieces of jute becoming mixed with the wool. These particles have to be removed by hand as their presence prevents the wool from taking on an even dye. The mills have been asked to experiment with improved bags so as to keep the fabric from shedding the particles of which complaint is made. A certain amount has been done in this direction, in the way of improved mangling, cropping and finishing, etc., but these endeavours have been of a sporadic nature and, so far as the Calcutta mills are concerned, no *organised* attempt has been made to evolve a bag which will meet the complaint and yet be available at a price which the consumer is willing and able to pay. As is known to members, experiments have been carried out by the Director of Research employed by the Wool Industries Research Association at Leeds. These took the form, in the first place, of an endeavour to find a suitable substitute for jute; later, an attempt to treat the fibre chemically; and more recently the treatment of the material in the "fabric" stage with rubber latex or cellulose. The outcome of these experiments—to which reference was last made in the Association's report for 1932—are not yet known. Meanwhile, the "Yorkshire Evening News" reports as follows:—

"The problem which has faced the woollen industry ever since shipments of raw wool were made from Australia to Great Britain is expected to be solved through the efforts of a Swedish research worker at Leeds University. A discovery has been made which, it is hoped, will save the Industry thousands of pounds a year, now lost by wool becoming contaminated during transit.

Mr. K. P. Hellberg of Stockholm, who has been interested in the matter for 25 years, has produced from two months work at the University a new type of woolpack.

Woolpacks, used to contain the raw material for shipment, were first made of hemp, but later jute was substituted as being cheaper. This resulted in a serious defect, for vegetable fibres got into the wool. As such fibres will not dye, wool so contaminated is spoiled for many purposes, or must be specially treated at considerable expense.

Thus efforts have been made to produce a woolpack from a fabric which gives no vegetable contamination. Mr. Hellberg's attempt has been based *on a paper fabric* which according to the University Authorities should meet all requirements of the wool shipper."

Reports state that this new pack, which is made from twisted paper yarns, has survived the necessary tests and that arrangements are being made to place it on the market shortly. Whether the pack will be able to compete with jute from the point of view of cost remains to be seen. These reports are but a further indication of the direction in which investigation is proceeding, and they illustrate the necessity of steps being taken by the Calcutta Mills to evolve, by scientific research or otherwise, a woolpack which will fully meet the requirements of Australian consumers, and thus prevent inroads being made upon this important market for Calcutta jute goods.

*Egyptian cotton packs.*—Precisely the same position arises in the case of sacks used for Egyptian cotton, owing to quantities of jute fibre becoming mixed with the cotton and causing frequent breakages in the course of spinning. The question was before the Association in 1928 and 1929 when it was suggested that the matter should be taken up by the mills with a view to improving the quality of the packs by some special treatment such as singeing or spraying with cellulose solution.

*Jute wrappers for foodstuffs.*—Another aspect which calls for attention is the extent to which jute wrappers intended for the carriage of foodstuffs can be improved. The manufacturing process involves the use of oils, dressing ingredients, etc., and in many cases the mixtures used set up a smell which, while not affecting the quality of the goods, renders them objectionable for the purposes for which they are intended. Instances of this were brought to the notice of members in 1931. One complaint, it will be recalled, related to a shipment of beef from New Zealand which was rejected at Glasgow on account of phenol taint: the other emanated from an American buyer who drew attention to the presence of a strong musty odour which rendered the material unfit for the manufacture of bags as containers of foodstuffs. The matter was investigated, but the mills concerned were unsuccessful in their attempt to ascertain what particular process, or what particular type of batching material, had been responsible for the smell complained of.

Sufficient, the Sub-Committee think, has been said to bring out the two points it is desired to establish, namely (*a*) that the mills must set themselves more seriously than they have in the past to improve the quality of their manufactures generally, and (*b*) that the time has arrived when the industry cannot afford to adopt a "take it or leave it" attitude towards the demands of consuming markets for a product more suitable to the ultimate use to which the finished article is applied." The complaints received in this latter connection call for investigation on scientific lines. The treatment of the fabric with rubber or other solutions to prevent the shedding of particles of jute and to render the cloth waterproof; the analysis of batching and dressing mixtures so as to avoid objectionable smells, chemical action weakening the material, mildew, discolouration, etc.; these are matters which must in the first place be dealt with in the laboratory before improvements can be tested out in practical working. For individual mills to experiment in this direction would doubtless prove expensive, but spread over the industry as a whole the cost would not be prohibitive of maintaining a department to deal with the problems of research and expansion of markets. Proposals in this conection are put forward for the consideration of the mills in Section C of this circular.

*Expansion of markets.*—The question of the possible expansion of markets for jute goods is one which has also engaged the attention of the Sub-Committee. The Calcuta mills already enter all markets on which there is a demand for jute goods on a large scale; and while the primary concern undoubtedly is to concentrate on developing and fostering these markets, the industry in its present condition cannot afford altogether to ignore the possibilities which exist of making use of other outlets for its goods, however small these may be in relation to the trade as a whole. The majority of the Calcutta mills are not at the present time equipped to manufacture special makes such as linoleum hessian and intricately designed carpets; but progress in this and other directions is not impossible of achievement, and as an indication of the possibilities which exist, the attention of the mills is invited to the "Tree of Jute" which was recently published by the Dundee Chamber of Commerce and of which a copy is reproduced in Appendix VI to this circular. The diagram illustrates how largely jute is of service in everyday life, and it is a matter for consideration how far it would pay the Calcutta mills to branch out into lines such as curtains, furniture coverings, carpets, rugs, etc. The demand for cheap goods in this and other directions is world-wide and the mills, it is felt, should do their utmost to take advantage of this position. In this connection attention is invited to the articles reproduced from "Jute" 1931 and 1932, published in Appendix VII to this circular. Reference is made in one of these articles to the use of jute in road construction, which forms a potential market for hessian, and which, as members are aware, has been the subject of a recent experiment in Calcutta.

## C. Research, statistics, information and representation abroad.

The Sub-Committee have considered how best the industry may take steps to deal with the problems which have been outlined briefly in the preceding sections of this report. There are two distinct types of problem involved. The first includes the marketing of the mills' output of goods, the finding of new outlets, the representation and adequate treatment of complaints, and the collection of statistics and information which would be of value to the industry in expanding its markets and keeping in touch with developments affecting its trade. The second covers the question of technological and scientific research designed to improve the quality of the mills' manufactures in response to the requirements and demands of individual consuming markets. The existence of these two problems suggests the need for the establishment by the industry of two departments, which for the present may be termed (*a*) the Information and Statistical Department and (*b*) the Experimental and Research Department. The Sub-Committee propose to indicate in skeleton form the functions they suggest should be undertaken by these two departments, the establishment of which they recommend for the earnest consideration of members.

(*1*) *The Information and Statistical Department, London Advisory Committee.*—It has been said that there is no industry in the world which knows so little about its business as the jute industry. Whatever the truth contained in this statement, the manufacturing side of the industry certainly lacks an organised system of following up the uses to which its products are ultimately applied, and it has so far made no endeavour either to keep in direct touch with consumers or to push the sale of its goods in competition with others. There is, for instance, no organised body in a centre such as London which the industry can consult direct on questions affecting its interests. There are in the United Kingdom many men who have spent a considerable part of their lives in the jute industry in Calcutta and whose continued interest in its welfare would make their services in an advisory capacity of great value to the mills. The Sub-Committee accordingly suggest the formation of a London Committee, whose functions would be purely advisory and whose duties would comprise the collation of information which would help in retaining and expanding the business of the mills. This Advisory Committee would, of course, have no say in the determination of the working policy of the mills in India; it would exist as a purely advisory body which would, among its other duties, get into touch with manufacturers who had complaints to make or were considering the possibilities of developing new containers, with a view to ensuring the co-operation of the Indian jute mill industry in these respects.

*Travelling agents abroad.*—Functions of the same type would require to be performed in other parts of the world, for instance in the United States of America, Argentine, Canada, Australia, New Zealand, The Straits, and the Continent of Europe. Eor this purpose the Sub-Committee recomend the employment abroad of travelling Agents with an intimate knowledge of the trade. The duties of these Agents would be to collect reliable information regarding crops, the uses to which jute is put, the possibilities of finding new outlets for jute, and on any other subject having a bearing on the jute industry; they would keep in close touch with manufacturers in the matter of complaints, would assist manufacturers in obtaining the article best suited to their needs, and would generally provide the necessary link between the mills and their consumers. The agents would report regularly to the Information and Statistical Department of the Association, which would in turn collate and tabulate the information so supplied and would make it available for the benefit of the mills. Similar representation throughout India might be arranged with a view to stimulating the use of jute fabrics in this country.

(2) *The Experimental and Research Department.*—The functions of this department, which would be of an essentially practical and scientific nature, have already been indicated. Its duties would embrace the investigation of all processes of manufacture with a view to their improvement; the testing out of new ideas connected with the manufacture and treatment of the fabric to meet the requirements of particular consuming markets, on the basis of the data supplied by the Information and Statistical Department, or by the mills and shippers; and the adaptation of jute goods to new uses.

*Finance.*—The Sub-Committee commend these proposals to the careful consideration of members, because their examination of the position leads them to the conclusion that only by making a gradual but early start in the directions indicated can the industry hope to regain the markets it has lost or to keep pace with the repidly developing competition with which it is now faced and with the increasingly specialised demands of its consumers. It remains for the Sub-Committee to deal briefly with the question of financing the scheme which they have outlined. The bulk of the funds required for the purpose would undoubtedly have to be supplied by the mills themselves, supplemented if possible by a grant from Government. In consideration of its size and importance, the industry, it is felt, must be prepared—as other industries have—to spend a considerable sum in keeping and developing its business along modern scientific lines. To meet the initial costs of an Information, Statistical and Research Department such as is proposed an annual contribution from the mills on a loom basis would be necessary. But the question of finance will require further careful consideration before any steps are taken towards putting the proposal into operation; for the present the Sub-Committee have merely outlined in skeleton form the scheme which they have in mind.

With a view to ascertaining whether the mills generally are in agreement with the conclusions arrived at and the proposals set out above, I am instructed to request that members of the Association will be good enough to submit to the Committee any observations they may wish to put forward on the contents of this circular; and to state, in particular, whether they are in favour of further consideration being given to the proposed establishment of an Information, Statistical and Research Department on the lines proposed. Upon members' replies will depend the question of whether the Committee will proceed with the preparation of a more detailed scheme for the consideration of the mills. In this connection I am to refer to Chapter I of the Rules of the Association which includes among the objects for which the Association exists (*a*) to protect the members of the Association against competition; (*b*) to collect, classify and circulate statistics; (*c*) to encourage and finance technical developments in plant and machinery necessary for the manufacture of jute and jute products; (*d*) to encourage and finance the scientific exploration of new uses to which jute can be applied and the discovery of by-products; and (*e*) to open out new markets.

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## APPENDIX I.

### Paper.

*A new and Economical Means of Packing Cotton and other Piece-goods. Paper Sacks and Special Waterproof Packing Papers.*

(Reproduced from the Indian Textile Journal dated 31st August 1932.)

During the course of the last ten years many uses have been found for paper and, in particular, Kraft paper. It was only six years ago that the Cement Industry in England began to take an interest in a new form of packing for cement. Till then cement was invariably packed either in jute bags or in cotton bags, but in January-June 1926 experiments were carried out with paper sacks, and during those six months 7 per cent. of the cement manufactured in England was put into paper sacks. During the three months, from July to September 1930, 73 per cent. of the cement manufactured in England was packed in paper sacks, both for internal use and for export purposes. These figures alone show the immense strides made in the Paper Sack Industry in England, as a suitable container for cement. In other countries, such as America, Germany and Denmark, similar strides have been made and, we believe, to-day no less than 80 per cent. of the cement manufactured in Denmark is packed in paper sacks, whereas in England no less than 85 per cent. is packed in similar containers, and in America where cotton is so cheap, 40 per cent. of cement is packed in paper sacks, about 50 per cent. in cotton bags and the remainder in steel drums or wooden casks. These figures, therefore, tend to prove at least one fact and that is, that, regardless of price, the paper sack as a suitable container for practically any type of material has at last come into its own. Vast improvements have been made by all manufacturers of paper sacks, and to-day it is possible to obtain what is known as a "Multi-Ply Waterproof Kraft Paper Sack," consisting of 2, 3, 4, 5 or 6 plys of paper, which will contain 1 cwt. or more of material, and will be sufficiently strong to stand up against rough handling and long journeys.

There are many forms of multi-ply paper sacks on the market but, briefly, they can be divided into two classes, *i.e.*, the open mouthed sack and the valve-mouthed sack. These two types can again be subdivided into two classifications: (*a*) paper sacks sewn at top and bottom with jute, hemp or cotton stitching, and (*b*) paper sacks folded and stitched with wire and strengthened by special tropical glue. Of the above, the most suitable and the strongest form of paper sack is the valve-mouthed type and the wire-stitched and glued type, and when these two are embodied in one sack, the result is the best, strongest and most durable paper sack obtainable.

The difficulty in regard to the open-mouthed type paper sack is the closing of the mouth after the commodity has been filled. This, of course, can either be done by folding the top and stitching by hand or with a machine, or by "roseing" the mouth and tying with a wire tie, but neither is very satisfactory, and the valve-mouthed type will be found infinitely superior and considerably stronger. As against this, when using the valve-mouthed type of paper sack, it is, of course, essential to have a special filling machine, either operated automatically or by hand, and this in itself may tend to retard the popularity which these sacks undoubtedly deserve until manufacturers realise the necessity of introducing automatic packing machines in their Works. There are a number of automatic packing machines on the market which are capable of packing practically any form of material, and prices range from about Rs. 800 for the smallest type of hand-operated packing machine, to Rs. 8,000 for the entirely automatic rotary form of packing machine.

It would now be interesting to compare the many obvious advantages offered by using the paper sack as opposed to other forms of packing and they may be briefly summarized as follows—(1) The paper sack is neater and cleaner to handle. (2) Larger quantities can be handled by a chute with greater speed than when the jute sack is used. It can be emptied completely of all cement or other material as there are no interstices to hold the cement or other material. (4) No time is wasted in opening as with jute bags, the paper being simply ripped open with a knife. (5) It entirely eliminates all the trouble and expense of records for returned bags for purposes of credit. (6) The cement or other materials are more perfectly stored because of the greater damp resisting qualities of paper as compared with the open textures of jute or cotton.

One of the most important points in favour of the paper sack is the fact that once the cement or other material has been filled into a valve-mounted paper sack, it cannot under any circumstances be tampered with or adulterated from the time that it leaves the Works to the time that it is opened by the recipient, because the only way of opening such a sack is to cut it open with a knife, whereas the jute bag or cotton bag can, and has been, carefully opened at the mouth and the contents taken out and adulterated and the bag re-tied and so done up that the recipient is unaware that the contents have been tampered with.

Apart from the advantages enumerated above, there is also a price advantage which cannot be overlooked by manufacturers. Paper sacks manufactured in England to-day to contain 1 cwt. of material, size $33 \times 19\frac{1}{2}''$, made of the finest quality long fibre Canadian and Finnish Kraft Pulp in 5-ply paper, can be purchased in India at a price of Rs. 17 per 100 bags, f.o.r. Port of Entry. As against this, the price of a twill ore jute bag of similar size to hold 1 cwt. of material has never reached a lower figure than Rs. 17-12-0 per 100 bags, f.o.r. Calcutta, and this may be considered as a rockbottom price, and in fact is even lower than pre-war parity. With the jute market rising the price for this type of bag will undoubtedly find its own level at about Rs. 25 to Rs. 28 per 100 f.o.r. Calcutta, and at this figure the paper sack will show any manufacturer a decided saving. An argument in favour of jute bags may be that they can be used twice, but in order to do this, as had already been pointed out, careful records have to be kept not only by the manufacturer, but also by the customer and credit notes have to be issued on the return of such bags to the manufacturer and this entails added expense and extra staff and records, and moreover on receipt of such returned bags it is generally found that at least half the quantity is unuseable. By adopting paper sacks manufacturers can automatically eliminate the records which they have had to keep in the past and can economize in their clerical staff and be able to offer their commodities packed in paper sacks at a cheaper price which would compensate the customer for any possible credit which he might have obtained on the return of jute bags and would undoubtedly still show the manufacturer considerable saving in his packing charges.

There are other forms of paper sacks and other uses of Kraft paper. There is also the single and double ply waterproof Crepe Kraft sack which also goes through a special process and is impregnated with paraffin wax from about 10 per cent. to as much as 60 per cent. This form of paper is used for lining jute and cotton bags to render them waterproof and to protect the material from monsoon rains and changes in climatic conditions. There is also a Crepe Kraft Waterproof Paper which is sold in rolls of 100 yards in various widths from 36″ to 45″ and upwards, and this is used throughout the world for packing purposes, such as packing piecegoods and manufactured cotton goods, and besides being economical is also absolutely waterproof and is guaranteed to protect materials from any climatic conditions.

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*Extracts from letter dated March 1933 from London to Calcutta.*

"During the War Germany made good progress in spinning Kraft paper. Afterwards, however, it all seemed to ease off. Now the development has commenced again and on the German frontier near Dantzig there is a mill with nearly 100 looms spinning Kraft paper in the wet state straight off an M. G. machine. The cylinder is wound round with wire at about one inch spaces which automatically breaks up the wet sheet and it is twisted straight away, afterwards going through various additional spinning processes. They claim that a bag made of spun paper is very much stronger than the ordinary sheet Kraft and comes nearer to a likely substitute for jute bags.

"In writing you yesterday on this subject I forgot to mention that ........are in touch with the South African wool people and are making some experimental woolpacks in paper. As you know, the wool people have for years past complained about loose jute threads getting into the wool."

*Demi-official letter No. 50-T, dated Camp Simla, 13th May 1933, with enclosure from the Department of Commercial Intelligence and Statistics, India, to the Secretary, Indian Jute Mills Association.*

I enclose herewith a communication received from the British Consulate-General, San Francisco, inviting my attention to an extract from the account of the Annual Meeting in Calcutta of the Indian Jute Mills Association which appeared in the "Capital" of the 26th January (page 142) regarding the use of paper bags as flour containers which may perhaps be of interest to your Association.

(Enclosures referred to above).

*S. F. Trade No. 49 (C. 112)*.—One of the leading men in the local burlap bag business has called here in some perturbation to call my attention to the enclosed extract from the account of the annual meeting in Calcutta of the Indian Jute Mills Association which appeared in the "Capital", published in Calcutta on January 26th, 1933 (page 142).

2. He said that whatever the position may be in other parts of the United States, in California the fact is that paper containers already account for about 10 per cent. of the packaging of flour. It is true that at present paper is used almost entirely for the smaller packages but strong efforts are being made to produce a combination cotton and paper container for the larger packages and these efforts will probably be successful.

3. My informant is fearful from the tone of the enclosed extract that the jute millers in Calcutta, having for the moment solved their production problems, are settling down to await with pious confidence the rosy dawn of a new yesterday. When it is borne in mind that cement packaging on the Pacific Coast is now practically entirely done with paper; that the local sugar refineries are reconditioning sacks four and five times and returning them to the sugar producers instead of discarding them to the second hand trade: and that constant research is being carried on to improve cotton and paper containers, it will be realised that whatever form the revival in trade takes, there is little chance of a return to the status quo in the burlap trade here.

4. Amongst the handicaps under which burlap suffers in comparison with its competitors, my informant emphasised its relative unsuitability for taking and showing prominently trade marks and other imprints.

5. I assured him that there was little doubt that the Jute Mills Association kept themselves informed of developments and are bending every effort to the improvement of their goods.

(Sd) A. C. CHARLTON,

*H. B. M. Consul-General.*

Attachment to S. F. Trade No. 49, 24th March 1933.

"Apropos of the Ottawa Conference he (Mr. J. Sime, Chairman of the Association) said:—

"........I must refer briefly to the Ottawa Conference and the splendid services of Mr. Rose. He had a good deal to put up with, as the Prince Rupert of our Association, for he does not suffer procrastination and its methods gladly. His reports to us are very clear and very valuable and give us information and inspire hope not generally found in official and trade reports. For instance, few of us knew that paper bags were useless as flour containers, and we were all glad to read the opinion of Mr. Stevens, the British Vice-Consul in New York on page 20 of Mr. Rose's report in which Mr. Stevens states that "The most significant fact is not the trend towards either cotton or paper bags but a serious reduction in the demand for bags in general. It is emphasised that with a revival in Trade as a whole, the consumption of burlap in the United States can hardly fail to show an increase though the extent of that increase may depend on factors which cannot yet be accurately foreseen..........."

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## APPENDIX II.

### COTTON.

*Memorandum regarding American attempts to supersede Jute Products by Cotton issued by the London Jute Association in June, 1928.*

1. Whenever excessively large crops of cotton in the United States have produced an unprofitable market for the raw material the problem of absorbing the surplus has almost invariably brought up proposals for substituting cotton cloth for many of the purposes to which jute fabrics are normally devoted. The large imports of jute goods amounting to $100,000,000 annually have naturally been the centre of attention from quarters where the disposal of the surplus cotton crop presents an economic question of great importance. A very large proportion of American imports of jute consists of burlap for bagging, and, curiously enough, this is mainly used in the baling of raw cotton. The "cotton bagging for cotton" controversy has arisen from time to time over a long period of years and has subsided regularly when the temporary emergency arising from a large crop passed. The heavy production of cotton in 1926 brought the question into prominence again and numerous schemes have been suggested whereby jute should be displaced by cotton.

2. Various attempts to stop the imports of jute goods by legislative measures were first made. A bill was introduced into the House of Representatives by Mr. Allgood on December 20th, 1926, to prohibit the importation of jute and jute products into the United States, but failed to secure enactment. This was followed by a bill introduced by Mr. Ransdell into the Senate on December 6th, 1927 to amend the Tariff Act so as to remove jute from the free list and heavily increase the duty on jute fabrics. This was referred to the Committee on

Finance and has not so far been acted upon. The embargo measure was resuscitated by Mr. Blanton on February 7th, 1928, when he introduced a bill into the House of Representatives completely prohibiting the entry of all jute and jute products into the United States. This bill was referred to the Committee on Agriculture and has not so far progressed beyond that stage. Attempts to stop imports of jute goods by legislative restrictions not having so far succeeded, the Department of Agriculture in conjunction with the Department of Commerce and the Cotton Textile Institute, have undertaken tests and studies to show, first of all the suitability of cotton for many purposes for which jute is now used, and secondly to discover new uses for cotton, which would considerably increase the consumption of this material. The reports upon these tests and studies are contained in the following publications of the United States Department of Agriculture, Washington D.C., U.S.A.

Cotton Bagging for Cotton.

Cotton bags in the wholesale grocery trade.

A partial list of uses of American raw cotton.

Farm uses for cotton and its products.

The results of the physical tests seem to indicate clearly that certain types of cotton bagging are more suitable coverings than jute, but the whole question hinges upon price. The analysis of prices of jute and cotton bagging contained in the first publication mentioned shows that only once in recent years has cotton bagging been lower in price than jute bagging. This was in 1926 when the demand for jute was strong and for cotton weak. Moreover, as bales of cotton are sold on the basis of gross weight the adoption of cotton bagging considerly reduces the weight of the bale, to the farmers' loss. In one specific test it was found that the difference in the weight of the bagging and ties on a bale covered with jute and one covered with light-weight cotton bagging amounted to seven pounds. This at twenty cents a pound brought the farmer $1·40 a bale less for his cotton. To make the adoption of cotton baling profitable bales of cotton would have to be sold on the basis of net weight. The Department of Agriculture study sums up the problem by stating that although cotton bagging makes a very suitable covering for cotton bales its use appears to depend upon (*a*) the manufacture of a light weight cotton bagging *which can be sold in competition with jute bagging*, and (*b*) the sale of cotton on the basis of its net weight in the markets of the world.

3. As regards other types of bagging it is estimated that members of the American Whole-sale Grocers Association use bags made of other material than cotton to the extent of 329,000,000 pounds annually. This would be equivalent to 787,000 bales of raw cotton. It does not follow that all this quantity of cotton would definitely be consumed if cotton bags were substituted for jute bagging, but members of the association think there is considerable scope for increased cotton consumption in this direction. The following remarks of one member, however, are significant:—

"Cotton bags can never be used successfully as containers for sugar, beans, potatoes, cabbage, or any other heavy commodity handled by wholesale grocers on account of the rapid changes in the market price of cotton. When cotton is cheap, we hardly get a cotton bag for sugars thick enough, or with body and strength enough, to stand the strain of handling and shipping without bursting or tearing; when the price goes up the cotton bag is reduced in thickness and strength to such an extent it is unsatisfactory to try to handle sugars in cotton bags. When cotton advances in price either the weight of the cotton bags is reduced or the price is advanced to such an extent that the manufacturer is forced to use.........................other containers."

4. The other two publications referred to deal with possible new uses for cotton; but from a study of all these documents an impression is gained that the market for Jute products in the United States is not immediately threatened by the various proposals put forward. A short crop and an increased world consumption of raw cotton would probably again send the jute controversy into obscurity.

*Extract from letter dated 18th March 1933, from San Francisco.*

*Cotton Goods Competition.*—In a recent issue of the "Capital" we notice that Mr. Sime of Messrs Andrew Yule & Co., in a speech at the annual meeting of the Jute Mills Association, we believe, stated that cotton goods were making no inroads in the customary burlap markets in the United States. As we recall it, this statement was a quotation from some British Consular report from New York. That condition may have been true at some distant time and the consular agent who made the report may have been justified in making it, but it is certainly not the true state of affairs to-day. Particularly during the past six months the use of cotton has made such serious inroads upon our markets that an executive of one bag factory here went so far as to say that where the factories normally handled about 60 per cent. Hessians and 40 per cent. Cotton during the past six months these figures might almost be reversed. While we consider that the technical condition of the primary market is probably better than that of any other textile industry, we do not think that the attitude of complacency should be encouraged among Jute Mills Association members. In the report from your own Mills Department a month or two ago, we felt that the tone was very optimistic and we must admit that there was some reason for this attitude. Nevertheless, we think it is a grave error on the part of Mill Managers, Owners, Managing Agents, in Calcutta to shut their eyes to the fact that the consumption of jute fabrics the world over has been greatly curtailed. In our part of the world flour and feed men, millers and the like, who were in the habit of using hessian bags for bran, mash, mill feed, and so forth, are now using cotton because it is cheaper, because it gives a better appearance, because it takes a brand better and because it has an equally ready second-hand market. We cannot urge too strongly the importance of keeping up the quality and colour in hessians. It is only in this way that we can hope to recover lost ground in these markets.

*Letter dated 18th March 1933 to..............from San Francisco.*

During the past period of months we have been keeping a fairly close check on our subsidiary company in the manufacture of their bags, with respect to the utilisation of Hessian cloth *versus* cotton cloth, and we are rather concerned to find figures increasing materially for the latter goods. This is a subject of extreme importance to you and the mills generally.

Ordinarily the price in a large measure is the governing factor. As you know, cotton has been exceedingly cheap, and while there has been some strengthening during the past week, the advances anticipated have not materialised. Closing figures in New York yesterday for cotton spot were equivalent to about 6½ cents. There was a time when the requirements of our associates called for about 30 per cent. cotton 70 per cent. Hessians, but during the past six months particularly, the figures have been very much reversed, and their requirements for the cotton sheeting have advanced to almost 45 per cent. to 50 per cent. This as you can readily see is making serious inroads on the Hessian material.

Aside from the price differential the buyers are actually beginning to show a preference in many cases for the cotton bag, due to its lightness and the fact that it takes printing or branding very much better than the Hessian goods. There has been a tendency on the part of the trade in a sense to a specialise in 5,10,25,50 and 100 pound containers, which are cotton material bearing brands or designs of the producers or descriptive of the products, which are made up in various colours and which owing to their attractiveness are having a psychological effect upon the buyers in creating a desire for goods packed in that manner. We refer to the packing of such items as rice, flour, feed stuffs, sugar, salt and potatoes.

The main point of interest is for you to endeavour to keep quotations down as low as it is consistently possible to accomplish pending more of a material improvement in our cotton market here, as this will unquestionably in a sense automatically correct the situation.

*Letter dated 18th March 1933, to...........from San Francisco.*

From present indications it looks very much as though there will be very few additional purchases this season, due mainly to the fact that up to the present writing the California State Prison have only sold approximately 500,000 bags out of the prospective total production of 5,000,000.

During the past month we have had ample rains and we expect satisfactory crops, but the financial position of the farmers individually is such that purchases of bags will necessarily have to be postponed. The dealers are naturally not covering prospective requirements until they know a little later on just what the position of the farmers will be financially, and awaiting the time when more of the stock of bags at the prison will be disposed of.

As you know from previous correspondence the prison has made a definite price to the farmers of 5 cents which would necessitate our purchasing bags at equivalent of about 18/9 or 19/- at the most f.o.b. Calcutta. From last advice we received we understand the market is well over 20/-. Consequently with this difference prevalent it makes business absolutely impossible. Furthermore, for June/July contract business it would be necessary for us to have quantities aboard the April 8th sailing due San Francisco late May, and as the present future prospects are such that we hesitate purchasing any additional quantities for our own requirements, it looks very much as though business this season will be exceedingly small. There is, of course, always the hope that conditions in the Pacific Northwest may improve, which territory calls for bags for a later position.

*Extract from a letter received by a Calcutta Firm from San Francisco.*

The advance in jute goods, because of the decline in the dollar, makes jute cloth now very materially higher than cotton, and unquestionably, there will be quite an increase in the substitution of cotton bags for jute bags; as a matter of fact, this had already reached large proportions, and even before the recent advance in the price of jute, cotton goods were cheaper than jute for many purposes; we ourselves, have sold many millions of cotton bags, for a purpose that we had previously supplied jute bags, and in one case we even cancelled quite a substantial number of jute bags and sold cotton bags instead.

It seems to us that the jute industry of India is not alive to the conditions—they are doing nothing to combat the active work of the cotton manufacturers and so long as the present conditions prevail as to the comparative prices you can expect a material decline in the use of jute burlap in this country. Not only that but paper bags are making quite an inroad but we think paper bags would affect the cotton bags more than the jute, although it will affect both to a certain extent. Just as an illustration as to the difference in price between cotton and jute, we will say that one number that is used quite extensively in this country, the burlap would cost us here 4¼ cents a yard; the cotton would cost us here about 3⅝ cents per yard. Now the Pacific Coast, of course, is handicapped because they have to pay the freight from the cotton mill to the Coast, which is approximately ¼ cent a yard, and that does not apply to eastern bag manufacturers. To begin with we think the freights are higher to the Atlantic Coast than to the Pacific Coast, that would make the cost of their goods a little higher than here, but against that they save ¼ cent a year on the cost of their cotton goods, so you can see that that makes quite a material spread between the two, and when the propaganda in connection with cotton bags is taken into consideration why the effect is to greatly increase the use of cotton bags.

We believe on this Coast this year we will use approximately 6,000,000 cotton bags for one purpose alone where formerly a jute bag was used, and in addition to that the cotton bag is being used more and more for foods and things of that kind that formerly a burlap was used for. Many of the bag manufacturers in this country are, of course, neutral on this matter. They will sell what people want. We, however, are rather decided for burlap bags. Some of the eastern bag manufacturers own their own cotton mills and if the continued increase in the use of cotton bags continues, we think we will have to try to see if we cannot own a cotton mill.

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## APPENDIX III.

### Bulk Handling of Wheat.

*Letter dated Melbourne, 24th March 1933, to a Calcutta Firm of Shippers.*

The question of Bulk Handling in Victoria is much more before the Public's eye and it has now arrived at the stage where the report of a

Select Committee, comprised of three Cabinet Ministers, shows a majority in favour of adopting the scheme.

A defence meeting has been held and was attended by Wheat Shippers, Flour Millers, Jute Brokers, Jute Merchants, etc., and after lengthy discussion it was decided, at this stage, that any activity should be conducted by the Jute Trade. Others present were only concerned in so far as Bulk Handling affected their interests, but many view the scheme as the thin edge of a wedge to introduce compulsory pooling and in this event or any indications arising bearing on the possibility of compulsory pooling, Wheat Shippers, Flour Millers, etc., would actively support any action to combat Bulk Handling.

The Jute Trade appointed a Committee, the representatives being:—

| | | |
|---|---|---|
| R. Phillips, Esq. | .. | Calcutta Co., Pty., Ld., (Hoare Miller's Agent). |
| L. E. Bridge, Esq. | .. | Jute Fabrics, Ld., (Bird & Co.'s Agent). |
| W. J. McDonald, Esq. | .. | Harrisons, Ramsay Pty., Ld. (Ralli Bros. Agent). |
| J. Bellair, Esq. | .. | Mitchell, Bellair & Lees (Senda & Co.'s Agent). |
| G. G. Crespin, Esq. | .. | Senior of G. G. Crespin & Co. |

The object of this Committee is to gather data and prepare propaganda for publication in the Press, also to be ready should the Bulk Handling question take a more serious aspect. In the event of this, it is possible that Calcutta Shippers, and through them the Calcutta Jute Mills, will be called upon for financial assistance, for it means as much to Calcutta as it does to the local agents here.

In the meantime, it has been suggested by one or two Members of Parliament associated with the Corn Exchange, that the question of Bulk Handling in a measure can be looked upon as "POLITICAL WINDOW DRESSING", but these Members consider it very important to form a Committee to be prepared to combat the measure when the matter is ready to be discussed in Parliament.

As this Meeting brought together the great proportion of those interested in the Jute Trade in Melbourne, the opportunity was taken to form a Jute Section of the Melbourne Corn Exchange. At present, there is a Jute Section of the Melbourne Chamber of Commerce, but this is more or less dormant, whereas the Corn Exchange is active, and a Jute Section, under its auspices, would be a live association—the suggestion was approved of and a temporary Committee, with the writer as Chairman, was formed to establish this section.

We believe that one of your representatives has a seat on the Committee of the Jute Fabrics Shippers Association, and it may be of interest for this Association to know of the movement regarding the Jute Section of the Melbourne Corn Exchange.

*Copy of a letter dated 5th March from a member of the Association, to the Secretary, Calcutta Jute Fabrics Shippers Association.*

"The position as we see it is this. The only State where bulk handling is carried on at present is in New South Wales, and there for several years now the system has been in operation.

In the South Western districts of that State silos had been completed at various points along the railways, and the wheat is received here prior to despatch to the terminal silos in Sydney. The silo capacity in the country has been increasing annually with the construction and completion of new silos. We are in a position to give you some figures, which may be of interest to you.

From the 1930 harvest 22,948,192 bushels of wheat were received at the country silos, and at the terminal silos, 695,668 bushels were received in bulk that had not previously been handled by silos, making a total of 23,643,860 bushels.

In the season prior to 1930, the amount received at the country silos was only 8,739,874 bushels but we must bear in mind that in this year the crop in the districts served by silos was, comparatively speaking, a failure. Although for the present there are no figures available for last season's crop, the Department in October of last year gave us the following figures as to the actual capacity of the silos at any one time.

| | | |
|---|---|---|
| Country ... | 15,863,000 | bushels |
| Terminal ... | 6,750,000 | ,, |
| Making a total of ... | 22,613,000 | ,, |

Of course, as wheat is continually being received and delivered, the actual capacity of the silos spread over a season is considerably in excess of the above figure. During the past season the silos received more support from the farmer than hitherto, and, in fact, if it had not been that the Railway Department was not able to supply the necessary rolling stock for bulk handling, a considerably larger quantity of grain would have been handled in bulk.

Now regarding the outlook for the future, it is largely a financial one. It is admitted from the farmer's point of view that bulk handling is to his advantage, and in time it must be utilised generally throughout Australia. The initial expense is naturally very heavy, and in these days we fail to see how Government are going to obtain the necessary finance to proceed with such a scheme. Apart from the cost of the building of the silos, it is necessary to provide special railway rolling stock, and it is not likely, judging by the state of the Railway finances, that they will be able to supply the necessary trucks at present.

The matter has received consideration of Western Australia and Victoria, and these States will probably be the next to adopt the system.

In summing up we would say that eventually we expect Australia to adopt bulk handling generally, but there certainly will be no sudden increase this coming season, and do not anticipate any new schemes will be attempted within the next two years. From information obtained from wheat shippers, the fact that most ports are not equipped specially to handle wheat in bulk, is not a factor of considerable importance in considering the proportion from an export point of view, provided, of course, the grain has not to be stored at destination."

*Extract from the Australian press—8th January, 1932.*

*Federal Investigation of Local System.*

*THE EXPERIMENTAL bulk handling system introduced in the wheat belt of this State has aroused such keen interest that a Federal investigation of its merits is contemplated. South Australia has also shown a keen interest in the undertaking and the possibilities of its adoption and representatives from that State were enthusiastic to-day in praise of the system.*

Considerable interest has been aroused by the announcement that the new Minister for Markets (Mr. Hawker) has ordered an investigation into the bulk handling of wheat in Western Australia. The object is to determine the prospects that exist for making wheat farmers in Australia independent of overseas jute markets.

It is Mr. Hawker's intention to send experts from the development branch to this State to report upon the experimental system here. It is said that in the event of a favourable report, early action will be taken to institute a similar system in South Australia and in other States to minimise the necessity of using bags. Protagonists of bulk handling assert that it will mean a big saving to growers.

The experimental system which has been in operation in W. A. for some little time and was introduced by Westralian Farmers, Ltd., and the Co-operative Wheat Pool of W. A. Plants have been established at five wheat belt sidings and results are reported to have gratified not only those sponsoring the scheme, but the growers themselves.

*Premier's comments.*—Commenting on the announcement of Mr. Hawker, the Premier (Sir James Mitchell) to-day said he was naturally pleased that the investigation was to be made. He understood that the system of bulk handling that was being tested in this State, was working satisfactorily whereas the price of cornsacks had been decidedly unsatisfactory up-to-date. Apparently the market had been on the short side, with the result that the price was almost prohibitive. However, it must be remembered that there was more than one side to the bulk handling question as applied to everything. He hoped that the experts of the development branch of the Ministry of Markets, who would be despatched to Western Australia, were possessed of a close knowledge of the question of handling in bulk.

The Premier remarked that if the system of bulk handling were applied to the State generally a vast sum of money would be required, and for its application throughout Australia the sum would be enormous, but if it were considered vital to the industry to have the scheme, the expenditure, of course, was unavoidable. By the establishment of the bulk handling scheme, the whole cost of cornsacks would not be saved, but it was a trade convenience, and possessed other attributes and its bearing on productive costs was undoubtedly of the greatest importance.

*South Australian Interest.*—An interesting report of their impressions of the experimental scheme established in the wheat belt was secured to-day from Mr. H. G. Hawkins and Mr. E. A. Badcock, Chairman and General Manager, respectively, of the South Australian

Farmers' Co-operative Union. They are greatly impressed with the system, and visualised its adoption on a wide scale. It is also their confirmed opinion that its introduction will mean a substantial saving to the industry.

Messrs. Hawkins and Badcock arrived in Perth from Adelaide on Monday last, the visit being at the invitation of Westralian Farmers, Ltd., and the Co-operative Wheat Pool of W. A., and the object being to enable them to inspect the experimental bulk handling plants which have been established at five sidings in the Wyalcatchem district. They explained in the interview that for many years their organisation had been actively interested in bulk handling for South Australia, with the object of endeavouring to reduce the production costs of the wheatgrower.

They had made exhaustive inquiries regarding the Canadian and American system and had come to the definite conclusion that the methods in force in those countries were not suited to Australian conditions primarily because the cost of establishment would be prohibitive. New South Wales was the only State which had introduced bulk handling, and, there, about one-third of the crop passed through the silos, the balance being bagged. The system was based on the American plan, and consequently, from their point of view, was much too costly.

*Cornsack costs burden.*—The South Australian visitors pointed out that in a good season approximately £2,000,000 was required to be sent from Australia overseas in payment of cornsacks, and any scheme which could be evolved to keep this money in Australia, irrespective of whatever saving it might mean to growers, could be considered well worth while.

The experiments being carried out in this State they described as being on unorthodox lines. The scheme was really a system of collective bulk storing, instead of individual, the whole principle being entirely different from the American, where the elevator was taken to the wheat, instead of the wheat to the elevator. The storage accommodation consisted of huge bins, cheaply constructed of timber and iron, obviating the necessity of expensive concrete silos, and enabling the wheat to be held in the country until required for shipment or other purpose. In this way the necessity for costly terminal silos was counteracted.

*Praise of system.*—"We were greatly impressed with what we have seen," the visitors said, "and feel convinced that, out of the experiments a scheme will be evolved which will no doubt become universal in Australia. We congratulate Westralian Farmers, Ltd., and the Co-operative Wheat Pool on their commendable enterprise on behalf of the wheat producer. South Australia has always worked very closely with the State, and, as far as pool activities are concerned, we have a joint office in London for the sale and chartering of all our wheat to obviate competition, and we work amicably together in everything that will be of benefit to the primary producer."

*Two States Co-operate.*—From an economical standpoint the visitors are also confident of the local system giving complete satisfaction. They are satisfied that the saving to the grower will be considerable. They further declared that their organisation intended to co-operate with the authorities in this State on the question of having the scheme introduced in both States. They are strongly of the opinion that it is not a proposal for Government action, but must be undertaken and carried out by the farmers themselves, ensuring their having absolute control of all operations.

If South Australia decided to introduce the scheme comparatively little time would be required to bring it into operation. It would be possible to give effect to it in time to cater for next season's harvest in certain parts of the State. South Australia was advantaged in that on her broad gauge railway system all rolling stock was new, and had been so constructed that it would easily be converted for the purposes of bulk wheat transport.

*Mr. Hawker's interest.*—Dealing specifically with Mr. Hawker's announcement of the proposed investigations, Messrs. Hawkins and Badcock said that early in December Mr. Walter Harper, Chairman of Directors of Westralian Farmers, Ltd., Mr. C. Judd, Manager of Victorian Wheat Corporation, and Mr. Badcock had waited on Mr. Mulvany, Secretary to the Minister for Markets.

Mr. Harper explained to him the steps which had been taken to establish the experimental system in Western Australia, and it was asked that the Department of Markets should send experts to the State to examine the scheme, while it was in operation. Mr. Mulvany pointed out that as the elections were in progress it would be impossible, until their conclusion, to proceed in the matter, but he would immediately bring the request before the new Minister, who happened to be Mr. Hawker, and the early decision to hold an inquiry was greatly appreciated.

Mr. Hawkins said that the selection of Mr. Hawker for the post of Minister for Markets had been received with considerable satisfaction in South Australia. He was a practical wheat farmer, and it was known that his sympathies were entirely with the producer. He was an open-minded man, and could be depended upon to give favourable consideration to any proposal calculated to lower the cost of production of the farmer, which was so necessary to day. Some method must be evolved to reduce production costs. Wheat was a cheap article, and must be handled cheaply.

*Extract from the 'Advertiser', dated Adelaide, 14th January 1932.*

*Tests to be made here same as W. A. Scheme.*

At a meeting of the board of the South Australian Farmers' Co-operative Union yesterday morning, it was decided to make tests of bulk handling of wheat at several stations in South Australia, so that the system, if practicable, might be put into operation next season.

Details of the scheme were put before the board by Messrs. H. G. Hawkins (chairman of directors), and E. A. Badcock (general manager), who returned from Western Australia on Tuesday. They visited Western Australia at the invitation of the Westralian Farmers, Ltd., to inspect the bulk handling depots, which have been installed at five country centres in the Wyalkatchem district. They are enthusiastic about the new system.

*Unorthodox methods.*—Messrs. Hawkins and Badcock explained that the scheme was an absolute departure from the orthodox, and was a bulk handling and storage proposition, providing for the collecting and cheap storage of wheat in the country. With the system in operation, farmers would not be faced with the expense of conveying the wheat in cornsacks to the nearest station, and then sending it long distances to the seaport, or to a central station, where it would be stored in expensive silos.

A bulk handling depot consisted of galvanized iron and timber-sheds, containing huge bins for the storage of the grain. The task of conveying the wheat into the bins was done by portable elevators run by economical 4 h.p. engines, capable of discharging one ton a minute. Some farmers had found it practicable to take the wheat to the bulk handling depot in bags, the mouths of which had not been sewn, and others had built large bins, made of wood, and lined with tin, on to their trucks. By using the last named method, the grain could be taken in bulk from the farm. Provision was made at the five centres in Western Australia for the handling of 500,000 bushels of wheat, but more than 1,300,000 bushels had been delivered already.

*Owned by farmers.*—"We are satisfied that a bulk handling scheme on the same lines as that operating in Western Australia could be introduced into this State," said Messrs. Hawkins and Badcock. "It would be efficient and economical, and show a very definite saving on the present system. Wheat is a cheap article, and must be handled cheaply. We consider that the rolling stock in South Australia, particularly on the broad gauge, is specially suitable for the transport of wheat in bulk. We concur with the view of the Western Australian farmers that it is essential that the systems should be owned and controlled by the farmers' organisations, and not by the Government."

*Extract from the 'Advertiser', dated, Adelaide, 15th January 1932.*

*Experiment in the West.*—Bulk handling of wheat—on the lines of the experiment being conducted on a commercial basis in the Wyalcatchem district—is, in the opinion of visiting representatives of the Victorian Wheatgrowers' Corporation, the beginning of the end of the bag system.

After having inspected the bulk handling sidings they expressed the view that the scheme would be a success, and that something on similar lines might be adopted by the other States.

The party comprised the Chairman of the Victorian Wheatgrowers' Corporation (Mr. A. J. King) and two Directors (Messrs. W. H. Pickering and H. D. Gibson) who had been invited to Western Australia by Westralian Farmers, Ltd., and the Co-operative Wheat Pool of Western Australia, which inaugurated the experimental bulk handling depots.

*Saving to farmers.*—The visitors considered that the scheme would mean a great saving to farmers. The present cost of cornsacks, for a 45,000,000 bushel harvest, they said, was £750,000. Having seen what was being done here, they thought it quite possible that immediate action would be taken in Victoria, where they had been getting estimates and all information necessary to move as soon as a decision was made.

At one siding a jarrah-walled bin has been erected, capable of holding 150,000 bushels. It has been filled, and a temporary bin is being used. Two 30 ft. portable elevators are being operated. The same elevator is used for loading railway trucks as for receiving, the delivery pipe being swung round over the truck. Some wheat is delivered to the elevators in open bags, and some in bulk in walled vehicles.

*Depots to be ready for next season.*—Although preliminary investigations will be started immediately, it is not definitely known when a scheme for the bulk handling of wheat will be put to a practical test in South Australia.

The Managing Director of the South Australian Farmers' Co-operative Union (Mr. H. G. Hawkins) said yesterday, however, that a number of bulk handling depots would be installed in good time for next seasons' harvest, but he could not say at which stations the scheme would operate. He pointed out that a necessary adjunct to each depot would be a weighbridge. There were comparatively few weighbridges at stations in this State, compared with Western Australia; therefore, the installation of bulk handling depots would of necessity be restricted for the present.

No loose grain would be exported from Western Australia this year, as the buyers had arranged with the millers to take all their bulk wheat. The millers had found that the handling of bulk wheat was both labour saving and economical, and had had very simple machinery put into their mills to deal with it. Next season, when the bulk handling of wheat was in operation here, local farmers would probably follow the example of Western Australian farmers and send all their bulk wheat to the mills.

*New Minister's action.*—Early in December the Chairman of Westralian Farmers, Limited (Mr. W. Harper), the Manager of the Victorian Wheat Corporation (Mr. C. Judd), and the General Manager of the Farmers' Union (Mr. E. A. Badcock) waited on the Secretary to the Minister of Markets (Mr. Mulvaney) with the request that an expert from the department be sent to Western Australia to make investigations into the bulk handling of wheat there, and to inspect the scheme in operation. Mr. Mulvaney replied that, owing to the elections, he could do nothing, and would have to wait until the new Minister of Markets was appointed. Farmers throughout Australia, and particularly in this State, had received with satisfaction the news that Mr. Hawker had been appointed to that position. He was a practical wheat farmer, and his sympathies were known to be entirely with the producer. He had shown his interest in the bulk handling scheme already by sending an expert to Western Australia to make investigations.

*Saving on cornsacks.*—Mr. Hawkins pointed out that, under the bulk handling system, comparatively few cornsacks were needed. In a good season, under the present conditions, it was necessary to send about £2,000,000 overseas for the payment of cornsacks, and any scheme evolved which could keep that money in Australia, irrespective of whatever saving it might mean to the farmer, could be considered well worth while.

## Bulk handling wheat.

### *An opportune work.*

### *Merits proved in New South Wales.*

(No. 1.)

Delay in the provision of facilities for expeditious handling of the wheat harvest afford increasing ground for unfavourable comparisons between Victoria and countries which have adopted the bulk-handling system. Such delay may prove ultimately worth while if it enables this State to profit by the mistakes of others, but bulk handling has passed its experimental stages, and its converts are growing rapidly. Possibly the low returns for wheat and the depressed condition of most primary industries have been factors influencing a postponement of such facilities, the merits of which have been abundantly proved by experience in New South Wales, Canada and the United States. But an increasing number of farmers are fully persuaded that a soundly-conceived bulk-handling system offers the prospect of substantial savings and economies beneficial both to their industry and to the whole State. In careful and scientific methods of cultivation Victorian growers have shown the way to greater productivity and national wealth, increasing the yield, in the Wimmera, for example, from nine to nineteen bushels per acre in a short span of years. It would be very rash to dogmatise about the future of wheat growing, and inferences drawn from the present unprecedented conditions may be discredited in a few years. The modern demand is for the utmost economies in producing, handling and transport methods, and from this standpoint the advantages of bulk handling have been established beyond dispute.

An exhaustive investigation of the bulk-handling system was made by a royal commission in 1925. Prior to that its advantages and economies had been very fully expounded in a series of articles in "The Age". The Royal Commission recommended for Victoria a scheme of country silos and seaboard terminals at an estimated approximate cost of £3,500,000. At that time, although ocean freights for bulk and bagged wheat were the same, there was a difference in market prices in favour of bagged wheat. To-day, shipping freights for bulk wheat are from 2/6 to 3/3 a ton less than those for bagged, equivalent to an advantage of nearly 1*d.* per bushel, while the difference in value between bulk and bagged wheat has tended to disappear with the installation of bulk-handling facilities in wheat-importing countries. More important still, owing to the fall in the cost of materials and labour, it is estimated that the scheme propounded in 1925 could be installed at a figure substantially below the sum then estimated.

### *Avoidable mistakes.*

A special committee of the Victorian Chamber of Agriculture further investigated bulk handling last year, and made a detailed comparison of the respective costs per bushel for handling wheat under the two systems. Information was obtained from Riverina farmers patronising silos, from public bodies, including the management of the New South Wales bulk system, and from shippers, while designs and prepared estimates of costs were obtained from an engineer experienced in silo construction. After a careful examination of all factors involved, the committee found the bulk system showed an advantage of 3·5*d.* per bushel over the bagged system—a margin calculated to be more than sufficient to cover interest, sinking fund, depreciation and operation costs. The scheme recommended by the chamber comprises:—

One hundred and thirty-two country silos, having a total capacity of 13,000,000 bushels, varying in individual capacity from 50,000 to 250,000 bushels, according to the amount of wheat received at each silo station. Each silo would be equipped with a weighbridge, and be able to receive and load out into trucks at the same time if necessary, at the rate of 60 tons an hour.

terminal silos, one at Williamstown and the other at Geelong, each having a capacity of 5,000,000 bushels, and capable of receiving and loading into ships at the rate of 1,000 tons an hour.

A new wharf at Geelong, with loading equipment on wharfs at Geelong and Williamstown.

Conversion of railway trucks to handle wheat in bulk.

This scheme, completely equipped and ready for delivering wheat into ships, was estimated to cost £2,350,000, provided the work be done by contract, and based on a firm tender, with penalties for nonfulfilment. The method of construction is of prime importance in view of the disastrous experience of the day labour system under nominal Government supervision, and the imperative need of avoiding excessive capital outlay, with correspondingly high interest and overhead charges, in the initial stages. Neglect of these precautions has been responsible for over-capitalisation of the New South Wales system, which at the outset was modelled on that of Canada, where scores of different types and grades of wheat are handled. Unnecessarily expensive silos and equipment were provided, and the cost of the New South Wales scheme was further swollen because the works were constructed during and immediately after the war, when materials and labour were at the peak. Some country storage, including two silos each of 600,000 bushels capacity, and others of 300,000 bushels, were in excess of requirements, and situated without proper regard to local needs, while there was considerable avoidable expenditure at the terminal elevator in Sydney. The management of the New South Wales system frankly admits all these shortcomings, but sees no reason why such expensive blundering should be repeated by other States adopting the bulk handling system now or in the future.

*Increased demand for silos.*

By isolating and enlarging upon such costly mistakes, an attempt has recently been made to discredit the whole system of bulk-handling wheat, and to imply that Victorian farmers and taxpayers would necessarily be involved in similar over-capitalisation if the system were adopted here. Such views ascribe to Victorians little capacity to profit by the mistakes of their neighbours, or to avoid the admitted pitfalls, in all community undertakings, of oversanguine estimates and expected advantages. All authorities emphasise that if bulk handling is to be adopted the system must be built, after competitive tenders, by a competent engineering group having the requisite resources and technical experience, while the placing and capacity of the country silos would require expert determination. Over £4,000,000 has been spent on the New South Wales scheme; better facilities could now be provided for half that sum.

Despite its financial overburden and errors of location and capacity of many country silos, the New South Wales system has proved popular among farmers; and there is an increasing demand for new silos, the total number constructed having almost quadrupled since 1921-22, as follows:—

| Season. | Country Silos. | Season. | Country Silos. |
|---|---|---|---|
| 1921-22 | ... 28 | 1926-27 | ... 66 |
| 1922-23 | ... 54 | 1927-28 | ... 73 |
| 1923-24 | ... 58 | 1928-29 | ... 84 |
| 1924-25 | ... 61 | 1929-30 | ... 90 |
| 1925-26 | ... 62 | 1930-31 | ... 99 |

With sacks at 12/ a dozen—up to 15/ a dozen has been paid recently, and even 13/ for secondhand sacks—60,000,000 bags for handling say, 180,000,000 bushels, would involve an expenditure of £3,000,000. Indian hessian interests are seriously perturbed at the prospect of an extension of bulk handling, and a scheme being installed in the Argentine recently prompted a warning to the jute industry that its markets were contracting. The ravages of mice among stacked wheat at country stations in Victoria have necessitated a vast amount of rebagging, almost every sack in places being more or less damaged. Under a silo system, bags used in carting wheat from farms could be used four or five seasons, and need only be fastened with clips or skewers, thereby saving the cost of twine and sewing. Moreover, only about one-fifth the number of bags would be required with bulk facilities in comparison with the quantity used under the bag system.

Other aspects of the system will be discussed in a subsequent article.

## Bulk handling wheat.

### *Savings to Farmers.*

### No. II.

Estimates that an expenditure of over £500,000 would be involved in converting railway trucks to handle bulk wheat were a weighty factor advanced against the scheme some years ago. The Railway department contended that the cost of adaptations of trucks ought to be chargeable to the capital cost of the bulk handling scheme. The conversion of some 1,500 trucks was reckoned to involve an expenditure of £40 per truck, while it was thought that 1,000 new trucks of twenty ton capacity would have to be built at a cost of £500 each. These calculations presented a formidable obstacle.

But since then fresh investigations have been made, and it has been found that available rolling stock could be adapted for bulk handling at a cost of under £10 per unit, while new trucks would not be required. About 9,000 steel trucks are capable of treatment on this basis, and their utility for other classes of merchandise would not be diminished in any way, thus effecting the required conversion at a total cost of under £100,000. Last year bulk grain was successfully hauled from Oaklands (Riverina) to Melbourne in trucks with tarpaulins placed inside the doors, and none of the wheat was lost. In view of the much lower estimates of costs for adaptation to bulk traffic, it might be less difficult to persuade the department to consider as its own responsibility the provision of suitably-equipped rolling stock, in the same way as it provides special trucks or sheep and cattle.

*Growers support scheme.*

Wheat growers in New South Wales have carted their wheat as much as 28 miles to save the cost of bags and get their grain into a silo. Incomplete as it is, the system there has attracted up to half the whole harvest delivered to the railway. The manager of the New South Wales elevators (Mr. E. Harris) stated recently that earnings per bushel over five years were 2·75*d.*; working expenses, maintenance and management absorbed 1·25*d.*, leaving a surplus of 1·5*d.* on every bushel handled. As a concession to farmers during a difficult time, the silo charge for delivering wheat f.o.b. has this year been reduced from 2½*d.* to 2¼*d.* a bushel. Only during the last two years have the practical benefits of bulk handling been passed on to the growers, and bulk wheat now commands a penny a bushel advantage over bagged wheat. Actually bagged wheat sent from Victoria and other States is bulked in the hold of the vessel, and discharged in bulk into lighters. Buyers in the United Kingdom obtain for 4*d.* a bag which has cost the Australian grower 1/ to 1/3. American and Canadian wheat is sold in bulk to China and Japan, although if bagged the buyers will make a profit out of the bags by resale. In the present season 242,000 tons of bulk wheat has been shipped on 34 vessels from Sydney, and at least 40 per cent. of flour millers' requirements are supplied in bulk, this proportion steadily increasing. The terminal has loaded 7,965 tons of wheat into a steamer in seven hours.

An important advantage of the bulk system is the greater freedom it confers on farmers in the disposal of their wheat. Apart from the protection which silos afford from mice, weevil, rain, fire and other disabilities incidental to stacking, the farmer using the bulk handling system acquires greater independence in marketing his wheat to the best advantage. The practice of storing wheat, which virtually involves parting with it before it is sold, inevitably involves charges in stacking costs, dunnages, insurance and incidental risks. The aggregate cost under such heads would probably be equivalent to a substantial part of the interest on silo construction. A farmer delivering his wheat to a country silo receives a wheat warrant made out in his own name. These warrants are negotiable by endorsement, so that the owner, whose wheat is stored in safety, is free to dispose of his certificate in the open market to the highest bidder merchant, miller or shipper.

*Large savings in bags.*

Given a harvest of 50,000,000 bushels in Victoria, it is reckoned that with the provision of silos at stations where sufficient wheat is delivered, 75 per cent., of the total would pass through the bulk handling scheme. On this basis, a million dozen fewer bags would be required, representing a saving of some £500,000. If the silos handled an average of 30,000,000 bushels per annum, it has been calculated that the interest and sinking fund on capital would require 1·6*d.*, per bushel handled. With operating and overhead costs at

·65$d$. per bushel, this would give an annual cost of 2·25$d$. per bushel, which, deducted from the 3·5$d$. per bushel estimated on a conservative basis to be the advantage which bulk handling has over the bagged system, represents a saving of 1·25$d$. per bushel to the farmer. The greater the amount of wheat handled, and the more frequently the silos are filled and emptied, the greater the saving to the farmer, apart from considerations of quick discharge, and the saving of time, effort and cost in sewing up bags in the field.

Experience in New South Wales and other wheat-growing countries has shown that it is preferable to erect small silos and fill them repeatedly during the season, rather than to have large silos at local stations filled only once. Both constructional and overhead costs are reduced by adopting the smaller often used unit. In recent years, 25 small silos of only 30,000 bushels capacity have been built in New South Wales, and in the past season these have been filled five times over. The 2/6 advantage in ocean freight in favour of bulk wheat represents 0¾$d$. a bushel; twine and sewing 0½$d$., and bags at least 3$d$. This season, the New South Wales silos have handled 25,000,000 bushels, or half the total wheat crop, although the system is in operation at only a quarter of the country wheat stations. In Canada, the silo capacity has expanded from 83,000,000 bushels in 1910 to 395,000,000 bushels in 1930, the total number of elevators being 5787, including many operated by the pool. The Argentine has launched a programme of erecting 600 elevators throughout the grain belt, and control of the system and the handling of grain will be in the hands of a commission. A Canadian firm was last year awarded the tender for construction, and the project is being financed by an issue of 33 year 6 per cent. bonds, interest on which is guaranteed by the Argentine Government.

Apart from its value in making the Victorian wheat farmers better equipped to meet a keen economic rivalry for world markets, in which fine shades of producing and transport costs become highly important, the construction of a bulk handling system is widely approved at this juncture as a means of affording employment. Given a sound and careful layout, construction by contract, and efficient management, with a minimum of political or official interference, the work would qualify for the description "reproductive" in creating an income earning asset that justifies the expenditure of loan funds. It is reckoned that construction activities for the scheme proposed by the Chamber of Agriculture, the manufacture of equipment, and the supply and delivery of building materials, would employ about 2,500 men, and the whole undertaking would require from two to three years to complete. The value of the enterprise from this stand-point, at a time when thousands of skilled workers are available for every phase of factory production, transport and building, cannot be over emphasised.

*Extracts from "The West Australian" dated 5th April 1933.*

*Bulk Handling: Plans for extension: New Company formed.*

Plans for the extension of bulk handling facilities were announced yesterday by the general manager of Westralian Farmers, Ld., (Mr. J. Thomson). A bulk handling company, to be known as

Co-operative Bulk Handling, Ld., will be registered to-day and it is hoped to handle 11,500,000 bushels in the Fremantle zone next season.

* * * * *

Of all the remedies that had been suggested as a means of overcoming the economic difficulties of the wheat grower, bulk handling held out the greatest immediate hope, Mr. Thomson said. It could be achieved by the growers themselves, and apart from other savings, it would make an immediate cash return to them by reducing the number of cornsacks required.

* * * * *

The object of the company was solely to bring about a change from bag to bulk handling.

*Recent letter from Sydney to Calcutta.*

The State Government have just announced that they intend to go ahead with the construction of silos, and they have approved of a programme of construction in the country which includes areas that up to the present have not been served with this facility. The present programme of construction will extend for just over 2 years, so that no appreciable effect will be felt immediately.

The most interesting factor is the decision to build the bulk of these silos in the North and North Western districts, as it is to these areas that the market lately has looked for their main demand for Cornsacks.

The total storage of the new works will only be 3,210,000 bushels, but it is also proposed to arrange additional accommodation by way of terminal silos, but nothing definite has yet been decided in this regard, as the Government has two alternatives, either to extend the present accommodation of the Sydney silos or construct new ones at Newcastle. While the actual increase in capacity will only be small with the wheat moving freely between the country and the Terminal Silos, the actual capacity in handling will be considerably increased.

It may interest you to know that the returns of the New South Wales Government Grain Elevators for the current season up to the 9th February 1933 are—33,781,000 bushels received at Country Silos, 490,000 bushels at Terminal Silos from non-silo stations, making a total of 34,271,000 bushels. The final figure will show a considerable increase over any previous year, and this is accounted for by the more efficient transport between country and terminal elevators, and also a higher degree of efficiency generally throughout the services.

It is clearly stated by the Government that the present programme of construction in the Northern and North-Western, Western and South-Western districts is the nucleus of a programme that will ultimately cover the bulk of the Northern and North-Western Wheat areas.

The above information will no doubt be of interest to you and we confidently anticipate that when the results of the successful handling of the record wheat Crop in New South Wales this year are generally known, that further attention will be paid to this question by other States.

### BULK HANDLING OF WHEAT.

*Basic principles defined. Competition with bag system.*

*Essential Deliveries, 80 per cent.*

Melbourne, 9th March, 1933.

Interesting basic principles of successful bulk handling of wheat under Victorian conditions are defined in the report of experts now under consideration by the State Cabinet. It is made clear that, as bulk handling has to compete with and make headway against the firmly established bag system, unless the farmer using the silos can make a reasonably substantial net saving in his wheat-marketing costs, undoubtedly he will continue to adhere to the bag system. In that case, the bulk handling installation must prove a costly encumbrance to the State.

In their report the experts favour a project for silo storages at 160 railway stations, with a total capacity of 12,180,000 bushels, terminal accommodation having capacities of 2,750,000 at Williamstown and 1,500,000 bushels at Geelong; estimated capital cost £2,005,013; handling charges 2*d.* a bushel for country silos, and additional ½*d.* a bushel for terminals; estimated annual revenue £233,334; prospective annual profit after provision for interest and sinking fund £23,971.

With bulk handling, the experts state, the net saving in the farmers' costs amounts to approximately 2¾*d.* a bushel, with bags at 9/- a dozen and wheat at 2/4 a bushel, and provided that the cost of handling the wheat from the country railway siding to the ship in bulk does not exceed the cost of that service in bags. It is estimated that handling charges would be 2*d.* a bushel for wheat passing through the country silos, with an additional ½*d.* a bushel for that portion of the wheat going through the terminals at Geelong or Williamstown. This is approximately the same as the cost of handling bagged wheat.

To provide a project for Victoria that would compete with the bag system, the following basis data were adopted after consultation with the acting chief engineer for railways construction (Mr. F. W. Box).

1. An average wheat delivery per station of approximately 30,000 bushels taken over the last ten years, was accepted as the minimum quantity for which it is considered advisable to erect silos at stations.

2. The provision in country districts of silos of a size that would enable them to be filled approximately on an average twice each year, the number of fillings being limited by the capacity of the railways to provide adequate transport facilities for clearing the overflow from country silos as the wheat is brought in from the farms during the period of "peak" deliveries.

3. The fixing of the minimum capacity for country silos at 50,000 bushels as the capital cost of storage space per bushel increases

rapidly for the smaller installations. Considerations of construction economy also made it necessary to restrict the number of sizes to as few as possible. Upon the engineers' recommendation this was fixed at six.

4. The six silo sizes chosen and their allocation to railway station deliveries are as follows:—

| | Storage capacity Bushels. | For stations where deliveries range between bushels. |
|---|---|---|
| A | ... 50,000 | 90,000 to 150,000 |
| B | ... 80,000 | 150,000 to 225,000 |
| C | ... 110,000 | 225,000 to 300,000 |
| D | ... 150,000 | 300,000 to 390,000 |
| E | ... 200,000 | 390,000 to 480,000 |
| F | ... 250,000 | 480,000 and over. |

To ensure the success of the bulk handling system it is considered essential that at least 80 per cent. of the wheat delivered to silo stations must pass through the silo system. This percentage is regarded as attainable because it has been realised with bulk handling in New South Wales. An analysis of railway statistics of wheat received at country stations during the last ten years shows that at 160 of these stations an average of approximately 90,000 bushels or more is delivered each year, and these stations are regarded as each receiving sufficient wheat to justify the installation of silos. Wheat production, however, is subject to very considerable fluctuation as is shown in this table of yearly fluctuations in railway receipts of wheat in Victoria:—

| Year. | Bushels per annum. |
|---|---|
| 1922-23 | ... 25,743,496 |
| 1923-24 | ... 31,076,979 |
| 1924-25 | ... 47,774,046 |
| 1925-26 | ... 22,580,343 |
| 1926-27 | ... 40,127,358 |
| 1927-28 | ... 20,723,916 |
| 1928-29 | ... 39,696,616 |
| 1929-30 | ... 17,039,517 |
| 1930-31 | ... 43,667,025 |
| 1931-32 | ... 47,859,100 |
| Average ten years | ... 33,628,396 |

As the project favoured by the experts provides for the erection of silos at 160 country centres, there would remain 270 wheat-receiving stations without bulk handling service. To meet their requirements, Mr. Box has furnished plans and estimates of costs of suitable structures to enable farmers to load in bulk direct into trucks if they so desired.

*Reprinted from "Melbourne Argus"—13th March 1933.*

When due weight has been given to all the other arguments in favour of the bulk handling of wheat, the question of its cost to the farmer as compared with the older system of transport in bags remains the decisive factor. The community, which has neither vested interests in the present methods of handling wheat nor any special predilection for the bulk handling system, will be sympathetic towards any project likely to be of benefit to wheat growers. The costs of growing and marketing primary produce must come down if Australian economy is to be restored to a sound basis. A saving of two pence or three pence in the handling of a bushel of wheat may not appear to be a very substantial contribution to the problem of reduced costs; but it is important. Relief will come to the farmer from an aggregation of relatively small savings rather than from any dramatic rise in the market for his products. If bulk handling of wheat, therefore, can be proved beyond all reasonable doubt to be capable of paying for itself, and at the same time putting more money in the wheatgrower's pocket, the community will approve of the Government's initiation of the plan. Experts whose names inspire confidence have investigated six different proposals, and have recommended one as the most suitable. The project favoured is estimated to cost £2,005,013.

Presumably the experts have gone thoroughly into the financial aspect of the project from a strictly mathematical point of view. But they have not considered the political factors which are inseparable from an undertaking of this kind. It was no part of their task to do so. Other ambitious Government projects which appeared to be sound business enterprises on paper have proved disastrous. The experience of bulk handling in New South Wales has not been happy. Under the project recommended by the experts for Victoria a sum of more than £2,000,000 will be spent by the Government, which will have to recoup itself out of the charges levied upon wheat growers for the use of silos and other bulk handling facilities. The silos will be built upon railway land, and perhaps the Railways department will be charged with the responsibility of collecting the fees from wheat growers. Experience has shown that when a Government department has to recoup itself for services by charges upon private persons, adequate recompense is not always demanded, and not even the unpayable charges are paid punctiliously. A huge volume of bad debts is thus built up, and the revenue received proves hopelessly inadequate to pay the capital charges, which are added to the burdens of the tax payer. The charge for irrigation services in Victoria is a striking example of what happens when the Government accepts the role of financial backer of such an enterprise.

The fallacy that a Government always has plenty of money, and therefore has no occasion to be too exacting with debtors who are struggling, dies hard. This cannot be overlooked. The community will expect as the first essential of a bulk handling project that it shall be self-supporting in fact as well as in the calculations of experts. The Ministry, which is more fully apprised than are the experts of the political difficulties that make the difference between inviting theory and disastrous practice, no doubt will take all relevant factors into account before coming to a decision. Apart from financial and political problems, there is much to be said in favour of bulk handling. Many important wheat-growing countries are turning to it, and Victoria must march with the times. It may be anticipated with confidence that Ministers—not only those closely identified with rural interests, but also those who feel bound to consider the general interests of the State—will approach the problem with a sincere desire to do what is best for the wheat growers themselves. In all discussions of bulk handling farmers have accepted the assumption that the project will be a charge upon the wheat-growing industry. That being so, it is in the interests of growers themselves that its beneficial character should be established beyond reasonable doubt before Parliament is asked to approve of it.

It would be a mistake for wheat-growers who hope for much from a bulk handling project to suppose that those who have expressed doubts of its soundness are irreconcilable opponents. During the long controversy which the project has evoked many interested opinions have been expressed on both sides. Those who favour bulk handling have frequently employed arguments which seemed to have no sounder basis than optimism. Those opposed to it have cited many facts and figures which appeared to an unprejudiced observer to be convincing. In these circumstances it was not unnatural that many sincere friends of the wheat-grower should hesitate to espouse a cause which seemed to be to the farmer's detriment instead of to his profit. The divergencies of opinion have been striking. When three members of the Argyle Cabinet were deputed to examine the bulk handling problem last year two Ministers reached the conclusion that bulk handling would result in a net gain of *3d.* a bushel to the farmer, and the remaining Minister was as emphatic that the farmer would lose about $1\frac{1}{2}d.$ a bushel. In an attempt to arrive at the truth the Cabinet referred the question to the experts whose report was made public last week. After a painstaking investigation they have advised that bulk handling should result in a net saving to the farmer of approximately $2\frac{3}{4}d.$ a bushel. It is not clear whether they have made adequate allowance, or any allowance, for those departures from mathematical perfection which invariably mark the business relations of Governments with groups of the people. The responsibility now rests with the Cabinet of deciding whether the claims of progress, buttressed by the experts' report, outweigh political risks.

*Extract from a letter dated Melbourne, 23rd February 1933, to a Calcutta firm of Shippers.*

New South Wales has a system in operation which, last year, handled double the quantity of any previous year. In view of this, the New South Wales Government has passed and made satisfactory financial arrangements for the immediate erection of thirty-eight extra silos. The Victorian Government is at present legislating for bulk handling and its decision is expected next week, and you can take it as a foregone conclusion that it will go through and the bulk handling system will be started in Victoria within three or four months.

Victoria having passed the necessary legislation, Western Australia will go ahead and do likewise.

As far as South Australia is concerned, very little has been done in this State with regard to this, but they must eventually follow the lead of the other States.

*Bulk handling of grain in the Pacific Northwest. Summary.**

Though grain is now shipped in bulk from terminal points in Washington and Oregon, over 60 per cent. of the wheat crop of 1929 received at Columbia River and Puget Sound terminals arrived in sacks. This study sought to determine the relative economy of bulk and sack handling methods under prevailing conditions by assembling the experience of 316 growers and other available information.

Man-labour cost of combine operation was less under the bulk handling method than under the sack handling method. On an average the labour saving amounted to 1·6 cents per bushel in 1929. Sack handling usually requires one or two more men per crew. The bulk handling method requires less physical exertion so that boys of the family and men beyond their prime may do the work and save part of the out-of-pocket expense incurred if hired help were needed for the heavier work involved in sack handling.

Hauling grain in bulk is easier but not cheaper than hauling sacked grain. Comparable figures for short hauls in owned trucks were 2·84 cents per bushel for sacked grain and 3·02 cents per bushel for bulk grain. The advantage gained in case of loading and unloading is lost in most cases in the tending operation. Contract hauling cost somewhat more per unit per mile except for short hauls of sacked grain. Losses of grain were considered by growers who had used both methods to be greater in sack handling than in bulk harvesting. Significant delays were encountered in harvesting operations relatively more often by farmers harvesting with bulk equipment than by those harvesting with sack equipment and the average time lost by those reporting time lost was larger.

Four times as much labour is needed to load a 40-ton car with sacked grain as is needed to load bulk grain.

Cost of converting sack harvesting equipment to bulk handling ranged upward from $150. A bulk tank is needed for the combine and a tight truck box instead of the flat platform used on the truck in hauling sacked wheat. Many ingenious means of surmounting local difficulties were found. Few growers who have shifted have actually discarded their sacking equipment. Adequate facilities for farm storage, where that is needed as part of the bulk handling programme, involve investment of about 20 cents or more per bushel of capacity. On the farms studied, farm storage of bulk grain cost more per bushel (4·24 cents in level land sections) than commercial storage (3·3 cents). Only 47 per cent. of those who were bulking their grain were equipped with stationary farm storage plants.

Cost of hauling bulk grain from combine to farm storage was nearly as great as the cost of hauling from combine to shipping point. Bulk handling saves the grower the cost of sacks, which in 1929

* Extracted from Technical Bulletin No. 287, February 1932, "Farm Management problems in shifting from Sack to Bulk Handling of Grain in the Pacific North-West"—by the United States Department of Agriculture, Washington, D. C., in collaboration with the Agricultural Experimental Station of Washington, Oregon and Idaho.

amounted to 3·22 cents per bushel and constituted the greatest dollar-and-cents saving. In 1930 sacks cost 2½ cents less than in 1929, so the saving was smaller. Growers who use sacks more than once in a season by "cutting-in" their grain at the shipping point one or more times can reduce the net cost of sacks per bushel to a small figure. "Cutting-in" does not reduce the drudgery of harvest work, however, and sometimes causes congestion at the country elevator.

Wheat of more than 18 varieties in four classes was grown on the farms visited. If several classes are grown, more bins are needed in elevators to prevent mixing. The cost of elevator construction and operation increases with the number of bins provided. The varietal situation in its effect on bulk handling must be considered in each locality.

Lack of adequate storage and handling facilities for bulk grain at the country shipping point has been the greatest single factor retarding the adoption of bulk handling on the farm. Investments are necessarily heavier, but competition is such that rates charges at any station are about the same for bulk as for sacked grain. Turnover is small (1·33 to 1·52 times capacity), a serious weakness in elevator operation. Some sack warehouses have been converted to handle bulk grain, with results suggestive of need for full consideration of all factors of the problem by those who contemplate such conversion.

Terminal storage facilities for bulk grain in Washington and Oregon had in 1930 a rated capacity of nearly 13,000,000 bushels. Receipts of wheat in 1927 were over six times this bulk capacity. Temporary shortages of bulk facilities have already been experienced.

An ultimate shift to bulk handling over much of the Pacific Northwest is desirable and may be expected, but the change should be made cautiously. Costly mistakes in selection of equipment, especially in the more hilly areas, are to be avoided, and care is needed to co-ordinate the movement so that bulk handling facilities at country shipping points and terminal markets shall keep pace with increasing volumes of bulk grain received from the farms.

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## APPENDIX IV.

### *Sisal.*

Dated Calcutta, 5th April 1933.

*Manufacture of sisal bags in Kenya.*

From—A Member,

To—The Secretary, Calcutta Jute Fabrics Shippers Association.

Further to our letter of 15th July of last year, we give the following details we have received from our London House.

*Introduction.*

Following the samples submitted in May by the Packages Adviser a small consignment of 50 of these bags has been received, and further trials have been carried out. In order to make this account complete, date already given will be included with the results of handling and transport tests now available.

*Sisal and Jute.*

Sisal yarn is spun from sisal grass which is grown in large quantities in Kenya.

The sisal fibre is usually several feet long, whilst jute fibre in a yarn will range from one inch to one foot in length.

Whilst jute is at the best a creamy white colour and usually a light brown, sisal is white.

Sisal fibre is very hard to the touch and a material woven with sisal yarn is stiff and somewhat like a straw material, whilst jute is fairly soft.

The strength of jute is lower than other textiles per unit weight and may be widely variable, whilst sisal has been found to be remarkably strong, and on an average, 2½ to 3 times the strength of jute.

*Sisal Bags.*

Bags received were 26½″ × 44″ in size and equal in weight.

(1) To a Liverpool Twill ... ... 40 ozs.
(2) To an "A" Twill ... ... 42 ,,

The fabric was a plain weave with single warp and weft threads. Seams were sewn on two sides with sisal twine heracles stitch and the mouth was hemmed with sisa twine. Complete *data* are set out below.

| | Original bag submitted bv the Pkgs. Adviser. | Sample of 6 bags 22nd June. | Bulk sample 50 bags Liverpool Twill weight. | Bulk sample 12 bags "A" Twill weight. | "A" Twill for comparison. |
|---|---|---|---|---|---|
| Size .. .. | 26½ × 44 | 28 × 44 | 27 × 44 | 27 × 44 | 26½ × 44 |
| Weight (ozs.) .. .. | 40·3 | 42·8 | 39·9 | 42·3 | 42·0 |
| Threads/1″—warp .. | 8·4 | 8·3 | 6·7 | 6·8 | 13·0 |
| Threads/1″—weft .. | 8·5 | 8·3 | 9·3 | 10·1 | 9·0 |
| Yarn count lbs. per 14,400 yds.— | | | | | |
| Warp .. .. | 27·1 | 28·3 | 26·8 | 27·6 | 19·5 |
| Weft .. .. | 35·9 | 36·4 | 36·4 | 33·4 | 31·5 |
| Fabric strength lbs./in.— | | | | | |
| Warp .. .. | 288 | 274 | 207 | 208 | 140 |
| Weft .. .. | 328 | 319 | 345 | 376 | 115 |
| Ratio, strength/weight— | | | | | |
| Warp .. .. | 1·27 | 1·17 | 1·16 | 1·11 | 0:56 |
| Weft .. .. | 1·08 | 1·06 | 1·10 | 1·12 | 0·40 |
| Seam-strength, lbs./in.— | | | | | |
| To pull .. .. | 130 | 115 | 39 | 53 | 40 |
| To break .. .. | 145 | 177 | 186 | 207 | 80 |

The rotting action of fertilizers is no more marked than in the case of jute. Experiments at 106°C, with C.C.F. mixture No. 1 showed a deterioration in strength of 57 per cent. in sixteen hours, as compared with 50 per cent. in the case of jute.

*Weave and salt-tightness.*

It would appear from the strength of a sisal bag weighing 40 ozs. that a strong enough bag could be made with less weight of sisal.

It is understood, however, that at the moment it is not possible to spin a lighter yarn than 30 lbs. spindle, so that the weight could only be decreased by reducing the number of threads per inch. This would give a bag with too open a weave since, owing to the nature of sisal, such a bag would not be salt-tight.

It is, therefore, evident that the minimum weight of a sisal bag for a single unlined package is 40 ozs.

*Branding.*

Sisal bags branded very well and were smarter in appearance than a jute bag. Some modification in the consistency of the ink would be necessary since sisal is less absorbant than jute, and the surplus ink is liable to smudge the brand.

*Experimental Shipment.*

In order to examine the behaviour of sisal bags when in use, a consignment of twenty bags were sent by boat to London—off-loaded—examined—reloaded and returned to Billingham. A further consignment was sent by rail.

(*a*) *Condition on arrival*—An extract of the report received is given below:—

"They arrived in excellent condition and compare more than favourably in every respect with the ordinary twill packages."

(*a*) *Salt Tightness.*—Every one of the packages was as near as possible salt tight. A minute trace of crystal was found on the surface of a few of the bags but was so small as to be negligible.

(*b*) *Suitability for Handling.*—The packages are compact and are comparatively easily handled; but owing to the fact that there is no slack, I would suggest that lugging at the bottom corners should be adopted, as at the present time they are a definite temptation to the use of hooks.

(*c*) *Resistance.*—The bags showed no sign of damage of any description and I gathered from the Type Tees Shipping Co., that no special treatment had been adopted. Certain of the bags were roughly handled, kicked, beaten and thrown about in the store without showing any signs whatever of breakage. It seems possible, however, that the loose surface fibre under friction for any extended period might possibly weaken the weave, but this is a matter which can only be ascertained by considerable experience. One factor was particularly noticeable and that was the strength of the bags at the seams and the sewn top. These bags resisted any attempts at tearing along the stitches much more satisfactorily than the standard twill or hessian.

(*b*) *Condition on Return.*—The packages on arrival back at Billingham were again examined.

(*a*) *General condition.*

(1) The bags were somewhat dirty but brands were distinct.

(2) All were in good condition and there was no sign of "seepage" through the fabric.

(3) Seams and top sewing were perfect and there was no pulling or "seepage" of salt.

(*b*) *Lugs.*

(4) The packages were stiff and handling would definitely be facilitated by two bottom lugs formed by sewing across the bottom corners of the bag.

(*c*) *Hook damage.*

(5) There was no evidence of hook damage. A few tests carried out with a hook showed that although the sisal fabric could not be easily torn by hook handling, the hole formed when a hook was inserted did not close up and slight seepage at these places would be inevitable.

*Sisal V Jute.*

There is no doubt that a sisal bag is superior to a jute bag in certain respects, and from the point of view of strength a single sisal bag could be used to replace.

(1) a single jute bag where handling is severe.

(2) a double jute bag.

(3) a returnable jute bag.

Naturally, price will govern the scope of the sisal bag, and since there is no indication at the moment what this may be, it is impossible to say how far its application may extend.

(*a*) *Replacing a single package.* Consider the first of the above possible uses. Our present single jute packages have proved entirely satisfactory in all the principal markets such as Spain, India, South Africa, Australia, Egypt, etc., and there would be no definite advantage in changing to a sisal bag unless its price was competitive with that of a jute package.

(*b*) *Replacing a double package.* The replacement of a double jute bag by a single sisal bag would be applicable for a price of sisal above that of jute.

(*c*) *Returnable package.* The sisal bag should make an excellent returnable package since its strength should ensure a larger number of journeys than a jute bag.

The only product packed in a returnable package is cement. For such a product a closer woven bag would be required, and here again the price should be not far above jute if the package is to prove economical.

(*d*) *Paper-lined bags.* A paper-lined jute bag has not proved an entirely satisfactory export package for either Nitrochalk to Egypt or for Sulphate of Ammonia to Australia, in that it is easily damaged by hooks.

Owing to its greater strength, a paper-lined sisal bag should overcome this difficulty. Here again the price of sisal would not have to be much above that for jute, although there would be a wider margin in that a more open woven sisal bag could be used in this case.

This outlet for this type of bag is limited at the moment, but has considerable possibilities if a suitable package at a reasonable price can be produced.

This possible application should be investigated further and it is suggested that if satisfactory prices are quoted a small parcel of paper-lined sisal bags should be obtained for trial shipments.

### *Sisal and Jute Blending.*

In the event of sisal proving too expensive to compete with jute, the possibility of blending sisal and jute fibre should not be overlooked. If it is possible to combine a cheap jute with sisal giving a strong yarn at a reasonable price, there should be a considerable outlet for sisal.

### *Summary.*

The white yarn produced from sisal fibre has been shewn to be 2½ to 3 times as strong as jute.

Bags made of this yarn make excellent fertilizer packages and will withstand a considerable amount of rough handling.

A branded sisal bag is smarter in appearance than a jute bag.

A sisal bag is much stiffer than a jute bag and more difficult to handle when filled; for this reason the attachment of bottom lugs would be necessary.

No price has been received for this type of bag and it is, therefore, only possible to indicate its possible uses depending upon its price relative to that of jute.

As a single package where rough handling is experienced sisal could replace jute only if the price of the former was competitive with that of jute, since the present jute packages are entirely satisfactory.

As a returnable package its use would be restricted to the transport of cement. This would be a limited development and its adoption is doubtful in that the sisal fabric is not suited for carrying a fine powder.

As a paper-lined bag there are definite possibilities in that the present paper-lined jute bag for export is liable to be damaged by hooks. In this case a lighter sisal bag could be used, but the price of sisal would not have to be far in excess of jute.

The blending of sisal and jute should offer greater possibilities than sisal alone, particularly if sisal proves too expensive to compete with jute.

### *Conclusion.*

Bags made of sisal fibre are superior to jute bags in certain respects and would make excellent packages for our fertilizers, but there would not appear to be sufficient advantage in replacing jute by sisal unless the latter can be produced at a price competitive with that of jute.

The most promising lines of development, namely, the paper-lined sisal bag, and the blending of jute and sisal fibre, should justify further investigation.

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## APPENDIX V.

### MISCELLANEOUS FIBRES.

*Article taken from the Paper and Twine Journal of August 1931.*

### RUSSIA DEVELOPS SUBSTITUTE FOR JUTE.

*Kendyr fibre to supplant jute for twine, rope and bags—May also be used in paper making.*

Direct from Moscow, in the "Five-day Bulletin of Economic information" published by the U. S. S. R. Chamber of Commerce for Western Trade, comes the announcement that jute is to be excluded from the Soviet import list.

Thus "as the result of the scientific-research work of 'Novolubtrust' (the New Fibres Trust) a new method has been established which permits the mechanical separation of fibres from the stalks of different plants (excluding flax) without decortication. Moreover, a new technological process has also been introduced which permits cottonising such new fabrics as ramie, kendyr, etc., as well as flax and hemp. The necessary machines have already been prepared."

As a result of this achievement instructions have been given to organise during 1932 for the manufacture of cord, sack cloth, string, ropes, etc., from native raw materials. Two cottonizing plants are to be constructed during the current year and fifteen plants during 1932. The output program for 1932 has been fixed at 16,600 tons of cottonized manufacture and 50,000 tons during 1933.

The exclusion of jute means that India will lose a market for some 31,000 long tons of raw jute a year, which is more than 6 per cent. of her total crop and nearly 14 per cent. of her exports. This does not include such manufactures of jute as twist and yard, gunning (burlap) bags and cloth, rope, etc., as the Soviet may import, and which are probably excluded also.

Of the more than 1,500 known vegetable fibres only 15 have as yet attained commercial importance, so it is not surprising that every one in use is said to have a substitute nor to find the textile industries of the world engaged in serious efforts to discover the possibilities of extending their scope while exploring the commercial contingencies of the hundreds hitherto neglected.

*Seeks Independence.*—It is obviously the frankly and frequently expressed passion for industrial independence that has led the Soviet authorities to exploit intensively the most promising of the fibres indigenous to the vast territory of the country. Hence, at the beginning of 1930 it had been decided to increase the cultivation of kenaf for use as a substitute for jute, nearly all of which is grown in a single area in India. The plan, which now appears to be sufficiently advanced to warrant the embargoing of jute was frankly designed with this end in view.

Kenaf grows luxuriantly in several districts of the Soviet Union. It has for some time been used as a workable jute substitute for sacks. For this purpose alone it is planned to use 3,500 tons this year. Meanwhile, arrangements are under way for planting 1,500,000 acres to kenaf next year.

It is interesting to recall in this connection that jute, now to be displaced, took well over a quarter of a century to impress its usefulness upon commerce, because it differed so much from other textile fibres that manufacturers hesitated to experiment with it. Few individual concerns have either the courage or sufficient spare capital to risk large sums in the invention of the new types of machinery usually required for the efficient manipulation of untried fibres.

*Fibre little known.*—By contrast, the *pocket nerve* of a nation of 160,000,000 people is not so frightened when the goal is emancipation from entire dependence upon foreign sources for a basic commodity.

Little has been disclosed as to the physical or chemical properties of Kendyr. On the other hand, it is well established that jute is the cheapest, and next to cotton, the most extensively used of all the conventional textile fibres; the yield per acre is large—between 1,200 and 1,400 pounds. It has remarkable adaptability for spinning although it is relatively weak compared with other bast fibres and rots easily, especially when exposed to alternate wetting and drying. Outside Russia, jute continues to be the world's principal wrapping and bagging material.

Kendyr is the fibre Russia is developing as a substitute for cotton. Soviet officials gave out in 1929 that "experiments with Kendyr had been carried on for a period of 50 years by a number of leading textile experts with very little practical results until the last few years." Between 1926 and 1929 the Kendyr Committee had been studying its cultivation, spinning and weaving technique, and designing machinery for separating the fibre from the stalk.

*Plant is perennial.*—The plant is hardy perennial found growing wild on large areas in Central Asia, in the Caucasus, and in the Lower Volga region. The yield is generally between 600 and 800 pounds of fibre an acre. Special efforts are being made this year to increase the area in cultivated Kendyr to 125,000 acres, while next year that area is to be trebled. Four State experiment stations of 250 acres each, were established last year and the cultivation of the fibre was also undertaken by a number of peasant households, under expert supervision.

Two factories for separating the fibre were in operation in 1929 and, at a special exhibition in Moscow the results of two years' experimentation with Kendyr, with all the processes of treatment from crude stalk to cottonization and samples of finished materials, cloth, etc., were shown. The fibre has also been found satisfactory for the manufacture of a high grade paper. Its tensile strength is placed at twice that of the average cotton fibre.

On March 1, 1931 "The New Cotton" Factory opened for the experimental manufacture of this cotton substitute. This even was followed by an announcement early in June that as the result of many new processes the time required for converting fibre into cotton or "cottonin" as it has been named, had been reduced from three weeks to fifteen minutes and that twenty additional machines were on order whose total productive capacity would be 440 tons per day.

Cottonising processes have been experimented with in many lands. They involve division of the long bast fibres into their constituent shorter fibres to bring them within the range of manipulation on cotton mill machinery, the crux of their use on any extensive scale.

On the five continents many men mechanically inclined, and others with a chemical bent, have painstakingly examined the possibilities of bringing unused fibres into the legitimate textile family. Russia appears to be capitalising these efforts, discarding the impossible but taking the ones having merit and adding to them the results of the explorations of her own technologists. Nor, be it noted, is the bringing into practical use of the findings of the Soviet investigators advancing with the almost geological leisureliness of many industrial expeditions into the realm of new industrial materials and uses for them, which characterises the efforts of those hampered by lack of adequate financial backing.

## SUBSTITUTES FOR INDIAN JUTE.

By F. I. OAKLEY.

(*Reprinted from "Jute 1931"*).

*If India's Jute supply ceased.*—As long as the crops of Indian Jute continue in the neighbourhood of ten millions of bales, there will be little inclination to search for other sources of supply or to study fibres that might be used as substitutes. When, however, there comes a shortage, the question of raw material will become one of immense importance to the whole jute trade, producer and consumer alike. The total failure of a crop might bring on a crisis quickly, as might the shutting off of supplies through some political action not difficult to imagine. On the other hand, shortage might arise more slowly through a partial failure in a number of successive crops, or through the gradual decrease in the area devoted to jute cultivation.

Several manufacturing countries have foreseen the danger, and have from time to time made spasmodic efforts to free themselves from the Indian monopoly. British people have experimented in the growing of Jute (the real *Corchorus olitorius* and *C. capsularis*) in Egypt, Nigeria, Sierra Leone, South Africa, Burma, the West Indies, etc.; France has tried it in Tonkin, where the Delta of the Red River offers conditions very similar to those on the Brahmaputra, in South Soudan, in French Equatorial Africa, and in Algeria; Germany, before the War, in East Africa; Holland in several of her colonies; the United States in Louisiana, South Carolina, and others parts of the Mississippi River.

In nearly every case the cultivation was successful, but the want of experience in the preparation of the fibre, and particularly the difficulties in connection with the retting process, not the least of which was the contamination of the rivers and the consequent destruction of fish, has prevented the development of any regular source of supply outside of India and Assam. In some parts, where the cultivation has continued on a small scale, the natives no longer extract the fibre, but utilise the unretted ribbons of bast for the manufacture of mats.

But although the trials have in almost every case been abandoned, the information and experience gathered may yet prove of value whenever it becomes imperative to obtain other sources of supply. Considerable difficulty might be encountered, however, in obtaining the necessary seed to start fresh plantations on an extensive scale. In any case it will require strenuous efforts over many years before any appreciable relief can be found in case of a shortage in Indian supplies.

*Flax and China Jute.*—In the meantime spinners would be driven to find suitable substitutes, if such exist, for the various qualities of jute they now use. For those who spin the highest grades the only other fibres that will make a satisfactory yarn in fine sizes will be found in flax (*Linum usitatissimum*) and real hemp (*Cannabis sativa*), the latter of either Italian or Eastern European origin. For some years past Russia has spun large quantities of such fibres over jute machinery, thus avoiding the purchasing of foreign raw material in the form of jute.

It is not impossible for the huge quantity of flax fibre to be found in the straw now grown for seed only—millions of tons of which are now burnt annually in Brazil, The Argentine, Canada, and other countries—to be utilized by jute spinners.

For medium quality yarns quite a number of fibres can be found, though they will require some experimental work on the part of spinners before they will be successfuly substituted for Bengal jute. Some changes in batching and softening will be necessary, and slight alterations in machinery, especially in the matter of speeds, must be expected to be necessary.

The first fibre to suggest itself is that known in commerce as China Jute. Needless to say, it is not a jute, being extracted from *Abutilon* plants of two varieties, *A. indicum* and *A. aviecennae.* It is already known to many jute spinners, having been employed at various times in years of partial failure of the Indian crop. Very few have been successful in spinning it on jute machinery, though considerable progress has been made recently. There are two qualities on the market, the better, known as "Tientsin," which is white and very clean, but is sometimes lacking in strength. The lower quality, offered under the name of "Hankow", is green in colour, somewhat dirty, but is strong, and is usually considered more easy to spin than the Tientsin. The various shippers have their own private marks distinguishing their special qualities, though they vary but little. The fibre is from five to nine or ten feet in length, and is easily bleached and dyed, the natural lustre of the material being well retained. Some American and French writers have stated that it is superior to Indian jute, but spinners who have experience of both are not likely to hold such an opinion. It is at present employed chiefly in the cordage trade, for which it is undoubtedly more suited than it is for cloth. The plant is an annual, and is cultivated on a very large scale in China, where it is widely employed for ropes and twines. It is found in the wild state in the East Indies as well as in China, and its cultivation has been attempted in Mauritius, the United States, and in South Africa. It has been called American Jute by some writers.

*Urena and Sida.*—The fibre obtained from the *Urena* plants is also worth attention. They grow freely in India, Brazil, Martinique, and in West Africa. In Brazil, the variety *Urena lobata* has been utilized for many years in the making of coffee bags, the fibre being there known as "Arimina." One manufacturing concern is said to turn out several thousand bags per day made from this fibre. It is said to have one great advantage over jute for this purpose in that it in no way affects the aroma of the coffee. The fibre runs from three to ten feet in length, the larger part being somewhat under four feet, and it is said to be not infrequently mixed with jute in India. Another variety, *Urena sinuata*, yields a similar fibre.

The plant, *Abelmoschus tetraphyllos*, yields a fibre so like that of *Urena* as to make it very difficult to distinguish between them.

*Sida* fibre is likely to prove a very acceptable substitute for jute. A French writer, Lecomte, states that it was cultivated in India at an earlier time than jute itself. There are several varieties to be found throughout Asia and Africa, and its cultivation has been attempted in the United States, where it is sometimes known as the Tea Plant, and in Australia, where it has been called Queensland Hemp. The natives of Central Africa call it Denje. The fibre is of about the same length as jute, and is of similar structure and chemical composition. It is somewhat finer and softer than jute, and more regular in colour and quality. It is, if well prepared, very white and lustrous. The variety cultivated in India is *Sida rhombifolia*, whilst in Australia it is *S. Bedfordiana.* The latter grows wild in Brazil, where it attains a height of nine to twelve feet. The ultimate fibre is somewhat shorter than that of jute, so that the strength when tested on the raw material is slightly deficient. A very little twist adds materially to its resistance, so that in yarn it is as strong as jute. *Sida* gives a smaller yield per acre than *Corchorus*, and for this reason is not so widely cultivated. On the other hand, it will grow in many places under conditions that are not suitable for jute.

*Cheap Fibre substitutes.*—Three varieties of *Triumfetta* have been suggested as the source of cheap fibre. They are *T. semitriloba*, *T. rhomboidea*, and *T. africana.* All are found growing in large quantities in Central Africa, very strong cords being made by natives of the Congo State from the unretted bast. Most of the varieties grow also in the tropical parts of Asia, but cultivation would be necessary to provide the fibre in sufficient quantity to be of interest to spinners.

*Indian Hemps.*—The fibres known commercially as Indian Hemps naturally suggest themselves as possible materials for jute machinery, and they are already known to most spinners. The principal plant, for none of them is a real hemp, is *Crotalaria juncea*, producing the fibre known as Sunn. There are several qualities on the market, depending for their distinctive characteristics on the methods of cultivation and preparation. Commercially they are grouped in two categories—the Sunn Hemps shipped from Calcutta and Chittagong, and the Madras Hemps, shipped from that port. These Madras Hemps are of a similar nature to the Sunns, though more carefully handled, the difference in quality being due to the fact that the stems are dried before retting, whereas the other Sunn hemps are placed in the retting water directly they are cut. The best known kinds of Sunn in their order of value are Bengal, Chittagong and Benares; those of Madras Hemps are Gopalpore, Warangal, Coconada and Palinara. The fibre runs from three to seven feet in length, and in the case of the Sunn Hemps is graded to quality under the marks No. 1, No. 2 and No. 3. These qualities are usually sold separately, though sometimes in an assortment averaging No. 2. The Madras Hemps are not assorted into qualities but are sold overhead.

Bombay Hemps, so called because they are shipped from that port, are grown over a wide area in Western India. The chief varieties are

Dewghuddy, Sewney, Itarse and Phillibit; all obtained from the plant *Hibiscus cannabinus*, and Jubblepore from the plant *Crotolaria tennifolia*. In length they vary from three to eight feet. The fibre is extracted mostly by retting in water, though occasionally the process is carried out by burying the stems in the wet mud on the river banks, resulting in a large quantity of dust in the dried fibre. Colour varies from light golden brown in the case of the Dewghuddy, to green and almost black in the Jubblepore and Philibit. All these are graded to two qualities, "Fine" and "No. 1," usually sold separately. Occasionally they are given a rough combing, and are then offered as "Dressed Hemps," the tow taken off in the work being sold separately.

*Other substitutes.*—Madagascar might supply a fibre that is worth attention. It is the *Cryptostegia madagascariensis*, known also as Lombiri. The plant produces rubber as well as fibre. The latter, which is extracted by hand by the natives without any retting, is used by them for ropes, cords, fishing lines and nets, and also for fine cloth. It is about two feet in length and very white. A variety, *C. grandiflora*, is common in Central Africa.

*Sparticum junceum*, the Spanish broom, is a native of several Mediterranean countries, and has been utilized for the extraction of fibre for many centuries. The Romans, the Greeks, and the people of Carthage employed it for their sailcloth, nets, cordage, and bags. A certain amount of cultivation is found in Spain and Tuscany, the fibre being spun and woven into a course fabric for men's clothes, it being of almost everlasting wear and almost waterproof. The fibre, known as "Ginesta," is extracted by retting, the plants being heaped into a pile and kept wet till fermentation is produced. The operation is a very simple one, and if the demand existed, the supply could probably be greatly augmented. An attempt has recently been made to develop the industry on a large scale in Italy. The common broom, *Genista scorparia* also contains a fibre, but its extraction is much more difficult.

A plant growing very freely in Tanganyika, Uganda, the Congo, Abyssinia, and other parts of Africa, and said to be *Gomphocarpus semilunatus*, yields a fibre employed by the natives for fishing nets, as it is said to be very resisting to water. It attains two to three feet in length, and has been reported to be suitable for sailcloth and tent ducks, and a good substitute for jute. Some samples sent to Germany early in this century were said to be worth rather more than jute.

*Abroma augusta* is another plant capable of coming to the assistance of jute spinners in times of scarcity. It is found in India, China, the Philippines, Java, and Tonkin. It is cultivated on a small scale in India. It gives a very big yield to the acre, and the fibre is easily removed from the stem by retting. Watt has suggested that it might be used to replace silk, but it seems to be more suited to replace hemp and jute. Roxburgh thinks it astonishing that, seeing how easily it is cultivated, what a big yield it gives, and how easily the fibre is extracted, it has never attained the commercial importance it deserves. He is confident that Abroma would be far better suited for many purposes for which jute is now employed. The fibre is strong, very durable in water, soft, and white in colour. Watt states that even jute spinners admit that Abroma is of all the fibres the most capable of replacing or augmenting the supplies of the Bengal fibre.

*Abutilon periplocifolium* is a native of tropical America, and is still found growing wild. It has been successfully cultivated in many parts, and has been declared to be one of the most promising of all the new fibres. It is extremely easy to grow, wanting no attention after sowing. In 1890 some samples were sent to London from Trinidad, and were valued at about the price of good jute. The length of the fibre was from 11 to 12 feet, and was reported to be a good substitute for jute.

Roselle fibre, from the plant *Hibiscus sabdariffa* var. *altissima*, is a good substitute for the Bengal fibre. It has been tried as a catch crop on rubber plantations. The retting is done after the bast has been stripped from the stems. It is of about the same length of fibre as jute, and strongly resembles it in appearance.

Bolo-Bolo is extracted from the plant *Honckenya ficifolia*, growing in Nigeria. In 1888 samples were sent to Kew, and were declared to be decidedly superior to jute in many respects. The fibre was of good length, well cleaned, and strong. Experts are said to have estimated that it would fetch higher prices than jute owing to its superior strength and spinning quality. Nothing has since been heard of this fibre, but it would be worth further investigation.

Sparman fibre, the product of *Sparmannia africana*, is a perennial, and once planted will continue to yield enormous crops for many years, and as the cultivation is easy and simple, the cost is low. It has been produced in Victoria, Australia. The fibre is extracted by retting. It is very fine, white in colour, with a good lustre, and has great strength though somewhat brittle. It should be of use to spinners of the finer counts of jute yarns.

Spain has recently sent to Dundee a few bales of fibre, to which the name "Hilex" has been given, that appears to be from a plant of the *Hibiscus* family. It resembles jute in appearance, though it is rounder and more wiry, and it has been successfully mixed with the Bengal fibre in spinning.

## APPENDIX VI.

### A Tree of Jute.

*(See* chart).

## APPENDIX VII.

### Jute Research.

*(Reprinted from "Jute 1931").*

*The Necessity of Research.*—The present condition of the jute trade is such that research into the position of markets, working methods, and the conditions under which jute is grown is highly essential. For many years now the jute industries have been content to plod along manufacturing their jute into the same articles year after year. At the present time the conditions under which jute is grown and manufactured are still the same as they were twenty years ago. For instance, there is still considerable difficulty in finding a liquid or powder which will bleach jute without destroying the tissues.

New uses for jute are badly needed, and the time has come when jute manufacturers can no longer pay the 60 per cent. dividends they used to pay, and they will have to work extremely hard in the future to pay any dividend at all. We are in a period of keen competition and cannot afford to stand by and watch other industries replacing our products. Research, therefore, into every market in the world where jute goods are being sold, and where jute goods can be sold, is the only way to meet such competition. How do the other textile industries manage to maintain a fairly good production? In the first place, the wool, cotton, silk and flax institutions advertise their materials, new ideas in manufactured articles and how to use them, to the public. If the public were to be asked to write an article on "What is jute and what is it used for?" 90 per cent. would say that it is a textile used for making sacks and sacking.

It is high time, therefore, that the possibilities of jute for the purposes of clothing, book-binding, canvass-making, and the hundred and one other things in which jute can play a prominent part, should be thoroughly investigated and advertised.

The only trace so far of research in the jute trade is the work which for the past few years has been carried out by the Department of Agriculture in Bengal. This department has been experimenting since 1927 with a neutral ammonium sulphate for the purposes of manuring the ground on which jute is grown. Although the results during the first year were not quite what was expected, the experiments were further extended, and in 1928 some very remarkable results were shown on every type of soil used for the experiment, with the exception of red laterite soil, and the soil or loams of the river banks. It was found that on these soils the manure was washed away, whilst on Rajshahi soil, which is one of the few in Bengal with an extremely high percentage of lime-content, the experiments were most successful. The research on old seed will be reported on another page.

The above work shows that at last attempts are being made to produce a better quality fibre, and it is now time that the manufacturers and merchants did their share. This will only be achieved by studying the methods of manufacturing, selling, and advertising, which is bound to lead to the discovery of many new uses for jute.

*Three Branches of Research.*—Research work for the world's industries began quite recently. Until a few years ago this type of work for the benefit of particular branches of industry was carried on in only a small number of technical departments. Research institutes for the textile industry had already existed before the War, but they were of a purely scientific nature. After the War, however, an increasing number of such institutes was founded and supported by the industry itself, often with State aid. But these organizations have been neglecting *one*, possibly the most important, branch of research, namely, *commercial research.*

There are three main groups of research work in the manufacture of jute which must be developed independently of each other, but which yield useful results to *all* parts of the industry. They are the technical organization and commercial research groups.

### Commercial Research.

(*Reprinted from "Jute 1931".*)

In the United States of America one finds exemplary commercial research carried on, particularly by individual firms. Americans seem to be specially inclined towards organizing research work in commerce. This is evidenced by the readiness of American firms to furnish desired information. This fact, coupled with the splendid statistics available, makes it possible for research organizations to produce valuable work with the minimum amount of error.

The establishment by the State of the "Textile Foundation" for financing research in American textile industries, affords a suitable illustration of the incomparable organization of research in that country. Immediately after its opening the new institute will have at its disposal the sum of about five million dollars. This amount is in no way contributed by the State, but is mainly provided by the industry itself. The Committee of the "Foundation" consists of the Minister of Commerce and Agriculture and three other members possessing knowledge of textile manufacture, who are elected by the President.

Another example of the modern outlook of American industrialists is the faultlessly complete statistics of production which are compiled with astonishing rapidity. Thus figures and conclusions regarding all American industries and their production in 1929 were published in December, 1930, or at any rate were easily available for interested persons. While all European countries have a Census of Production taken at most once in four years, America has one every second year.

The cost of research does not play an important part in the industry; it is rather the attitude of certain individuals who decline to give most elementary information. If a professional organization in Europe were to arrange for a census to be taken among its members, some of them would probably think that they were giving away their trade secrets in divulging the number of spindles or looms in their mills. The fact is, however, that we, and anybody else who cares to apply simple logic and calculation, can obtain various information which may be really quite obvious, and is yet considered a secret by some industrialists.

In Europe there are far too many "conservative" firms, which term generally means that they are backward, distrustful and hostile to all progress in business. The firms which we have in mind can never forget that there have been better times, and maintain that the position now is so bad that an improvement is hardly possible. *But they never undertake to find out whether this is really the case and whether there could not be devised means for helping business to recover.* Progress which appears to all reasonable business men and producers an absolute necessity and a fundamental rule, is regarded by the backward part of the industry as "dashing" or "modern" in the extreme.

*Research Results in 1930.*—The past year was possibly the first in the history of the jute industry in which it became necessary to find new uses for jute and jute mills. The Director of Industries, Bengal, Mr. Weston, appealed to the jute world in the beginning of the year to find new openings for the fibre, as other industries were making enormous efforts to displace it. Anyone who is at all connected with the sale of jute products know well enough where the trouble lies, and how many markets have been lost during the last twenty years. It is true that until lately the decline in general consumption had not become apparent, for the following possible reasons:—

(1) The rapid development of chemical industries, causing an enormous demand for bags.

(2) The immense increase of world grain harvests, necessitating greater quantities of packing materials.

With the exception of the, naturally, often secret research work of individual firms, intensive research in 1930 was carried on by only two firms, namely, the American concern, Bemis Bros., and by British Continental Press.

*The Research Department* of British Continental Press has instituted independent research work, the results of which have partly been published already in their monthly *Jute*, but on the other hand are still in their preparatory stage. Among the first results were the following:—

*Bags for Dry Paints.*—It was found that dye works prefer to ship their products in bags if the following conditions are complied with:— 1, Absolute watertightness; 2, the material must be closely woven and finished in such a way as to prevent the fibre from mixing with the pigment; 3, the bags must be cheaper than barrels or containers; and 4, they must be available in four or five sizes.

*Jute Clothing.*—It is possible to sell working clothes and overalls made of jute material. The best proof is in the suits worn by the Peons of South America, the trade in which provided good business years ago. Garden overalls and similar garments are also made of jute, and the market for these could surely be further developed.

*Jute for Bookbinders.*—Jute yarn is also used for the weaving of heavier bookbinding material. Bookbinders consider that jute fabrics can be very well used for this purpose, as many materials made of tow yarn with a mixture of other thread are already being employed.

*Jute in Linoleum and Oilcloth.*—World production of linoleum alone amounts to 200 mil. sq. metres per year. The oilcloth factories buy between 50,000 and 500,000 square metres per year, according to their output. There are 80 linoleum and 120 oilcloth factories in the world. The production of oilcloth requires fine, well-finished and shorn jute materials weighing 200—350 gr. per square metre.

*Wool Packs.*—The greatest disadvantage of jute packing is the impossibility of separating the jute fibres from the wool contents. The jute vegetable fibre is unpleasantly noticeable in the course of dyeing and bleaching wool. It is, therefore, attempted to evolve a smooth packing material, the fibres of which should adhere to its surface. A mixture with pitch or gum has been found practical for this purpose, but makes the material too heavy, and renders impossible the handling in the course of transport by means of cranes or iron hooks, as the hooks cannot get a proper hold of the slippery material.

## Jute Carpets.

*(Reprinted from "Jute 1931").*

During the past two or three decades jute has been an increasingly important factor for the various branches of the textile industries. One great use to which it is put is that of floor coverings.

Whilst the Indian Jute Mills are engaged primarily in the manufacture of the coarser jute yarns for packing materials, the European mills spin jute yarn from the counts ½ up to 12/1 in qualities C, Sc, S, SS, SS1, single or twisted. These are the yarns which are chiefly used in the making of jute carpets. In all jute carpets the thinner numbers of the S or SS qualities are used for the warp, whilst the C or Sc qualities are used for the weft.

In addition to the smooth-faced all-jute carpets, there are manufactured from a special grade of jute the Smyrna reversible rugs and carpets. These are made on a large scale in Czecho-Slovakia and are known in the market as Bohemian carpets. India also produces all-jute carpets and rugs similar in appearance to the well-known Mirzapore type and short-pile varieties. During recent years, especially after the World War, the Czecho-Slovakian carpets have, on account of their popularity, been manufactured in large quantities. They are made in bright colours, woven into attractive designs which, for the most part, are excellent imitations of the real Persian carpet, though there is a growing tendency to favour more modern designs.

Their price has always been extremely low, and recently they have sold at the almost ridiculous price of 1/9 per square meter. Such a price, it is only natural, can scarcely cover the cost of production, let alone permit of a profit to the manufacturer. Owing to the complicated nature of, and the trouble involved in, making this kind of carpet, it is to be expected that only countries whose workers have a low standard of living can make it at competitive prices.

The all-jute Chenille Smyrna reversible rugs and carpets are manufactured in complete squares of various sizes, from 40 cms. up to 5 square meters. The poorer households have a great demand for these square carpets, using them even in place of tapestries. Thus, such households have a decorative and durable imitation of the real thing at a fraction of its price.

As to the uses of the article, it is to a great extent bought by the yard or meter for the purpose of runners.

But jute is not employed for the all-jute carpet only. An enormous quantity of jute yarn is used in most carpets of other materials. Woollen plush carpets, for example, often consist of about 33 per cent. of jute yarn, which is used instead of the filling material, or for the weft. Many experiments have been made in the printing of jute yarn for the warp of Persian and floral design carpets, with the object of making a jute plush carpet in the same way as woollen plush carpets are made. The cost of printing jute yarn, however, has so far been so high that the experiment has defeated its own object. None-the-less, the jute carpet which is at present procurable can, by means of a closer warp, give a greater density and a variety of beautiful multi-colour designs, the general effect being in fact improved by the natural sheen of the jute yarn.

The thinner numbers of jute yarn, *e.g.*, numbers 12, 14 and 20, are used for making substitutes for such furnishing fabrics as real cotton or wool tapestries and curtains. Soon after the War these were in great demand. The best kind of jute yarn for this purpose is one which is *mercerised*. It is a fact that jute substitutes are made in such attractive colours as cannot be obtained either in wool or in cotton fabrics.

There are to-day thousands of people earning their living by the manufacture of jute carpets. Some are employed in mills, whilst many of them still use hand looms in the home. Besides being used in the country of manufacture, jute carpets are exported on a large scale to every part of the world, especially to agricultural countries and those with warm climates, where they are found to be more hygienic than others.

## Linoleum, Oilcloth and Artificial Leather Industries.

(*Reprinted from "Jute 1931"*).

*Large Customers of Jute Manufacture.*—A good idea can be obtained of the tremendous growth and importance of the above branches of the jute industry if one considers that about 50,000 tons of jute materials per year are used as foundation for linoleum only.

In addition, the manufacture of oilcloth and similar products often requires jute foundation materials for the coarser qualities, and uses approximately 2,500 tons per year. It therefore seems that there are good prospects for jute manufacturers in cultivating this custom. There are in the world about 80 linoleum factories, and nearly 150 producers of oilcloth, artificial leather, leathercloth and similar products.

*Linoleum.*—The manufacture of linoleum requires large investments of capital, as its process takes a very long time to complete. Large stocks must, therefore, be carried, thus in addition necessitating bearing the risk of considerable price changes in the raw materials, *viz.*, jute and linseed oil. For this reason most of the European linoleum producers have united to form a cartel. Eight of the fifteen continental factories belong to a holding company, namely, the "Continentale Linoleum-Union" of Zurich, and many of the non-members are in price agreement with this group.

In *Germany* there is first the Linoleumwerke A. G. with its factories in Delmenhorst, Bietigheim, and Maximiliansau. Then there is the Rheinischen Linoleumwerke, with its own jute weaving works, and lastly the Keffel A. G. of Leipzig. There is a member of the holding company in Switzerland, namely, the Linoleum A. G. of Ginbiasko, and in Sweden, namely, the Linoleum A. B. Forshaga of Goteborg. The latter is to a certain extent linked up with a factory in Norway. In Holland there are two producers, of whom one, Vogel van Calcar and Co., also manufacture oilcloth. In Belgium the S. A. Le Linoleum and the Fabrique de Linoleum et Toiles Cirees produce the right kind of linoleum. In Italy there are one large and two small factories. In France there are two branches of English firms, and also a fairly new undertaking, the S. A. Sarlino of Rheims, and Thollon, Dehaunay, Mantout et Foucault, of Paris. There is supposed to be a factory in Madrid, Spain, but no further information is available about it. In Austria the Wachstuch and Kunstlederfabrik have practically completed the construction of a linoleum factory, and the Continental Linoleum Trust have in competition to this arranged for production in the neighbourhood of Vienna. As regards Poland, ambition exists to build an exclusive linoleum factory, but up till now only the oilcloth factories there manufacture several products which can be regarded as linoleum.

*In Great Britain* two world firms, with overseas branches, are the most important ones, namely, the united works of Barry, Ostlere and Shepherd, Ld., and Linoleum Manufacturing Co., Ld., of Staines, which latter has an affiliated company in Canada. Furthermore, Michael Nairn and Co., Ld., who are joined with the American firm, Congoleum, Ld., have factories in Canada and Australia. We may also mention the New Shepley Linoleum Co., Ld., and Jas. Williamson & Son, which are large and modern works. Besides these there are four more factories in Great Britain. As regards England, all the factories here belong to the British Linoleum and Floor Cloth Manufacturing Association, although there is no pooling of financial resources.

In *America* there are seven companies producing jute-linoleum, and thirteen producing felt-linoleum. Considered as a country, the United States of America have the largest industry in the world.

In *Japan* two factories, belonging to one concern, produce sufficient linoleum to satisfy local demand and also export considerable quantities to China.

The competition for floor coverings has lately become more and more noticeable, and constitutes a great danger to linoleum. The rubber products are to be feared most because of their cheapness and the modern management of the industry, which has made possible a quicker spread of rubber floor coverings than is generally supposed. The disadvantages existing at present will either sooner or later be removed, or else the sales propaganda, already instituted, will be developed to such an extent that it will be easier to sell rubber than linoleum coverings. If the right steps are not taken soon in order to obliterate the competition of rubber and other similar products, such as Balatum, etc., the progress which the linoleum industry has made hitherto will be a matter of history.

*Oilcloth and Artificial Leather.*—The manufacture of these products is carried on in very many countries, and although mergers have lately taken place, such mergers are not characteristic as they certainly are in the linoleum industry. The United States of America are foremost in the production of these materials. They have nine large undertakings carrying on a colossal export business. Germany follows next and, particularly, has many artificial leather factories. France and Belgium have an extensive oilcloth production, and Italy, too, possesses a very modern producing equipment. In Czechoslovakia, three of the important undertakings have united in the "Vereinigte Wachstuchfabriken A. G." In Hungary, two branches of foreign firms are working, and there are two independent firms in Poland. Australia has a very important works, exporting large quantities.

## Jute in the Cordage Industry.

*(Reprinted from "Jute 1931").*

Jute cannot be considered one of the most important fibres utilised by those practising the ancient art of rope and cordage-making, but there are many types of both rope and cord which can be successfully and usefully constructed from it.

Jute is a soft fibre, probably one of the least strong, and also probably the one least able to withstand the effects of salt water. This makes its use impossible for ropes for the shipping and fishing industries. These ropes, of course, comprise the great bulk of the heavier sizes in use, and are made from Hemp, Manila, and Sisal, chiefly Manila. The hard fibres, such as Manila, are infinitely stronger than jute, they are much longer, and their water-resisting power is much greater. Also, owing to its being deficient in tensile strength, jute cannot be utilised in the other large-sized ropes used for power transmission, drilling, and haulage purposes.

The future of jute in the rope and cordage industry entirely depends on its price as compared with other fibres. As has been pointed out, its strength is inferior to other fibres, and it will only be used in preference to these other and stronger fibres if ropes and cordage made from it show sufficient inducement in price. Jute cannot successfully be mixed with these other fibres.

*The uses of Jute for Cordage goods.*—It is in the smaller sizes of rope, in cord, and in twine manufacture that jute finds its greatest scope.

Laid jute rope is largely used for the *cores of wire ropes.* For this purpose it is admirably suited, its deficiency in tensile strength is no handicap, and the smallness of the percentage of salt content inherent in the fibre itself is a great advantage, in that it has a much less damaging effect on steel by way of internal corrosion than many other fibres. These laid cores are used in all sizes from one-eighth inch circumference upwards, and where level spun yarn from good jute is used, circumference sizes rising by sixteenths can actually be guaranteed. Absolute levelness is of course essential in these rope cores, and practically all sizes of yarn from 6 lbs. to 120 lbs. are used in their construction.

A fair quantity of jute rope is also used in *agriculture* for such purposes as plough lines and cheap, tying rope. Jute twist is also used fairly largely as Hay Band, although much of this material is now made from Manila.

Jute Box Rope and Baling Cord, both finished and unfinished, are still largely used, on account of their relative cheapness as compared to other fibres. In the building and allied trades common ropes and twists made from heavy rope yarn are utilised for pipe packing and other purposes.

Although much progress has been made in the production of finished twines from fibres such as Palma, Sisal, Sumatra Manila, etc., polished jute twines still have a ready sale in practically all sizes. It must be admitted, however, that new types of machinery, and polishing processes, have made it possible to produce beautiful twines from these harder fibres, and the lowering of price levels has brought them into close competition with jute, which at one time was far and away the cheapest fibre obtainable for the purpose.

## More Jute Yarns for Rope-making.

*(Reprinted from "Jute 1931").*

Increased crops in most countries have given a new impetus to the manufactures of harvest binders made from jute. In other respects, too, it has been found during recent years that jute cordage is preferable to cordage made from other fibres, and the consumption of jute yarns for rope-making purposes has thus increased considerably. In the United States it rose 20 per cent. between 1927 and 1929, whilst in Germany it rose approximately 15 per cent. in 1928 alone.

On the whole 1930 proved a favourable year for the cordage mills, and the exceptionally high production figures of 1929 were nearly reached in most cases. Exports of some leading rope-making countries have even increased. Detailed statistics of the 1929 production are available only for the United States, and there the output of almost every article has been much larger when compared with 1927, the year of the last census. Binders of all kinds show a 7 per cent. increase to 177 million lbs. Jute binders rose to 47 million lbs., but ropes made from jute remained unchanged at 12¼ million lbs.

As regards the future, it may safely be assumed that a constantly growing quantity of jute yarns will be sold to the cordage industries of the world. Individual salesmanship in the case of these factories is, however, essential. Their number is much larger than is generally known. There are 200 mills in Germany, 120 in United States of America, and about 150 in Great Britain.

Seeing that nearly every country in the world possesses cordage factories, one can imagine how large the total number must be.

Jute spinners all over the world should therefore direct their attention to this potential market for yarns, and should make all efforts to avoid being beaten by the competition of other fibres.

## Webbings and Tapes.

*(Reprinted from "Jute 1931").*

Jute yarn has a varied use in the weaving of webbings and tapes, also in combination with hemp, flax, and cotton yarns. It is mainly utilised in the manufacture of upholstery webbings and tape for lining cocoanut mats, also as filling warp for roller chains, and many other similar articles. There are only a few *large* works which produce such webbings, and these are mainly in Germany and United States of America. On the other hand, there are many medium-sized and small factories, and the manufacture of the most important article, namely, of upholstery webbings, which is comparatively simple, is carried on in almost all industrial countries. The German industry and, to a smaller extent, England, France and Belgium, do export trade as well. The production of jute webbings ever in normal times nearly exceeded the demand, and in the present crisis over-production makes itself more strongly noticeable.

A considerable rise in the consumption of jute yarns for the making of webbings and tapes is very unlikely as the potential use for the yarn in this trade is very limited, and it can hardly be assumed that the industry will find new articles requiring the use of jute yarn in an increased degree. It is rather up to the spinners to find out, through personal understanding with the webbings makers, what yarns could be replaced by jute, and to propose the manufacture of such articles which would increase the demand for jute yarns.

## Jute Research.

*Recent Achievements and Suggestions for the Future.*

*(Reprinted from "Jute 1932").*

In our last issue, "Jute 1931," considerable space was devoted to Research in the Jute Industry. We do not wish to complain that our admonitions have fallen upon deaf ears, neither is it our desire to suggest that little, if anything, has been done to consolidate in this, the world's second largest textile industry.

The acute trade depression of 1931 still lingers with us in 1932 and it behoves everyone connected with our industry to press forward at every opportunity the real need for redoubled effort to improve and develop still further the jute industry.

The primitive conditions of actual jute planting make it difficult, if not impossible, to carry out improvements of any importance as far as the jute fibre is concerned. Experiments are being continued by the Agricultural Department of the Indian Government and on an experimental farm of Imperial Chemical Industries, Ltd., and we hope to be able to publish concrete results at the time when our next Year Book will be issued. At this point we should also like to mention the results obtained with regard to jute seed and reported fully in "Jute 1931."

It is, therefore, obvious that research work in the jute industry must start from the point at which the raw material is received. In many countries there are research institutions which study the preparation of the fibre for spinning and weaving, but only in connection with flax, hemp and other fibres. For this reason—there exists no jute research institute proper—it is seldom possible to report progress made in these institutions with regard to jute alone. We are afraid the jute industry must be blamed for this state of affairs and for having so far failed to establish a special research centre for jute by the donation of funds for this purpose and for the endowment of Chairs and scholarships.

Whatever little co-operation there is in the industry has shown few results with regard to joint research work. But the sweep of modern trade necessities will not pass by the jute manufacturers. Those among them who will comply with the requirements of our time will succeed; those who will not or cannot, will be engulfed.

Only recently two of the largest merchanting houses decided to close down their jute departments. The reason for their decision was obvious. As they were firms of the highest financial standing, the difficulties encountered could not have been of a financial nature. The fact was that many of the most important customers of both firms who had formerly purchased enormous quantities of sacks and hessians had now ceased to buy; partly because trade has contracted altogether so that less packing material is required, and partly because jute goods have been replaced by others. Instead of being constantly on the look-out for new markets and instead of searching for new possibilities to supply improved packing material to their customers the jute goods firms mentioned were just sitting and "waiting for something to turn up."

In contrast to this suicidal resignation, we quote the example of German firms who opened two remarkable new markets for jute which had previously not existed. One of these firms, as will be found in the chapter "Special Jute Tissues," exhibited at an agricultural exhibition a portable grain silo made from jute. Thus it seems that at a time when the Argentinian Government has built and is still building further giant silos which will reduce the sale of grain sacks in the Argentine, it will become possible to sell a new article made of jute cloth in the shape of these portable jute silos.

Quite apart from the value of co-operative effort, particularly in the manufacturing and selling, more energy should be extended towards achieving departmental perfection. Here too an actual example will illustrate the new ways of the industry.

A recent acceptance of an invitation to visit a large modern jute mill brought to light how important is this question of departmental detail.

At first sight the batching house of to-day differed little from that of yesterday, but closer investigation brought to light the fact that infinite care was expended to ensure that fibres of a close family relationship were being mixed with due discrimination and their subsequent treatment or softening showed that some manufacturers study the smallest detail of each process.

The old method of adding oil and water had been displaced by the emulsion system, the simplicity and efficacy of which was carefully explained in such detail that the lay mind had no difficulty in grasping the subtlety which chose an emulsifying agent calling for unskilled labour in use, a natural affinity for the fibre treated, great uniformity in application and economy in cost. This minute care was the more apparent when it was explained that there existed many agents capable of producing apparently good stable emulsions but which, due to chemical reactions or changes in climatic conditions, became actually injurious.

The head of this department produced samples to prove how the tensile strength of the yarn was altered when some member of the phenol family was used instead of a pure non-injurious soap, just sufficiently alkaline.

These and many other features impressed us with the fact that this great factory was very much alive to the requirements of modern times. It is this tendency which will ultimately restore confidence and establish prosperity.

## Speciality Jute Tissues.

### *Paper-lined Packings.*

*(Reprinted from "Jute 1932").*

In considering the possibilities for the employment of speciality jute tissues, *i.e.*, tissues prepared by means of special finishing processes for some special purpose, chief consideration must be given to *paper-lined* jute cloth as being one of the most important.

Owing to the improvements which are constantly being made throughout the packing industry, such as tin boxes, casks and cardboard boxes, various kinds of wooden cases, paper sacks and the like, the manufacturer of jute-sacks and packing-materials was faced with the problem of having to bring out something new and better as an alternative to the loss of his market. In the search for improvements, demanded first and foremost by the chemical industry, the so-called duplexed or paper-lined jute sack was created.

By the use of this sack, filling materials which are finely milled, dusty, or sensitive to air and moisture (principally chemicals), and foodstuffs, are not only kept clean, but are protected against any kind of outside influence.

The expression "duplexing" means, accordingly, the covering of the raw fabric with an impregnating mass or with paper respectively. According to the ultimate purpose of the fabric or of the sack concerned, one can use thick or thin paper, a rubber-like, bituminous or a glue-like mass. To begin with, let us consider the type of commodity that is being transported in such special sacks. Duplexed sacks are in the first place employed by the artificial fertiliser industry and very large quantities are being used for the transport of commodities which are very sensitive and hydroscopic, drawing humidity from the air, such as nitrate of lime, nitrocalcium, phosphates and kali salts, and for the transport of natural Chile nitrate. In addition, the chemical industry

~~makes use of such~~ sacks for the shipping of finely milled dyestuffs, tanning materials and yeast, expensive moulds, plaster of Paris, soot, chalk, cement and finely-milled precious ores and similar commodities.

With this type of sack it is not so much a question of freedom from smell, much greater importance being attached to its resistance to heat, cold and humidity. This is of especial importance with exports to the tropics. All duplexed sacks, however, used for the transport of food-stuffs, such as fine salt, sugar, flour, milled feeding-stuffs, or fabrics for the packing of tobacco leaf must be absolutely free of smell. Experiments made in the packing of coffee, tea and moulds in such material, have been very satisfactory. Recently we were informed that even asphalt has been transported in these sacks. It is a task for the industry which manufactures these special packing materials to carry out market research with regard to them and to find new openings. In this article we are only concerned with materials and methods used in the production of jute fabrics duplexed with paper or other substances.

*The Coating Mixture.*—For the manufacture of hard-wearing sacks for export purposes, tarpaulin or common twill is mostly employed. For inland transport, on the other hand, $10\frac{1}{2}$ oz. hessian is generally used. These fabrics, in the principal width of 36 to 48 inches, are coated in the proofing machine on one side with a layer of molten pitch (100 to 300 grammes per sq. metre), an operation which is carried out by a rotary coating roll situated in the mixture trough. Any excess of coating mixture is removed by means of an adjustable stripping apparatus, which ensures at the same time a uniform distribution of the layer. The tissue, coated with the hot and still rather sticky substance runs on to the coating roll together with the stream of paper, and passing through a pair of heavy calendar rolls, is glued to the paper. If the strongest possible impregnation and a thick layer are required, both the tissue *and* the paper are coated in the way described. It must be noted that the mixture feed as well as the trough in the machine have to be constantly heated by steam, gas or electricity, in order to maintain the temperature and the mixture itself at a uniform level. The paper-lined tissue now leaves the proofing machine and passes over several pairs of rolls, and is then cut by another machine to the length required by sack manufacturers; or, in the case of packing cloth, is rolled up. The chemical composition of the coating mixture varies according to the purpose for which the sacks are required.

*Sacks Free of Smell.*—For the production of sacks free of smell, either a paste mixture must be employed, which, however, does not possess very strong powers of resistance to moisture, or a pure asphalt substance which loses its smell when dry. No great claim can, however, be made for such sacks, as far as their resistance to wear and tear and to atmospheric conditions are concerned.

*Sacks for the Tropics.*—Sacks for the transport of artificial fertilisers to the tropics must, on the one hand, withstand 100 centigrade of heat, even under pressure, as for instance under high piles of other sacks in the ship's hold, and, on the other hand, 8 to 10 centigrade of frost. In the former case the coating mixture must not force its way through either the tissue or the paper, and in the latter case it must not break. The composition of such mixtures which consists of oils, asphalt, sulphur-pitch or rubber-like products, is a jealously guarded secret of the individual factories. Great demands are made not only on the adhesive substance but also on the paper employed. Creped nitro-cellulose paper is mostly used, the crepe allowing more of the coating mixture to be retained on the rough surface. Plain paper, however, is also used, as well as oil and asphalt papers, and, finally, paraffin paper. The creping of the paper has also the advantage of affording the paper lining a certain elasticity, so that when the sack is full the paper does not tear so readily. Two lengths of paper are often glued to the tissue with the same adhesive substance. The weight of the paper used is between 60 and 150 grammes per square meter.

The sacks are made up by means of single turned machined seams. A pair of so-called carring flaps are often sewn on export sacks, so that they should not be taken up by hooks during loading or discharging of cargo. Sacks for the despatch of chalk, cement, or finely-ground sulphur are often fitted with the well-known Bates filling valve.

For the manufacture of paper-lined jute tissue required for packing only, such as for wrapping up machine parts for transport to the tropics, a light-weight, wide-meshed hessian is chosen for proofing.

In any discussion concerning the possibilities for paper-lined jute tissue, it must not be omitted to mention that experiments in the lining of jute tissue with a kind of tinfoil for special purposes, are being carried out.

*Rubber-Proofed Jute Tissue—Latex and Jute.*—These must also be considered. Special experiments in the rubber-proofing of jute are still in their early stages, and have not yet been entirely concluded. The main difficulty up to a short time ago was the high price of rubber, so that it did not pay to proof any, except the more expensive textiles, such as silk, cotton fabrics, and the like. A further drawback was the great risk of fire in connection with the dissolving of rubber in benzine or solutions containing benzine. Only after the fall in the price of rubber had made it possible to place the raw rubber milk (Latex of all kinds) as an extract on the European market and thereby to avoid expensive and dangerous solutions, have attempts to proof jute with rubber been taken up again.

The viscid rubber sap is mixed with water, and a small quantity of various chemicals is added for vulcanization, and loaded by means of filling materials, such as talcum, chalk, kaolin or soot. Large machine installations are not necessary, a small dyeing mill and a winged mixer being all the equipment necessary. The tissue is coated on the coating machine on one side or on both sides, according to requirements. If the tissue is given a fairly thick coating, a design can be impressed in the still rather soft rubber layer, directly before the vulcanization becomes completed by self-generation. The rubber solution can also be dyed, and this opens new prospects for rubber-proofed jute tissue for washable wall-coverings, etc., and after further experiment it should be possible to use them for military equipment, tents, folding boats, etc.

*Brattice Cloth.*—Before the war, when coal mining was not so modernized as now, most jute industrialists were familiar with brattice cloth which was manufactured from the raw jute tissue by special factories. Since then other kinds of material for ventilation purposes have caused its sales to drop considerably. Eor the manufacture of this material, 8 oz. hessian, in widths of 80 to 140 cm., is mostly employed; the length of the pieces is 10 metres. The raw jute tissue is made air tight by coating on both sides with tar and ground earth. These tissues then serve in the mine as air shafts to conduct the fresh air into the mine and to carry off the exhausted air. Recently, in Holland, Germany and Great Britain, jute tissue has been impregnated with bituminous substances for this purpose, giving it the advantage of greater softness, durability and freedom from smell. Many factories manufacture non-inflammable cloth for special purposes in mines, by means of impregnation with a mixture of water glass and a filling material. Whilst on the subject of the use of jute tissues in mines, we must not forget,

*Mine Screens of Jute.*—For these also, 8 oz. hessian is mostly used, but in widths up to and over 2 metres. This jute tissue which in the warp shows soft annealed metal wires, about ½ mm. thick, spaced 5 to 10 cm., woven-in, is used for covering the cavities left by abandoned under-surface workings of coal mines. Recently, where the filling of these hollow spaces was done by machinery, such substitute-tissues were already being paper-lined, *i.e.*, proofed with paper, to prevent the dust from penetrating.

*Jute Tissues in Agriculture.*—Impregnated jute tissue for roofing and insulating purposes, as described elsewhere in this book, has already found both in Germany and America successful application as a protective covering for the soil in gardening. It will keep vegetable beds completely free of weeds. Further, the temperature of the soil under the roll of tissue remains fairly even day and night. The jute tissue tends to stimulate bacterial activity in the soil, thus advancing the planting stage, and prevents both desiccation and leaching.

The vegetables grow through holes cut in the tissue. Already a very handsome increase in returns from agricultural experiments arranged with such soil coverings has been obtained.

*Grain Silos of Jute.*—A further use for jute tissue was seen recently at an agricultural show where a portable grain silo made of jute cloth was shown. The advantage of such a silo is that after emptying it can be removed and takes up no space. Further, its prime cost is considerably lower than that of the usual tin silo, which, in addition, takes up a lot of room.

Successful experiments have also been made in Germany in the vineyards with the covering of young plants, the jute covers rolled over the young plants at night keeping off the injurious morning dews and hoar frosts from the tender shoots.

The special applications for jute tissue (for the most part new) shown here, make no claim to being complete. They show, however, the necessity and rightness of unrelaxed effort in seeking for, and creating, new selling possibilities for jute manufactures.

*Roofing and Insulating Tissues.*—These materials are used for a very wide variety of purposes. In the roofing of houses or railway waggons, etc., jute is fast replacing felt as an ingredient in the material, since soft felt boards which can absorb a great deal of the impregnating liquid succumb easily to the elements and draughts, and strong raw felt cannot absorb much of the impregnating liquid.

*Jute Base Tissues.*—For insulating bridges, dams, weirs, tunnels, etc., a strong resilient material which gives to pressure is required as a basis for the insulating mixture. Hence 40″ hessians from 10 to 12 and even 16 oz. are employed. The product of this material serves ideally for all kinds of roofing, and, since it bends easily and can cover satisfactorily uneven points, surpasses that made of felt boards for large tubes as well as for insulating bridge-roads, footpaths, terraces, round tanks, silos, etc.

Despite inclement weather, frost, heat, ground waters, acids, and a variety of other damaging factors, the material with its impregnating layer must remain intact for a number of years. Great care must therefore be exercised in the manufacture of the hessian, especially to avoid holes or weaving nests, otherwise there will not be the desired evenness in the finished product. Protrusion of weft yard ends over the weaving track, moreover, causes an untidy edge. Still more important, the tension on the edges of the fabric must be exactly equal, since a badly-pulled fabric will render the even application of the insulating mass impossible. Finally, the fabric should be calendered and made up on sticks into rolls which are as long as possible, in order to reduce seams to a minimum.

The daily output of a plant manufacturing these materials averages between 6,000 and 8,000 linear metres per day.

*Other Base Tissues.*—Lately a number of other materials have been experimented with, some of which are very successful.

For special purposes, for example, where an extremely heavy pressure has to be carried, various other kinds of tissue are manufactured. Some consist of two-ply rolls of tissue. Others have a layer of soft, wide-meshed wire cloth. A tissue combined with felt board is also being marketed. This consists of a length of roofing board combined with a roll of insulating tissue pressed together by means of the still hot coating mixture.

## Jute in the Cable Industry.

### *Requirements for Yarn Quality.*

*(Reprinted from "Jute 1932").*

Jute is one of the principal materials used in the manufacture of electric cables. In Great Britain alone, during 1931, this industry accounted for 15,000 tons, and its demand as a whole, throughout the world, runs to between 50,000 and 100,000 tons per year.

The employment of jute in cable manufacture is twofold: as a packing, *i.e.*, filling material, and as a protective covering. To understand how and why it is used, we shall describe briefly the construction of a power cable. A fuller description of cable manufacture was given in issues Nos. 38 to 42 of the journal "Jute".

A number of copper wires are stranded together to make the conductor. The size of the conductor is determined by the number and gauge of the copper wires. Paper is next wrapped round the conductor in the form of tapes until the required thickness is obtained. Most power cables are made up of more than one core; that is, two, three, or more paper-insulated conductors, as described, are twisted together or "laid up", as it is termed. It is here that jute fulfils its first function. In order to obtain a circular cross section, jute is used to fill the interstices between the cores. This is called "worming."

A further wrapping of paper is then applied round the "laid up" cable; this is called the "belt". The cable is next vacuum dried and impregnated, usually with mineral oil. A lead sheath is then extruded round the cable, in order that the electrical insulating properties of the impregnated paper should be preserved.

Power cables are generally laid directly in the ground. The lead sheath is mechanically weak and is easily damaged, and since lead is also very liable to corrosion, the cable is covered with bitumen compound and armoured with galvanised steel wires in order to reduce the abovementioned dangers to a minimum. The wires from a continuous ring round the cable. Another method applies two steel tapes, each tape forming an open helix, the second tape covering the gaps between the turns of the first. In order that the armour itself should not damage the cable, a "bedding" of jute yarns or hessian strips is first applied over the lead sheath and well compounded with bitumen. This is repeated over the armour—called the "serving". In addition the jute in both cases acts as a retainer for the bitumen, which as already stated, is applied to prevent corrosion. This then is the second function of jute, namely as a *protective and absorbent covering.*

*Telephone Cables.*—It may have been noticed that the qualification "power" has been used in description. This was done to differentiate between power and telephone cables.

Telephone cables in Great Britain are nearly always drawn into earthenware ducts, in the lead covered state, that is, unarmoured, Also, as telephone cables are made up of a great number of small conductors, no jute is required as "worming". Jute therefore does not enter into the manufacture of telephone cables for home use.

Abroad, however, telephone cables are still laid directly in the ground and hence require armouring, which then necessitates the use of jute. Thus for export jute is generally used both on power and telephone cables.

Some notes on the jute used might be of interest here.

*The use of Rove and Yarns.*—For "worming" no special sizes are general, the only requirements being that a sufficient range is available to pack any ordinary interstice. The sizes used by cable-makers are determined mainly by what they have found suitable from experience. Anything between a 50 lb. jute roving and a $\frac{3}{4}$ inch rope is usual.

In the case of jute "bedding" and "serving" the thicknesses generally specified are those given by the British Engineering Standards Association. Where jute is used the specified thickness can be met by applying one or two layers. The sizes used vary between 50 lb. and 200 lb. jute roving or the equivalent jute yarn.

*Application of Hessian.*—When hessian is used the number of layers is usually specified: a 10-12 oz. hessian is quite general. Hessian gives better protection, makes a harder "bedding" and "serving", it also makes the cable stiffer and on the whole is appreciably more expensive to use. In addition to giving better protection, hessian is less liable to fraying, due to abrasion; and where special compounds, such as red lead are applied to the cable, hessian is the carrier.

Jute materials for use in cable manufacture must meet a number of requirements along the following lines. They should contain no injurious chemicals which corrode lead, mild steel or galvanised iron in the presence of moisture. The diameter, quality and twist must be as uniform as possible.

*Moisture Contents and Tensile Strength.*—A maximum moisture content is usually specified and anything in excess of it is deducted from the weight. A value for this of about 15 per cent. is quite usual. Sometimes tensile strength corresponding to size, and elongation limits are also demanded. Tensile strength is not a manufacturing criterion of itself but included primarily to safeguard against unevenness. That is, one minimum strength would really cover all sizes of jute from a manufacturing standpoint.

Yardage limits are also usually included and vary between plus and minus 5—10 per cent.

Most cable-makers now call for their jute to be supplied wound on paper centres, dimensions of the spool being given. Where jute on a spool is made up of a number of lengths these lengths should be kept down to a minimum, especially when used for worming, as all knots then must be spliced before use.

*Weave and Thickness of Hessian.*—The requirements for hessian are fewer and deal more with the condition of the tissue, such as freedom from tears loose fibres and extraneous matter. The weave, thickness, and closeness to the weight basis are also important. Chemical requirements are the same as those for spins of jute.

Jute is sometimes applied as a braid; this is generally so when it acts as a protection for rubber insulated cables, though it is used also in this form occasionally on paper insulated cables.

The amount used in this manner is comparatively small.

## Jute in Furnishing and Upholstery.

(*Reprinted from "Jute 1932"*).

In these days jute is being supplanted by other materials in almost every trade. The chief reason for this is largely the lack of enterprise on the part of jute manufacturers. It is both necessary to watch the existing outlets for jute goods in order to retain the present volume of business—and to find new markets where jute goods can be used.

In the furnishing and upholstery trades, for instance, surprisingly large quantities of jute cloths are already used. Imagine, then, the enormous amount that could be used if the requirements of the furnishing trade were satisfied and jute used throughout. How much scope there would be for an enterprising firm!

The development of various trades calls for a similar development in the auxiliary industries. Unfortunately adaptability amongst jute manufacturers in particular is very slow. Admittedly new machinery is being invented and more modern factories are being built, but all this progress does not lead to more suitable materials for the varying requirements of jute goods buyers. With certain exceptions the same jute cloth is produced to-day as was made fifty years ago. In all other textile industries money is spent on producing new materials and new uses for existing materials, with the result that these industries are far more advanced than the jute manufacturers. It is not so much the expenditure of money that prevents manufacturers in the jute world from making more efforts with regard to research, but mainly the lack of interest which forms a great obstacle to the progress of the industry.

In the furnishing industry, for instance, the modern taste for simple bare furniture is displacing upholstered chairs, couches and divans. If this tendency continues the jute industry is likely to lose a very large outlet for jute cloth. This will readily be admitted, if it is learned that from 4 to 7 sq. yds. of hessian is used in the upholstery of an easy-chair, much more for settees, divans, etc., and millions of such chairs are being turned out each year. If jute manufacturers will not devote their close attention to all demands that come from furniture manufacturers who try to improve the quality and hygiene of upholstered furniture and will simply wait until the order for hessian from this circle of customers comes along, then another market will be lost to the jute industry.

A very interesting field where jute yarns are used to a small extent, but which could provide a magnificent market for jute spinners, is the manufacture of furnishing fabrics of jute yarns. Why do not jute manufacturers produce more and better furnishing fabrics that will compete with cotton, rayon, wool and silk? Many upholsterers complain that jute furnishing fabrics do not drape well, and when used as curtains do not pull as straight as others do. Clearly this is a matter for the research departments of jute spinning mills and science could help them, we are sure, to produce a yarn that will compete effectively with other textiles. In the next few pages an expert deals with the manufacture of jute furnishing fabrics and it is advisable that every spinner and weaver of jute should study thoroughly what one of the leading experts has to say on the subject.

*Jute in the Automobile Industry.*—To illustrate the possibilities of jute cloth in upholstery we need only mention the motor-car and railway waggon industry. During the last hundred years transport by rail and road has increased to incredible figures, and it looks as though it will go on increasing unless its place is taken by air liners; but even then the seats will have to be upholstered in order to provide more comfort for passengers.

Each private motor car takes 3½ yds. of 72 ins. wide hessian cloth and tarpaulin, so that about 7 sq. yds. of jute cloth are used for one car. The world's production of private motor cars amounts to between 3 and 5 million cars per year, and a single motor car manufacturer produces annually between 30,000 and 500,000 cars. Motor coaches which have lately come to the fore, require 50 to 100 square yards according to whether they are built with single or double decks.

*A progressive Industry.*—It is easy to see what enormous quantities of jute cloth are, or could be, travelling all over the world, but it does not follow that this will always continue to be so. Here too jute manufacturers must watch the motor-car industry and try to improve constantly the fabric which they sell for the upholstery of seats. The motor-car industry is more progressive than any other industry, and the difference if a better textile is used which might be expressed in money, is so small that *they will not hesitate to replace* jute cloth should it be proved by any other textile industry that cotton, hemp or a similar cloth has greater advantages than jute.

It is up to all jute manufacturers to co-operate and to find out what jute lacks in the qualities which are required in the furnishing and upholstery trades.

*Furnishing Fabrics of Jute.*—Jute is a very important factor in most branches of the textile industry. Apart from its use in the manufacture of carpets and sack cloth, jute yarn is also extensively employed in the production of furnishing-fabrics, wall coverings and curtains.

For decades jute materials and yarns have found application as a good substitute for expensive wool and cotton furnishing fabrics. The original method of manufacture was very primitive, the jute material being generally woven in linen weaving construction in widths of about 130 cm., and afterwards printed with handsome, coloured designs by means of machines or hand moulds. Such materials found preference as coverings for the cheaper makes of sofas and Ottomans, etc.

In the manufacture of these fabrics either a coarse count of jute yarn, *i.e.*, Nos. 5, 6, 7, or a twisted yarn mixed with cotton or wool, is used. Where cotton thread is employed, e.g., flamé-colours, very fine effects are obtained. The weaving construction of modern designs is usually that of linen or crepe, preference being given to the latter. Furnishing fabrics in modern designs are used for covers for furniture as well as for decorative purposes. Jute furnishing fabrics in modern designs also find extensive application in house decoration as a substitute for wall-paper, and in the decoration of cabins of the average, not too luxurious, steamer.

*Portieres and Curtains.*—These fabrics are also used for the making of Portieres and curtains, the materials for this purpose being woven mostly plain and in one colour, although they are also made on the Jacquard machine in striking modern designs. For this production much finer counts are used, namely, Nos. 10—18/1. It should also be noted that in the manufacture of these fine jute counts, first-class raw material as well as special machines are necessary. These furnishing-fabrics are consequently of very good and durable quality.

A serious drawback to the still wider use of jute furnishing-fabrics, however, lies in the fact that dyed jute yarns are not fast. They will not, unfortunately, take fast dyes, as will cotton, and this difficulty has still to be overcome.

On the other hand, fine jute yarns have a very beautiful lustre after dyeing, which is a great advantage over other materials, as cotton, for example, which has to be specially mercerised in order to obtain such a sheen.

## Jute Tissue in Road Construction.

*(Reprinted from "Jute 1932").*

Experiments with the inclusion of wide 9 oz. hessian in road construction have already been going on in Germany for two years, specially in the South. The road, previously broken up and rough rolled, is first covered with a solution of asphalt or thin fluid tar, on which the lengths of jute, stuck one to another, are laid, and in the same way, spread with a hot coating substance. Fine-grained split and sand are then spread over, and the whole section is rolled. The purpose served by the jute tissue is that of a binding framework after the style of reinforced concrete, in order to prevent uneven surfacing and tearing up of the road. With a road constructed last year, for example, a substantial difference in relation to quality and purely external appearance between the section built with a layer of jute and the rest of the road is still to be observed.

## APPENDIX VIII.

(*Vide* page 32 of the Report.)

## The Indian Central Cotton Committee: Its Objects, Activities and Achievements.

India is the second largest cotton growing country in the world. But in the past the quality of the cotton produced was not such as to enable the Indian product to hold its own in competition with foreign-grown cotton. To encourage the growth of improved varieties, to extend the area of cultivation and to stimulate and assist in every possible way the production, marketing and manufacture of Indian cotton, the Indian Central Cotton Committee was constituted by the Government of India in March 1921 by their resolution No. 404-22 (Department of Revenue and Agriculture). It was the outcome of recommendations made in 1919 by the Committee over which Sir (then Mr.) James MacKenna presided. After a short period of existence during which it had only an advisory status, the Committee was made an independent body. The Cotton Cess Act of 1923 provided the funds necessary to carry out its aims.

### Functions.

The chief functions of the Committee fall under three heads: (1) to advise the Central and Local Governments on all questions on cotton referred to it, and to suggest suitable measures for the improvement and development of the industry, (2) to finance and to direct research work on the problems connected with the improvement of Indian Cotton including investigations into the relationship between the cotton plant and its environment, the diseases and pests of cotton, and the lint qualities of the existing as well as newly evolved types, and (3) to finance schemes intended to bring into general agricultural practice the results of economic importance obtained from research.

The Committee has now been in existence for over a decade and during this period. by combining scientific research with practical progress, it has been responsible for valuable work in all these directions.

### Work up to date.

The most important achievement of the Committee in promoting the interests of growers is the enforcement of the Cotton Transport Act in several areas thus maintaining standards of quality of cotton grown there and preventing adulteration with inferior types. The Act is now in operation in seven areas in Bombay. Its enforcement entails close co-operation between the Local Government and the Indian States in the areas concerned. It is in force in Madras in two areas, but the separation of the southern area as at present constituted into a Tinnevelly and a Tiruppur-Cambodia area is a matter of considerable importance. Berar cotton is protected in the Central Provinces as also Indore cotton against Deshi-Mewadi. The Bani or Gaorani tract and part of the Raichur District in Hyderabad

State, and the Baroda, Rajpipla, Chhota Udepur and Sangli States are similarly protected.

Another measure in this direction is the Cotton Ginning and Pressing Factories Act which provides for the marking of bales so that adulteration and other malpractices can be easily traced to their origin. Similarly measures are now in force in the majority of cotton-growing Indian States.

The Committee has also urged the necessity of standardizing weights and measures so as to prevent growers from being defrauded when marketing their produce. A bill for the standardization of weights and measures in the Bombay Presidency has now become law, and there is a regulated open market in Khandesh. A bill for regulated markets which it was proposed to introduce in Madras has been postponed for the time being. In Hyderabad and Holkar States also, regulated markets have been established.

Investigations were undertaken with a view to finding out the staying power of the agriculturists and the reports have created almost as much interest as the Banking Enquiries. It is hoped that a solution will be found for the problem of providing the cultivator with cheap finance, simultaneously easing the burden of his indebtedness. Investigations were also made in Surat, Khandesh, the Central Provinces and Ajmer-Merwara in order to ascertain the effects of "pools" of ginning and pressing factories on prices realized by growers.

The Committee's programme includes propaganda work to advise the grower on suitable varieties of cotton. No attempt is made, however, to persuade him to use a superior variety unless it gives him a better monetary return than short-staple cotton. The Committee is also doing a good deal of work to popularize improved types of Indian Cotton both here and abroad. For this purpose the Committee keeps in close touch with such bodies as the Empire Cotton Growing Corporation, the British Cotton Industry Research Association, etc.

## Technological Laboratory.

This Laboratory, which is installed at Matunga, is the first of its kind where not only fundamental research on the physical and chemical properties of cotton fibres is undertaken, but facilities are provided for testing new strains evolved by Cotton Breeders working under the Provincial Agricultural Departments. For this purpose the Laboratory, besides possessing a complete range of testing apparatus, is equipped with modern spinning plant, which enables the tests to be made on a comparative basis, as the prevailing conditions are definitely known and reproducible. In each case the mean fibre-length, fibre-length distribution and fibre-weight per inch of a new strain are determined and whenever the sample is available in a sufficiently large size it is spun into yarn, its waste losses and behaviour during spinning are noted and the strength, evenness and neppiness of its yarns are carefully ascertained. These tests are of the greatest importance to the cotton breeder, as they enable him to select those strains which will give the best spinning performance and thus prevent him from wasting time and energy on others which may ultimately be found unacceptable to the spinner. In the case of a few selected cottons, known as Standard Indian Cottons, more detailed fibre tests are made. These include a determination of fibre-strength, maturity, rigidity, convolutions and ribbon-width, besides the fibre properties mentioned above. The results of these detailed tests are published annually in a Technological Bulletin.

Besides this work on agricultural samples, the Laboratory has been making itself useful to the trade by undertaking spinning tests on representative commercial types selected by the Standards Committee of the East India Cotton Association, and on early arrivals of the principal commercial varieties submitted through the Millowners' Associations of Bombay and Ahmedabad. These tests are made immediately on receipt of the samples and their results are published in 2-page Circulars which are widely distributed among the trade. Up-to-date 81 such Circulars have been issued from the Laboratory.

Recently the Laboratory has opened a Moisture Testing Section at the Cotton Exchange, Sewri, where numerous moisture tests have been made on samples drawn from trade bales. Simultaneously, an investigation has been carried out on the variation in the weight of cotton bales of different trade descriptions stored for 12 months in a Bombay godown. The primary object of these tests is to lay the foundation in a secure manner of a system of 'blind survey.'

An account of the different activities of the Laboratory was given in Chapter VI of "Cotton Improvement in India," but the manner in which the work of the Laboratory has increased since its inception may be judged from the fact that whereas in 1924-25 only 54 samples were spun, in 1931-32 no less than 323 samples were spun and in the eight years of its life as many as 1,481 samples have been spun, of which nearly 60 per cent. were supplied by the Agricultural Officers. Besides these, numerous small size samples have been tested for fibre-properties only.

In addition to these tests, a number of problems bearing upon the properties of cotton fibre and their inter-relationship and the processing of cotton have been successfully tackled at the Laboratory. A full account of these investigations and the principal conclusions derived from them is published in Technological Bulletins which have been divided for the sake of convenience into two series, A and B. Series A, which deals with problems relating to processing and spinning of cottons and spinning tests on important Indian growths of special interest to practical men, is published in India; while Series B, which is confined to a discussion of the more theoretical problems relating to the fundamental properties of cotton fibres, is published in the Journal of the Textile Institute, Manchester, England. In all 22 Bulletins in Series A and 14 Bulletins in Series B have been issued. Besides these, small leaflets, summarising the results of investigations which are of special interest to the trade, are issued from time to time.

The Laboratory is continually extending the scope of its testing and research activities and tackling fresh problems. Among the problems studied may be mentioned those of determination of causes of neppiness in cotton; the relationship between the feel and wax content of a cotton; improved methods of stapling a cotton; the combing of good quality Indian cotton, the effect of different settings in the carding engine on the quality of yarn, the use of balanced and unbalanced drafts with mixings of Indian cottons, etc.

## Institute of Plant Industry.

The Institute of Plant Industry at Indore was opened in 1924 to serve as a Central Research Institute for cotton—to conduct investigations of a fundamental character upon the botany, genetics and physiology of cotton and to study the agronomy of cotton on the black soils of Central India. In addition the constitution provided for assistance and advice being given on agricultural matters to a group of (at present twenty) States in Central India which contributed to the funds of the institute; later various States in Rajputana joined. In 1928 the Institute was registered as a Society under the Holkar State Societies Act.

The cotton research work done falls under three heads:—

1. *Fundamental problems.*—A botanical survey of Indian cottons including their root-systems and fibre characteristics is approaching completion. A comprehensive study of the influence of soil conditions on Indian and American cottons has been going on for several years and is now throwing light on the causes of stunted growth and disease and possibilities of preventive treatment. The influence of environmental conditions upon the lint has also been studied. Attempts are being made to produce changes in the type of existing cottons by exposing them to X-rays and radium emanations.

2. *Improvement of variety.*—Here the chief work has been the selection of an improved type of Malvensis cotton to suit the black soils of the Malwa Plateau; a number of such types are now undergoing yield tests. Progress has been made among types for well-irrigation in Malwa and for the low-lying areas in Central India as well as for Rajputana.

3. *Agronomy.*—Great attention has been paid to developing methods of eradicating weeds—particularly the notorious *kans* grass, to the prevention of soil erosion by monsoon rains, and, perhaps the most important success, the standardizing of a system for rapidly converting all kinds of farm wastes into a high quality organic manure without any capital outlay at small cost and without disturbing the established custom of using cowdung cakes as fuel. Progressive cultivators are now satisfied as to the merits of Indore compost, which gives them two or three times the manure they formerly had.

Side by side with research work, propaganda is carried on, mainly through the States' Agricultural Departments and also by holding annual Cultivators' Meetings at the Institute, training States' officers and cultivators in improved methods and, a recent development, attending at village *melas* with exhibits and a cinematograph display of agricultural films. Simple improved implements and pure seed are stocked and sold to cultivators from the supporting States.

Thus, within eight years, results of real practical value to the cultivator have been obtained and others are in sight.

## Agricultural Research.

In pursuance of the policy of selecting and popularizing types of cotton suitable to the different tracts, several research schemes have been started and valuable results have been obtained. In Madras, it was found that *"Cholam"* as a rotation crop reduced the yield while *"Cumbu"* gave better results, and the problem is being attacked in several ways. The study of the "stem borer" pest has been started and will be along two lines:—the incidence of the pest and the methods of combating it.

In Surat the high shedding of buds, flowers and bolls was found to be due to a deficiency of nitrogen. The Entomological Scheme is related to the Spotted Boll-worm and the results will shortly be published. A propaganda campaign, with the object of the destruction of the Spotted Boll-worm by means of clean-up and other methods has been started and demonstrations given in about 40 centres. In Dharwar, the study of wilt resulted in the breeding of a cross which resists wilt and gives good yield, and its seeds are being popularized in that area. The Khandesh Scheme has evolved the *"Banilla"* which gives, even after deterioration, far better returns for the grower than the old *"N. R."* variety.

In the Central Provinces, the study of wilt-resistant strains has brought out *"Verum-262"* which gives high yield and spins 20s to 22s against 8s to 12s of ordinary Berar cotton. Two other strains have also been isolated. One of these is an early variety suitable for the northern and plateau districts. The other is a late variety which ought to thrive in the eastern area.

The Entomological Scheme in the United Provinces, which was started in 1923, entailed studies in Pink Boll-worm. One important finding of these studies was that if the seed was heated to about 140°F., the larvæ could not be carried over. It has been suggested that all ginning factories should be equipped with the necessary apparatus. It is estimated that if this moth can be exterminated, the growers would reap an enhanced crop of four *maunds* or Rs. 30 an acre, and in addition, would obtain a better price owing to the improved quality due to the absence of stain.

In the Punjab, the enormous damage done to cotton is held by some to be due to climatic conditions, while others put it down to the Cotton White Fly; it may be due to both. The severe attack of *"Jassids"* made it necessary to reject a strain of "American" which was otherwise very suitable. New strains are now under investigation. The Entomological Scheme studying the Pink Boll-worm has shown that if the seed is heated in the sun during April and May in a thin layer the larvæ are not carried over. The *"White Fly"* is another serious pest and research work on its incidence, effect, spread and control is being undertaken.

In the Hyderabad State, work began at Parbhani in 1929 for the study of *"Gaorani"* or *"Bani"* cotton. It is a poor yielder though it is the best indigenous variety, and attempts are being made to obtain better types by selection and crossing.

The Gang Canal Scheme in Bikaner for selection and crossing of Indian and American types, the Burma Scheme for improved agronomy and the Baroda Scheme for study of "Root rot" should also be mentioned.

### Seed Extension Schemes.

The importance of financing schemes for wide distribution of improved varieties has been recognized and seed distribution schemes are in progress in several areas. Thus improved *Cambodia* in Madras, *Jayawant* and other improved types in Bombay and Hyderabad State, better quality "*Verum*-262" in the Central Provinces and Berar; 1027 A.L.F. in the Surat tract of Gujerat and Banilla in Khandesh are being distributed. New schemes in other areas have also been sanctioned. So far the best work has been in Surat, Dharwar and Berar. The total area under these improved seeds is still only about a million acres out of the present total area of about 24 millions for all India. There is thus a good deal of work to be done in this line.

## Research Workers.

The Committee has had to train its own staff of technical experts and has created a corps of workers, now about 121. Research scholarships are given to distinguished graduates for two years or more and fifty have been awarded, of which six are current. Twenty-eight of those trained have either been taken on the Committee's staff or have been absorbed by Provincial and State Agricultural Departments.

## Cotton Cess Act.

This Act was passed in 1923 to provide funds for the Committee's work. The cess is levied at the rate of two annas per bale of 400 pounds avoirdupois or six pies per 100 pounds of unbaled cotton. During the first three years it was collected at double these rates. It is levied on all cotton exported from India whether by sea or land and on all cotton consumed by the mills in British India, which are required to furnish monthly returns to the Collectors of the districts, except in Bombay Presidency where they are furnished to the Collector of Customs, Bombay.

It was estimated that the cess would yield Rs. 8 lakhs per annum at first and Rs. 4 lakhs afterwards. The position as at 31st March 1932 shows that it has raised over Rs. 13½ lakhs in the first three years and an average of Rs. 6½ lakhs in subsequent years. The total receipts of the Committee up to that date were Rs. 90,52,361 of which the cess amounted to Rs. 80,28,628. The expenses were Rs. 11,95,707 for Administration, Rs. 1,68,561 for Seed Distribution and Extension Schemes, Rs. 15,85,634 for Technological Research, Rs. 1,94,743 for Research Studentships and Rs. 27,52,228 for Agricultural Research, making a total of Rs. 59,92,542 or an average of about Rs. 7 lakhs a year. The balance of Rs. 30,59,819, with the exception of small amounts in cash, is held in Government of India Securities and Municipal Bonds.

## Fumigation of American Cotton.

The havoc to the cotton crop caused by the Boll-weevil in America and the Red Boll-worm in Africa, and the risk to which the growers in this country stood exposed by the introduction of these pests through free importation of cotton and cotton seed, were matters of great concern to the Committee. At its instance, adequate protection has since been afforded to the cotton-growing industry of India. Import of all foreign *kapas* is now entirely prohibited, and foreign cotton seed can be imported only through the Port of Bombay, by authorised officers, for experimental purposes, in quantities not exceeding 1 cwt. and then only after careful entomological examination at Bombay and fumigation, if this is found to be necessary. Import of American cotton has also been restricted to the single port of Bombay, and only after proper fumigation.

### Successful Results.

In the best interests of cotton development and to improve the conditions of the cotton grower, it is advisable that there be co-ordination of the technological and agronomical work of the Committee.

It will be seen from this brief résumé of the Committee's activities, that it is carrying out this work very successfully. It must be borne in mind that agricultural work must not be hurried. The work will receive a great set-back if the grower, who is the ultimate judge of its value, should find that in practice new varieties and methods are ill-suited to his needs. The best way would be to make certain of successful results before substituting new varieties or methods of cultivation for existing varieties and methods. It may be pointed out in this connection that the British Ministry of Agriculture took about fourteen years to reach a decision to introduce a new variety of wheat. The Indian Central Cotton Committee has a good record of its work to prove that it is successfully carrying out the objects for which it was founded. The Committee expects Indian cotton growers, traders and those engaged in the marketing and manufacture of cotton products to give it every encouragement and help to build a great industry on a sound practical basis. The results will prove beneficial to agriculturists and manufacturers alike, for the Indian cotton industry will be in a position to hold its own against world competition.

## APPENDIX IX.

No. 1419-1931, dated Calcutta, the 24th April 1931.

From—The Secretary, Bengal Chamber of Commerce,
To—The Secretary to the Government of Bengal, Commerce Department.

### Formation of a Central Jute Committee.

In continuation of my letter No. 724, dated the 28th February 1931, I am now directed to submit the views of the Chamber on the proposals contained in letter No. 89-A, dated 17th January 1931, from the Government of India, Department of Education, Health and Lands, to the Government of Bengal, Agriculture and Industries Department, on the subject of the formation of a Central Jute Committee. I am to express regret that it has not been possible to reply by the date mentioned in your letter No. 990/97-Com., dated 18th February, but it has been necessary to consult the Jute Associations connected with the Chamber, and an earlier reply has not been possible.

2. The Government of India explain that they have decided to undertake legislation forthwith for the creation of a Central Jute Committee. They refer to the recommendation of the Royal Commission on Agriculture in India that such a Committee should be established "which would watch over the interests "of all branches of the trade from the field to the factory," and they explain that they are satisfied from the context that the Royal Commission did not intend that the Committee should be given any powers of interference with the organisation of the jute trade. The Chamber notes this view with satisfaction, for it is impossible to ignore that considerable apprehension is felt by important interests in the trade lest there should be some such interference on the part of the Committee. As was explained in paragraph 5 of letter No. 558, dated 24th February 1930, from the Chamber to the Government of Bengal, Commerce Department, it was felt that the functions which the Committee is designed to perform are either already being performed by the different organisations connected with the trade, or can be performed by these. This feeling still exists, and the Chamber thinks it necessary to emphasise, what they stated in the letter referred to, (*a*) that there must be no question of interference, by the Central Jute Committee, with functions which properly belong to the trade itself and (*b*) that no additional burden will be imposed on the trade in respect of the provision of the necessary finance. When communicating their views to you on the proposal a year ago, the Chamber made their acceptance of the scheme conditional on the strict observance of these stipulations; and, as stated, they adhere to this opinion.

3. With regard to the first of the conditions, the Chamber notes that the Government of India recognise that "such questions as jute "grading, jute futures and the like are primarily matters for the trade, "and if the Central Jute Committee considered that action in respect "of them were needed in the interests of the jute growers it would be "for them to convince the trade of its desirability." It is known to the Government of Bengal that there is pronounced difference of opinion in the different branches of the jute trade in Calcutta both as to the prescription of official jute standards, and as to the influence of jute futures operations. There is a futures market in baled jute, and its effects are widely regarded with serious apprehension; the extension of its operations would be deplored, and the Chamber

would like to feel assured as to the test which will be applied to determine whether the Central Jute Committee has or has not succeeded in "convincing the trade" as to the desirability of any measure of reform. The functions indicated for the Committee include such subjects as banking and transport facilities and transport routes and the improvement of marketing, including research into marketing and the study of market organisation. These subjects so obviously come within the province of existing trade organisations that it will not be difficult to appreciate the apprehension which exists. In these circumstances, the Chamber is of opinion that provision should be made, either in the contemplated Act or in the rules under it, that no decision of the Committee with regard to the exercise of its functions shall be effective unless such decision is supported by each of the commercial bodies represented on it; such a provision would give the needed protection against any attempt to interfere, through the Committee, and without the concurrence of trading interests generally, with the normal course of trading operations.

4. It has been said above that the Chamber adheres to the view previously expressed by them, that there must be no question of imposing an additional burden on the trade in respect of the provision of the necessary finance. When putting forward the proposals in their letter of 27th June 1929, the Government of India explained that, if the various interests concerned agreed to the imposition of a cess to finance the Committee, they were prepared to reduce the export duties on raw and manufactured jute to a corresponding extent. Specific mention of this undertaking is not made by the Government of India in their letter of 17th January 1931, but the Chamber assumes that it will be implemented. For themselves, they are strongly of opinion, however, that in view of the difficult financial position, further action in connection with the proposals should be suspended for the present; and that the return of normal financial condition should be awaited before the scheme is proceeded with. Its introduction will impose a burden on the central revenues at a time of severe financial stringency, when efforts to avoid new obligations are being made in every possible direction. It cannot be denied that there is strong difference of opinion as to the necessity for the Central Jute Committee; and although the Chamber has expressed willingness to accept the scheme, subject to the stipulations which they have made, they feel that this is a liability that may well be avoided for the time being. They have observed that the Government of India, in the Department of Education, Health and Lands, have decided, because of the financial stringency, to postpone for the present the establishment of an Advisory Board for the Forest Research Institute, Dehra Dun, and the Chamber is of opinion that the establishment of the Central Jute Committee should similarly be postponed indefinitely. They strongly commend this suggestion to the consideration of the Government of India.

5. Subject to what has been stated above, the Chamber will now give their views on the further matters dealt with by the Government of India in their letter of 17th January 1931. These are as follows:—

(*a*) The suitability of the Indian Lac Cess Act as a model;

(*b*) The personnel of the Committee; and

(*c*) The method of financing the Committee.

With regard to the first of these matters, the Chamber is disposed to agree that, speaking generally, the Indian Lac Cess Act, 1930, with the necessary changes, would form a more suitable model than the Indian Cotton Cess Act. They observe that the Government of India do not consider it necessary to include a provision, such as is contained in the Lac Cess Act, to the effect that the rate of cess may be reduced on the recommendation of the Cess Committee. The Chamber does not agree with this point of view, and they would prefer to see a provision included, similar to the condition in section 3 of the Indian Lac Cess Act. A further point in regard to which the Chamber does not agree with the Government of India is that dealt with in paragraph 6 of Government's letter. Reference is made, in this paragraph, to the provision in the Lac Cess Act that a nominated member should vacate office if he ceases to reside in British India. For reasons which they explain, the Government of India consider that this is a matter which should be dealt with by rules rather than by a provision in the Act. The Chamber would prefer to see a provision included in the Act that any member of the Committee proceeding out of India shall be deemed to have vacated his seat; it seems to them that a definite provision to this effect is desirable, as it will ensure that the Committee is maintained at full strength.

6. With regard to the question of the personnel of the Committee, the Chamber has noted the proposals now put forward by the Government of India. In their letter to you of 24th February 1930 the Chamber expressed the opinion that the number of members of the Committee should not exceed eighteen, and they are of opinion that the number now suggested by the Government of India, namely twenty-two, is excessive. The following table shows the representation as proposed respectively by the Chamber last year and by the Government of India :—

| | The Chamber's proposal, February 1930. | The Government of India's proposal, January 1931. |
|---|---|---|
| *Representatives of the Government of India* .. | 1 | 4 |
| *Representatives of the agricultural departments*— | | |
| (*a*) Bengal .. .. .. | 1 | 2 |
| (*b*) Bihar and Orissa .. .. .. | 1 | 1 |
| (*c*) Assam .. .. .. | 1 | 1 |
| *Growers' representatives*— | | |
| (*a*) Bengal .. .. .. | 1* | 2† |
| (*b*) Bihar and Orissa .. .. .. | 1* | 1† |
| (*c*) Assam .. .. .. | 1* | 1† |
| *Commercial representatives*— | | |
| (*a*) Calcutta .. .. .. | 11 | 8 |
| (*b*) Bihar and Orissa .. .. .. | ... | 1† |
| (*c*) Assam .. .. .. | ... | 1† |

Provision is also made, in the Government's proposals, for such additional representatives as the Government of India may appoint.

7. Even supposing that no additional members are so appointed, the position will be, under the Government of India's proposals that no

* The Chamber suggested that these should be the three Provincial Registrars of Co operative Societies.

† Nominated by the Local Government.

fewer than fourteen members out of twenty-two will be either Government officials or nominated, a proportion which seems to the Chamber to be much higher than is necessary. Apart from this they consider that the representation which it is proposed to give to Bihar and Orissa and Assam as compared with Bengal is out of all proportion to the interest of these provinces in the industry. Excluding the Government of India representatives, there will be twelve representatives of Bengal and six representatives of Bihar and Orissa and Assam. That is to say, these two provinces combined are to be given half of the representation of Bengal, although taken together—on the basis only of area in acres or outturn in bales—they represent less than one-seventh of the area and outturn of Bengal. As is stated above, the Chamber considers that the Government of India's proposal provides a Committee which is too large, and in their opinion, if it is to be of a workable size, the number should be reduced; this reduction can, and should, be effected in the representation of Bihar and Orissa and Assam, whose proportion of members should bear a truer relation to their relative importance in the industry. The Chamber sees no necessity for "commercial representatives", other than growers, from these provinces, and they suggest that in alternate Committees one member should represent the two provincial Agricultural Departments, and one member the interests of growers in the two provinces: this might be arranged so that when the representative of the Departments is from Bihar and Orissa, the representative of growers is from Assam, and *vice versa*. The adoption of this suggestion would reduce the size of the Committee from twenty-two to eighteen.

8. The Chamber desires, further, to represent that there is no necessity, in a Committee of this kind for four representatives of the Government of India. The functions which the Committee will perform, and the crop with which it will be concerned, are purely local to Bengal, Bihar and Orissa, and Assam, and the Chamber feels that the interests of the Government of India in the matter will be quite adequately served by two instead of four, representatives. On the other hand, it is considered that the interests represented by the Chamber are not given the representation which their relative importance and extent merit, and they are of opinion that they should be allowed to nominate six representatives, that is to say, two more than provided for in the Government of India's proposals. The Committee would then be constituted as follows:—

**A.—To be nominated by Government.**

1. The Vice-Chairman of the Imperial Council of Agricultural Research, *Chairman*.
2. One other representative of the Government of India.

3, 4 & 5. Representatives of the provincial Agricultural Departments (two representing Bengal).

6, 7 & 8. Representatives of growers (two representing Bengal).

**B.—To be nominated by trade interests.**

9 to 12. Representatives of the Bengal Chamber of Commerce.

13 & 14. Representatives of the Indian Jute Mills Association.

15 & 16. Representatives of the Bengal National Chamber of Commerce.

17 & 18. Representatives of the Indian Chamber of Commerce.

The Chamber considers that this representation will provide a Committee more fairly balanced in accordance with the importance of the interests represented.

9. It remains to refer to the financial proposals. The original scheme provided for the imposition of a cess on all raw jute produced in India, either exported from a Customs port or consumed within a mill in British India. The Chamber recommended the expediency of following the analogy of the existing export duties and basing the cess on exports of raw and manufactured jute, and this plan has been adopted. The rates proposed are one anna a bale on raw jute exported, five annas a ton on sacking, and eight annas a ton on hessians. The Chamber is prepared to accept these figures, subject, of course, to the understanding of which mention has already been made, that a corresponding reduction is made in the export duties.

10. Finally, I am instructed to repeat that in the considered opinion of the Chamber the present time is most unsuitable for inaugurating the scheme for a Central Jute Committee, and to urge, in these circumstances, that a return to normal financial conditions should be awaited before any further action in the matter is taken. The Chamber very strongly recommends this course to the Government of India.

# APPENDIX X.

(*Vide* pages 31 and 150 of the Report.)

No. 720, dated Calcutta, the 28th February 1931.

From—The Secretary, Bengal Chamber of Commerce,

To—The Secretary, Indian Jute Mills Association.

## Proposed Central Jute Committee.

In continuation of previous correspondence on the above subject I am now directed to send you the accompanying copies of the letter noted below and of its accompaniments, and to invite an expression of the views of your Association on the proposals explained in these. It will be observed that the Government of Bengal ask for an early reply:—

Letter No. 990-97-Com., dated 18th February 1931 from the Government of Bengal, Commerce and Marine Departments to the Chamber.

2. For reference there is also sent herewith a copy of the Chamber's letter to the Government of Bengal, Commerce Department, No. 558, dated 24th February 1930.

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No. 990-97-Com., dated the 18th February 1931.

From—The Government of Bengal, Commerce Department,

To—The Bengal Chamber of Commerce.

I am directed to forward for information, the accompanying copy of a letter from the Government of India, Department of Education, Health Lands, No. 89-A., dated 17th January 1931 and its enclosure, on the above subject, and to request that you will be so good as to favour this Government with the opinion of your Chamber on the proposals contained therein.

2. As the Government of India have asked for an early reply it is particularly requested that the Government of Bengal may be favoured with your reply by the 14th March 1931.

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No. 89-A., dated New Delhi, the 17th January 1931.

From—The Secretary to the Government of India, Department of Education, Health and Lands,

To—The Secretary to the Government of Bengal, Agriculture and Industries Department.

*Formation of a Central Jute Committee.*

With reference to the correspondence ending with your telegram No. 784-T.—A.I., dated the 17th October 1930, I am directed to say that the Government of India have decided to undertake legislation forthwith for the creation of a Central Jute Committee. They are of opinion, after further consideration, that the Indian Lac Cess Act (XXIV of 1930), a copy of which is attached, is a more suitable model for such legislation than the Indian Cotton Cess Act. Before referring in detail to the modifications which would be required in that Act to adapt it to the purposes of the Central Jute Committee, I am to offer the following observations regarding the functions of the Committee, its personnel and the manner in which it would be financed.

2. *The functions of the Committee.*—In paragraph 65 of their Report, the Royal Commission on Agriculture in India recommended the formation of a Central Jute Committee "which would watch over the interests of all branches of the trade from the field to the factory." It is clear from the remainder of the paragraph referred to that the Committee meant by this that the Central Jute Committee should have the same functions in regard to jute as the Indian Central Cotton Committee should have in regard to cotton and not that it should combine the functions which the Indian Central Cotton Committee and the East India Cotton Association exercise for the cotton industry. They did not intend that it should be given any powers of interference with the organisation of the jute trade. Such questions as jute grading, jute futures and the like are primarily matters of the trade and if the Central Jute Committee considered that action in respect of them were needed in the interests of the jute growers it would be for them to convince the trade of its desirability. In accordance with this view, the Government of India propose that the functions of the Committee should be confined to agricultural, technological and economic research, the improvement of crop forecasting and statistics, the production testing and distribution of improved seeds enquiries and recommendations relating to banking and transport facilities and transport routes and the improvement of marketing. The section of the new Act corresponding to section 12 (2) of the Indian Cotton Cess Act and section 6 (2) of the Indian Lac Cess Act would, therefore, read as follows:—

> "Subject to such conditions as may be prescribed, the said proceeds and any other monies received by the Committee shall be applied to meeting the expenses of the Committee and for promoting agricultural, technological and economic research, the production, testing and distribution of improved seed, the improvement of statistics and the dissemination of information in the interests of the jute industry in India."

"Economic research" would include research into marketing, the study of market organisation and the dissemination of marketing information. The balance of opinion is against the inclusion of vegetable fibres other than jute in the scope of the Committee's activities and the Government of India accept this view.

3. *The personnel of the Committee.*—It is desirable that the membership of the Committee should be as small as is compatible with the efficient discharge of its functions and the Government of India are provisionally of opinion that it should be constituted as shown below:—

*Representatives of the Government of India.*—

1. The Vice-Chairman of the Imperial Council of Agricultural Research—(*President*).

2. Agricultural Expert, Imperial Council of Agricultural Research —(*ex-officio*).

3. Director-General of Commercial Intelligence and Statistics— (*ex-officio*).

4. A representative of the Co-operative movement to be nominated by the Government of India.

*Representatives of the Agricultural Departments.*—

5 & 6. Two representatives of the Bengal Agricultural Department.

7. One representative of the Bihar and Orissa Agricultural Department.

8. One representative of the Assam Agricultural Department.

*Growers' representatives.*—

9 & 10. Two representatives of the jute growers nominated by the Government of Bengal.

11. One representative of the jute growers nominated by the Government of Bihar and Orissa.

12. One representative of the jute growers nominated by the Government of Assam.

*Commercial representatives.*—

13. One representative of the jute trade nominated by the Government of Bihar and Orissa.

14. One representative of the jute trade nominated by the Government of Assam.

*Representatives of the jute trade in Calcutta.*—

15 & 16. Two representatives nominated by the Jute Mills Association.

17 & 18. Two representatives nominated by the Bengal Chamber of Commerce.

19 & 20. Two representatives nominated by the Bengal National Chamber of Commerce.

21 & 22. Two representatives nominated by the Indian Chamber of Commerce.

Such additional representatives as the Government of India may appoint.

The Government of India consider that a Committee thus constituted should be sufficiently representative of the various interests concerned. Their reason for confining representation of the numerous commercial bodies, connected with the jute trade to representatives of the Chambers of Commerce and the India Jute Mills Association is that they understand that these bodies are either affiliated to or work in close co-operation with the one or other of the Chamber of Commerce.

4. *The method of financing the Committee.*—In this Department's letter No. 1069-Agri., dated the 27th June 1929, it was stated that it was proposed to levy a cess of one anna per bale on raw jute produced in India and either exported from any customs port to any port outside British India or consumed in any mill in British India. In view of the opposition of the trade to the imposition of a cess on manufactured jute consumed in this country and of the administrative and other difficulties which the levy of such a cess would involve, the Government of India have decided that the cess should be levied only on exports and that the rate should be one anna per bale on raw jute, five annas per ton on sacking and eight annas per ton on hessians. On the basis of recent averages, a cess at this rate would produce an income of rather more than Rs. 5 lakhs per annum, the amount suggested by the Royal Commission on Agriculture, but in present conditions, this figure will probably not be reached for some time to come.

5. As regards the other modifications in the Indian Lac Cess Act, other than that already mentioned, which would be required, I am to point out that section 3 of that Act contains a provision by which the Governor-General in Council, on the recommendation of the Indian Lac Cess Committee, may reduce the cess. There is no corresponding provision in the Indian Cotton Cess Act and the Government of India do not consider it necessary to include such a provision in the proposed legislation. It is, in their opinion, preferable in the case of the jute industry, as in that of the cotton industry, that any alteration in the rate of the cess should be made by an amendment of the Act.

6. Section 4 (*4*) of the Indian Lac Cess Act contains a provision that a nominated member should vacate office if he ceases to reside in British India. The experience of the Indian Central Cotton Committee has shown that, whilst a substitute member is usually required to take the place of a member temporarily absent from India, it is sometimes convenient to allow an absent member to retain his seat on the Committee, especially if he is undertaking any work for the Committee in England. In these circumstances, the Government of India are of opinion that this is a matter which should be dealt with by rules rather than by a provision in the Act.

7. Sections 8 (*2*) (*f*), (*h*), (*m*) and (*q*) of the Indian Lac Cess Act will also require modification as no counterpart of the Lac Research Institute will exist and the Forest Departments will not be concerned with the work of the Central Jute Committee.

8. The Government of India would be glad to be favoured with any criticisms which the local Government, after consultation with the commercial and other bodies interested in the matter, may have to offer. I am to to request that these may be submitted at a very early date as the Government of India are anxious to proceed with the proposed legislation with the least possible delay.

(*Enclosure.*)

# ACT No. XXIV OF 1930.

[PASSED BY THE INDIAN LEGISLATURE.]

(*Received the assent of the Governor-General on 25th July, 1930.*)

**An Act to provide for the creation of a fund for the improvement and development of the cultivation, manufacture and marketing of Indian lac.**

Whereas it is expedient to provide for the creation of a fund to be expended by a Committee specially constituted in this behalf for the improvement and development of the cultivation, manufacture and marketing of Indian lac;

It is hereby enacted as follows:—

1. **Short title, extent and commencement.**—(*1*) This Act may be called the Indian Lac Cess Act, 1930.

(*2*) It extends to the whole of British India, except Aden.

(*3*) It shall come into force on such date as the Governor-General-in-Council may, by notification in the *Gazette of India* appoint.

2. **Definitions.**—In this Act (VIII of 1878)—

(*a*) "Collector" means a Customs-collector as defined in clause (*c*) of section 3 of the Sea Customs Act, 1878;

(*b*) "Committee' means the Indian Lac Cess Committee constituted under section 4;

(*c*) "lac" includes any form of manufactured or unmanufactured lac other than refuse lac;

(*d*) "lac cess" means the customs duty imposed by section 3.

3. **Imposition of lac cess.**—There shall be levied and collected on all lac and refuse lac produced in India and exported from any customs-port to any port beyond the limits of British India or to Aden a cess at the rate of four annas per maund in the case of lac, and two annas per maund in the case of refuse lac, or at such lower rate as the Governor-General-in-Council may, on the recommendation of the Committee, by notification in the *Gazette of India*, prescribe.

4. **Constitution of the Indian Lac Cess Committee.**—(*1*) The Governor General in Council shall contitute a Committee consisting of the following members to receive and expend the proceeds of the cess:—

(*i*) the Vice-Chairman of the Imperial Council of Agricultural Research, *ex-officio;*

(*ii*) the Inspector-General of Forests, *ex-officio;*

(*iii*) the Forests Entomologist, Dehra Dun, *ex-officio;*

(*iv*) the Imperial Entomologist, *ex-officio;*

(*v*) the Conservator of Forests, Bihar and Orissa, *ex-officio;*

(*vi*) the Inspector-General of Forests, *ex-officio;*

(*vii*) the Director of the Lac Research Institute, Nankum, *ex-officio;*

(*viii*) three persons representing the shellac manufacturing industry, one to be nominated by the Bengal Chamber of Commerce, one by the Calcutta Shellac Brokers' Association and one by the Shellac Traders' Association, Mirzapur;

(*ix*) one representative of the shellac export trade nominated by the Bengal Chamber of Commerce;

(*x*) one representative of the brokers of lac and shellac in Calcutta nominated by the Calcutta Shellac Brokers' Association;

(*xi*) five persons representing the lac cultivators' interests in Bengal, Bihar and Orissa, the United Provinces, the Central Provinces and Assam, one to be nominated by each of the Local Governments of those provinces.

Provided that, if, within the period prescribed in this behalf, or, in the case of first nominations under this Act, within a reasonable time, any authority or body fails to make any nomination which it is entitled to make under this section, the Governor-General-in-Council may himself nominate a member to fill the vacancy.

(*2*) The Vice-Chairman of the Imperial Council of the Agricultural Research shall be *ex-officio* President of the Committee.

(*3*) The Secretary of the Committee shall be a person, not being a member of the Committee appointed by the Governor-General-in-Council.

(*4*) Where a nominated member dies, resigns, ceases to reside in British India or becomes incapable of acting, the Governor-General in Council may, on the recommendation of the authority or body which would have been entitled to make the nomination if it had been a first nomination under sub-section (*1*), or where such recommendation is not made within the prescribed period, then on his own initiative, nominate a person to fill the vacancy.

(*5*) No act done by the Committee shall be questioned on the ground merely of the existence of any vacancy in, or any defect in the constitution of, the Committee.

5. **Incorporation of the Committee.**—The Commitee so constituted shall be a body corporate by the name of the Indian Lac Cess Committee having perpetual succession and a common seal, with power to acquire and hold property both moveable and immoveable and to contract, and shall by the said name sue and be sued.

6. **Application of the lac cess.**—(*1*) At the close of each month or as soon thereafter as may be convenient, the Collector shall pay the proceeds of the lac cess, after deducting the expenses of collection (if any), to the Committee.

(*2*) The said proceeds and any other monies received by the Committee shall be applied to meeting the expenses of the Committee and the cost of such measures as it may, subject to the control of the Governor-General-in-Council, decide to undertake for the improvement and development of methods of cultivation, manufacture and marketing of Indian lac.

7. **Dissolution of the Committee.**—The Governor-General-in-Council may by notification in the *Gazette of India* declare that, with effect from such date as may be specified in the notification, the Committee shall be dissolved, and on the making of such declaration all funds and other property vested in the Committee shall vest in His Majesty and this Act shall be demeed to have been repealed.

8. **Power of Governor-General-in-Council to make rules.**—(*1*) The Governor-General-in-Council may, after consulting the Committee and after previous publication, make rules to carry out the purposes of this Act.

(*2*) In paticular, and without prejudice to the generality of the foregoing power, such rules may—

(*a*) prescribe the time within which nominations shall be made under section 4;

(*b*) prescribe the term of office of the members of the Committee;

(*c*) prescribe the circumstances in which and the authority by which any member may be removed;

(*d*) provide for the holding of a minimum number of meetings of the Committee during any year;

(*e*) provide for the maintenance by the Committee of a record of all business transacted and submission of copies of such records to the Governor-General-in-Council;

(*f*) define the powers of the Committee and of the Director of the Lac Research Institute and of the Secretary to the Committee to enter into contracts which shall be binding on the Committee and the manner in which such contracts shall be executed;

(*g*) regulate the travelling allowances of members of the Committee and their remuneration if any;

(*h*) define the powers of the Committee and of the Director of the Lac Research Institute and of the Secretary to the Committee in respect of the appointment, promotion and dismissal of officers and servants of the Committee and in respect of the creation and abolition of appointments of such officers or servants;

(*i*) regulate the grant of pay and leave to officers and servants of the Committee, and the payment of leave allowances to such officers and servants, and the remuneration to be paid to any persons appointed to act for any officer or servant to whom leave is granted;

(*j*) regulate the payment of pensions, gratuities, compassionate allowances and travelling allowances to officers and servants of the Committee;

(*k*) provide for the establishment and maintenance of a provident fund for the officers and servants of the Committee, and for the deduction of subscriptions to such provident fund from the pay and allowances of such officers and servants, other than Government servants whose services have been lent or transferred to the Committee;

(*l*) regulate the preparation of budget estimates of the annual receipts and expenditure of the Committee and of supplementary estimates of expenditure not included in the budget estimates, and the manner in which such estimates shall be sanctioned and published;

(*m*) define the powers of the Committee, the Standing Executive Sub-Committee (if any), the President of the Committee, the Director of the Lac Research Institute and the Secretary to the Committee, respectively, in regard to the expenditure of the funds of the Committee, whether provision has or has not been made in the budget estimates or by reapropriation for such expenditure, and in regard to the reappropriation of estimated savings in the budget estimates of expenditure;

(*n*) regulate the maintenance of accounts of the receipts and expenditure of the Committee and provide for the audit and publication of such accounts;

(*o*) prescribe the manner in which payments are to be made by or on behalf of the Committee and the officers by whom orders for making deposits or investments or disposal of the funds of the Committee shall be signed;

(*p*) determine the custody in which the current account of the Committee shall be kept, and the bank or banks at which surplus monies at the credit of the Committee may be deposited at interest, and the conditions on which such monies may be otherwise invested;

(*q*) prescribe the preparation of a statement showing the sums allotted to the provincial Departments of Forests or of Agriculture or to institutions or authorities not under the direct control of the Committee for expenditure on schemes relating to the cultivation, manufacture or marketing of lac, the actual exenditure incurred, the outstanding liabilities, if any and the disposal of unexpended balances at the end of the year; and

(*r*) regulate the assessment, levy and payment of the lac cess.

9. **Power of the Committee to make rules.**—The Committee may, with the previous sanction of the Governor-General-in-Council, make

rules consistent ~~with this Act~~ and with the rules made under section 8 ~~to provide~~ for all or any of the following matters, namely:—

(*a*) the appointment of a Standing Executive Sub-Committee and the delegation thereto of any powers exercisable under this Act by the Committee;

(*b*) the method of appointment, removal and replacement and the term of office of members of the Standing Executive Sub-Committee, and the filling of vacancies therein;

(*c*) the appointment of the dates, times and places for meetings of the Committee and the Standing Executive Sub-Committee, and the regulation of the procedure to be observed at such meetings;

(*d*) the determination of the circumstances in which security may be demanded from officers and servants of the Committee, and the amount and nature of such security in each case;

(*e*) the determination of the times at which, and the circumstances in which, payments may be made out of the provident fund and the conditions on which payments shall relieve the fund from further liability;

(*f*) The contribution to be paid from the funds of the Committee to the provident fund;

(*g*) generally, all matters incidental to the provident fund and the investment thereof;

(*h*) the defining of the powers and duties of the Secretary of the Committee.

10. **Publication of rules.**—All rules made under section 8 or section 9 shall be published in the *Gazette of India.*

11. **Repeal.**—The Indian Lac Cess Act, 1921 (XIV of 1921), is hereby repealed.

12. **Dissolution of the Indian Lac Association for Research.**—Notwithstanding anything contained in the Societies Registration Act, 1860 (XXI of 1860), the Indian Lac Association for Research is hereby dissolved, and all monies and properties vested in it are hereby transferred to the Committee, subject to the payment of any outstanding claims incured by the said Association under the Indian Lac Cess Act, 1921 (XIV of 1921).

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No. 558 dated Calcutta, the 24th February 1930.

From—The Secretary, Bengal Chamber of Commerce,

To—The Secretary to the Government of Bengal, Commerce Department.

I have the honour to invite a reference to the correspondence resting with my letter No. 375—1930, dated 6th February 1930, on the subject of the proposed establishment of a Central Jute Committee, and to communicate to you the views of the Chamber with regard to the proposal and the various points arising in connection with it.

2. The proposal has its origin in the recommendation of the Royal Commission on Agriculture in India that a Central Jute Committee should be established on the lines of the Indian Central Cotton Committee. They considered that it was necessary to face the danger that an artificial product might be discovered and placed on the market at a price which would enable it to replace jute; and, in view of this opinion, they further considered that every effort should be made to improve quality, outturn and methods of manufacture and to maintain the relative cheapness of jute as compared with other fibres. It was for this reason that they recommended the formation of a Central Jute Committee "which would watch over the interests of all branches of the trade from the field to the factory." And they suggested that it should be financed by an annual grant of Rs. 5 lakhs from Central Revenues.

3. The Government of India have accepted the recommendation, but they point out that the method of financing the Committee which was proposed by the Royal Commission is open to certain objections, and that it would be preferable that the Committee, if formed, should be financed from its own statutory funds on the analogy of the Indian Central Cotton Committee. They suggest that an adequate fund could be provided by a cess of one anna a bale on all raw jute produced in India and either exported from any Customs port to any port outside British India or consumed in any mill in British India—a basis which would, on present production figures, produce about Rs. 6 lakhs per annum. Government go on to say that if the various interests concerned agreed to the imposition of a cess bringing in an income of not less than Rs. 5 lakhs per annum, they are prepared to reduce the export duties on raw and manufactured jute to the extent of Rs. 5 lakhs annually, subject to the passing of the necessary legislation by the Central Legislature establishing a Central Jute Committee with its own statutory fund. The Government of India, Department of Education, Health and Lands, letter No. 1069-Agri., dated the 27th June 1929, to the Government of Bengal, Agriculture and Industries Department, deals with certain other points arising in connection with the proposal, such as the Chairmanship and personnel of the proposed Committee, the modifications in the Indian Cotton Cess Act which may be considered desirable to adapt it to the case of jute, and the feasibility of the Committee dealing also with other vegetable fibres, such as hemp.

4. The proposal, and the various points arising in connection with it, have been carefully considered by the Chamber in consultation with jute interests, and in communicating their views I am directed to express regret that the submission of these has been delayed; but, as was explained in my letter to you No. 3906 of 22nd November last, some difficulty was experienced, in the early stages, in formulating an expression of views in the absence of more precise information as to how the proposed Committee would work and as to what its functions would be. Representatives of the Chamber and of the jute interests were however greatly assisted in their examination of the question by an informal discussion which they had on the subject some little time ago with Mr. B. C. Burt, Agricultural Expert of the Imperial Council of Agricultural Research, and the matter has since been further considered in the light of the information that was then obtained.

5. It may be said at once that there has been a certain amount of doubt, on the part of those interested, as to the necessity of a Central Jute Committee on the lines suggested, the feeling being that the functions which it is designed to perform are either already being performed

by the different organisations connected with the trade, or can be performed by these. The Chamber would not wish it to be thought, however, that they are in any doubt as to the desirability of promoting further crop research and improving statistical methods, particularly in connection with the jute forecast: but they are very definitely of the opinion that there must be no question of the Central Jute Committee undertaking functions which properly relate to ordinary commercial and trading practice. Perhaps the wording of the Royal Commission's recommendation has led to some misunderstanding in this respect, but it would be idle to ignore the fact that trade interests are a little alarmed at the possibility of a Central Jute Committee interposing itself to watch over the interests "of all branches of the trade from the field to the factory"; and the jute interests for which the Chamber speaks wish to make it clear that in accepting the proposal they do so on the understanding (*a*) that there will be no question of interference by the Committee, with functions which properly belong to the trade itself and (*b*) that no additional burden will be imposed on the trade in respect of the provision of the necessary finance.

6. The Chamber has given careful thought to the proposed method of financing the Committee, namely, by the imposition of a cess of one anna per bale on all raw jute produced in India, either exported from any Customs port or consumed in any mill within British India. The intention is that the cess should be on such a basis as will provide approximately Rs. 5 lakhs per annum, corresponding reductions being made in the existing export duties on raw and manufactured jute. The Chamber accepts the general principle of a cess, as proposed, but they desire to recommend a modification of some importance. The existing export duty is levied on exports of raw jute and of manufactured jute, and it is collected simply and inexpensively by the Customs. The Chamber is strongly of opinion that the cess should be the same in character, that is to say, that it should be collected in respect of both raw and manufactured jute at the time of export, the export duty in each case being reduced by an approximately corresponding figure. It is true that such an arrangement would leave untouched the small percentage of the mills' production which is consumed in India, but this is negligible in relation to the total figures, and in respect of a calculation such as that which is now under consideration. It is recognised that the cotton cess is collected on raw cotton exported, or consumed in the Indian mills, but the percentage of the production in the Indian mills which is consumed in India is, in the case of the jute industry, so much smaller than it is in the case of the cotton industry, that there is no real parallel between the two. Apart from this consideration, the collection of a cess on the mill consumption would necessitate the employment of a large and costly staff, and the conduct of elaborate investigations, all of which can be avoided if the collection is made through the Customs: and, further, the imposition of the cess in respect of jute consumed by mills "in British India" would exclude a mill situated in the French territory of Chandernagore.

7. There will be no difficulty in making the necessary adjustments with reference to the export duty. On the average of the five years from 1924-25 to 1928-29 the duty aggregated Rs. 404 lakhs annually, so that all that is required is to make an overhead reduction in the export duty of an amount approximating to between 1 and 1·5 per cent., and to impose a cess corresponding to the amount of the reduction. For the

five years to the end of June 1929 the exports averaged, per annum, as follows:—

| | | |
|---|---|---|
| Raw jute, other than cuttings | ... | 3,800,000 bales. |
| Raw jute, cuttings | ... | 250,000 bales. |
| Manufactured jute, sacking | ... | 445,000 tons. |
| Manufactured jute, hessian, etc. | ... | 405,000 tons. |

The export duty on raw jute other than cuttings is at the rate of Rs. 4-8 per bale and on cuttings at the rate of Rs. 1-4 per bale and in the case of each of these the Chamber would suggest that the cess should be maintained at the rate proposed by the Government of India, that is to say, one anna per bale. The duty in the case of manufactured jute is at the rate of Rs. 20 per ton in the case of sacking and at the rate of Rs. 32 per ton in the case of hessian goods: the Chamber would suggest that the cess might be at the rate of four annas per ton in the case of sacking and at the rate of five annas per ton in the case of hessians, the export duty being reduced to Rs. 19-12 in the case of sacking and to Rs. 31-11 in the case of hessians. The position would then, on the basis of the above figures, be as follows:—

*Raw jute other than cuttings.*

| Number of bales. | Export duty at Rs. 4-7. | Cess at one anna. | Total Rs. 4-8. |
|---|---|---|---|
| 3,800,000 | Rs. 1,68,62,500 | Rs. 2,37,500 | Rs. 1,71,00,000 |

*Raw jute, cuttings.*

| Number of bales. | Export duty at Rs. 1-3. | Cess at one anna. | Total Rs. 1-4. |
|---|---|---|---|
| 250,000 | Rs. 2,96,875 | Rs. 15,625 | Rs. 3,12,500 |

*Manufactured jute, sacking.*

| Number of tons. | Export duty at Rs. 19-12. | Cess at four annas. | Total Rs. 20. |
|---|---|---|---|
| 445,000 | Rs. 87,89,000 | Rs. 1,11,000 | Rs. 89,00,000 |

*Manufactured jute, hessian.*

| Number of tons. | Export duty at Rs. 31-11. | Cess at five annas. | Total Rs. 32. |
|---|---|---|---|
| 405,000 | Rs. 1,28,33,500 | Rs. 1,26,500 | Rs. 1,29,60,000 |

This adjustment would, therefore, produce about Rs. 4,90,625, or say the Rs. 5 lakhs suggested as the amount to be raised by the cess. The reduction of the export duty would, of course, be made so as to be effective as from the date of the introduction of the cess.

8. The next question for consideration is the personnel of the Central Jute Committee, and the Chamber suggests that the number of

members should not exceed, say, eighteen. Their view is that the following personnel would be suitable:—

(a) The Vice-Chairman of the Council of Agricultural Research, *Chairman.*

(b) Three provincial Directors of Agriculture, *i.e.*, or Bengal, Bihar and Orissa, and Assam.

(c) Three representatives of the interests of growers: the Chamber has had some difficulty in regard to the method of chosing these and considers that they might be the three provincial Registrars of Co-operative Societies: the Registrars are closely in touch with, and are qualified to represent, the growers.

(d) Two representatives of the Indian Jute Mills Association.

(e) Two representatives of the Calcuta Baled Jute Association.

(f) One representative of the Calcutta Baled Jute Shippers Association.

(g) Two representatives of the Calcutta Jute Dealers Association.

(h) Two representatives of the Bengal National Chamber of Commerce.

(i) Two representatives of the Indian Chamber of Commerce, Calcutta.

9. The Chamber is invited to make suggestions regarding modifications in the Indian Coton Cess Act, to adapt it to the case of jute. They have not examined the Act in very great detail because, if their suggestion regarding the method of raising the cess is accepted, much of the Act will not be applicable. But they desire to offer two criticisms of the Act as a model for the proposed legislation for the Central Jute Committee. The first of these relates to section 10, which gives power to the Collector of the District, or other officer empowered by the Local Government, to inspect a mill, to examine its working records, sale records and accounts, and to take copies of or extracts from, such records and accounts for the purpose of testing the accuracy of the mills' return. The provision might be necessary enough if there were to be a cess on mill consumption but it would require the organisation of an elaborate and expensive staff and it would introduce enquiries of an inquisitorial nature which should most certainly be avoided; and, as has been shown, it can very well be avoided by the adoption of the suggestion which the Chamber has put forward for the modification of the Government of India's proposals. The second criticism which it is desired to offer is that the contemplated legislation should provide powers to the Committee so as to allow the funds raised from the cess to be expended, if so decided, on such matters as the improvement of the jute forecasts, the production and distribution of improved jute seed, and the collection of jute crop statistics.

10. Reference is made by the Government of India to a suggestion that the Central Jute Committee should deal with other vegetable fibres, more specially with hemp, and opinion is invited as to the feasibility of this proposal. I am directed to explain that the Chamber has no very strong views on the point, but it would be understood that none of the funds derived from the jute cess would be expended on any fibre other

than jute: that is to say, if the Central Jute Committee were to deal with hemp the funds devoted to that fibre would have to be raised separately and none of the jute cess would be diverted for any purpose other than in connection with jute. This view is of course supported by the recommendation of the Royal Commission on Agriculture that any trade which feels that its interests demand such a step should organise itself on the lines of the Indian Central Cotton Committee, provided it is willing to tax itself for the purpose.

11. I am, finally, instructed to suggest that it would be advantageous if, after the Government of India have framed their preliminary conclusion in the matter, jute interests were given an opportunity of considering these before the contemplated Bill is introduced. For, as has been stated above, some difficulty was experienced in the earlier stages of the discussion in formulating an expression of views on account of the vagueness that was felt to exist as to the functions of the Central Jute Committee. The doubt that for this reason prevailed still exists to some extent, and the Committee feel that they cannot commit the Chamber too far in the absence of a clearer understanding on such an important question. They desire to repeat, and to emphasise, that acceptance of the proposal is on the definite stipulation that there will be no question of intrference, by the Central Jute Committee, with functions which properly belong to the trade itself.

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No. 363-D., dated Calcutta, 19th March 1931.

From—The Secretary, Indian Jute Mills Association,

To—The Secretary, Bengal Chamber of Commerce.

*Proposed Central Jute Committee.*

I am directed by the Committee to acknowledge the receipt of your letter No. 720, dated 28th February 1931, with which you forwarded, for an expression of the views of this Association on the proposals outlined therein, copy of a letter dated 18th February 1931, from the Government of Bengal, Commerce Department, enclosing copy of a letter dated 17th January from the Government of India, Department of Education, Health and Lands, on the subject of the formation of a Central Jute Committee.

2. The Committee have examined the Government of India's letter, and the copy of the Indian Lac Cess Act, 1930 which accompanied it; and they note that it has been decided to utilise that measure as a model for the legislation to be undertaken for the creation of a Central Jute Committee, subject to the modifications mentioned in the letter. There are one or two points in that letter to which the Committee desire to offer certain criticisms and comments.

3. In paragraph 2 of their letter, the Government of India outline the functions of the proposed Central Jute Committee, and, in doing so, they express the understanding that it was not the intention of the Royal Commission on Agriculture in India that the Central Jute Committee should be given any powers of interference with the organisation of the Jute Trade. This understanding is, to the members of this Association, the crux of the whole question; but one is apt to view with suspicion the passages which follow that statement of policy inasmuch

as "economic research" is to be held to include "research into marketing, the study of market organisation and the dissemination of marketing information." With so many and varied interests represented on the proposed Committee, the policy ultimately adopted may possibly be safeguarded, but we know the tendency of the speculative element and the sinister influence which an officially recognised "futures" market is likely to have. In the closing sentence of paragraph 5 of their letter dated 24th February 1930 to the Government of Bengal, Commerce Department, the attitude of the Chamber towards any action tending to usurp the functions which properly belong to the trade itself, was clearly defined in these words:—

> "The jute interests for which the Chamber speaks wish to make it clear that in accepting the proposal they do so on the understanding (*a*) that there will be no question of interference, by the Committee, with functions which properly belong to the trade and (*b*) that no additional burden will be imposed on the trade in respect of the provision of the necessary finance."

and the mills in the membership of this Association desire to associate themselves wholeheartedly with these sentiments.

4. The method of financing the Committee, as proposed in paragraph 4 of the Government of India's letter should, in the opinion of this Association, be altered to conform to the suggestions put forward in paragraph 7 of the Chamber's letter dated 24th February 1930 to the Government of Bengal. It is also apparent to the Committee that the clauses of the Indian Lac Cess Act, 1930 will need very careful scrutiny if the intention is to model the jute cess measure on similar lines, as the Lac Cess Act provides for the employment of Executive Officers, permanent establishment and research work, far in excess of what will be wanted normally for jute. Moreover, it should be carefully noted that an ambitious scheme will cost more than the fund can afford if the imagination of "Executive Officers" is allowed full play.

5. It seems to the Committee of this Association that the first essential is a definitely clear interpretation of the lines on which the Central Jute Committee are to work, and that until these lines are clearly laid down and definitely understood by all concerned, the Government of India's proposals should not be given the unqualified support of the Chamber. Once it is made abundantly clear that the functions of the Central Jute Committee are to be strictly confined to research work and kindred matters, the members of this Association will be prepared to give constructive proposals towards that end their fullest consideration.

# APPENDIX X I.



## Variation of Purchasing Power.

### A note by Mr. D. P. Khaitan.

(*Vide* page 69 of the Report).

*Explanatory remarks.*

The enclosed tables attempt to indicate the relative variations of the purchasing power of the agriculturists and their dependants in Bengal from 1920-21 up to 1932-33. The calculations are based on the following reasoning:—

*First* of all the estimated quantity consumed by the agriculturists and their dependants has been deducted from the total of food grains grown. *Secondly,* the value at harvest price has been calculated of all money crops and the value of surplus food grains has been added to the total value of money crops respectively deducted in years of deficit. *Thirdly,* the monetary liabilities of the agriculturists have been estimated (land rent, cess and interest payable to the money lender). *Finally,* the sum total of liabilities has been deducted from the sum total of the money value of the crops. 3 per cent. and 2 per cent. has been deducted for seeds for food grains and other crops respectively.

In the following lines detailed remarks are given item by item and also the sources of information indicated:—"Total food grains grown" comprise rice, wheat, barley, maize, gram, jiwar, bajra, and "other food grains and pulses." Source: "Area and yield of principal crops in India." Yield of "other food grains and pulses" is estimated at 1/3 ton per acre. "Deduction for seeds"—3 per cent. for food grains and 2 per cent. for the money crops.

The quantity of food grains consumed by the agricultural population has been based on an estimate made for the years 1927-28—1929-30 according to which the average consumption of food grains in India was lbs. 1·18 per head per day. The agricultural population (workers plus dependants) has been taken as 77·3 per cent. of the total population according to the figure contained in the Bengal Census for 1921. (The Census of 1931 does not indicate the corresponding percentage). The population has been estimated to grow in the same proportion from year to year.

*Yield and harvest price of linseed, rape, mustard, sesamum, Jute, cotton and tobacco* has been taken from the "Area and yield of principal crops in India" and the "Agricultural Statistics of India, Volume 1."

The remaining crops have been estimated on the basis of the "Area" as indicated in the "Agricultural Statistics of India, Volume 1." The details are as follows:—

*Other oil seeds*—yield 1/7 ton per acre, price is taken on the basis of the other oil seeds.

*Other Fibres*—Yield 1/2 ton per acre, price is taken to be same as Jute.

*Tobacco*—In the years in which the yield has not been published in the "Area and yield, etc." the average crops for the years 1925-26 to 1930-31, *i.e.*, 111,000 tons has been taken.

*Fruits and vegetables*—It has been assumed that the agricultural class consumes about 2/3 of the crops and that accordingly 1/3 remains for sale. The valuation has been made according to Shah and Khambatta's Wealth and Taxable Capacity of India, Page 128 (Rs. 250 to 150 per acre decreasing the value by Rs. 10 per year from 1920/21 to 1930-31, and taking Rs. 150 also for the years 1931-32 and 1932-33).

*Condiments and spices*—A rough estimate based on Shah and Khambatta (Page 130) and decreasing the value from Rs. 3 crores to Rs. 2 crores proportionately from the years 1920-21 to 1930-31, 1931-32 and 1932-33 same as 1930-31.

*Miscellaneous food crops and non-food crops*—Yield 1/3 ton per acre, price same as rice. The yield and prices for the last years has been taken from the "Season and crops report of Bengal" for 1930-31 and 1931-32 whereas for 1932-33 from the crops forecasts published in the Indian Trade Journal. The prices for the last year have been estimated according to the index numbers published in the Indian Trade Journal as compared to the last published harvest prices.

The enclosed tables have been made out more or less according to one and the same method for all the 13 years and accordingly the variations of the "Free purchasing power of the agriculturist" may be regarded, as relatively correct.

"The monetary liabilities" consist of (1) land rent and cess taken from the Reports of the Revenue Department, Bengal, and (2) the interest payable to the *Mahajans.* Assuming that the figure stated by the Report of the Bengal Banking Enquiry Committee for agricultural indebtedness is correct (i.e. 100 crores of rupees), the further assumption has been made that about 12½ per cent. of interest is on the average realised.

The last item indicates the deficit in sugar production (with the exception of 1932-33 when a surplus was achieved), based on an average consumption of lbs. 26 per head per year. This estimate has been arrived at calculating the average all-India consumption for the years 1927-28, 1928-29 and 1929-30.

*1920-21.*

| | Tons. |
|---|---|
| Total food-grains grown .. .. .. .. .. | 8,706,000 |
| Less 3 per cent. for seeds .. .. .. .. .. | 261,000 |
| | 8,445,000 |
| Less 1·18 lbs. per head per day for an agricultural population of 36,100,000 (i.e. 77·3 per cent. of 46,702,000) .. .. .. .. | 6,931,000 |
| Surplus food grains .. .. | 1,514,000 |

*Harvest value of marketable crops.*

| | | | | Per md. Rs. | A. | Crores of Rupees. |
|---|---|---|---|---|---|---|
| 1. | Linseed .. .. .. | 16,000 | Tons at | 8 | 0 | 0·35 |
| 2. | Rape and Mustards .. .. | 153,000 | Tons at | 8 | 8 | 3·58 |
| 3. | Sesamum .. .. .. | 34,000 | Tons at | 10 | 9 | 0·99 |
| 4. | Other Oil seeds .. .. | 4,000 | Tons at | 8 | 0 | 0·09 |
| 5. | Jute .. .. .. | 5,247,000 | bales at | 6 | 0 | 15·74 |
| 6. | Cotton .. .. .. | 21,000 | bales at | 26 | 4 | 0·28 |
| 7. | Other fibres .. .. .. | 39,000 | Tons at | 6 | 0 | 0·64 |
| 8. | Tobacco (average) .. .. | 111,000 | Tons at | 12 | 8 | 3·81 |
| 9. | Fruits and vegetables .. .. | .. | Estimated at | .. | | 5·50 |
| 10. | Condiments and Spices .. .. | .. | Estimated at | .. | | 3·00 |
| 11. | Miscellaneous food crops .. } | .. | Estimated at | .. | | 2·60 |
| 12. | Miscellaneous non-food crops .. } | | | | | |
| | | | | | | 36·58 |
| | Less 2 per cent. for seeds .. .. | | | | | ·72 |
| | | | | | | 35·86 |
| | Plus surplus food grains 1,514,000 tons at Rs. 6-8 per maund .. .. | | | | | 27·10 |
| | | | | | | 62·96 |
| | Less liabilities .. .. .. .. .. .. | | | | | 26·81 |
| | Free purchasing power .. | | | | | 36·15 |

| | Tons. | | |
|---|---|---|---|
| Gur purchased .. .. .. | 355,000 | Land Rent | 13·58 |
| Required by agriculturists .. .. | 420,000 | Cess | ·73 |
| | | Interest | 12·50 |
| Deficit .. .. .. | 65,000 | | |
| | | | 26·81 |

*1921-22.*

| | Tons. |
|---|---|
| Total food grains grown .. .. .. .. .. | 9,701,000 |
| Less 3 per cent. for seeds .. .. .. .. .. | 291,000 |
| | 9,410,000 |
| Less 1·18 lbs. per head per day for an agricultural population of 36,364,000 (i.e., 77·3 per cent. of 47,043,000) .. .. .. .. | 6,981,000 |
| | 1,429,000 |

*Harvest value of marketable crops.*

| | | | | Per md. Rs. | A. | Crores of Rupees. |
|---|---|---|---|---|---|---|
| 1. | Linseed .. .. .. | 16,000 | Tons at | 8 | 4 | 0·36 |
| 2. | Rape and mustard .. .. | 148,000 | Tons at | 8 | 12 | 3·55 |
| 3. | Sesamum .. .. .. | 34,000 | Tons at | 9 | 2 | 0·83 |
| 4. | Other oilseeds .. .. | 4,000 | Tons at | 8 | 4 | 0·09 |
| 5. | Jute .. .. .. | 3,595,000 | Bales at | 6 | 0 | 10·79 |
| 6. | Cotton .. .. .. | 15,000 | Bales at | 30 | 0 | 0·23 |
| 7. | Other fibres .. .. .. | 40,000 | Tons at | 6 | 0 | 0·66 |
| 8. | Tobacco (average) .. .. | 111,000 | Tons at | 16 | 11 | 5·11 |
| 9. | Fruits and vegetables .. .. | .. | Estimated at .. | | | 5·37 |
| 10. | Condiments and spices .. .. | .. | Estimated at .. | | | 2·90 |
| 11. | Miscellaneous food crops .. .. | } .. | Estimated at .. | | | 2·21 |
| 12. | Miscellaneous non-food crops .. | | | | | |
| | | | | | | 32·10 |
| | Less 2 por cent. for seeds .. .. | | | | | ·64 |
| | | | | | | 31·46 |
| | Plus surplus food grains 1,429,000 tons at Rs. 6 per maund .. .. | | | | | 23·58 |
| | | | | | | 55·04 |
| | Less liabilities .. .. .. .. .. .. | | | | | 27·30 |
| | Free purchasing power .. | | | | | 27·74 |

| | Tons. | | |
|---|---|---|---|
| Gur produced .. .. .. | 339,000 | Land Rent | 14·05 |
| Required by agriculturists .. .. | 422,000 | Cess .. | ·75 |
| | | Interest | 12·50 |
| Deficit .. .. .. | 83,000 | | |
| | | | 27·30 |

*1922-23.*

| | Tons. |
|---|---|
| Total food grains grown .. .. .. .. .. | 9,472,000 |
| Less 3 per cent. for seeds .. .. .. .. .. | 284,000 |
| | 9,188,000 |
| Deduct 1·18 lbs. per head for an agricultural population of 36,627,000 (77·3 per cent. of 47,384,000) .. .. .. .. | 7,032,000 |
| | 2,156,000 |

*Harvest value of marketable crops.*

| | | | | | Per md. Rs. | A. | Crores of Rupees. |
|---|---|---|---|---|---|---|---|
| | Linseed .. .. .. | 20,000 | Tons at | | 8 | 5 | 0·46 |
| | Rape, mustard .. .. | 129,000 | Tons at | | 8 | 0 | 2·84 |
| | Sesamum .. .. .. | 24,000 | Tons at | | 10 | 15 | 0·72 |
| | Other oilseeds .. .. | 3,000 | Tons at | | 8 | 0 | 0·06 |
| | Jute .. .. .. | 4,746,000 | Bales at | | 10 | 0 | 23·73 |
| | Cotton .. .. .. | 17,000 | Bales at | | 33 | 6 | 0·28 |
| | Other fibres .. .. .. | 38,000 | Tons at | | 10 | 0 | 1·05 |
| 8. | Tobacco (average) .. .. | 111,000 | Tons at | | 13 | 8 | 4·12 |
| 9. | Fruits and vegetables .. .. | .. | Estimated at .. | | | | 5·06 |
| 10. | Condiments and spices .. .. | .. | Estimated at .. | | | | 2·80 |
| 11. | Miscellaneous food crops .. .. } | .. | Estimated at .. | | | | 2·11 |
| 12. | Miscellaneous non-food crops .. } | | | | | | |
| | | | | | | | 43·23 |
| | Less 2 per cent. for seeds .. .. .. .. .. | | | | | | ·86 |
| | | | | | | | 42·37 |
| | Plus surplus food grains 2,156,000 tons at Rs. 5-8 per maund .. .. | | | | | | 32·56 |
| | | | | | | | 74·93 |
| | Less liabilities .. .. .. .. .. .. | | | | | | 27·41 |
| | | | Free purchasing power .. | | | | 47·52 |

| | Tons. | | |
|---|---|---|---|
| Gur purchased .. .. .. | 312,000 | Land Rent | 14·14 |
| Required by agriculturists .. .. | 425,000 | Cess | ·77 |
| | | Interest | 12·50 |
| Deficit .. .. .. .. | 113,000 | | |
| | | | 27·41 |

*1923-24.*

| | Tons. |
|---|---|
| Total food grains grown .. .. .. .. .. | 7,899,000 |
| Deduct 3 per cent. for seeds .. .. .. .. .. | 237,000 |
| | 7,662,000 |
| Deduct 1·18 lbs. per head per day for an agricultural population of 36,891,000 (77·3 per cent. of 47,725,000) .. .. .. .. | 7,084,000 |
| Surplus food grains .. .. | 578,000 |

*Harvest value of marketable crops.*

| | | | | Per md. Rs. | A. | Crores of Rupee |
|---|---|---|---|---|---|---|
| 1. | Linseed .. .. .. | 17,000 | Tons at | 8 | 0 | 0·3 |
| 2. | Rape and mustard .. .. | 118,000 | Tons at | 8 | 4 | 2·6 |
| 3. | Sesamum .. .. .. | 25,000 | Tons at | 11 | 4 | 0·7 |
| 4. | Other oilseeds .. .. | 4,000 | Tons at | 8 | 0 | 0·09 |
| 5. | Jute .. .. .. | 7,463,000 | Bales at | 9 | 0 | 33· |
| 6. | Cotton .. .. .. | 21,000 | Bales at | 32 | 8 | 0·3 |
| 7. | Other fibres .. .. .. | 38,000 | Tons at | 9 | 0 | 0·94 |
| 8. | Tobacco (average) .. .. | 111,000 | Tons at | 15 | 13 | 4·81 |
| 9. | Fruits and vegetables .. .. | .. | Estimated at .. | | | 4·70 |
| 10. | Condiments and spices .. .. | .... | Estimated at .. | | | 2·70 |
| 11. | Miscellaneous food crops .. .. | .. | Estimated at .. | | | 1·82 |
| 12. | Miscellaneous non-food crops .. | .. | | | | |
| | | | | | | 52·80 |
| | | | Less 2 per cent. for seeds .. | | | 1·05 |
| | | | | | | 51·75 |
| | Plus surplus food grains 578,000 tons at Rs. 5-4 per maund .. .. | | | | | 8·32 |
| | | | | | | 60·07 |
| | Less liabilities .. .. .. .. .. .. | | | | | 27·97 |
| | | | Free purchasing power .. | | | 32·10 |

| | Tons. | | |
|---|---|---|---|
| Gur produced .. .. .. | 317,000 | Land Rent | 14·68 |
| Required by Agriculturists .. .. | 428,000 | Cess | 0·79 |
| | | Interest | 12·50 |
| Deficit .. .. .. .. | 111,000 | | |
| | | | 27·97 |

*1924-25.*

| | | Tons. |
|---|---|---|
| Total food grains grown | .. .. .. .. .. | 8,091,000 |
| | Less 3 per cent. for seeds .. | 243,000 |
| | | 7,848,000 |
| Less 1·18 lbs. per head per day for an agricultural population of 37,152,000 (i.e., 77·3 per cent. of 48,066,000) | .. .. .. .. | 7,132,000 |
| | Surplus food grains .. .. | 716,000 |

*Harvest value of marketable crops.*

| | | | | Per md. Rs. A. | Crores of Rupees. |
|---|---|---|---|---|---|
| 1. | Linseed | 19,000 | Tons at | 8 0 | 0·42 |
| 2. | Rape and mustard | 122,000 | Tons at | 8 11 | 2·92 |
| 3. | Sesamum | 24,000 | Tons at | 9 7 | 0·62 |
| 4. | Other oilseeds | 4,000 | Tons at | 8 0 | 0·08 |
| 5. | Jute | 7,667,000 | Bales at | 12 0 | 42·99 |
| 6. | Cotton | 24,000 | Bales at | 40 0 | 0·48 |
| 7. | Other Fibres | 37,000 | Tons at | 12 0 | 1·22 |
| 8. | Tobacco (average) | 112,000 | Tons at | 15 0 | 4·58 |
| 9. | Fruits and vegetables | .. | Estimated at | .. | 4·47 |
| 10. | Condiments and spices | .. | Estimated at | .. | 2·60 |
| 11. | Miscellaneous food crops } | .. | .. | .. | 2·31 |
| 12. | Miscellaneous non-food crops } | | | | |
| | | | | | 62·69 |
| | | | Less 2 per cent. for seeds | .. | 1·25 |
| | | | | | 61·44 |
| | Plus surplus food grains 716,000 tons at Rs. 6-7 per maund | | | .. | 12·67 |
| | | | | | 74·11 |
| | | | Less liabilities | .. | 28·05 |
| | | | | | 46·06 |

| | Tons. | | |
|---|---|---|---|
| Gur produced .. .. .. | 310,000 | Land Rent | 14·75 |
| Required by Agriculturists .. .. | 432,000 | Cess | 0·80 |
| | | Interest | 12·50 |
| Deficit .. .. .. .. | 122,000 | | 28·05 |

*1925-26.*

| | | Tons. |
|---|---|---|
| Total food grains grown | .. | 8,654,000 |
| | Less 3 per cent. for seeds .. | 259,000 |
| | | 8,395,000 |
| Less 1·18 lbs. per head per day for an agricultural population of 37,413,000 (i.e., 77·3 per cent. of 48,400,000) | .. | 7,183,000 |
| | Surplus food grains .. | 1,212,000 |

*Harvest value of marketable crops.*

| | | | | Per md. Rs. | A. | Crores of Rupees. |
|---|---|---|---|---|---|---|
| 1. | Linseed | 18,000 | Tons at | 8 | 0 | 0·40 |
| 2. | Rape and mustard | 84,000 | Tons at | 9 | 8 | 2·19 |
| 3. | Sesamum | 25,000 | Tons at | 10 | 0 | 0·69 |
| 4. | Other oilseeds | 5,000 | Tons at | 8 | 0 | 0·11 |
| 5. | Jute | 7,951,000 | Bales at | 18 | 13 | 74·73 |
| 6. | Cotton | 26,000 | Bales at | 42 | 8 | 0·55 |
| 7. | Other Fibres | 37,000 | Tons at | 18 | 13 | 1·91 |
| 8. | Tobacco | 89,000 | Tons at | 16 | 0 | 3·91 |
| 9. | Fruits and vegetables | .. | Estimated at | .. | | 4·68 |
| 10. | Condiments and spices | .. | Estimated at | .. | | 2·50 |
| 11. | Miscellaneous food crops | | | | | |
| 12. | Miscellaneous non-food crops | .. | Estimated at | .. | | 2·36 |
| | | | | | | 94·03 |
| | | | Less 2 per cent. for seeds | .. | | 1·88 |
| | | | | | | 92·15 |
| | Plus surplus food grains 1,212,000 tons at Rs. 7 per maund | | | .. | | 23·27 |
| | | | | | | 115·42 |
| | | | Less Liabilities | .. | | 28·13 |
| | | | Free purchasing power | .. | | 87·29 |

| | Tons. | | |
|---|---|---|---|
| Gur produce | 345,000 | Land Rent | 14·80 |
| Required by Agriculturists | 435,000 | Cess | ·83 |
| | | Interest | 12·50 |
| Deficit | 90,000 | | 28·13 |

*1926-27.*

| | Tons. |
|---|---|
| Total food grains grown .. .. .. .. .. | 7,754,000 |
| *Less* 3 per cent. for seeds .. | 223,000 |
| | 7,531,000 |
| *Less* 1·18 lbs. per head, per day, for an agricultural population of 37,682,000 (i.e., 77·3 per cent. of 48,748,000) .. .. .. .. | 7,234,000 |
| Surplus food grains .. .. | 297,000 |

*Harvest value of marketable* crops.

| | | | | Per md. Rs. | A. | Crores of Rupees. |
|---|---|---|---|---|---|---|
| 1. | Linseed .. .. .. | 20,000 | Tons at | 7 | 13 | 0·43 |
| 2. | Rape and mustard .. .. | 132,000 | Tons at | 9 | 0 | 3·26 |
| 3. | Sesamum .. .. .. | 27,000 | Tons at | 10 | 9 | 0·78 |
| 4. | Other oilseeds .. .. | 4,000 | Tons at | 7 | 13 | 0·08 |
| 5. | Jute .. .. .. | 10,652,000 | Bales at | 8 | 4 | 43·67 |
| 6. | Cotton .. .. .. | 25,000 | Bales at | 40 | 0 | 0·50 |
| 7. | Other fibres .. .. .. | 36,000 | Tons at | 8 | 4 | 0·81 |
| 8. | Tobacco .. .. | 91,000 | Tons at | 14 | 8 | 3·63 |
| 9. | Fruits and vegetables .. .. .. | | Estimated at .. | | | 4·42 |
| 10. | Condiments and spices .. .. | | Estimated at .. | | | 2·40 |
| 11. | Miscellaneous food crops .. .. } | | | | | |
| 12. | Miscellaneous non-food crops .. } .. | | Estimated at .. | | | 2·35 |
| | | | | | | 62·33 |
| | | | Less 2 per cent. for seeds .. | | | 1·25 |
| | | | | | | 61·08 |
| | Plus surplus food grains 297,000 tons at Rs. 7-3 per maund .. .. | | | | | 5·68 |
| | | | | | | 66·76 |
| | | | *Less* liabilities .. .. | | | 28·02 |
| | | | Free purchasing power .. | | | 38·74 |

| | Tons. | | |
|---|---|---|---|
| Gur produced .. .. .. | 315,000 | Land Rent | 14·70 |
| Required by Agriculturists .. .. | 437,000 | Cess | ·82 |
| | | Interest | 12·50 |
| Deficit .. .. .. .. | 122,000 | | 28·02 |

*1927-28.*

| | Tons. |
|---|---|
| Total food grains grown .. .. .. .. .. | 6,845,000 |
| Less 3 per cent. for seeds .. | 205,000 |
| | 6,640,000 |
| Less 1·18 lbs. per head, per day, for an agricultural population of 37,945,000 (i.e., 77·3 per cent. of 49,089,000 .. .. .. .. | 7,285,000 |
| Deficit .. .. .. .. .. .. | 645,000 |

*Harvest value of marketable crops.*

| | | | | Per md. Rs. | A. | Crores of Rupees. |
|---|---|---|---|---|---|---|
| 1. | Linseed .. .. .. | 13,000 | Tons at | 7 | 8 | 0·26 |
| 2. | Rape and mustard .. .. | 116,000 | Tons at | 9 | 0 | 2·87 |
| 3. | Sesamum .. .. .. | 25,000 | Tons at | 8 | 13 | 0·60 |
| 4. | Other oilseeds .. .. | 4,000 | Tons at | 7 | 8 | 0·08 |
| 5. | Jute .. .. .. | 9,004,000 | Bales at | 8 | 4 | 36·92 |
| 6. | Cotton .. .. .. | 20,000 | Bales at | 39 | 12 | 0·40 |
| 7. | Other fibres .. .. .. | 35,000 | Tons at | 8 | 4 | 0·79 |
| 8. | Tobacco .. .. .. | 120,000 | Tons at | 17 | 4 | 5·69 |
| 9. | Fruits and vegetables .. .. | .. | Estimated at .. | | | 4·08 |
| 10. | Condiments and spices .. .. | .. | Estimated at .. | | | 2·30 |
| 11. | Miscellaneous food crops .. .. | } .. | Estimated at .. | | | 2·47 |
| 12. | Miscellaneous non-food crops .. | | | | | |
| | | | | | | 56·46 |
| | | | Less 2 per cent. for seeds .. | | | 1·13 |
| | | | | | | 55·33 |
| | Less deficit in food grains 645,000 tons at Rs. 7-8 per maund .. .. | | | | | 13·29 |
| | | | | | | 42·04 |
| | | | Less liabilities .. .. | | | 28·54 |
| | | | Free purchasing power .. | | | 13·50 |

| | Tons. | | |
|---|---|---|---|
| Gur produced .. .. .. | 336,000 | Land Rent | 15·19 |
| Required by Agriculturists .. .. | 440,000 | Cess | ·85 |
| | | Interest | 12·50 |
| Deficit .. .. .. .. | 104,000 | | 28·54 |

*1928-29.*

| | | Tons. |
|---|---|---|
| Total food grains grown .. .. .. .. | | ..10,108,000 |
| | Less 3 per cent. for seeds .. | 303,000 |
| | | 9,805,000 |
| Less 1·18 lbs. per head, per day, for an agricultural population of 38,209,000 (i.e., 77·3 per cent. of 49,430,000) .. .. .. | | .. 7,336,000 |
| | Surplus food grains .. | .. 2,469,000 |

*Harvest value of marketable crops.*

| | | | | Per md. Rs. | A. | Crores of Rupees. |
|---|---|---|---|---|---|---|
| 1. | Linseed .. .. .. | 19,000 | Tons at | 8 | 0 | 0·42 |
| 2. | Rape and mustard .. .. | 123,000 | Tons at | 8 | 12 | 2·94 |
| 3. | Sesamum .. .. .. | 23,000 | Tons at | 8 | 0 | 0·51 |
| 4. | Other oilseeds .. .. | 5,000 | Tons at | 8 | 0 | 0·11 |
| 5. | Jute .. .. .. | 8,519,000 | Bales at | 9 | 0 | 38·33 |
| 6. | Cotton .. .. .. | 18,000 | Bales at | 33 | 0 | 0·29 |
| 7. | Other fibres .. .. .. | 34,000 | Tons at | 9 | 0 | 0·84 |
| 8. | Tobacco .. .. .. | 122,000 | Tons at | 20 | 0 | 6·71 |
| 9. | Fruits and vegetables .. .. | .. | Estimated at .. | | | 3·99 |
| 10. | Condiments and spices .. .. | .. | Estimated at .. | | | 2·20 |
| 11. | Miscellaneous food crops .. .. | } .. | Estimated at .. | | | 2·21 |
| 12. | Miscellaneous non-food crops .. | | | | | |
| | | | | | | 58·55 |
| | Less 2 per cent. for seeds .. | | | | | 1·17 |
| | | | | | | 57·38 |
| | Plus surplus food grains 2,469,000 Tons at Rs. 6-10 per maund .. .. | | | | | 44·69 |
| | | | | | | 102·07 |
| | Less liabilities .. .. .. .. .. .. | | | | | 28·30 |
| | Free purchasing power .. | | | | | 73·77 |

| | Tons | | |
|---|---|---|---|
| Gur produced .. .. .. | 316,000 | Land Rent | 14·96 |
| Required by Agriculturists .. .. | 443,000 | Cess | ·84 |
| | | Interest | 12·50 |
| Deficit .. .. .. | 127,000 | | |
| | | | 28·30 |

*1929-30.*

| | | Tons. |
|---|---|---|
| Total food grains grown | .. | 8,638,000 |
| | Less 3 per cent. for seeds .. | 259,000 |
| | | 8,379,000 |
| Less 1·18 lbs. per head, per day, for an agricultural population of 38,472,000 (i.e., 77·3 per cent. of 49,771,000) | .. | 7,386,000 |
| | Surplus food grains .. | 993,000 |

*Harvest value of marketable crops.*

| | | | | Per md. Rs. | A. | Crores of Rupees. |
|---|---|---|---|---|---|---|
| 1. | Linseed | 19,000 | Tons at | 7 | 0 | 0·36 |
| 2. | Rape and mustard | 134,000 | Tons at | 8 | 5 | 3·05 |
| 3. | Sesamum | 26,000 | Tons at | 7 | 0 | 0·50 |
| 4. | Other oilseeds | 5,000 | Tons at | 7 | 0 | 0·09 |
| 5. | Jute | 9,190,000 | Bales at | 8 | 0 | 36·76 |
| 6. | Cotton | 21,000 | Bales at | 32 | 0 | 0·34 |
| 7. | Other fibres | 31,000 | Tons at | 8 | 0 | 0·68 |
| 8. | Tobacco | 124,000 | Tons at | 16 | 8 | 5·62 |
| 9. | Fruits and vegetables | .. | Estimated at | .. | | 3·72 |
| 10. | Condiments and spices | .. | Estimated at | .. | | 2·10 |
| 11. | Miscellaneous food crops } | | Estimated at | .. | | 2·27 |
| 12. | Miscellaneous non food crops } | | | | | |
| | | | | | | 55·49 |
| | | | Less 2 per cent. for seeds | .. | | 1·12 |
| | | | | | | 54·37 |
| | Plus surplus food grains 993,000 tons at Rs. 6 per maund | | | .. | | 16·38 |
| | | | | | | 70·75 |
| | Less liabilities | | | .. | | 28·50 |
| | | | Free purchasing power | .. | | 42·25 |

| | Tons. | | |
|---|---|---|---|
| Gur produced .. | 320,000 | Land Rent | 15·15 |
| Required by Agriculturists .. | 446,000 | Cess | ·85 |
| | | Interest | 12·50 |
| | 126,000 | | 28·50 |

*1930-31.*

| | | Tons. |
|---|---|---|
| Total food grains grown .. .. .. .. .. | | 9,680,000 |
| | Less 3 per cent. for seeds .. | 290,000 |
| | | 9,390,000 |
| Less 1·18 lbs. per head per day for an agricultural population of 38,736,000 (i.e., 77·3 per cent. of 50,112,000) .. .. .. .. | | 7,437,000 |
| | Surplus food grains | 1,953,000 |

*Harvest value of marketable crops.*

| | | | | Per md. Rs. | A. | Crores of Rupees |
|---|---|---|---|---|---|---|
| 1. | Linseed | 19,000 | Tons at | 5 | 4 | 0·27 |
| 2. | Rape, and mustard | 139,000 | Tons at | 5 | 4 | 2·01 |
| 3. | Sesamum | 26,000 | Tons at | 6 | 0 | 0·43 |
| 4. | Other oilseeds | 7,000 | Tons at | 5 | 4 | 0·10 |
| 5. | Jute | 9,886,000 | Bales at | 3 | 9 | 17·60 |
| 6. | Cotton | 19,000 | Bales at | 22 | 8 | 0·21 |
| 7. | Other fibres | 33,000 | Tons at | 3 | 9 | 0·31 |
| 8. | Tobacco | 120,000 | Tons at | 10 | 0 | 3·30 |
| 9. | Fruits and vegetables | .. | Estimated at | .. | | 3·73 |
| 10. | Condiments and spices | .. | Estimated at | .. | | 2·00 |
| 11. | Miscellaneous food crops | .. | Estimated at | .. | | 1·23 |
| 12. | Miscellanoous non-food crops | .. | | | | |
| | | | | | | 31·19 |
| | | | Less 2 per cent. for seeds | | | 0·62 |
| | | | | | | 30·57 |
| | Plus surplus food grains 1,953,000 Tons at Rs. 4 per maund | | | | | 21·48 |
| | | | | | | 52·05 |
| | Less liabilities | | | | | 29·38 |
| | | | Free purchasing power | | | 22·67 |

| | Tons. | | |
|---|---|---|---|
| Gur produced .. .. .. | 348,000 | Land Rent | 15·99 |
| Required by Agriculturists .. .. | 450,000 | Cess | 0·89 |
| | | Interest | 12·50 |
| Deficit | 102,000 | | 29·38 |

*1931-32.*

| | | Tons. |
|---|---|---|
| Total food grains grown | .. .. .. .. .. | 9,915,000 |
| | Less 3 per cent. for seeds .. | 297,000 |
| | | 9,618,000 |
| Less 1·18 lbs. per head per day for an agricultural population of 39,001,000 (i.e., 77·3 per cent. of 50,453,000) | .. .. .. .. | 7,488,000 |
| | Surplus food grains .. .. | 2,130,000 |

*Harvest value of marketable crops.*

| | | | | Per md. Rs. | A. | Crores of Rupees. |
|---|---|---|---|---|---|---|
| 1. | Linseed .. .. .. | (*) | | | | 0·24 |
| 2. | Rape, and mustard .. .. | (*) | | | | 1·76 |
| 3. | Sesamum .. .. .. | (*) | | | | 0·49 |
| 4. | Other oilseeds .. .. | 6,000 | Tons at | 3 | 7 | 0·06 |
| 5. | Jute .. .. .. | (*) | | | | 10·29 |
| 6. | Cotton .. .. .. | (*) | | | | 0·07 |
| 7. | Other fibres .. .. .. | 31,000 | Tons at | 2 | 12 | 0·23 |
| 8. | Tobacco (average) .. .. | 111,000 | Tons at | 8 | 0 (est.) | 2·67 |
| 9. | Fruits and vegetables .. .. | .. | Estimated at .. | | | 3·85 |
| 10. | Condiments and spices .. .. | | Estimated at .. | | | 2·00 |
| 11. | Miscellaneous food crops .. .. } | .. | Estimated at .. | | | 1·00 |
| 12. | Miscellaneous non-food crops .. } | | | | | |
| | | | | | | 22·66 |
| | | | Less 2 per cent. for seeds .. | | | 0·45 |
| | | | | | | 22·21 |
| | Plus surplus food grains 2,130,000 tons at Rs. 3-5 per maund .. .. | | | | | 19·38 |
| | | | | | | 41·59 |
| | | | Less liabilities .. .. | | | 28·30 |
| | | | Free purchasing power .. | | | 13·29 |

| | Tons. | Estimate | |
|---|---|---|---|
| Gur produced .. .. .. | 373,000 | Land Rent | 15·00 |
| Required by Agriculturists .. .. | 453,000 | Cess | ·80 |
| | | Interest | 12·50 |
| Deficit .. .. .. | 80,000 | | 28·30 |

(*) *See* "Review of certain main items of foreign trade during the calendar year 1932, page 9."

*1932-33.*

| | | Tons. |
|---|---|---|
| Total food grains .. .. .. .. .. | .. | 9,739,000 |
| Less 3 per cent. for seeds | .. | 292,000 |
| | | 9,447,000 |
| Less 1·18 lbs. per head per day for an agricultural population of 39,263,000 (77·3 per cent. of 50,794,000) .. .. .. | .. | 7,538,000 |
| Surplus food grains .. | .. | 1,909,000 |

*Harvest value of marketable crops.*

| | | | | Per md. Rs. | A. | Crores of Rupees. |
|---|---|---|---|---|---|---|
| 1. | Linseed .. .. .. | 20,000 | Tons at | 3 | 0 | 0·16 |
| 2. | Rape and mustard .. .. | 139,000 | Tons at | 3 | 0 | 1·15 |
| 3. | Sesamum .. .. .. | 36,000 | Tons at | 3 | 8 | 0·34 |
| 4. | Other oilseeds .. .. | 6,000 | Tons at | 3 | 0 | 0·04 |
| 5. | Jute .. .. .. | (*) | | | | 8·62 |
| 6. | Cotton .. .. .. | 21,000 | Bales at | 19 | 0 | 0·20 |
| 7. | Other fibres .. .. .. | 31,000 | Tons at | 2 | 2 | 0·18 |
| 8. | Tobacco (average) .... .. | 111,000 | Tons at | 7 | 0 | 2·13 |
| 9. | Fruits and vegetables .. .. | .. | Estimated at .. | | | 3·85 |
| 10. | Condiments and spices .. .. | .. | Estimated at .. | | | 2·00 |
| 11. | Miscellaneous food crops .. .. | .. | Estimated at .. | | | 0·79 |
| 12. | Miscellaneous non-food crops .. | .. | | | | |
| | | | | | | 19·46 |
| | Less 2 per cent. for seeds | | | | .. | ·39 |
| | | | | | | 19·07 |
| | Plus surplus food grains 1,909,000 tons at Rs. 2-10 per maund .. | | | | .... | 13·64 |
| | | | | | | 32·71 |
| | Less liabilities .. | | | | .. | 28·30 |
| | Free purchasing power | | | | .. | 4·41 |

| | Tons. | Estimate. | |
|---|---|---|---|
| Gur produced .. .. .. | 554,000 | Land Rent | 15·00 |
| Required by Agriculturists .. .. | 456,000 | Cess | 0·80 |
| | | Interest | 12·50 |
| Surplus. .. .. | 98,000 | | 28·30 |

(*) Taken from "Review of certain main items of foreign trade during the calendar year 1932, page 9."

*Summary.*

| Year. | I<br>Value of marketable crops. | II<br>Monetary liabilities. | III<br>Free purchasing power. | IV<br>Value of jute crops in Bengal at harvest prices. Crores of rupees. | V<br>Percentage of the value of the jute crops to the total value of marketable crops. | VI<br>Percentage of the value of jute crops to the free purchasing power. |
|---|---|---|---|---|---|---|
| | | | | | Per cent. | Per cent. |
| 1920-21 .. | 62·96 | 26·81 | 36·15 | 15·74 | 25 | 43 |
| 1921-22 .. | 55·04 | 27·30 | 27·74 | 10·79 | 19 | 38 |
| 1922-23 .. | 74·93 | 27·41 | 47·52 | 23·73 | 31 | 49 |
| 1923-24 .. | 60·07 | 27·97 | 32·10 | 33·58 | 56 | 104 |
| 1924-25 .. | 74·11 | 28·05 | 46·06 | 42·99 | 58 | 93 |
| 1925-26 .. | 115·42 | 28·13 | 87·29 | 74·73 | 64 | 85 |
| 1926-27 .. | 66·76 | 28·02 | 38·74 | 43·67 | 65 | 112 |
| 1927-28 .. | 42·04 | 28·54 | 13·50 | 36·92 | 87 | 273 |
| 1928-29 .. | 102·07 | 28·30 | 73·77 | 38·33 | 37 | 51 |
| 1929-30 .. | 70·75 | 28·50 | 42·25 | 36·76 | 51 | 86 |
| Average .. | 72·415 | 27·90 | 44·51 | 35·724 | 49 | 80 |
| 1930-31 .. | 52·05 | 29·38 | 22·67 | 17·60 | 33 | 77 |
| 1931-32 .. | 41·59 | 28·30 | 13·29 | 10·29 | 24 | 77 |
| 1932-33 .. | 32·71 | 28·30 | 4·41 | 8·62 | 26 | 195 |

## APPENDIX XII.

(*Vide* Chapter II of the Minority Report.)

### Restriction schemes in other countries.

### Sugar.

*The cause of the over-production.*—Serious indications of over-production became visible after 1923. The reason was that every country was at this time trying to make itself as independent of sugar imports as possible, while countries whose sugar production was already sufficient for domestic needs wanted further to expand their market at a time when the quantity of sugar needed by importing countries was diminishing.

*The various sugar-producing areas.*—The United States, Hawaii, Porto Rico, the Phillipines and Cuba form one group, which admits only very little sugar from outside. The British Empire is gradually growing independent of foreign importation, except that the Indies import annually about 1,200,000 tons, principally from Java, and the mother country requires about 1,950,000 tons.

Japan is self-supporting and imports only for re-exporting purposes. The European continent taken as a whole, can supply its own needs and has very little to spare of its own production for exporting elsewhere.

*The extent of the market.*—Apart from these there are left only China, Chile, North Africa, Egypt, and a few other countries as outlets for sugar. If we include these markets the world's combined import requirements can be estimated at 4,100,000 tons (1929-30). Now, Java, Cuba, San Domingo and Peru supplied a total of 4,815,000 tons for export, thus having 700,000 tons to spare.

*Cuba's efforts for restriction of output.*—Cuba, one of the largest sugar exporting countries, was the first to observe and feel the over-production. In 1925 the price of Cuban sugar was forced down to 2 cents C. I. F., New York, when the Cuban producers attempted to clear their unsold stocks. After the disposal of the stocks, however, there was a favourable reaction but when the new crop was available in the early spring of 1926, the price again collapsed. Cuba made serious attempts at restriction of output in 1926 and the subsequent years mainly as a result of which the New York, C. I. F. price averaged over 2·5 cents during 1926 and 3·31 cents at the end of the year. To prevent accumulations from further increasing the Cuban Government in 1926 ordered a general reduction of each factory's crop by 10 per cent.

*In 1926-27.*—The 1927 crop was also restricted still more drastically to 4·5 million tons and these circumstances, together with the effect of bad weather on the European and Javanese sugar crops, brought down the world's production considerably to about 1 million tons less than in 1925-26. Since, however, the root causes which had brought about the surplus production were not affected and consumption did not materially increase, the equilibrium between production and consumption was again upset, and surplus stocks accumulated in various producing centres with the result that prices did not average quite 3 cents.

*The Tarafa Commission and its negotiations regarding restriction.*—So the Cuban Government sent a Commission headed by Mr. Tarafa, to European and Javanese sugar producers with a view to inducing them to restrict their crops. But although after lengthy negotiations the European delegates promised to restrict their production, nothing came out of the promise.

*The Commission comes up against a brick wall in Holland.*—The Javanese interests, controlled by Holland, made it quite clear to Tarafa that they did not feel the pressure of the ruling prices to be so severe as to warrant any consideration of restriction measures, especially as the 30 per cent. higher yield of their new cane was so greatly reducing their costs.

*A new disturbing influence: cane of new variety (produced by hybridization).*—This, by the way, was a new disturbing influence on the sugar industry. In Java especially but also on other parts of the world, this new variety of cane alone caused an increase of 20 to 25 per cent. in the yield of sugar per acre.

*The Economic Committee of the League intervenes without much result.*—In the year 1928-29 the full unrestricted crop came to market and the total sugar production of the world was over 2 million tons more than in 1927-28, the price steadily declining to an average of 1·75 cents. C. I. F. New York for June, 1929, Cuba sugar producers its Government as also the American interests were seriously perturbed at this precipitous fall in prices. Further, there was the alarming prospect of an enhancement in the United States sugar tariff, then due for revision. But private negotiations having failed to produce a remedy, the Economic Committee of the League of Nations took up the matter.

*The Committee on cause of over-production.*—They found in their investigation that "the difficulties have been accentuated by the measures taken in many countries to stimulate the production of sugar without consideration of the effects of their unco-ordinated action on the world situation." But the Economic Committee's pleadings for joint co-ordinated action went practically unheeded. The result was rather meagre considering the great amount of preparatory work done by a large number of experts and economists.

*Another Conference at Cuban Government's initiation and why it failed.*—In July 1929 a new Cuban delegation tried to come to an agreement with delegates from German, Czecho-Slovakian, Polish, Hungarian and Belgian sugar industries and a scheme for compulsory co-operative marketing was established. But the minimum export quotas which they mutually conceded so far exceeded any idea of restriction that the scheme was never put into effect. Moreover, predominance of personal elements, inexperience of persons operating the scheme and absence of requisite finance, all combined to prevent the scheme from being any success. To add to this in 1930 came a distinct falling off in consumption. A world-wide economic and financial crisis had set in, decreasing earnings, causing millions to lose employment and occasioning a heavy falling-off in the consumption of every article generally, and of sugar in particular. In the great Russian republics, for instance, sugar consumption continued to be based on a system of extremely low rations, lower indeed than that experienced by many belligerent countries even in the worst period of the food control during the War.

*Price reaches lowest point.*—The cumulative effects of the world trade depression on consumption, and the unwillingness of merchants and speculators to carry stocks, were responsible for a huge accumulation and during the year 1930 we notice a continuous fall in prices, the lowest point of 0·94 cent. per pound being reached in September. Only a very few producers can make any profit at the price and urgent appeals were directed to the Government for assistance in the form of subsidies, intensified protection by means of duties, prohibition of imports and such like measures.

*The Chandbourne Plan (Ratified and named the "Brussels Convention of 1931").*—A new scheme was at this stage drawn up called, after the name of its promoter, the Chandbourne Plan. The plan was ratified at Brussels in 1931. The gist of the plan is (*a*) Cuba, Java, and the European exporting countries would segregate their unsold stocks (altogether about 3 million tons) at the end of the year; (*b*) the maximum export quota allotted to each would be fixed for a five year period and during the period the reduced supply of new sugar would allow the segregatd old stocks to find an outlet. If the quantities are reasonably apportioned and strictly adhered to, all the old stock, it was estimated, would be liquidated at the end of the five years' period and no new stocks will have accumulated; (*c*) Chandbourne further promised that the American producers would not increase their production beyond the present quantity.

The Chandbourne scheme promises to be successful if the terms of the convention are loyally carried out. The failure of the previous schemes of restriction had not been due so much to any defect in the principle itself as to the lapse from the terms of agreement, financial weakness or inefficient controlling of the policy. There was further difficulty in making the schemes a success inasmuch as sugar was no monopoly of Cuba and the competition was not only between Cuba and other countries, but also between low cost American owned mills and high-cost Cuban owned mills. Although some may advocate *laissez faire* in these circumstances it cannot be denied that restriction of production is the only right form of control where no stock-holding scheme may be large enough to keep the market free from the excess of supply.

## Rubber.

### *History of restriction.*

After the rubber boom (in 1910) when the price touched 12*s*. 9*d*. and averaged 8*s*. 9*d*. for the whole of 1910, capital was poured into the plantation industry. The only proved areas suitable for rubber planting were under the British flag and London was the centre directing the development of the new industry. The year 1910 was the turning point in many respects. The rising price level of the previous ten years was replaced by a downward trend. In 1917-18 the local prices of rubber in the East fell owing to the scarcity of shipping, although there was a good demand in America and other countries. With the Armistice, shipping was released and there was violent fluctuation in prices and considerable improvement in the situation. In 1918 the Rubber Protection Commission was appointed in Malaya with Sir George Maxwell as president. This commission drafted a scheme for Malaya and the Netherlands East Indies, but after the Armistice the scheme was abandoned. Within less than two years from then, the Rubber industry had to face the worst slump which was partly due to general trade depression in 1920 but was largely due to improved manufactures of tyres. The new cord tyres replaced the old fabric tyres, and although it required more rubber to manufacture the cord tyres, the consumption of rubber did not materially increase as these tyres were much more durable than fabric tyres. In the summer of 1920, following the collapse of the post-war boom in America, prices touched as low as 10 *d.* The Rubber Growers' Association promptly called upon its members to restrict their output by 25 per cent. for one year from November 1. The effects on prices of this restriction were less than what were anticipated because (1) manufacturers found themselvs with large forward commitments of crude rubber at prices ranging from 2*s.* 6*d.* to 3*s.* per lb. and (2) because native plantings had increased supply which intensified the fall in prices. Then on October 24, 1920, the Colonial Secretary appointed the now famous Stevenson Committee by way of a belated reply to the Rubber Growers' Association's request for compulsory restriction as the Association found that owing to multiplicity and diversity of the nationality of producers, neither an immediate curtailment of shipments nor an effective voluntary scheme of restriction of output was possible. In 1921 the stocks of crude rubber were abnormally heavy and the situation in Malaya and Ceylon was fast heading to a crisis. The United Kingdom Government at first refused any State action, but when the revenues were dwindling, the unemployment figures were tremendously increasing, and, as a matter of fact a huge American combine was formed with a capital of £50,000,000 to buy estates at knockout prices, the Government could not but make definite attempts to avert the dangerous situation, as much in their own interests as in the interests of the rubber planters.

The Stevenson Committee put forward two schemes. The first was similar to the scheme of the F. M. S. Protection Commission of 1918. The second scheme was Lord Stevenson's own proposal for a restriction of exports by the imposition of a graduated scale of export duties rising to prohibitive rates if exports exceeded the amount fixed under the scheme and varying with the percentage of standard production to be assessed annually for each estate by committee in the East. The percentage of the "Standard production" which each estate could export on paying the minimum export duty during any quarter was to be determined by the average price of "standard quality, smoked sheet" in the London market during the previous quarter. The initial percentage was fixed at 60 which meant that for the first quarter in which the scheme was in operation, each state was allowed to export, at the minimum rate of duty, 60 per cent. of its "standard production." This percentage would be automatically regulated on a fixed basis according to the prevailing price of rubber. The percentage rose up to 65 during the third quarter of operation of the scheme and after some variations came down to 50 at the end of 1924, inducing severe shortage of rubber in 1925 when there was a sudden increase in the demand for rubber. The scheme was then modified fixing the percentage of the standard production at 60, whatever the price might be.

The Stevenson Scheme was meant to bring to the producers a price which would permit the estates to be maintained in good order and keep the industry going on with a moderate profit. Although the Dutch planters refused to come under the scheme, the British Estates in the Dutch East Indies, representing 25 to 30 per cent of the local output, as also the growers in Sarawak, Borneo and Southern India voluntarily agreed to observe the restriction plan if it were compulsorily applied in Ceylon and Malaya. The American maufacturing interests did not welcome the Restriction Scheme, but all the time they were urging for the stability of prices. They could have indeed done a great deal towards the stabilisation of prices at a comparatively low level, had they regulated their buying policy according to the provisions of the scheme. But instead, they suddenly contracted their buyings, expecting evidently that the Stevenson Scheme was not going to be put in force. In November 1922, when the scheme came into operation, they were short of rubber—as a result of which the price was pushed up by the speculators for a time after which it came down again in the last half of 1924. In 1925 the new low pressure tyre was considerably in demand and as these tyres required more rubber, the consumption of rubber increased with the result that price went up until in 1926 exports at full standard production was permitted.

But what appeared to be blessing to the producers as also to the manufacturers was, in fact, a curse, for the violent price fluctuations of 1925 were mainly responsible for the crisis that followed. American tyre manufacturers, apprehending a shortage in supply, were buying forward in 1926 round about 4*s.* a lb. but the price dropped to 1*s.* 9*d.* about six months later which meant an enormous loss to them. The current demand for tyres also considerably came down and the manufacturers ceased to buy rubber as they had already heavy stocks. When price dropped so low as 1*s.* 9*d.*, the scheme was recast (in 1926) but it failed to achieve its purpose owing to several factors, such as the economy propaganda in the United States, manufacture of cheaper tyres from reclaimed rubber, larger use of low pressure tyres which did not contain more rubber than the old high-pressure tyres. The rubber industry is having a very bad time since then and the little relief that the manufacturers had in 1928 and 1929 from the increased replacement demand of the low pressure tyres, was but temporary. In November, 1928, the price of rubber in the London market fell to 8·52 pence a lb. and all schemes of export control were abandoned that year. It is, however, to be noted that not a little responsibility for this tremendous fall in prices lies with the Dutch East Indies producers who went on their way in increasing their individual production without paying any heed to the crisis that was threatening the industry.

*Cause of failure of the scheme.*

The history of rubber restriction by Great Britain will show that the failure of the schemes was due to circumstances peculiar to the industry itself and cannot be advanced as an argument against artificial control of all raw material supplies:—

(1) Difficulties arising from the existence of a number of interests, and a number of sources of supply. Britain might be restricting her production in British Malay and Ceylon. But the Dutch or the native growers would not necessarily follow suit. On the contrary, it has been found that almost in every year of the Restriction these latter came out with increased outputs.

(2) Difficulties arising from the antagonistic interests of the growers and the manufacturers. The Rubber manufacturers of United

States of America were up in arms from the very outset. They were too loud in their proclamations of an inevitable rubber shortage, so much so that the Congress instituted a survey regarding the anticipated rubber shortage. And later President Hoover began a campaign for rubber economy—with the result that in 1924 United States of America used 76,000 tons of reclaimed rubber as an economy measure and this campaign certainly had some share in reducing American annual absorption of crude rubber by 25,000 tons.

(3) Smuggled production and exports went on a considerable scale.

(4) Restriction of output was made difficult and complicated owing to the existence of previously accumulated stock whose actual quantity could not always be properly gauged.

These are among the chief difficulties due to which the restriction scheme côuld not give much of stability during the years of its existence and these were the difficulties for which it was ultimately abandoned. But a *laissez faire* policy for that reason, does not command itself.

*Resurrection of artificial control inevitable.*—Competent observers who have watched the developments in recent years "feel some real confidence in prophesying a resurrection of artificial control, perhaps at no distant date. Neither producers nor consumers can contemplate with equanimity an indefinite continuance of such instability as has characterised the rubber industry up to the present time," and further experiments, they think, will inevitably be made in conscious control before we can feel satisfid of the superiority of the unconscious control of *laissez faire.*

## Copper.

*Producing and consuming areas.*—In 1929 about 75 per cent. of world's output of copper came from United States of America or from the mines in Latin America. Other producing areas are Belgian Congo and Canada.

Principal copper-consuming countries are the United States of America, Germany, Great Britain and France.

Few important raw materials have in the last three quarters of a century witnessed a greater number of revolutionary changes in their sources of supply, their methods of recovery, and their uses, than copper. It is principally used in the production and distribution of electrical energy, a use which was unknown to the world even 60 years ago.

*Attempts to control copper prices.*—During the last 60 years—four major attempts have been made to control price of copper, three of these being of American origin and the fourth being the famous Secretan Syndicate, engineered primarily by French interests.

*The Secretan Syndicate.*—Secretan Syndicate which came into being in 1887, made agreements with the largest of the American producers to sell all their out-put to it at stated prices (about 17 cents a pound). It is to be noted that the Syndicate did not attempt to regulate production at the source. In the following year the consumption declined, and scrap copper (as distinguished from virgin copper) began to come on the market in increasing quantities. The year 1889 was not far advanced before the Syndicate found itself in possession of more copper than it could continue to hold.

*Attempt by "United Metals."*—In the same year an attempt was made by what was called the "United metals" which announced its intentions of bestowing on manufacturers the blessing of a stabilised price for copper and as a matter of fact, succeeded in 1900 in raising price above 19 cents a pound. But the price was not to be permanent. Output rose in the United States of America, Mexico, Canada and elsewhere, while buyers restricted purchases and scrap copper again began to come on the market, and what was worst of all, a market, recession in German copper consuming businesses set in.

*Copper Exporters, Copper Institute, 1926-27.*—In 1926 Copper Exporters Inc. formed an organisation which comprised most of the important American producers and refiners, including their Latin American subsidiaries, and certain foreign producers, notably Canadian mines and Katanga, and certain West European interest. The object of the organisation was to control the sale and price of copper to European consumers (which indirectly would considerably benefit American consumers as well).

In 1927 was formed the Copper Institute, for collection and dissemination among its members of statistics of copper production, consumption and sales. Armed with these facts, "Copper Exporters Inc.". could exert such control as had never before been possible in the copper industry.

Due mainly to the efforts of the "Copper Exporters Inc." between June 1927 and April 1929, price of copper was raised from 12½ cents to 24 cents a pound and was then stabilised at 18 cents, where it remained just 52 weeks. In April 1930, stabilisation was ended and the price was allowed to drop from 18 cents to 12½ cents in three weeks, and in the 17 months following the end. of stabilisation, "Copper Exporters Inc." has changed its official price 54 times.

It is significant to note that the curtailment of output which took place in 1930, was not universal but was arranged only between American Mines and their Latin subsidiaries. According to the American Bureau of Statistics there was a decline in world production of over 375,000 tons in 1929-30. But the good influence which this shortage in output was likely to exercise was neutralised by the output in the Eastern Hemisphere which produced more copper than ever before in its history. The recent story of failure fits almost perfectly into the framework of the facts of the earlier episode like the failure of the Secretan Syndicate in which case the existence of too many sources of supply baffled the attempts of any successful control. There was too much African and Canadian copper ready to take the place of any American copper that would not come on the market. The story of failure in case of copper is not very different from that in the case of other raw materials the sources of supply of which were too widely distributed over the world to be effectively controlled by any scheme of restriction.

## Wheat.

*Cause of low prices.*—Heavy supplies, in excess of ordinary requirements, are responsible for the fall in prices. Production has been so large and so wide-spread that prices are likely to rule low for several years. The fall of values has been made more acute by return of Russia as a large exporter.

Explanation of decline in wheat values would be incomplete without reference to very important increase in European rye production, rye being to some extent substitutable for wheat.

*Schemes for combating low prices.*—(1) United States of America voted a big sum of money to stabilise prices and help farmers hold for a rise.

(2) *Canadian Provincial Governments* guarantee bank advances to the Pool.

(3) *Germany* had in operation for many months a system of import permits against exports.

(4) *France* facilitated exports by so-called refund of import duty.

[(3) and (4) in practice gave a bounty on exports.]

(5) Import duties were greatly increased in many countries, and to make the duties really effective the quota system was devised and extended.

*The working of the schemes.*—Government schemes to help cereal growers, as a whole, have failed except where nature has helped by giving a crop below the country's consumptive requirements. And no exporting country has yet devised a satisfactory scheme for keeping home prices high whilst selling abroad at a lower international price.

Of the scheme adopted by European countries the German scheme had to be modified as the drain on the national treasury was too great. The French scheme taxed Frenchmen in order to send cheap wheat to foreign consumers, which was subsequently needed at home.

Almost all growers seem to be in favour of the Quota System—because it compels the millers to mill a certain quantity of their wheat week by week. Millers, however, are naturally free traders as regards wheat, because they need the best and cheapest raw material in order to furnish really good flour to customers.

Quota System, it has been found, would not work well without a high tariff.

## Coffee.

Broadly speaking artificial control of coffee has now been exercised continuously for thirty years. After various temporary experiments the Government of Sao Paulo and the producers of the State agreed to the establishment of the control on a permanent basis in 1924. The history of what Brazilians call "Coffee defence," *i.e.*, measures adopted for the neutralisation of the influence of the crop variations on the short period prices received by the producer—as distinct from "valorisation" *i.e.*, prevention of a temporary fall in price which would, if it occured, be balanced by a temporary rise later really begins in 1921. Of course a valorisation of project was started in 1870, but it proved a failure. The first well planned valorisation scheme, the basic principle of which was the establishment of an artificial equilibrium between supply and demand through the withdrawal of the surplus supply from the market, was started in 1906 to meet an excessive expansion of capacity (coupled with a precipitous fall in price) and rendered absolutely critical by the prospect of a huge bumper crop. The

Government of Sao Paulo was greatly perturbed by the alarming situation, and to secure for the planters a price that would at least keep the coffee industry going, decided to buy up the next crop at a little above the market price and to store it up till there was a rise in price. The Federal Government, however, when called upon refused to do its part on the financial side of the project. It was, therefore, that the Sao Paulo Government was compelled to look for outside help and in the course of next two years raised a loan in the foreign markets. The Government also entered into a contract with a syndicate of coffee merchants in Europe and United States of America headed by Hermann Sieleken. According to the terms of this contract the Syndicate were to advance 80 per cent of the funds required to buy 2 million bags of coffee at a fixed price of 7 cents per lb. with the proviso that Government were to withdraw from the market so long as the price would be higher than 7 cents, but would make good the difference when the price would fall below 7 cents. It seemed at first that the situation would be saved by this arrangement. But the next crop was abnormally heavy, the price came down to 6 cents and although the Government, under the terms of the Agreement bought off 7 million bags in addition to their quota of 2 million bags, the price showed no sign of a rise. The Government soon ran short of finance and the scheme had consequently to be abandoned. In 1908, a new plan known as the Sieloken plan, was adopted, under which the Government was authorised to raise a loan from a syndicate of foreign bankers to be utilised in paying off the previous loan and for the purpose of the current and future requirements. Planting of new coffee trees were legally prohibited, quantity of the export was fixed for the next two years and the Government agreed to purchase 10 million bags on its own account and to hold it off till a rise in prices would be visible. The control of the Government's purchase was vested in an International Committee with power to issue bonds. As a result of this arrangement, there was a big advance in prices which steadily increased, and the scheme was eventually dropped.

The second valorisation scheme of which the principles were generally the same as before was taken up in the second half of 1917 when actual and prospective supplies were so heavy relative to the demand that the price began to fall rapidly even from an existing sub-normal level. This time, however, the Federal Government agreed to issue paper money as loan to the Sao Paulo Government and the scheme met with an enormous success.

The third valorisation which was also carried to a successful conclusion, was primarily the outcome of the reaction of the post-war slump in the United States and the worldwide deflation in prices. The situation was quite different this time, as the scheme was now meant not to meet difficulties arising from a bumper crop or any excess of capacity but to arrest the terrific fall in price. With the concerted efforts of Sao Paulo and the Federal Governments the process of valorisation had been successfully accomplished this time also and by February 1924, the huge purchase of coffee was liquidated. The situation, so far as Brazil was concerned, became distinctly easier and there was also a marketable increase in consumption. The study and fair price which were received by the producers in Sao Paulo under the valorisation schemes encouraged plantations in other countries. This was a cause for some uneasiness to the Brazil Government which depended on coffee for meeting 70 per cent of its foreign obligations and to ensure continued protection of coffee there was established in 1925. The Institute for the permanent Defence of coffee, which would regulate the amount of coffee entering Santos each day, any surplus to market requirements being stored in special Government warehouses thus reducing the strain which the regularisation of the supplies were likely to place upon the planters. The funds required for financing the scheme were raised by foreign loans, and tax on every bag leaving the producing centre was imposed, the proceeds being set apart for the liquidation of the loan. During 1923 and 1924 this regulation of entries and the disposal of accumulated stocks were conducted conjointly, so that the market was at no time over-supplied either by the liquidation of stocks or by the surplus of crop. Meanwhile a change had taken place in the political situation and as a result of prolonged discussions and negotiations the task of "Defence of the Coffee" was handed over to the Government of Sao Paulo.

During the two year 1925-26, the Sao Paulo Coffee Institute controlled the situation by (i) the regulation of Santos entries and by (ii) market intervention. But during these years the supplies were short of the demand, and the maintenance of prices at a relatively high level was more due to natural economic factors than to artificial control though the latter was responsible to a large extent for the curtailment of heavy fluctuations in prices. But in 1927 there was a bumper crop, the none too happy prospect of a huge carry-over persuaded the coffee producing states to join with Sao Paulo to meet the situation by adopting measures of control. It was arranged that distribution of coffee would be regulated by placing maximum stocks at Santos, Rio de Janero and three minor coffee ports and the quota of new entries for new port in any month was to be determined by reference to quantities actually shipped during the previous month. Surplus stocks were to be retained in the warehouse in the interior and advances to be made on them to growers through the Banco de Estado Paulo. The measure, so far as it went, was good, but in absence of adequate finance the price was obstinately falling till at last provision of additional supplies of money from London helped to tide over the crisis.

*Lack of finance causes failure.*—The relief was temporary and the situation again began to darken. The superficially satisfactory and hopeful appearance of affairs in the early part of 1928 was completely destroyed by the next bumper crop and a crash actually came in 1929, when the Institute and the Banco de Estado Paulo ran short of funds for discounting the bills of lading and foreign assistance was not forthcoming as on previous occasions. The crash was not merely a market break, precipitated by the enemies of coffee Defence, as some would think it to be.

*Failure not an argument against control.*—Failure of the Coffee Defence Scheme is too often advanced as an argument against all sorts of artificial control of raw materials. This, however, is not the correct view. The causes of the failure should always be examined with reference to the existing circumstances.

*Causes of failure.*—In the first place adequate attention was not paid to regulate production the factor which was mainly responsible for the success of the earlier valorisation schemes. Besides the influence of the Defence Scheme in raising prices above the average level which would have ordinarily obtained, was greatly overestimated. The producers did not see that the higher prices were more or less due to natural economic factors and that the defence scheme was only performing the primary function of averaging out variations. It must also be pointed out that too much attention was paid during the latter years to artificially raise the prices, which was responsible for larger new plantings.

• The control of the scheme was not free from political influence. Corrupt practices of different kinds were prevalent in the Santos market as also in the regulating warehouses.

In the third place, the financing of current crop when it was despatched to the regulating warehouses was done in a very high scale, and it was this high financing which put a large cash in the pockets of the producers and strained the credit resources of the country and compelled to resort to larger foreign borrowings. Excessive financing was also responsible for extensive new plantings by the producers whose popular idea was that consumers would pay the costs involved in the defence scheme, and was believed that prices would be permanently maintained at a profitable level instead of dropping periodically. The institute also did not take any step to prohibit new plantings at the early stage and when it did so, it was too late. A study of the situation suggests unmistakably *that a control scheme must provide for the direct regulation of the additions to capacity, and to be really successful, the artificial control must completely replace the laissez faire.* The failure of the Coffee Defence is, therefore, no reflection on the principle of control itself but is due to certain defects in carrying out the scheme.

Another reason for the failure was that the Government of State of Sao Paulo used the "Defence" for political purposes and kept up the pretence that all was well in spite of the danger ahead. It is, therefore, advisable that in artificial control schemes Government should not have the upper hand as sooner or later economic considerations will be subordinated to political expediency.

*Increased production in other countries.*—Another factor responsible for break down of the defence scheme was the increased production in other countries under the stimulus of high prices. The large increase in the production of mild coffees must have had its reaction on the demand of Brazilian coffees, which would have been greater had there been no such increase.

*Brazil coffee not a monopoly.*—Thus Barzil had no monopoly of the trade, and the Institute should have taken steps to suppress the growing competition from the mild countries by enduring a period of low prices with a view to maintain her monopolistic position. This she did not do and the mild countries were enabled to deal her a serious blow. Although Brazil is undoubtedly the cheapest producer of coffee, it is of no avail to her, for the world now prefers the mild coffee produced by her competitors. Even though improvement is possible in the quality of coffee produced by Brazil any large consumption cannot be expected as long as the mild favour will not be imparted to the Brazilian coffee by synthetic process or otherwise. The artificial control scheme had every chance of being successful, if the Brazilian coffee was really a monopoly in the same sense as the jute trade of Bengal is.

# APPENDIX XIII.

## Legislation on Standardisation of Quality.

(*Vide* page 123 of the Report).

No. 1341-Com., dated Calcutta, the 2nd March 1933.

From—R. N. Gilchrist, Esq., M.A., I.E.S., Joint Secretary, to the Government of Bengal, Commerce and Marine Departments,
To—The Secretary to the Bengal Jute Enquiry Committee.

In 1929, the local Government was addressed on the subject of legislation to fix definite standards of quality for all dealings in jute. The opinions of the various commercial bodies were obtained on the proposal, but as the Government of India had under consideration at the time a proposal for the formation of a Central Jute Committee, further consideration of the proposal by the local Government was held in abeyance. The formation of the Central Jute Committee has not yet materialised; meanwhile the Indian Chamber of Commerce in their letter No. P.A. 41/31, dated the 25th July 1932, revived the proposal that the local Government should legislate to standardise the quality for all dealings in jute. In view, however, of the action being taken in connection with the Resolution carried in the Bengal Legislative Council on the 1st February 1932 for the appointment of a committee to examine the economic depression in Bengal, it was considered that the proposal of the Chamber was one which might suitably be investigated by the committee the appointment of which was in contemplation.

The terms of reference of the Bengal Jute Enquiry Committee include the investigation of the jute problem in all its aspects and as the proposal of the Indian Chamber is regarded as falling within the scope of the second term of reference, I am to forward the Chamber's letter, dated the 25th July 1932, with the request that the proposal may be duly considered by your Committee.

Copies of the opinions and the original proposal of Mr. Khaitan submitted in 1929, as detailed below, are also enclosed for the information of the committee:—

(1) Letter, dated 28th January 1929, from Mr. D. P. Khaitan.

(2) Letter No. LL-32, dated 22nd April 1929, from the Bengal National Chamber of Commerce.

(3) Letter No. 1570-1929, dated 25th April 1929, from the Bengal Chamber of Commerce.

(4) Letter No. PA-14/29, dated 24th April 1929, from the Indian Chamber of Commerce.

(5) Letter No. 36-1929, dated 30th April 1929, from the Marwari Association.

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No. P.A. 41/31, dated Calcutta, the 25th July 1932.

From—The Secretary, Indian Chamber of Commerce,
To—The Secretary to the Government of Bengal, Commerce Department.

I am directed by the Committee of the Indian Chamber of Commerce, Calcutta, to invite your very careful attention to a very important question, viz., of the absence of definite standards of quality for dealings in jute, which has been engaging the attention of the jute trade for the last several years. My Committee do not propose to explain here as to how in the absence of definitions the buyers are able to manipulate the standards in such a way as to bring about an imperceptible fall in the price of jute by making the sellers deliver superior quality of jute against contracts for inferior quality. A reference to the speeches delivered at the annual meetings of the Federation of Indian Chambers of Commerce and Industry, the evidence of the Indian Chamber of Commerce, Calcutta, before the Bengal Provincial Banking Enquiry Committee and the correspondence exchanged between the Bengal Jute Dealers Association and the Indian Jute Mills Association over the question will give all the necessary information.

In the year 1928 the Bengal Jute Dealers Association carried on a strong agitation for the establishment of definite standards of quality, but owing to the opposition of a section of the Indian Jute Mills Association the desired reform could not be introduced. The Federation of Indian Chambers of Commerce in their meeting held in December 1928 recommended to the Government that the proposed Central Committee for jute should amongst other things try to promote legislation for the fixation of permanent standards of quality for all dealings in jute. In its next annual meeting the Federation passed the following resolution:—

"In the opinion of the Federation the absence of definite standards of quality for dealings in jute is very harmful to the interests of the cultivators and to the large body of merchants engaged in the jute trade. The Federation therefore requests the Government of India to take early steps to bring about the establishment of a Jute Grading Board on the lines of the Philippine Grading Board for hemp."

A meeting of the various jute interests, namely, importers, balers, shippers and brokers was held on the 25th of January 1929, which was presided over by Mr. D. P. Khaitan. The meeting passed the following resolution:—

"That the Government of Bengal should introduce legislation at the earliest possible opportunity to fix definite standards of quality for all dealings in jute as has been done by the United States of America Government by passing the Cotton Standards Act."

The Government of Bengal submitted this proposal to the various commercial associations in Calcutta for their opinion. The result of that reference was not made known to the jute trade, but so far as the Indian commercial opinion was concerned it was very strongly in favour of having some legislation for the establishment of jute standards.

The Bengal Provincial Banking Enquiry Committee who went into this question has said "that owing to the loss suffered by the cultivators the standards should be made definite by some special legislation on the lines of the American Cotton Standards Act."

The Central Banking Enquiry Committee discussing the question of fixation of jute standards also observed "in view, however, of the great importance to the producer the standards should be fixed as early as possible and we further recommend that the local Governments concerned should take prompt steps for the fixation of proper standards of jute."

As a result of the agitation carried on by the Bengal Jute Dealers Association, the pressure of public opinion and at the recommendation of the Bengal Chamber of Commerce, the Indian Jute Mills Association on the 22nd of June 1929 issued a circular No. 64 D according to which the marks for all future seasons whatever the quality of the season were to be 1's, 2's, 3's, 4's and 'Rejections' and that 'Rejections' was to be the lowest mark. The Jute Mills Association have not adhered to this circular of theirs, with the result that standards have continued to change as before and the sellers of jute are in the same disadvantageous position in which they were before the circular was issued. Even during the season 1929-30 a new grade called Low Rejections was invented. In the season 1930-31 another grade called X.L.R's was introduced. As a result of these two new grades 'Rejections' which according to the circular referred to above was to be the lowest mark has now become the highest mark. In the season 1931-32 there was very little business for the grade "Rejections" and almost all dealings have been carried on under the grades L.R's and X.L.R's.

Unfortunately in India, European and Indian commercial interests do not co-operate with each other even when their interests are common. The attitude of the Calcutta Jute Dealers Association towards the question of standards is a case in point. In the year 1928 when the Bengal Jute Dealers Association which represents the Indian sellers took up a very strong attitude over this question, the European sellers though they themselves keenly felt the want of clear difinitions for all grades refused to co-operate with the Indian merchants. But now the European merchants and brokers who are generally reluctant to say anything against the Jute Mills have been compelled to adopt a very strong attitude as they have lost large sums of money during the last two years partly due to variation in the quality of standards. A joint meeting of the Calcutta Jute Dealers Association and the Bengal Jute Dealers Association was recently held and it was unanimously resolved that no contracts should be made with the jute mills except on warp and weft guarantees. We understand that the mills refuse to buy on the new terms and are keeping out of the market to force the sellers to sell to them on the "Standard of the Mark" basis which has been condemned by even some of the mills as a very unfair basis of dealing.

The indifference of the Government of Bengal towards this question is to be regretted. They have failed to consider the representations made to them by the united commercial opinion of India and the recommendations of both the Provincial and Central Banking Enquiry Committees.

The Philippine Islands Government have passed an Act under which they have set up a Hemp Classification Board and no hemp can leave the shores of those islands without being classified by that Board and the foreign buyers are compelled to accept that classification. The United States of America have passed a Cotton Standards Act whereby they have made it a penal offence for any subject of the States to deal in cotton except on the standards by that Act.

My Committee hope that the Government of Bengal will give the matter their serious consideration and introduce legislation at the earliest possible opportunity to remove the present iniquitous basis of trading between the buyers and sellers of jute.

Letter, dated Calcutta, 28th January 1929.

From—D. P. Khaitan, Esq.,

To—The Secretary to the Government of Bengal, Commerce Department.

A meeting attended by representatives of the various jute interests, namely, Importers, Balers, Shippers and Brokers, was held at the rooms of the Indian Chamber of Commerce, 135, Canning Street, on the 25th instant presided over by me.

I beg to give below a copy of the resolution unanimously passed at the meeting for favour of consideration and action by the Government.

*Resolution.*

"That the Government of Bengal should introduce legislation at the earliest possible opportunity to fix definite standards of quality for all dealings in jute as has been done by the United States of America Government by passing the Cotton Standards Act."

In forwarding this resolution, I would like to draw your attention to the fact that this question is of a very great importance to all jute merchants. In the absence of definite standards of quality the sellers are always at a loss to know as to what they are expected to tender against their contracts. The quality of jute to be tendered against the various grades under which all jute transactions at present are carried on, varies not only in the different seasons but in any one particular season too there are frequent changes. I am sure you will agree with me when I say that a measure of value which is liable to frequent changes, is not a desirable thing in the interest of any trade.

I am also sending herewith a copy of the Act passed by the American Senate in the year 1923 and which is known as the United States Cotton Standards Act. You will see therefrom that it is a criminal offence there to buy or sell any cotton except on standards fixed by that act.

There is no reason why the Government of Bengal should not also pass a similar Act to protect the interests of the cultivators and the jute traders.

SERVICE AND REGULATORY ANNOUNCEMENTS.

## APPENDIX.

### United States Cotton Standards Act.*

*Excerpt from the Act approved February 10, 1925, making appropriations for the Department of Agriculture for the fiscal year ending June 30, 1926, and for other purposes. (Public No. 390, 68th Congress.)*

To enable the Secretary of Agriculture to carry into effect the provisions of the United States Cotton Features Act, as amended March 4, 1919, and to carry into effect the provisions of the United States Cotton Standards Act, approved March 4, 1923, including all expenses

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*See Appendix IB, page 23.

necessary for the purchase of equipment and supplies; for travel, for the employment of persons in the city of Washington and elsewhere, and for all other expenses, including rent outside of the District of Columbia, that may be necessary in executing the provisions of these Acts, including such means as may be necessary for effectuating agreements heretofore or hereafter made with cotton associations, cotton exchanges and other cotton organisations in foreign countries for the adoption, use and observance of universal standards of cotton classification, for the arbitration or settlement of disputes with respect thereto, and for the preparation, distribution, inspection, and protection of the practical forms or copies thereof under such agreements.

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No. LL-32, dated Calcutta, the 22nd April 1929.

From—The Honorary Secretary, Bengal National Chamber of Commerce,

To—The Secretary to the Government of Bengal, Commerce and Marine Departments.

I have the honour to acknowledge receipt of your letter No. 1320-27 Com., dated the 19th February 1929, forwarding the enclosures noted below and inviting opinion of the Chamber on the necessity for the proposed legislation for fixing standards of quality of jute:—

(1) Copy of a letter addressed to the Government of Bengal by Mr. D. P. Khaitan, dated the 29th January 1929.

(2) Copy of the American Cotton Standards Act of 1923.

The Committee of the Chamber have given the proposal their most anxious consideration and generally approve of the principle underlying the same. The various standards which serve as the basis of transactions are almost an essential need for the modern era when markets are being daily widened and are assuming an international character through improved methods of organisation. In the opinion of the Committee there can hardly be any objection to the principle of standardisation as it seeks no more than to check unfair dealings in commercial transactions. It is now an accepted principle of Economics that the fluctuation in the value of money is undesirable in so far as it unsettles the normal conditions of trade by either giving it an artificial stimulus or by acting as an impediment to its healthy growth. It is on this ground that the inflation or deflation of currency, when either is artificial and is not designed to maintain the level of prices, is viewed with grave concern by particular sections of the trading community. Such manipulation of currency must be regarded as most objectionable as it hoodwinks the public by tampering with the value of their money-holding when they have not the least knowledge of the fact and are still relying on the money unit as the standard of value. If that is so in the case of money it is no less imperative that the qualities of commodities should be standardised for it is easy to see that an unsteadiness in respect of the latter has the same effect as a fluctuation in the value of currency. In fact the two are identical phenomena relating to price which is an equation between money and commodity, only that they have reference to the opposite sides of the equation.

The Committee of the Chamber are, however, aware of the fact that it is not expedient to multiply the number of standards indefinitely and that sometimes reliance has to be placed on the prevalent customs of the market and even on individual integrity. But so far as jute in Bengal is concerned the Committee are emphatically of opinion that it does not come under the category of ordinary goods and that it deserves special consideration on more than one ground. Jute constitutes the most important commercial product of the province and the interests involved in the fibre directly or indirectly affect almost the whole population of Bengal. There perhaps it is the one article in which the dealers are divided into various camps of conflicting interests and of remarkably unequal strength. On the one extreme are these poor, ignorant and isolated cultivators and on the other the closely knit group of the powerful non-Indian shipping houses whose monopoly of information regarding the world market and immense financial resources and the consequent staying capacity put them on a vantage ground. The combination of these two circumstances alone is sufficent to establish the need for such a legislation as will guarantee the *bona fides* of all dealings in jute, as least so far as the quality of supply is concerned. It has been brought to the notice of the Committee by some members of the Chamber that the quality of jute to be tendered against contracts of sales under specified grades varies in different seasons, and that even in one particular season such changes of quality are not altogether unknown. The Committee of the Chamber understand that these changes give the suppliers almost a surprise and that they invariably entail a loss on them by requiring them to deliver a better quality than had been originally contracted for. The loss incidental to such arbitrary changes has its natural repercussions on the whole jute trade and it is sought to be shifted backward over to the minor intermediate vendors till at last it reaches the cultivator. The Committee of the Chamber condemn such manœuvres and accord their support to the proposal which seeks to ensure fixity of qualities by an Act of legislature.

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No. 1570—1929, dated Calcutta, the 25th April 1929.

From—The Secretary, Bengal Chamber of Commerce,

To—The Secretary to the Government of Bengal, Commerce Department.

I have the honour to acknowledge the receipt of your letter No. 1320-27 Com., dated the 19th February 1929, forwarding copies of a letter, dated 28th January, from Mr. D. P. Khaitan and of its enclosure, and inviting the views of the associations specified by you and the views of the Chamber, regarding the proposal for legislation to fix standards of quality of jute.

2. In reply, I am directed to inform you that the papers forwarded with your letter were sent to the associations for consideration, and I

am to send you, for the information of the Government of Bengal, copies of the following letters received from these:—

(a) Letter, dated 15th March, from the Indian Jute Mills Association.

(b) Letter, dated 27th March, from the Calcutta Jute Dealers' Association.

(c) Letter, dated 28th March, from the Calcutta Baled Jute Shippers' Association.

(d) Letter, dated 9th April, from the Calcutta Baled Jute Association.

It will be observed that the associations are all opposed to the suggestion that legislation should be introduced for the purpose of fixing standards of quality, and I am directed to add that the Committee of the Chamber are in agreement with this view.

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## Proposed Legislation for fixing standards of quality of jute.

*Letter No. 138 D., dated the 15th March 1929, from the Indian Jute Mills Association to the Bengal Chamber.*

I am directed to acknowledge the receipt of your letter No. 892, dated 4th March 1929, in which, at the request of the Government of Bengal, you invite an expression of this association's views in regard to the necessity for fixing standards of quality of jute by legislation on the lines of the United States Cotton Standards Act of 1923.

2. The Committee have carefully considered the accompaniments to the Government of Bengal's letter to you No. 1320-27 Com., dated 19th February 1929, a copy of which you forwarded, and they have noted the terms of the resolution—out of which the suggestion for legislation arises—passed at a meeting of certain jute interests held in the rooms of the Indian Chamber of Commerce on 25th January 1929. They direct me to say that the Indian Jute Mills Association would be strongly opposed to any legislation such as is recommended in the resolution on the grounds (a) that, bearing in mind present and established custom, legislation is unnecessary, (b) that in any case it would be impracticable, hampering to the trade and would involve unforeseen difficulties and hardships and (c) that, unless in exceptional circumstances or where it is the outcome of a unanimous desire on the part of the trade as a whole--and this condition applies forcibly to the proposal at present under consideration—Government interference with the internal organisation of an industry is to be deprecated. The Committee therefore trust that the Chamber, in replying to the Government of Bengal, will see fit to offer strong opposition to any suggestion that legislation should be introduced for the purpose of fixing standards of quality of jute.

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*Letter No. 45 L.J., dated the 27th March 1929, from the Calcutta Jute Dealers' Association to the Bengal Chamber.*

I am directed to acknowledge the receipt of your letter No. 895, dated 4th March 1929, enclosing copy of a letter No. 1320-27 Com., dated 19th February, and its accompaniments from the Government of Bengal, Commerce Department. You ask for an expression of the opinion of this association on the proposal contained in the accompaniments to the Government of Bengal's letter on the question of the necessity for legislation for fixing standards of quality of jute.

2. My Committee are strongly in favour of standards of quality being fixed, but they deprecate the idea of Government introducing any legislation on the subject. They consider that the matter of fixing standards of quality is one for arrangement between buyers and sellers and, in this connection, I am to say that for some years past this association has been endeavouring to get mills to set some definite standards on which sellers could work. It was previously the custom of the trade to stipulate in all contracts that the jute to be delivered would contain a certain percentage of sacking warp but, towards the end of 1920, a difference of opinion arose between sellers and the mills as to what the different percentages should be. Every effort was made to arrive at some satisfactory working arrangement but as the sellers' ideas were not acceptable to the Mills, the percentage guarantees were abolished and it has since been the custom to sell on the standard of the mark. Negotiations are still being carried on with a view to definite standards of quality being laid down, and my Committee consider it would be far more satisfactory for standards to be fixed by the trade than for Government to introduce any legislation.

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*Letter No. 17 B. J. S., dated the 28th March 1929, from the Calcutta Baled Jute Shippers Association to the Bengal Chamber.*

I am instructed by the Committee of the Calcutta Baled Jute Shippers' Association to acknowledge receipt of your letter No. 892, dated 4th March 1929, in which you invite an expression of the opinion of this associaton on the question of the necessity for legislation for fixing standards of quality of jute such as is proposed in the accompaniments to the Government of Bengal's letter to you No. 1320-27 Com., dated 19th February 1929, a copy of which you forwarded.

2. The Committee have carefully considered these accompaniments from which it appears that the present proposals for legislation arise out of the terms of a resolution passed at a meeting of a certain section of jute interests held at the Indian Chamber of Commerce on 25th January 1929 and presided over by Mr. D. P. Khaitan. They direct me to inform you that the Calcutta Baled Jute Shippers' Association are not impressed by the recommendations set forth in the resolution and they would strongly object to any legislation having for its object the arbitrary fixing of standards of quality for all dealings in jute in India.

3. From the point of view of a Pucca Baler and Shipper any official intervention aiming at the standardisation of jute grades would be unpractical and inefficacious, the regulation of standards being a matter which can only be suitably and practically determined by the various trade interests concerned, having due regard to the circumstances involved.

4. Loose jute is automatically classified into a number of selections or grades. These are designated by respective names and descriptions which vary season by season and also from time to time during any

one season. This variation is the result of competitive trade activity and cannot be controlled, in practice, by official intervention.

5. Exports of jute overseas, which aggregated nearly 50 lacs of bales last season, constitute an important section of the trade whose interests would be emphatically endangered by any interference with existing standards which have been fixed as between Overseas Consumers and Balers in India. Public Marks have been satisfactorily dealt in for an extended period of years during which little variation has occurred, and a section of the Export Trade is engaged in the baling of Private Marks to meet the requirements of certain defined markets.

6. The United States Cotton Standards Act provides for an appeal to Washington for arbitration awards held in any foreign country, a clause which would be entirely opposed to custom and impracticable as regards the jute export trade.

7. In conclusion I am to say that the Committee trust that the Bengal Chamber of Commerce in replying to the Government of Bengal will strongly object to the introduction of legislation for the purpose of fixing standards of quality of jute.

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*Letter No. 532 T., dated the 9th April 1929, from the Calcutta Baled Jute Association to the Benagl Chamber.*

I am instructed by the Committee of the Calcutta Baled Jute Association to acknowledge receipt of your letter No. 893, dated 4th March 1929, in which you invite an expression of opinion from this association on the question of the necessity for legislation for fixing standards of quality of jute such as is proposed in the accompaniments to the Government of Bengal's letter to you No. 1320-27 Com., dated 19th February 1929, a copy of which you forwarded.

In reply I am directed to inform you that the Committee of the association have carefully considered these proposals.

The suggestions presumably have no reference to Pucca Bales which constitute the basis of the Export Trade. The various grades involved originally came into existence as suitably and practically serving the requirements of both suppliers and consumers and have operated satisfactorily and smoothly over an extended number of years. In the opinion of this association any attempted interference with existing standards as regards pucca baled jute is to be deprecated, and in any case could not be brought about unless in agreement with the Overseas Consumers.

As regards loose jute the association consider that standardisation influencing regularity of assortment is a desirable object but that this object can only be practically attained by co-operation and agreement between the associations representing the various interests of the trade.

In conclusion I am to add that the Committee are very definitely of the opinion that the establishment of standards is a question which must be left entrely to the trade to determine and that any attempt at

Government legislation introducing official intervention should be emphatically opposed.

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Letter No. P.A. 14/29, dated Calcutta, the 24th April 1929.

From—The Secretary, Indian Chamber of Commerce, Calcutta,

To—The Secretary to the Government of Bengal, Commerce Department.

I am directed by the Committee of the Indian Chamber of Commerce, Calcutta, to acknowledge receipt of your letter No. 1320-27 Com., dated Calcutta, the 19th February 1929, inviting the opinion of this Chamber as well as the East India Jute Association on the necessity of the proposed legislation for fixing standards of quality of jute, and to send to you hereby the views of my Chamber, the East India Jute Association and three other commercial bodies interested in the subject.

2. My Committee have very carefully considered the proposal and they are of the opinion that the present practice under which the quality of jute to be tendered against the grades, on the basis of which sales for forward delivery are made, is nowhere defined, is greatly prejudical to the interests of jute merchants and cultivators.

3. During the last few years there have been very frequent changes in the names of the grades and the quality to be tendered against each grade. Even during a particular season the quality to be tendered against a grade has varied considerably. A standard of measure liable to such frequent appreciations is harmful to the interests of the sellers. As a result of such appreciations the merchants engaged in the import of jute trade have to suffer heavy unexpected losses. During the course of the last few years the merchants engaged in the jute import trade have suffered very heavily, and many of them have been forced to go out of business entirely. The cultivators too owing to this change in standards are made to realise a lower price for their jute.

4. As an instance of these changes, my Committee wish to point out that during a greater part of the season 1928-29 the grade known as "Rejections" was practically the top grade and the best jute was tendered against sales made on that basis. For the season 1929-30 it is proposed by the Indian Jute Mills Association that the grade "Rejections" be made the lowest quality. The object of this change is to bring about an appreciation of the standards during the middle of the season so that sellers may be forced to deliver jute far superior to the quality originally intended to be delivered. In the course of a year or two "Rejections" will again become the top mark unless something is done to fix the standards once for all.

5. My Committee also invited the opinion of the Bengal Jute Dealers' Association, the Hatkhola Banijya Hitashini Sabha, Jute Balers' Association and the East India Jute Association. These Associations represent respectively the Indian Importers of jute for local consumption, Importers of jute for export, balers of jute for export, and general traders and commission agents dealing in jute. A copy of the reply received from each of them is appended hereto.

Out of the total imports of jute into Calcutta, more than 60 per cent. is imported by the members of the Bengal Jute Dealers' Association and the Hatkhola Banijya Hitashini Sabha. The members of the Jute

Balers' Association purchase and bale nearly 75 per cent. of the total of the jute exported from India. It will therefore be seen that these Associations have a very wide stake in the jute trade and the opinions expressed by them deserve to be very seriously considered.

All these Associations not only deplore the present system whereby merchants have to face unexpected losses but strongly advocate the fixing of standards by legislation.

6. My Committee suggest that the Government should, as a preliminary step to introducing legislation, set up a Committee representing the various sections of the trade to study the question thoroughly and to make suggestions for the introduction of legislation best suited to the particular conditions prevailing in this province.

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*Copy of a letter, dated the 6th April 1929, from the Secretary, East India Jute Association, Limited, to the Secretary, Indian Chamber of Commerce, Calcutta.*

With reference to your letter No. P.A. 14/29, dated the 19th of March 1929, forwarding copy of a letter No. 1320-28 Com., dated the 19th February 1929, from the Government of Bengal, together with its enclosures, regarding the necessity for the proposed legislation for fixing standards of quality of jute, I am directed to reply as follows.

(1) In the opinion of my Board the enactment of a Jute Standards Act on the lines of American Cotton Standards Act is highly desirable in the interests of the jute trade of this province and would prove of great benefit to cultivators, dealers and balers.

So far as the baled jute section of the trade is concerned my Board suggest that the system of Home Guarantees under which a baler who makes sales of jute to the shippers is bound by the award of the London Jute Association regarding the quality of his goods should be done away with. So far as the shippers and balers are concerned, the quality of the goods should be decided in Calcutta itself. The shipper has an opportunity to inspect the goods and there is no reason why should the baler be bound for a number of months by the award of arbitrators in whose selection he has no voice at all. In order to safeguard the interests of the shippers of jute from Calcutta, it is necessary that they should have some representation in the Arbitration Boards set up by the various Associations in foreign countries which buy Indian jute. The American shippers of cotton have equal representation within foreign buyers on the Supreme Boards of Arbitration which have been set up in the countries which buy American cotton. The Government of Bengal should also bring about the existence of such Boards so that it may not be possible for the foreign consumers to unnecessarily run down the quality of jute produced by this province.

(2) As regards the loose jute section of the trade, my Board consider that the fixing of Standards of Quality is of paramount importance from the point of view of both dealers and cultivators. The absence of any defined standards is a very serious handicap for sellers who have absolutely no means of knowing at the time they are making their sales of jute to the local mills, as to whether the jute that they intend to deliver against their sales will not be declared very much below the

so-called "Standard of the Mark" which forms the sole basis for the guidance of the arbitrators is a case of quality dispute, particularly more so, when the arbitrators themselves also admittedly do not know as to what the term "Standard of the Mark" exactly means.

In the absence of any Yield Guarantees, the grades under which sales are at present made to the local mills can only be termed "Protean" in character and are the cause of very great confusion in trade, as an inevitable result of which both the jute merchants and the cultivators ultimately suffer. These grades are liable to constant changes and more often than not they are altered even during one and the same season. Obviously such a state of affairs is nothing short of an anomaly, a parallel of which it would be very difficult to find in any other commercial country of the world.

My Board therefore strongly support the proposal for legislation regarding the fixing of Standards of Quality for dealings in jute. It is needless to emphasise that the Committee which may be formed as a result of such legislation, to fix Standards of Quality should be of a thoroughly representative character and should be composed with a view to the proper safeguarding of the interests of both buyers and sellers alike.

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*Copy of a letter, dated the 5th April 1929, from the Honorary Secretary, Bengal Jute Dealers Association, Calcutta, to the Secretary, Indian Chamber of Commerce, Calcutta.*

I am directed to acknowledge receipt of your letter, dated 19th March, forwarding a communication from the Government of Bengal regarding the proposed legislation for fixing standards of quality of jute.

This Association had occasion to carry on a lengthy correspondence last year with the various Associations concerned in the jute trade regarding the question of jute standards, and it was found at the time that a major portion of the trades was agreeable to fix definitions of the various grades under which jute transactions are at present carried on. As many as 63 per cent. of the members of the Indian Jute Mills Association, the Jute Balers' Association which represents the export of jute trade, were agreeable to buy on what are known as guarantee terms. The Calcutta Jute Dealers' Association representing European sellers also supported the proposal of this Association which represents Indian sellers of jute. Owing however, to the definite opposition of 37 per cent. of the members of the Indian Jute Mills Association, a reform in the jute trade which was desired by the entire trade with the exception of the 37 per cent. of the members of the Indian Jute Mills Association, could not be introduced. The Committee therefore think that unless the Government of Bengal takes some measures to bring about the establishment of Standards of Quality as has been done by the Government of the United States of America, there is no chance of the trade by itself coming to some common understanding. My Committee have learnt that the view that the Government should not interfere in a question of the custom of the trade has been expressed by a certain section of the trade. My Committee would like to point out that the whole trade and commerce of the world is regulated and very closely affected by the various legislative measures enacted from time to time by the legislature of the world. Even in India, the cotton and securities markets of Bombay are governed by the Acts of the Legislative Council of Bombay. The Committee think that when there is absolutely no chance of the different sections of the trade coming to some common understanding it is the duty of the Government to see that the interests of the trade as a whole are not adversely affected by the action of a powerful minority.

If all transactions in a commodity were carried on on the basis of a temple or if all goods were sold for ready delivery when the buyer would have an opportunity to see the goods for himself then the question of Standards of Quality would not come in at all, but where transactions for forward delivery are entered into, it is necessary that some grades of quality be fixed so that both the buyers and sellers may know what quality of goods they are going to get and give delivery of.

In the case of jute, practically all the sales of jute made to the local mills are made for forward deliveries. These sales of jute are made on the basis of various grades which are known or which have been known as 1's, 2's, 3's, 4's, R.'s, T.R.'s, B.T.R.'s, and H.J.R.'s and so on. The quality of jute to be tendered against each grade is nowhere defined and is subject to constant fluctuations and interpretations according to the whim and fancy of the buyers. In case of a dispute regarding the quality of jute tendered against a particular grade, there is no test provided for by which the quality could be decided to the satisfaction of both buyers and sellers. The result is that the quality to be tendered against each grade varies not only in the different seasons but in any particular season too there are frequent changes.

Up to a few years back, there used to be a sort of definition for the different grades. This definition was known as "Yield Guarantees." The Yield Guarantees in plain language meant that the jute tendered against a particular grade was guaranteed to yield on spinning a certain percentage of either hessian or sacking warp or weft. This definition was embodied in all contracts.

These definitions have, however, been done away with by the Jute Mills Association during the course of the few years. A description known as the "Standard of the Mark" which is very vague has been substituted in place of the "Yield Guarantees."

It may be interesting to mention here what even European jute importers think about the present arrangement.

In their letter, dated the 18th October 1926, addressed to the Indian Jute Mills Association regarding the question of Jute Markets and Standards they said "The system of giving a guarantee for each mark was in force up to within a year or two and this Committee would propose that a return might be made *to that system which appears to be more satisfactory arrangement to all parties than the present one.*"

A good deal of confusion prevails in the trade owing to these constant changes. The sellers are never able to know as to what they are expected to give against their contracts. They make sales of lakhs and lakhs of bales on a certain understanding and by the time of delivery they find that the grade which they had contracted to deliver has appreciated very much with the result that they have to pay a very heavy allowance or deliver jute far superior to the quality originally agreed upon thereby suffering heavy loss without any change in the market. No seller under such circumstances can ever hope to make profit. During the last two seasons only, the importers have been put to the loss of crores of rupees by such appreciations of standards.

In case of a dispute between a buyer and seller regarding the quality of a particular lot, there is no basis on which the arbitrations proceed. The only basis described in the contract is what is known as the "Standard of the Mark," which means that the quality of jute to be tendered against each grade will vary according to the standard set up by each individual seller.

Regarding this basis of arbitration Mr. C. A. Wild, of Messrs. Anderson Wright & Co., speaking at a meeting of the Indian Jute Mills Association held on January 21, 1927, said that he did not think that the "Standard of the Mark" was a clear enough basis as if they bought on this standard and if the matter ever went to court it would be very difficult to prove that standard. He felt that it would benefit the trade in general if everybody agreed to buy their requirements on a common basis so that their contracts represented actually what they bought. The Association would particularly draw the attention of the Government of Bengal to these words. They go to show that the present contracts do not represent what is actually bought by the buyers and that there is a hidden gain to one party. As regards arbitration, the sellers have no voice in it. The buyers or their brokers are the only people who are members of the Bengal Chamber and thus entitled to arbitrate in such disputes.

These frequent changes operate detrimentally to the interests of not only the middlemen but the worst sufferers are the cultivators. By means of manipulation of standards, the buyers are able to bring a hidden fall in the price of jute.

Divested of technical names suppose the jute grades are known as 1, 2, and 3 and that the price for them is Rs. 12, Rs. 11, and Rs. 10 per maund respectively. The mills after buying a little jute stop all of a sudden buying No. 1. In the absence of any business for No. 1, the sellers will naturally begin delivering in No. 2, all the jute that they used to tender in No. 1 though they get a lower price for No. 2. The mills after some time stop buying No. 2 and commence buying another grade known as No. 4. The result is that all that was being tendered in No. 1 and No. 2 begins being tendered in No. 3 which means that the jute which sold at Rs. 12 per maund begins to sell at Rs. 10. It is only as a result of such frequent appreciation that a quality known as H. J. R. which is inferior to even Rejections is at present the top quality in the loose jute trade.

We will now give concrete instances of this sort of manipulation by the jute mills. In the season 1925-26 the grades 4's, R.'s and T.R.'s were in force (The 1's, 2's, and 3's had already vanished in the way explained above). A lower grade called B. T. R. was invented later on in the same season which meant Bad Terrible Rejections. The Jute Mills Association saw that the graders had reached their lowest point; they could not possibly go below Bad Terrible Rejections. They therefore in Mussolini fashion decided that for the season 1926-27 the grades will be changed. They wanted to change the name so that they could play their favourite game of appreciating the standards.

By their letter, dated the 20th January 1927, they informed the Calcutta Jute Dealers' Association as under:—

> "Regarding the arrangement of jute marks for next year it will be noted by your Association that for the next season the marks at present in force will go up to two grades instead of one as previously agreed between your Association and this Association."

No reason is assigned for this change. The will of the Jute Mills Association is law in the loose jute trade.

For the season 1928-29 the grades Rejections, H.J.R.'s and T.R.'s were in force during the major portion of the season. The Jute Mills Association owing to the reasons stated above wants once more to change the grades, and in reply to a letter written by this Association asking them to fix definite standards of quality they have suggested that the grade Rejections which was the top mark in the season 1928-29 should become the lowest mark for the season 1930. The idea underlying these frequent changes of grades is to bring about a hidden fall in the price of jute as has been stated before.

This state of affairs, wherein the Standards of Quality are liable to frequent changes at the will of buyers and sellers is not a desirable thing at all from any point of view. The sad plight of the sellers of jute can be better understood by an analogy. Suppose a cloth merchant contracts to sell a 100 yards of cloth at a certain price. In calculating his profit or loss on the deal, the cloth merchant takes into consideration the fact that he shall have to deliver 36 inches of cloth for every yard sold by him. If by the time the delivery is completed, the length of the yard is all of a sudden changed to 40 inches, we can understand the difficulty of the seller and the consequent loss to him by this transaction.

My Committee suggest that the Government should by legislation fix certain grades to be in use permanently. To decide the quality of jute tendered against each particular grade a Board consisting of representatives of buyers, sellers and brokers should be constituted which should in the beginning of every season fix the type or sample of the quality which should be considered as a fair tender against all sales of jute made on the basis of the grades. The Directors of the East Indian Cotton Association in Bombay have appointed a Type Committee which in the beginning of every season selects samples from the average quality of the crop of that year, and these samples are sealed and kept in the office of the East Indian Cotton Association, Limited, for purposes of comparison in case of disputes between buyers and sellers regarding the quality of cotton delivered against a particular grade.

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*Copy of a letter, dated the 1st April 1929, from the Secretary, Hatkhola Banijya Hitashini Sava, to the Secretary, Indian Chamber of Commerce, Calcutta.*

In reply to your letter, dated the 19th March, I am directed by our Sava to forward its opinion on the necessity of legislation for fixing the

Standards of Quality of jute. Our Sava urges the necessity of immediate legislation for fixing a definite Standard of Quality for all transactions in jute under the basis of hessian, warp, weft, and cuttings and their various combinations as prevailed in the market before the total abolition of the same. This abolition of definite Standard of Quality of jute rendered the jute trade precarious—it has unsettled what was once settled thereby leading to gradual ruin of those Indians who are interested in jute trade directly or indirectly—it has affected the chain of cultivators and middlemen alike in all links just before and close to millowners, shippers and balers who enter into contract for purchase of the stuff with the former. Want of definite standard or measure of jute has unsettled the indigenous jute trade. Cultivators are being ruined by fluctuation of market rate and so also are those Indians who enter into contract for sale of jute with the millowners, shippers and balers who *de facto* control the jute trade according to their best interest without having regard to the interest of producers and Indian merchants aforesaid—thus the condition of the jute trade is conveyed into a kind of gambling which must at once be stopped by legislation. So our Sava having regard to the interest of Indian cultivators and merchants on the one hand and millowners, shippers and balers on the other hand, asks your Chamber to take effective steps by means of introduction of legislation for fixing a definite Standard of Quality of jute in all dealings in jute, so that all sections of the jute interest may prosper harmoniously and one may not be fed fat at the expense of the other.

Our Sava regrets that it could not for untoward circumstances forward its opinion on or before the 31st March.

Thanking you for your kind reference.

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*Copy of a letter, dated the 28th March 1929, from the Secretary, The Jute Balers Association, to the Secretary, Indian Chamber of Commerce, Calcutta.*

I am directed by my Committee to acknowledge the receipt of your letter No. P.A. 14/29, dated the 19th March 1929, and to inform you that they are in favour of fixing the Standards of Quality of jute by legislation and they suggest that a Conference of the different interests of the jute trade be held to discuss and settle provisions of the proposed Act.

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No. 36—1929, dated Calcutta, the 30th April 1929.

From—The Honorary Secretary, the Marwari Association,

To—The Deputy Secretary to the Government of Bengal, Commerce and Marine Departments.

I am directed by the Committee of the Marwari Association to acknowledge the receipt of your letter No. 1320-27-Com., dated the 19th

February 1929, together with its enclosures, asking for an expression of opinion of this association on the necessity for the proposed legislation for fixing standards of quality of jute.

Transactions in jute are carried on under various grades, but the quality of jute meant by those grades varies not only in defferent seasons but frequently in one and the same season also. The result is that sellers can never be certain as to the quality of jute to be tendered against the grades sold by them and it happens, not infrequently, that at the time of giving delivery they find that the quality of the grades has appreciated considerably and the jute delivered by them is no longer considered to be up to the mark. It puts the sellers to heavy and ruinous loss. As it is all due to there being no definite standards of quality and not to any fault on the part of the sellers, it is only just and reasonable that a law should be passed to fix definite standards of quality so as to make frequent and arbitrary changes in the standards of quality impossible and to give the sellers the protection which they deserve.

For reasons stated above my Committee support the proposal for legislation but having regard to the fact that conditions in America and in this country are not similar, they do not desire to express any opinion just now as to how far legislation on the lines of the American Cotton Standards Act will meet the requirements of the situation in this country. In their opinion, Government should undertake legislation with a view to protect the interests of the jute traders and consult the opinion of those concerned when the Bill has been framed.

# APPENDIX XIV (a).

Regulated Cotton Markets.

## Office of the Director of Agriculture, C. P.

D.-O. No. 1539.

Nagpur,
*The 29th March 1933.*

My dear Finlow,

Your D.-O. No. 366 J.C., of the 16th March. I am sending you a report of an Investigation into the Finance and Marketing of Cultivator's Cotton in Berar instituted by the Indian Central Cotton Committee, which will give you all the details you require. I also append a copy of the recently amended rules under the Berar Cotton and Grain Markets Law of 1897 which were altered to give the grower a fairer deal when disposing of his produce.

Coming now to the specific questions asked by you—

(1) No private market is permitted in an area in which a regulated market has been proclaimed.

(2) The area served by each regulated market varies according to the tract. In Berar there are 31 regulated markets and they deal wtih the crop of the whole area, roughly 800,000 bales. There is no obligation on the grower in any area to go to the nearest market. He can and does go to the one where the best prices are to be obtained.

(3) The cultivator sells his crop wherever he likes and a fair amount is sold in the villages to itinerant merchants but in Berar, on the whole the growers prefer to sell in the markets where they get a squarer deal than in the villages.

Your questions Nos. 3, 4, 5 and 6 are answered fully in the two enclosures sent with this letter and need not be answered here.

The chief advantage of a regulated market is that all deductions, etc., are regulated, the grower is represented on the Market Committee and can therefore look after his own interests and the price fixed for his produce cannot be altered without going before a Disputes Committee. The Royal Commission on Agriculture simply recommended the adoption of the Berar type of market by other provinces and with the amended rules that have been introduced recently in Berar the grower now gets a fairer price for his produce than he did before.

Will you kindly return the papers sent herewith as we are short of copies?

Yours sincerely,
F. J. Plymen.

To R. S. Finlow, Esq., C.I.E.,
*Chairman, Jute Enquiry Committee, Bengal.*

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D.-O. No. C/27.

Pachmahi,
*The 13th/15th April 1933.*

My dear Finlow,

Your D.-O. of the 4th instant has reached me here and your telegrams have been answered by my head office. Ritchie has largely dealt with this correspondence as his long connection with the Indian Central Cotton Committee has given him a good insight into the question. I am afraid the report on "An investigation into the finance and marketing of cultivators' cotton in Berar" is not always too clear, but in my office wire of the 4th of April it was explained that "open" markets are regulated markets. The great feature of the "open" market is the "open" declaration of prices, i.e., prices are not fixed by secret signs. You will, I think, have realised that the revised rules for Berar markets were published after much consideration and some time after the investigation, published in 1927 by the Indian Central Cotton Committee, had been carried out. You will see in the summary, paragraph 1, on page 19 of the report referred to above, that cultivators were in favour of open markets, provided that the rate for their cotton was fixed in the market itself and not in the ginnery factory compound after delivery has been made to the purchaser.

2. As stated in my letter No. 1539, of the 29th of March, there are only 31 regulated markets in Berar, which deal with the whole crop of that area, and you will understand that a great deal of the cotton produced by the small grower must be sold to a petty trader and not brought on the market by the grower himself. I am inclined to think the same thing would happen in the case of your jute growers who are in small way of business only.

3. Taken all round, I think the markets are run fairly well and that irregularities and the victimatization of small men are less than they were, although for some years to come the theory of marketing control in Berar will be considerably better than the actual practice.

4. I am afraid no one from my department is likely to be in Calcutta for an indefinite period, but if you have a good assistant you could send him to Nagpur, he could interview some of our staff with a fairly wide experience of the Berar markets and get any more facts and information which might be useful to you.

Yours sincerely,

F. J. Plymen.

To R. S. Finlow Esq., C.I.E.,

*Chairman, Jute Enquiry Committee.*

## APPENDIX XIV (b).

### Report on the Regulated Cotton Markets in the Central Provinces by Mr. Tara Nath Roy, Inspector of Agricultural Schools, Department of Agriculture, Bengal, dated 5th June 1933.

On the 24th of May 1933, I was ordered by the Director of Agriculture, Bengal, to proceed to the Central Provinces to obtain certain informations regarding Regulated Cotton Markets as required by Mr. R. S. Finlow, Chairman of the Jute Enquiry Committee. I received my instructions from Mr. Finlow on the 25th of May and left Calcutta for Nagpur the same day. I arrived Nagpur on the 26th and met the following officers of the Agricultural Department with whom I discussed the questions asked by Mr. Finlow and obtained relevant publications on the subject and made out a programme of my work:—

(1) Mr. R. H. Hill, Deputy Director of Agriculture.

(2) His Assistant, Mr. N. S. Gangakhedkar, who has considerable experience of the cotton market of Nagpur which, however, is not regulated.

(3) Mr. E. B. Mahta, Economic Botanist in charge of cotton breeding and Secretary, Provincial Cotton Committee.

And

(4) His two assistants, Messrs. S. C. Roy and S. S. Panday.

I was advised to go to Amraoti first and see Mr. S. G. Mutkekar, Deputy Director of Agriculture, W. C., who has perhaps the largest amount of experience about the regulated cotton markets. From Amraoti I was to proceed to Akola and see Mr. J. S. Gurjar, who was Mr. Mutkekar's Assistant. On my way back I was to see the Nagpur market.

I left Nagpur on the 28th and arrived at Amraoti the same evening. On the morning of the 29th I was met by Mr. Mutkekar and his assistant, Mr. Gurjar and taken to the Amraoti Regulated Cotton market. Here I had an opportunity to meet the Daroga of the market, the adatyas, brokers, buyers, sellers and the growers and see how the day's price is fixed and published, how the bidding is done and later on in one of the ginning mill how the cotton is weighed. I discussed with all of them the questions asked by Mr. Finlow. Later we saw the ginning factory of Edulji and Ganes Das and the new automatic ginning and baling factory of Messrs. Volkart Bros.

In the afternoon I met Mr. Mutkekar in his office where after consulting his records he gave the following replies to Mr. Finlow's questions.

**Q. 1.**—It is difficult to answer the question as investigations exactly on the line have not been done. In a regulated market the growers get better prices on account of competition amongst a larger number of buyers. Against this advantage, however, we have to pit the transit charges which are as follow:—

| | Rs. | A. |
|---|---|---|
| 5 miles ... ... | 1 | 0 |
| 10 miles ... ... | 1 | 8 |
| 15 miles ... ... | 2 | 0 |
| 20 miles ... ... | 2 | 0 |

Also the deductions made on account of fees to the adatyas and weighmen, which come up to Re. 1-9 per cart.

**Q. 2.**—Small growers who have less than a cartload do not come to the regulated markets. Those who have more than a cartload to sell have been known to have travelled up to 50 miles. The average distance may be taken as 15 miles.

There are a number of considerations which the growers take into account before deciding whether they will sell their cotton in the village or in the regulated market. The following are some which keep him away:—

(1) If a grower owes money to an adatya, as he very often does, he would sometimes sell his cotton at the village simply to avoid meeting the adatya.

(2) When in urgent need of money he will sell at the village.

(3) If the quantity is less than a cart load, he will sell at the village.

The following are some of the considerations which prompt him to come to the regulated markets:—

(1) Some markets have a good reputation and growers will sometimes prefer it to nearer ones.

(2) The prevailing ginning charges in the locality are sometimes the deciding factors. Wherever the number of ginning factories is small the ginners are able to combine and keep the ginning charges high. Where their number is great, competition keeps down the ginning charges. For instance the ginning charges just now at Amraoti are about Rs. 3 which is very low and the low ginning charges are an inducement for many to sell cotton there.

(3) Better prices are usually obtainable in markets where there are large number of buyers.

**Q. 3.**—The regulation of any market would have a tendency to ensure better prices to the growers, but if we have to make a choice in the selection of the markets, we had better start them where prices are low. It is of course necessary first to ascertain why prices are low there. It is not advisable to start regulated markets in places where there is none in existence.

**Q. 4.**—In spite of the market laws, open bidding is not practised except in two places. It is said that open bidding is not possible in markets where very large number of carts come for sale. In Wun Kelapur in the District of Yotemal open bidding has been recently introduced. The buyers there get daily quotations from their representatives in Bombay. There is in consequence a real competition amongst buyers and these two markets are reported to be doing very well.

It is true that adatyas and brokers look more to the interest of the buyers than to that of the growers and that in some cases the market laws have legalized malpractices. The market laws, however, have been altered lately by including a majority of the representative of the growers, and it is expected that this would have a salutary effect in making the adatyas look more to the interest of the growers.

**Q. 5.**—When an existing market is regulated there is practically no expense. The constitutents of the market apply to the Deputy Commissioner for a regulated market. The Deputy Commissioner institutes an enquiry and if satisfied that the market is fit for regulation, the market is declared regulated by a Gazette notification. Fees are levied on each cart of cotton coming to the market, usually at the rate of one anna per cart and license fees are annually realised from the adatyas, brokers and weighmen. These fees go to pay the staff and the balance left over is reserved for market improvements. Below are given some of the details that would enable one to form a rough idea as to total cost of running a big market like one at Amraoti.

The Amraoti cotton market was started in 1885 when Government gave a grant of Rs. 4,618 for acquiring the land, 592 yard × 581 yard. In 1890 a new office was built at a cost of about Rs. 2,500, measuring 32′ × 35′. At present the market possesses the following building:—

(1) Market Office 32′ × 35′, cost Rs. 2,500.
(2) Exchange 40′ × 50′.
(3) Dalal Hall.
(4) Godown, accommodating 2,000 bales of cotton.
(5) Shed for cartmen.
(6) Five water troughs.
(7) Well with mot.
(8) Latrines.
(9) Masonry wall enclosing the yard.

The following are the staff:—

| | Rs. |
|---|---|
| (1) One Daroga, one clerk, two temporary clerks, five clerks for six months, and peons ... ... | 3,620 |
| (2) Watchmen, ten ... ... ... | 924 |
| (3) Conservancy men, one Daffadar and four sweepers ... | 712 |
| (4) Gardeners, two ... ... ... | 288 |
| (5) Fire engineman ... ... ... | 192 |
| (6) Engine driver and watchman ... ... | 480 |
| (7) Motman and Overseers' allowance ... ... | 252 |

I left Amraoti at 6 p.m. for Akola accompanied by Mr. Gurjar, and arrived there at 9 p.m.

On the morning of the 30th we visited the Akola cotton market. The market was regulated in 1882. The yard measures 2,220 sq. yards and is enclosed by an iron railing.

The buildings are as follows:—

(1) Main Office, a two storied building, $34' \times 34'$.
(2) Ticket Office $16' \times 16'$.
(3) Merchants' shed $15' \times 29'$.
(4) Quarters for Assistant Daroga.
(5) Quarters for the Gardener.
(6) Two wells with pump.
(7) Two feeding troughs.
(8) Latrines.

The following are the staff:—

(1) One Daroga, pay Rs. 40—3—100.
(2) One clerk, pay Rs. 30.
(3) Temporary clerks, pay Rs. 25.
(4) Jamadar, pay Rs. 20.
(5) Watchmen, pay Rs. 15.
(6) Eleven temporary peons for four months, pay Rs. 15.
(7) Gardener, pay Rs. 12.

The budget is as follows:—

| | | Rs. |
|---|---|---|
| (1) Establishment | ... | 1,193 |
| (2) Temporary establishment | ... | 1,904 |
| (3) Office contingencies | ... | 204 |
| (4) Passes contingencies | ... | 147 |
| (5) Conservancy | ... | 500 |
| (6) Road watering | ... | 1,000 |
| (7) Lighting | ... | 951 |
| (8) Contribution to Municipality | ... | 1,521 |
| (9) Planting trees | ... | 72 |
| (10) Furniture | ... | 118 |
| (11) Road repairs | ... | 1,300 |
| (12) Building repairs | ... | 457 |
| (13) Culvert repairs | ... | 39 |
| (14) Other repairs | ... | 1,000 |
| (15) Gutters | ... | 105 |
| (16) Deposit | ... | 290 |
| (17) Allowances | ... | 318 |

*Income.*—

| | | |
|---|---|---|
| (1) Cess on carts | about | 5,000 |
| (2) License fees | ... | 6,000 |
| (3) Miscellaneous | ... | 600 |

Eighty to hundred thousands of carts are sold annually in the Akola market whereas hundred to hundred and twenty thousands are sold at Amraoti.

The market committee at Akola consists of the following:—

| | | No. |
|---|---|---|
| (1) | Representatives of growers ... ... | 4 |
| (2) | Traders ... ... ... | 4 |
| (3) | Municipality ... ... ... | 1 |
| (4) | District council ... ... | 1 |

The above has been the constitution since 1930.

The area served by this market is about 10 miles all round.

There are at Akola 25 ginning factories and two spinning and weaving mills.

The surplus passed to the Municipality, to whom the market belongs, averages Rs. 7,000 annually.

In the afternoon I visited the Akola Farm which is situated about six miles from the town, with Mr. Gurjar and his assistant. My object was not only to see the farm but also to meet some actual growers in the vicinity. Two such we met. According to them the rates offered by the *faria* to the growers in the villages are not much below the rates prevailing at the markets. The growers keep themselves fairly well posted about the prevailing market rates and therefore, the growers do not usually part with the cotton unless similar rates are offered. Usually stone weights are used by the *farias* and the growers cannot check them. They think that the *faria* usually makes his profit by using heavier weights. At the regulated markets the weights are checked, though complaints about manipulations have not completely disappeared. Any way the growers feel more assured of the correctness of the weighments at the regulated markets.

I consulted the Daroga, adatyas, brokers, buyers, sellers and members of the market committee including some representatives of the growers at the Akola market. They were all of opinion that the regulated markets were an improvement over the non-regulated, though all agreed that the laws were far from perfect yet. Some of the laws are unworkable and require modifications. According to a representative of the growers, the benefit accruing to the growers from the regulated markets may be estimated at a rupee per cart.

I left Akola on the 31st and arrived at Nagpur at 9 a.m. I met the Nagpur officers again and had a further discussion on the subject. Messrs. Hill and Ganga Khedkar very kindly took me to the Nagpur cotton market which is yet non-regulated. Here there is no market committee, no licensed adatyas or weighmen. The market staff consists of the following:—

(1) Inspector, pay Rs. 55.

(2) Mohorer, pay Rs. 25—30.

(3) Chaprasi, four, pay Rs. 15 each.

(4) Sweeper, two, pay Rs. 12 each.

(5) Sweeper, temporary, two, pay Rs. 12 each.

A market cess of rupee one is charged per cart but there are no other charges to pay by the growers. The carts are auctioned at the market and sent away to the buyers who include representative of big firms like Rallies and Volkarts. Very fair prices are said to be realised here on account of the competition. The Market Inspector's decision is final and there is no appeal from his decision.

I left Nagpur the same day and reached Calcutta on the morning of the 2nd of June. I met Mr. Finlow the same day, at his office and also the next morning at the U. S. Club.

I may now briefly summarise the facts about the regulated markets:—

(1) The Berar Cotton and Grain Markets Law, as per Government of India Notification No. 1727-1-B, dated Simla, the 6th of May, 1897, would show that the object was to give relief to the growers against the malpractices then prevailing. As the publication is out of print I cannot enclose a copy.

(2) A perusal of the speech (copy enclosed) by the Hon'ble Rao Bahadur N. K. Kelkar, Minister for Local Self-Government, addressed to the members of the C. P. Board of Agriculture on August 9, 1923, would show to what depth of infamy the regulated markets degenerated in spite of the laws.

(3) A perusal of the Indian Cotton Committee report on the marketing of cultivators' cotton in Berar (copy enclosed), pages 7 and 82-87 would give one a very good idea as to how the markets functioned as late as 1927, what the malpractices still were and how the existence of the law on the statute was no bar against its misuse and abuse, how vested interests can twist laws to legalise malpractices.

(4) The proceedings of the joint meeting of the C. P. Board of Agriculture and the Provincial Cotton Committee held in August, 1929, and C. P. Government Notification, dated Nagpur, the 20th of January 1931 (copy enclosed), would show that the C. P. Government have not given up the regulated markets as bad jobs, in spite of the failure of the previous attempts and have reformed them.

(5) Opinion seems to be unanimous that the present regulated markets are an improvement over the non-regulated ones.

(6) It is not possible, however, to evaluate the benefit that accrues to the growers from the sale of cotton at the regulated markets.

(7) The good reputation of a market is its greatest asset which again depends on the morale of the executive.

(8) The growers themselves come in for good portion of the blame for the establishment of malpractices. The practice of deductions at the time of weighing on the score of quality undoubtedly arose out of wilful adulteration by the growers.

If we look at the regulated markets, not from the stand point of the grower or of the dealer, but from the stand point of the grower, dealer and the consumer, we shall find that the greatest contributions that those regulated markets have done, are statistical. The records kept are excellent,

# APPENDIX XIV (c).

Regulated Cotton Markets in the Bombay Presidency.

No. 414/4824 of 1933, dated Poona, the 25th April 1933.

From—The Director of Agriculture, Bombay Presidency,

To—The Secretary, Bengal Government Jute Enquiry Committee.

*Cotton Market, Dhulia.*

In continuation of paragraph 3 of this office endorsement No. 414 of 19th April 1933 on the above subject, I have the honour to forward herewith a note on the regulated Cotton Market, Dhulia, and the benefits to the cotton cultivators, as promised therein.

## Regulated Cotton Market at Dhulia.

*Benefits to Cotton Growers.*

In the regulated cotton market of Dhulia, the rates of each individual cotton carts are now made known to the owner, who formerly had no knowledge of such rates as the bargains between the agent who acted for him and the one who negotiated for the purchaser were in former times made under cover and were not declared to the owner of the cotton carts. There are now no unauthorised deductions or trade allowances, the contents of the carts being actually weighed and accounted for. Previous to the regulated market, there was no control over the weights and cotton weighing less than a maund or fractions of a maund was not weighed and was unaccounted for. Disputes that arose at the time of weighment are now referred to the Market Superintendent or to the Disputes Sub-Committee whose decision has been considered to be final. The disputes thus settled during the two years of the regulated market are as follows:—

| Year. | Disputes settled by the Superintendent. | Disputes settled by the dispute Sub-Committe. |
|---|---|---|
| 1930-31 .. .. | 167 | 8 |
| 1931-32 .. .. | 609 | 19 |

This is a great service rendered to the cotton grower and he gets a squarer deal than before. Formerly, the grower was entirely at the mercy of the agent who acted for him or of the buyer who had his own vested interests to serve.

Deductions for religious and charitable purposes which fell on the cultivator but against which he had no effective means of protest are now disallowed and the grower who had to pay formerly Rs. 1-12 to Rs. 2 per cart has now to spend Rs. 1-5 to Rs. 1-9 thus leaving a margin of seven annas per cart and making it available to the grower. As the Market Committee has now been empowered to regulate all such fees, the charges per cart can still be lowered if the prices of cotton show a further falling off.

The feeling of confidence and fair play created in the minds of the cultivators in such regulated market cannot here be emphasised but can only be seen from the large number of cotton arrivals in such a market.

It may safely be stated here that the object to secure to the cultivator better prices, fairer weighment and freedom from illegal deductions has to a large extent been served by the regulated market of Dhulia.

The other benefits which the cultivator has derived are mentioned on pages 11 and 12 of the annual report of the Dhulia cotton market for the year 1930-31.

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No. 414 of 1933, dated Poona, the 15th May 1933.

From—The Director of Agriculture, Bombay Presidency,

To—The Secretary, Jute Enquiry Committee, Bengal.

*Cotton Market, Dhulia.*

With reference to your telegram, dated 2nd May 1933, on the above subject, I have the honour to forward herewith a copy of the letter No. 295, dated 11th May 1933, from Mr. S. H. Prayag, Cotton Breeder, Khandesh, which gives the information required.

2. I am also sending you herewith a copy of the letter No. 304, dated 12th May 1933, from the same officer together with its accompaniments giving the information regarding the "open bidding" process as promised in paragraph 3 of this office letter No. 414/5098, dated 2nd May 1933.

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No. 295 of 1933, dated Jalgaon, 11th May 1933.

From—S. H. Prayag, Cotton Breeder, Jalgaon,

To—The Director of Agriculture, Bombay Presidency, Poona.

*Regulated Cotton market: Estimation of increased value due to valuation of individual carts.*

With reference to your wire of 4th May 1933 on the subject mentioned above and in continuation of my letter No. 274 of 5th May 1933, I have the honour to report as follows:—

Prior to the establishment of regulated market at Dhulia, the cotton traders used to purchase kapas carts in the morning at the market yard and at the time of delivery in the gin-compound, a reduction in the agreed price to an extent varying from 4 to 8 annas per maund of cotton (a maund being equal to 152 lbs. at that time) used to take place on the pretext that the market tendency is down and that the prices have been low for the day.

Since the introduction of the regulated market, the opening prices are obtained by wire every day from Bombay; they are then posted on the Notice Board so as to be readily available to all persons in the market. Each individual kapas cart is examined properly by the buyer or his agent and is valued according to the quality of cotton it contains. Although no proper grading is still done, special types of cotton such as Banilla, and cotton containing red-leaf are given higher rates per maund than the ordinary types of cotton containing black leaf, etc. The enclosed schedules show the rates per maund for the various carts.

belonging to individual cultivators. If, however, there be an admixture of sand, earth, etc., in the middle layer or if the cotton of the central layer is found in a damp condition, the price is accordingly lowered. But the cotton merchants are in no way to reduce the agreed prices at the time of delivery in the gin-compound on the ground that the market tendency is low and that the rates are falling off on that day.

The growers are thus profitted to an extent varying from 4 to 10 annas per maund (a maund=168 lbs. at present) so that the increased value which a cultivator gets on account of increased valuation ranges from two to five rupees per cart, each cart containing an average of 8 maunds.

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No. 304, dated Jalgaon, the 12th May 1933.

From—S. H. Prayag, Cotton Breeder, Jalgaon,

To—The Director of Agriculture, Bombay Presidency, Poona.

*Dhulia Cotton Market: Open bidding.*

With reference to your letter No. 414/5098, of 2nd May 1933, regarding open bidding, I have the honour to report as follows:—

During the year 1932-33, there has been some change over the previous year's working. Although the preliminary stages of under-cover system are still in vogue, the final rate of each cotton cart is declared to the seller. If the seller or the cotton grower is satisfied with the rate, the bargain is said to be closed; if not, it is put to auction after all sales in the market yard are over.

This is a great step in advance as the ultimate aim of "open bidding" is to let the cotton grower know the rate that is agreed upon. The system that is now followed at Dhulia has the approval of the Collector.

It is no doubt difficult to radically change all at once the old established customs and as the under-cover system of bidding is a very knotty question, a reform in the direction of open bidding will, however, be a slow process.

I am enclosing herewith a copy of Government letter No. 374-A/28, of 24th March 1932, regarding condonation of the breach of rule 47 (2) and the correspondence relating thereto.

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No. 175, dated Dhulia, the 24th November 1931.

From—The Chairman, Cotton Market Committee, Dhulia,

To—The Director of Agriculture, Bombay Presidency, Poona.

*Dhulia Cotton Market.*

In enclosing herewith the weekly report of market fees for the week ending the 21st November 1931, I have the honour to state that the number of persons registered and licensed so far for the year 1931-32, is as under:—

| Designation. | Total number up to 31st November 1931. | Rate. | Fees collected. |
|---|---|---|---|
| | | Rs. | Rs. |
| (1) Commission agents .. | 65 | 30 | 1,950 |
| (2) Cotton buyers .. | 17 | 10 | 170 |
| (3) Weighmen .. | 44 | 5 | 220 |
| | | Total .. | 2,340 |

Last year, the number of Commission Agents who had registered their names was 71. Owing to the large number of these persons, there has been some difficulty in the proper working of the regulated market. Since the beginning of the present year, we introduced the system of open bidding as per rule 47 (2). It worked smoothly so long as the number of cotton carts were very few, but later on the disadvantages found in this method were noticed as under—

(1) The cotton carts that enter the Dhulia market are not at present graded and cannot be so done as long as the cultivators do not grow one quality cotton. Again, owing to the diverse conditions of soil in the talukas of Dhulia, Sakri and Shindkheda the ginning percentage also was found to vary to a great extent. Owing to these features, which as I understand are rarely met with in the markets of Khamgaon and Akola, the system of grading cotton cannot easily be adopted. As a result, auction sales cannot be done in proper order. These sales could not be finished serially as it involved considerable time and on days when arrivals were over 100, it was found difficult to finish the work in time for the growers to be at their respective gins (places of delivery).

(2) Owing to the large number of adatyas, they gathered in small batches in different places to bid for the cotton. Hence, for the same quality of cotton, different rates prevailed and some cotton growers got more price than others for cotton of the same grade thus displeasing both the cultivators and their adatyas.

(3) In open bidding, the highest bidder having a priority claim for the cotton he has bid for, takes the lot but generally he has been found to be a person who cannot make prompt payment. This again displeased the cultivators.

(4) Lastly, owners of a number of carts had to sell their cotton not to one purchaser but to two or three, thus making it difficult for them to attend to respective places of delivery for the weighment of their cotton.

I tried to overcome these defects but on 13th November, a chaos ensued in the market and I was pressed for reviving the original system of bidding under cover in the interest of the cultivator for whose benefit the rule is intended. As I considered this to be an illegal procedure, an extraordinary emergency meeting of the local members was held on 13th November at night from 8-30 to 10 p.m. at Gulabchand Shet's house where the following members were present:

*Members.*

(1) Mr. S. H. Prayag, *Chairman.*

(2) Mr. J. P. Tarapore.

(3) Mr. Chandrabhan Nandram Shet.

(4) Mr. Uttamrao Bhilajirao Deshmukh.

(5) Mr. Gulabchand Hiralal Shet.

(6) Mr. G. M. Varade.

*Visitor.*

(1) Huzur Deputy Collector (Mr. C. G. Marathe).

The pros and cons of the two system were fully discussed. The benefits claimed in undercover system were as follows:—

(1) That the sellers adatyas can sell almost all the carts of their constituents to one purchaser, thereby affording facilities to the cultivators in respect of attending to the weighments of their cotton in one gin only.

(2) That every attempt is made by the sellers adatyas to induce the purchasers to buy the cotton of their constituents at high rates avoiding at the same time such purchaser who cannot make prompt payment or whose financial position is not considered to be sound or who cannot or does not buy the whole lot brought by each producer.

In open bidding this has not been found to be possible by the seller's adatyas without hurting the feelings of some of the purchasers, which they are unwilling to do.

(3) That business in the market yard is finished quickly and that the cultivator gets better rates than in open bidding.

The only defect was that the cultivator was in the dark as to what takes place in the settlement of rates. But it was settled that the final rate should be declared and made known to the seller.

The general sense of the meeting was that in Dhulia market where the grading of cotton cannot at present be done and where a large number of commission agents exist, the system of open bidding is found to be detrimental to the interests of cotton growers and it was considered desirable to postpone the enforcement of the method of open bidding for about a fortnight at least. In the meanwhile, the opinion of cotton growers coming into the market yard should be ascertained and the matter should be placed before the general meeting to be held at the end of this month.

Accordingly, from 14th November we have revived the under-cover system of bidding and have been taking the signatures and thumb impressions of cotton growers as regards their opinion regarding the two systems.

I am bringing the above facts to your notice as the practice is against the law and rules but it had to be adopted by the Committee to help the cultivators and to avert a dead-lock which seemed imminent.

No. M.S.C. 229, dated Via Dhulia, the 30th November 1931.

Memo. by—H. M. Willis, Collector of West Khandesh.

Forwarded with compliments.

2. The Cotton Market Committee is in its infancy. The difficulty of open bidding when the number of carts is too many appears to be genuine. The illegality may be condoned for this season.

3. A report whether any amendment to rule 47 (2) is necessary will be submitted after expiry of the season.

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No. 374-A/28, dated Bombay Castle, the 24th March 1932.

Memo. by—The Under Secretary to the Government of Bombay, Revenue Department.

*Cotton Market: Dhulia.—Condonation of breach of rule 47 (2) of the Bombay Cotton Market Rules, 1929, during current.*

The undersigned presents compliments to the Commissioner, C.D., and with reference to his memorandum No. A.D.M.O./392, dated 7th March 1932, is directed to state that, in the circumstances stated therein, the breach of rule 47 (2) of the Bombay Cotton Market Rules, 1929, during the current season is condoned.

Copies to the Director of Agriculture (with reference to his letter No. 414-A/1437, dated 18th February 1932), and the Collector of West Khandesh (with reference to his memorandum No. M.S.C. 299, dated 30th September 1931).

# APPENDIX XV.

(*Vide* pages 102 and 165 of the Report).

**Government of Bengal.**

**Legislative Department.**

## The Bengal Jute Bill (II), 1930;
## with
## Statement of Objects and Reasons.

**(By Dr. Naresh Chandra Sen Gupta, M.L.C.)**

*(As introduced in Council on the 16th February, 1931.)*

## The Bengal Jute Bill (II), 1930.

*A Bill to regulate and control the production of jute.*

**Preamble.**—Whereas it is expedient to provide for the control and regulation of the production and marketing of Jute in the Presidency of Bengal, it is hereby enacted as follows:—

### CHAPTER I.

INTRODUCTION.

1. **Short title and application.**—This Act shall be called the Bengal Jute Act, and shall apply to the whole of the Presidency of Bengal.
It shall come into force at once.

2. **Definitions.**—In this Act unless there is anything repugnant in the subject or context—

"Board" means the Central Jute Board constituted under this Act.

"Union Board" means a Union Board constituted under the Bengal Village Self-Government Act, 1919.

"Provincial Scheme" means a scheme framed by the Board under section 8 and includes any revised scheme.

"Village Scheme" means any scheme prepared by a Union Board or a Village Jute Board for the area under its jurisdiction.

"Recognised Association" means associations and bodies of persons associated for purposes connected with the cultivation or marketing of jute which are recognised by the Board and entered in a register of recognised associations.

"Prescribed" means prescribed under rules framed under this Act.

## CHAPTER II.

### THE CENTRAL JUTE BOARD.

3. **The Central Jute Board.**—(*1*) For the purpose of regulating and controlling the production of jute and advising the Government on all matters relating to the production and the organisation of the marketing of jute and to the improvement of the economic value of Jute, a Central Jute Board shall be constituted as soon as possible after the passing of this Act.

(*2*) The Board shall consist of the following members: –

(*i*) the Minister in charge of the Department of Agriculture, *ex-officio;*

(*ii*) the Director of Agriculture, *ex-officio*;

(*iii*) the Registrar of Co-operative Societies, *ex-officio;*

(*iv*) the members of the Legislative Council representing the Indian Jute Mills Association, the Bengal National Chamber of Commerce, the Bengal Marwari Association and the Bengal Mahajan Sabha;

(*v*) one member elected by the Bengal Chamber of Commerce;

(*vi*) one member elected by rotation by the District Boards of Dacca and Mymensingh, each member holding office for one year;

(*vii*) one member elected by rotation by the District Boards of Tippera, Faridpur, Rangpur, Rajshahi and 24-Parganas, each holding office for one year;

(*viii*) three members nominated by the Government to represent the interests of Jute growers;

(*ix*) two experts in the Economics of the Jute elected by the Calcutta University and the University of Dacca, respectively.

4. **Chairman of the Board.**—(*1*) The Minister in charge of the Department of Agriculture shall be the Chairman of the Board and the chief executive authority of the Board.

(*2*) **Terms of office of members.**—Except as otherwise provided, each member of the Board other than *ex-officio* member shall hold office for three years; any casual vacancy in the office of a member will be filled up by election or nomination, as the case may be, by the body or authority who elected or nominated the member whose office has fallen vacant.

5. **Time and place of meetings of the Board.**—(*1*) The time and place of each meeting of the Board shall be determined by the Chairman, provided that there must be at least two meetings of the Board every year.

(*2*) **President of meetings.**—The Chairman shall preside at every meeting of the Board. In the absence of the Chairman, the members present shall elect one of themselves to preside at the meeting.

(*3*) **Procedure at meeting.**—The decision of the Board shall be by a majority of votes of members present and voting, and in case of equality of votes, the Chairman or President, as the case may be, shall have casting vote in addition to his vote as a member.

## CHAPTER III.

### THE PROVINCIAL SCHEME.

6. **Preparation of a Provincial Scheme.**—Not later than the 15th of February of every year the Board shall prepare a Provincial Scheme for the cultivation of jute in the Presidency in the manner hereinafter provided.

So soon as a Provincial Scheme has been finally prepared the Local Government shall publish the scheme in the *Calcutta Gazette* and cause it to be circulated as hereinafter provided.

7. **Statement of prospects.**—On or before the 30th of December in every year the Director of Agriculture shall prepare and circulate to the members of the Board a full statement showing, as far as practicable,

(*a*) the total area of the land in the Presidency cultivated with jute in that year;

(*b*) the total outturn of jute in that year;

(*c*) the total of the surplus stocks of jute held over from the previous year;

(*d*) the total quantity of jute sold in that year up to the date of the statement;

(*e*) the estimated total demand for the new crop in the ensuing year;

and such other facts and statistics as may be relevant for determining the total area which can be profitably cultivated with jute in the Presidency in the ensuing year.

8. **Framing of the Provincial Scheme.**—(*1*) A meeting of the Board shall be convened on such date as may be fixed by the Chairman, not less than fifteen days after the circulation of the statement referred to in section 7, for settling a Provincial Scheme determining the total area of land which should be sown with jute in the ensuing year.

(*2*) At this meeting the Board shall, after considering the statement of prospects referred to in section 7, consider what area of land in the Presidency shall be cultivated with jute in the ensuing year, and in what proportion the area under cultivation in the previous year should be increased or decreased, and shall embody their decision in a scheme showing how the increase or reduction in the area of land under jute in the Presidency should be distributed.

(*3*) In preparing the Scheme the Board shall have power to determine different ratios for increase or decrease with reference to different districts and also with reference to different qualities and varieties of jute.

9. **Publication of the Scheme.**—The Provincial Scheme framed by the Board under the last preceding section shall forthwith be published in the manner prescribed both in English and Bengali and copies of the Scheme shall forthwith be circulated to all District Boards and Union Boards of the Presidency, and, where there are no Union Boards, to Village Jute Boards constituted under this Act, together with a requisition calling upon each Union Board to increase or reduce the area of land cultivated with Jute within its jurisdiction in the ratio provided by the Provincial Scheme.

Copies of the Scheme shall also be circulated to recognised associations.

10. **Objections to the Provincial Scheme.**—Any District Board, Union Board or recognised association may, by a petition setting forth the grounds of their objections to the Provincial Scheme, apply to the Board to revise the Provincial Scheme after it is published.

Every such petition received within three weeks of the publication of the Scheme shall be considered by the Board, and the Board may, after such consideration, reject the petition or make such modifications in the Scheme as they think fit.

## CHAPTER IV.

### Duties of Union Boards and Village Schemes.

11. **Register of Jute lands.**—Every Union Board shall maintain a register of jute lands within the Union, in the prescribed form, and shall from time to time make such corrections in the register as may be necessary.

Every Union Board shall also cause to have the jute lands marked on a copy of the cadastral survey map of the Union which shall be kept by it.

A copy of the register of jute lands shall be submitted by every Union Board within the month of April to the District Agricultural Officer who shall keep a complete file of such registers for the whole district in the manner prescribed.

12. **Invitation of offers from cultivators.**—On receipt of a requisition from the Board under section 9 or, where the Provincial Scheme has been amended by the Board under section 10, on receipt of such amended requisition, every Union Board shall notify to all cultivators within the Union the total increase or reduction of Jute lands within the Union required in order to comply with the requisition of the Board and shall invite offers from cultivators within the Union individually to increase or decrease the area cultivated by each with a view to comply with such requisition.

13. **Village Scheme.**—If the offers received from the cultivators are adequate for the purpose of reducing or increasing the area under jute to the extent required, the Union Board shall accept the offers and frame a Village Scheme accordingly.

If the offers received are not adequate to comply with the requisition of the Board, the Union Board shall, after consideration of the offers, prepare a scheme of lands to be cultivated with jute in the ensuing year so as to bring the total area into conformity with the requisition of the Board :

Provided that, in preparing a scheme of areas to be cultivated with jute, if any increase or reduction of the area cultivated in the previous year is necessary, the Board shall, unless the scheme is based on voluntary offers, distribute the requisite increase or decrease of area among all the cultivators of jute in the same proportion, except where, in the opinion of the Board, such proportionate increase or decrease in the case of any cultivator cannot be made consistently with economic cultivation:

Provided also, that in framing such scheme the Union Board may consult the District Agricultural Officer, who shall, on the requisition of the Union Board, give it his opinion on the scheme proposed by the Union Board.

14. **Appeal against village scheme.**—(*1*) Any person aggrieved by a village scheme framed by the Union Board may within fifteen days from the publication of the scheme appeal to the Director of Agriculture, stating fully the grounds for objection to the scheme.

(*2*) The Director on receiving such an appeal shall forthwith send a copy of it to the Union Board and the District Agricultural Officer for report and after receiving such report he may either summarily reject the petition of appeal or refer it for decision to an officer not below the rank of a Superintendent in the Department of Agriculture.

(*3*) The officer to whom an appeal is referred under the last foregoing clause shall investigate the question raised on the spot and, after making such enquiry as he thinks fit, he may either confirm or modify the scheme framed by Union Board:

Provided that the scheme framed by such officer in modification of the scheme shall be in conformity with the requisition of the Board.

15. **Revision of Jute register and issue of licences.**—When a scheme has been framed by a Union Board, and, if there is an appeal, when a decision has been given on appeal, the Union Board shall revise the Jute register, take such steps as may be prescribed to give effect to the village scheme.

16. **Village Jute Board.**—In areas where there are no Union Boards the function hereby assigned to Union Boards shall be exercised by the Village Jute Boards constituted by the Local Government for those areas.

## CHAPTER V.

### MISCELLANEOUS.

17. **Publication of Jute prices.**—(*1*) The Director of Agriculture shall from time to time, and as often as may be necessary, prepare for publication a detailed statement of jute prices in the market, as well as of the market in the future, and despatch such statements to Union Boards by post or by telegraph as he deems fit.

(*2*) Every Union Board shall, on receiving a statement under the preceding section, cause it to be hung up on a notice board in the office of the Union Board and also notify the facts contained therein in such manner as the Board thinks fit.

18. **Other functions of the Board.**—No action shall be taken by the Government with regard to any matter directly or indirectly affecting

the cultivation or marketing of jute or for the organisation of scientific or economic researches on jute except on the advice of the Board and the Government may require the Board to give its advice on any question affecting agriculture in the Presidency.

19. **Power of framing rules.**—The Local Government may, with the advice of the Board from time to time, make rules consistent with the provisions of this Act and in particular, without prejudice to the generality of the above provision, may make rules—

(*1*) prescribing the procedure at meetings of the Board:

(*2*) prescribing the form of the register of jute lands to be maintained by Union Boards:

(*3*) prescribing the mode of the publication of provincial and village schemes and Union Boards:

(*4*) for constituting Village Jute Boards in areas where there are no Union Boards and prescribing their constitution and functions:

(*5*) for providing the procedure to be adopted by Union Boards to give effect to their village schemes.

## STATEMENT OF OBJECTS AND REASONS.

Jute is the most important source of the wealth of the Presidency, and it is one in respect of which Bengal enjoys a practical monopoly in the world.

Nevertheless the price of jute has, within recent years, fallen to a level at which it does not even suffice to pay the cost of its production. The result has been disastrous to the people notably to the people of Eastern Bengal. Year after year the jute producing districts have been suffering a heavy loss by the cultivation of an article which, with a little organisation, could make the people of all grades prosperous.

One of the chief causes of the fall in the price of jute has been production in excess of the world demand. And this again is due to the wholly disorganised condition of the growers of jute and the absence of any attempt on their part to adjust the crop to the world demand so that it might fetch a fair price.

The present position is that in a normal season the quantity of jute produced is greatly in excess of the world demand. And the surplus stock of jute is increasing year by year. The situation has become one of such urgent importance to the people of Bengal that to leave the prices to be adjusted by natural processes would mean disaster to the entire community.

Intervention of the public authorities to prevent the disaster is therefore urgently called for. Having regard to the widespread area of production and the backwardness and illiteracy of the cultivators, there is no near prospect of their producing their own organisation for dealing with the situation. This Bill therefore seeks to provide an organisation by which the production of jute may be so adjusted as to maintain as high a price-level of jute as may safely be kept up. It is hardly necessary to add that if by this means jute prices could be raised it would immediately lead to greater prosperity all round. An increase of each rupee per maund in the price of jute would bring approximately five crores of rupees to the people. And considering that jute prices could easily be raised by Rs. 8 per maund above the present prices without any apprehension of serious competition from other materials, a successful regulation of the jute crop may easily add about rupees forty crores to the wealth of the people.

Incidentally it might give relief to the finances of the province. For, in the event of a substantial increase in the price of jute as a result of regulation, it would be possible to impose a substantial tax in the shape of an excise duty or toll upon it which might bring a large revenue.

This Bill proposes to carry out the scheme of regulation of production through the agency of Union Boards. As the jute producing districts have mostly been covered by Union Boards, they furnish a useful instrument for the carrying out of the work.

The framing of a provincial scheme for regulation of cultivation of jute is entrusted to a Central Board, which will be necessary. The programme of cultivation cannot be settled piecemeal. It must be done on a provincial scale and by persons competent to take account of the necessary factors and determine the amount required to be produced with reference to the world demand.

The constitution of the Central Board has been framed so as to secure representation on it of all the various interests and also to provide for the representation of those officers of the Government whose function it may be to deal with various matters connected with it. This it is hoped will prevent circumlocution and enable the Board to deal directly with Union Boards without passing through any further official channels.

Provision has been made for a revision both of the village and of the provincial scheme, so that any errors due to want of consideration of relevant facts may be remedied. At the same time care has been taken that the decision should be promptly and finally made without interminable appeals and reviews.

In the framing of a village scheme an option has been provided for voluntary compliance by the cultivators with the requisition of the Central Jute Board. The Union Board will frame a scheme of its own only when the voluntary offers of the villagers individually are not adequate to satisfy the requisition of the Central Board.

Both in the choice of the instruments by which the scheme is worked and in the procedure care has been taken to see that the regulation of jute cultivation is done by the representatives of the people concerned and not by a strictly official agency.

Although I am satisfied that in the long run, to secure the compliance of villagers to the village scheme, some measure of compulsion will be necessary, no such provision has been embodied in the present Bill, and it is contemplated that the Government will make rules providing a procedure for securing voluntary compl[illegible] the cultivators of the village.

The Bill only seeks to secure a regulation of the total area of land cultivated with jute. The total quantity of jute produced depends on other factors than the area cultivated. Climatic influences, seeds selection and other factors are also important. These factors are not capable of regulation. But having regard to the fact that the outturn of jute per acre has varied within narrow limits owing to extraneous causes, the regulation of the area cultivated with due regard to the prospects of the market is nevertheless expected to furnish a sufficient security against over-production as well as against undue restriction to the detriment of the people's interests.

There are other factors to consider besides restriction of production and important reforms will have to be carried out in the system of marketing jute before the full benefit of its value can be secured to cultivators. That is a matter which must be dealt with in future and in respect of which the Jute Board when constituted under this Act will be able to give competent advice.

N. C. SEN GUPTA,

*Member-in-charge.*

*The 18th November, 1930.*

## APPENDIX XVI.

(*Vide* page 89 of the Report).

No. 3967, dated Calcutta, the 29th July 1933.

From—L. R. Fawcus, Esq., I.C.S., Secretary to the Government of Bengal, Agriculture and Industries Department,

To—The Secretary, Jute Enquiry Committee.

**Minister-in-charge: The Hon'ble Nawab K. G. M. Faroqui, Khan Bahadur.**

I am directed to say that Government (Ministry of Agriculture) have decided that questions of currency and monetary policy are outside the terms of reference of the Jute Enquiry Committee mentioned in Resolution No. 631 Agri., dated the 6th February 1933.

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