

INDIAN COTTON COMMITTEE

MINUTES OF EVIDENCE

TAKEN BEFORE THE

INDIAN COTTON COMMITTEE

VOLUME IV

COMMERCIAL

PART I

MINUTES OF EVIDENCE FROM UNITED PROVINCES, CENTRAL PROVINCES,
BURMA, PUNJAB, SIND AND BOMBAY.



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NOTE.

It is regretted that it has been impossible to publish the evidence given before the Indian Cotton Committee earlier owing to the transfer of the Secretary to other duties in August, 1918. For convenience of reference, the evidence has been classified under the three heads, Agricultural, Irrigation and Commercial. Volumes I and II contain the Agricultural Evidence, Volume III the Irrigation Evidence and Volumes IV and V the Commercial Evidence. The evidence of a witness will, therefore, be found in one or other of these volumes according to its predominating character. The references in black type in the written statements are to the questions issued by the Committee which are printed at the commencement of each volume. Thus "(30) Local trade customs" shows that the paragraph is a reply to question 30. A glossary of the more common vernacular terms used in the evidence is appended.

F. NOYCE,
Secretary,
Indian Cotton Committee.

BOMBAY ;
October 1st, 1919. }



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Glossary of the more common vernacular terms used in the evidence.

Amin	.	.	.	.	.	.	Subordinate official of the Irrigation Department.
Arat	.	.	.	.	.	.	Commission.
Aratya	.	.	.	.	.	.	Commission agent.
Arhar	.	.	.	.	.	.	Pigeon pea (<i>Cajanus indicus</i>).
Bajra	.	.	.	.	.	.	Bulrush millet (<i>Pennisetum typhoideum</i>).
Bania	.	.	.	.	.	.	Village shop-keeper and money-lender.
Barani	.	.	.	.	.	.	Land dependent on rainfall.
Bhata	.	.	.	.	.	.	Lateritic soil in the Central Provinces.
Bhindi	.	.	.	.	.	.	Lady's finger (<i>Hibiscus esculentus</i>), a vegetable.
Bhusa	.	.	.	.	.	.	Crushed straw.
Bigha	.	.	.	.	.	.	A land measure, usually about three-eighths of an acre.
Bora	.	.	.	.	.	.	Bag of unpressed cotton of varying weight, generally five maunds.
Chari	.	.	.	.	.	.	Great millet (<i>Sorghum vulgare</i>) grown as a fodder crop.
Chaudhri	.	.	.	.	.	.	A headman.
Dalal	.	.	.	.	.	.	Broker.
Deshi	.	.	.	.	.	.	Indigenous.
Docra	.	.	.	.	.	.	Bag of unpressed cotton of varying weight, generally five maunds.
Ghats	.	.	.	.	.	.	Hills.
Gwar, gwara	.	.	.	.	.	.	Field vetch (<i>Cyamopsis psoralioides</i>), a fodder crop.
Hari	.	.	.	.	.	.	Cultivating tenant in Sind.
Inam	.	.	.	.	.	.	Land held on favourable terms or free of land revenue.
Juar	.	.	.	.	.	.	Great millet (<i>Sorghum vulgare</i>).
Kamdar	.	.	.	.	.	.	Fieldman : subordinate in the Agricultural Department.
Kan	.	.	.	.	.	.	Weight of lint obtained from unit weight of unginned cotton.
Kanungo	.	.	.	.	.	.	Subordinate revenue official in charge of a group of villages, known as Revenue Inspector in Madras and Circle Inspector in Bombay.
Kapas	.	.	.	.	.	.	Unginned cotton.
Karbi	.	.	.	.	.	.	Dry <i>juar</i> fodder.
Karnam	.	.	.	.	.	.	Village accountant.
Kharif	.	.	.	.	.	.	The autumn harvest.
Khurpa	.	.	.	.	.	.	Hand hoe similar in shape to a trowel.
Killa	.	.	.	.	.	.	Square of land usually equal to 1½ acre in area.
Kodo, kodon	.	.	.	.	.	.	A millet (<i>Paspalum scrobiculatum</i>).
Kumbu	.	.	.	.	.	.	Bulrush millet (<i>Pennisetum typhoideum</i>).
Kunbi	.	.	.	.	.	.	A cultivator.
Kutki	.	.	.	.	.	.	A pulse (<i>Dolichos biflorus</i>).
Lakh	.	.	.	.	.	.	One hundred thousand.
Mahajan	.	.	.	.	.	.	Money-lender.
Makki	.	.	.	.	.	.	Maize (<i>Zea mays</i>).
Malguzar	.	.	.	.	.	.	Landholder in the Central Provinces.
Mandi	.	.	.	.	.	.	Market.
Methi	.	.	.	.	.	.	Fenugreek (<i>Trigonella foenum græcum</i>).
Moth	.	.	.	.	.	.	A pulse (<i>Phaseolus aconitifolius</i>).
Mukhtiarkar	.	.	.	.	.	.	Revenue officer in charge of a <i>taluka</i> (q.v.) in Sind.
Mung	.	.	.	.	.	.	A pulse (<i>Phaseolus mungo</i>).
Patel	.	.	.	.	.	.	Village headman.
Patwari	.	.	.	.	.	.	Village accountant.
Phutties	.	.	.	.	.	.	Unginned cotton : Kapas.
Rabi	.	.	.	.	.	.	The spring harvest.
Rui	.	.	.	.	.	.	Lint.
Sahukar	.	.	.	.	.	.	Money-lender.
Sailab, Sailabi	.	.	.	.	.	.	Land irrigated by floods or percolation from a river.
San	.	.	.	.	.	.	Hemp (<i>Crotalaria juncea</i>).
Senji	.	.	.	.	.	.	A fodder crop (<i>Melilotus parviflora</i>).
Shaftal	.	.	.	.	.	.	A fodder crop (<i>Trifolium resupinatum</i>).
Tahsil	.	.	.	.	.	.	Revenue sub-division of a district.

Tahsildar	Officer in charge of a <i>tahsil</i> , <i>taluk</i> or <i>taluka</i> (q.v.).
Taluk, taluka	Revenue sub-division of a district.
Til	Sesamum (<i>Sesamum indicum</i>).
Toria	An oil seed (<i>Brassica campestris</i>).
Tur	Pigeon pea (<i>Cajanus indicus</i>).
Urad	A pulse (<i>Phaseolus mungo</i>).
Varagu	Bulrush millet (<i>Pennisetum typhoidum</i>).
Zaildar	A rural notable appointed by Government. The head of a Zail or Circle of villages.
Zamindar	A landowner; in the provinces visited by the Cotton Committee generally a peasant proprietor.

VOLUME IV.

Commercial.

PART I.

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INDIAN COTTON COMMITTEE

MINUTES OF EVIDENCE

TAKEN BEFORE THE

INDIAN COTTON COMMITTEE

VOLUME IV.—Commercial.

PART I.

Questions issued by the Committee.

I.—AGRICULTURAL EXPERIENCE.

(a) "*Deshi*" short staple cotton.

1. In what cotton growing districts have you been stationed and for what period in each? Have you been in actual touch with cotton cultivators?
2. What varieties of *deshi* short staple cotton are grown in the districts with which you are acquainted?
3. What is the average size of holdings in which cotton is grown and what proportion of the holding is under cotton?
4. What are the average yields and profits per acre?
5. What rotations are followed and what manures, if any, are applied?
6. How does the return to the cultivator of the different varieties of *deshi* short staple cotton compare with the return from (a) *deshi* long staple cotton, (b) other *deshi*, crops (c) exotic cottons?
7. Does the area under *deshi* short staple cotton fluctuate at all largely in the districts with which you are acquainted, and if so, is there any special reason for this? Is there any possibility of an increase under *deshi* short staple cotton and if so, what are the factors which would limit that increase?
8. To what uses is the seed put? Is any seed selection practised and, if so, on what principles? Is seed selected for sowing specially hand ginned?
9. Please add any remarks you consider may be helpful to the Committee on the general economic state of the cotton growing districts with which you are acquainted.

N.B.—Please see note at end of Section (c) below.

(b) "*Deshi*" Long Staple cotton.

10. In what cotton growing districts have you been stationed and for what period in each? Have you been in actual touch with cotton cultivators?
11. What varieties of *deshi* long staple cotton are grown in the districts with which you are acquainted?
12. What is the average size of holdings in which cotton is grown and what proportion of the holding is under cotton?
13. What are the average yields and profits per acre of different varieties of *deshi* long staple cotton of which you have had experience? How do these compare with those of (a) *deshi* short staple cotton, (b) other *deshi* crops, (c) exotic cottons?
14. What rotations are followed and what manures, if any, are applied.
15. What, in your opinion, are the special conditions which would affect any increase in the area under *deshi* long staple cotton in the districts with which you are acquainted, e.g., length of ginning season, irrigation available, climatic considerations, competition with food crops, limitation owing to necessity of observing rotations, labour supply, etc.?
16. Do you consider that, in the cotton growing tracts with which you are acquainted, the right varieties of *deshi* long staple cotton are being pushed in the right districts or whether still superior types could be introduced?
17. What measures would you recommend to prevent the mixing of *deshi* long staple cotton with (i) *deshi* short staple cotton, (ii) exotic cotton (a) in the field, (b) in the factory?
18. To what uses is the seed put? Is any seed selection practised and, if so, on what principles? Is seed selected for sowing specially hand ginned?
19. Please add any remarks you consider may be helpful to the Committee on the economic state of the cotton growing districts with which you are acquainted.

N.B.—Please see note at end of Section (c) below.

(c) Exotic cotton.

20. In what cotton growing districts have you been stationed and for what period in each? Have you been in actual touch with cotton cultivators?
21. What varieties of exotic cotton are grown in the districts with which you are acquainted?
22. What is the average size of holdings in which cotton is grown and what proportion of the holding is under cotton?

QUESTIONS ISSUED BY THE COMMITTEE.

[Continued.]

23. What are the average yields and profits per acre of the different varieties of exotic cotton of which you have experience? How do these compare with those of (a) *deshi* short staple cotton, and (b) *deshi* long staple cotton, (c) other *deshi* crops.

24. What rotations are followed and what manures, if any, are applied?

25. What, in your opinion, are the special conditions which would affect any increase in the area under exotic cotton in the districts with which you are acquainted, e.g., length of ginning season, irrigation available, climatic considerations, competition with food crops, limitation owing to necessity of observing rotations, labour supply, etc.?

26. Do you consider that, in the cotton growing tracts with which you are acquainted, the right varieties of exotic cotton are being pushed in the right districts or whether still superior types could be introduced?

27. What measures would you recommend to prevent the mixing of exotic cotton with (i) *deshi* short staple cotton, (ii) *deshi* long staple cotton (a) in the field, (b) in the factory?

28. What is your opinion as to the desirability of importing seed direct from America or Egypt as required as against relying on selected seed grown in India?

29. Please add any remarks you consider may be helpful to the Committee on the economic state of the cotton growing districts with which you are acquainted?

N. B.—The Committee would be obliged if you would give them your views as to the best organization for handling cotton in your province. Under this head you might consider research in connexion with improvement of the plant, establishment of seed farms for the production of improved seeds, district staff necessary and the regulation of buying agencies and ginning factories.

II.—COMMERCIAL ASPECT.

30. Give, as fully as possible, an account of local trade customs with which you are acquainted in regard to the marketing of the cotton crop, in particular as regards any systems of agency, advances, future buying or contracts.

31. What are the commercial names of the various grades of cotton with which you are acquainted and from what areas do they come. Do you regard them as suitable and, if not, what alterations would you suggest? Can you suggest any means by which the commercial names could be standardized, i.e., of securing that the same name should be used for the same cotton from whatever locality it comes?

32. What do you consider is the best form of buying agency?

III.—STATISTICAL.

33. Do you consider that the cotton forecast, as at present published, is sufficiently accurate as far as your province is concerned? If not, can you suggest any way in which it could be improved?

34. Can you suggest any methods by which the statistical information published by Government in regard to cotton other than the forecasts, e.g., the cotton press return, could be made of greater use to the cotton trade?

35. What are your views in regard to the daily publication of Liverpool and Bombay cotton prices at up-country markets?

IV.—MANUFACTURE.

(a) Ginning and pressing.

36. What class of gins and presses do you use and how many have you in your factory?

37. What is the size of the bale produced by your factory?

38. What is your opinion as to the relative merits of saw and roller gins?

39. Have saw gins been successful with Indian cottons and, if not, what is the objection to them?

40. Have you experienced any difficulty in obtaining factory labour?

41. Do you find the condition in which raw cotton reaches your factory in any way objectionable and, if so, what remedies would you suggest?

42. Assuming that it were found possible to replace any large quantity of short staple cotton by long staple cotton, would any substantial alteration in your machinery be necessary?

N. B.—The Committee would be obliged by any information you can give them in regard to the general question of long *versus* short staple cotton and also in regard to any experience you have had in handling any new staple cotton.

(b) Spinning and Weaving.

43. What counts are spun in your factory and what is your principal market?

44. Do you find the condition in which cotton reaches your factory in any way objectionable and, if so, what remedies would you suggest?

45. What, in your opinion, would be the effect on the cotton market generally if any large proportion of the short staple cotton at present grown in India were replaced by long staple cotton?

N. B.—The Committee would be obliged by any information you can give them in regard to the general question of long *versus* short staple cotton and also in regard to any experience you have had in handling new staple cotton.

V.—GENERAL.

46. Does your experience indicate that buyers in the past have been prepared to encourage the growth of improved cottons by offering a premium for them?

47. Do you consider that the water rates charged have any effect on the cultivator's preference for a particular crop?

48. Do you consider that any changes are called for in the schedule of water rates at present in force?

49. Do you consider that the tenure on which land is held in the tracts of which you have experience in any way affects the extension of cultivation of cotton?

VI.—IRRIGATION.

(For Punjab witnesses only.)

50. Please state what experience you have had of irrigation in general and in particular of irrigation under canals. Have you any experience of canal irrigation assessment work?

QUESTIONS ISSUED BY THE COMMITTEE.

[Continued.]

51. Has it been your experience that cultivators prefer wheat to cotton as an irrigated crop? If so what is the reason for the preference?

52. (a) What is the critical period in regard to the water-supply in the canals of which you have experience? How would this be affected if there were an increase in the irrigated area under cotton between April and October?

(b) When is cotton watered and what is the volume of water required per acre at each watering?

(c) Please furnish statistics for the channels of which you have had experience showing—

(i) the average flow of the channels month by month throughout the year.

(ii) the average monthly area of each crop irrigated under the channels. It will be sufficient if the average for the last three years is given.

The maximum carrying capacity of the channels should also be stated.

53. (a) Are there any periods during which the supply in the rivers would be sufficient for a large expansion of the area under cotton to utilize which the canals could properly be enlarged with due regard to financial considerations? If so, please give figures for the canals of which you have experience.

(b) How would such an enlargement of the canals affect the area under wheat?

54. (a) To what extent could the duty of water on the canals of which you have experience be improved by equalising the distribution of the supply between the upper and lower outlets on the distributaries?

N. B.—In the Punjab this process is technically known as the "remodelling of outlets."

(b) To what extent could modules be used to effect this purpose?

(c) If the distribution were equalized, what additional irrigated area would accrue? What crops would be grown on this additional area?

55. Does the supply in the rivers increase gradually in spring and decrease gradually in autumn or are both the increase and decrease sudden? In either case what is the effect on the cultivator's preference for a particular crop? Please furnish, if possible, a diagram with statistics illustrating your reply for the canals of which you have experience.

56. (a) In cases in which canals carry a supply for irrigation during the summer months only, would it be possible for the sowings and final waterings of cotton to be carried out by irrigation from wells? Do you know any tracts in which such a combination of irrigation from wells and canals would be feasible in the case of American cotton?

N. B.—American cotton requires watering as follows:—

(i) First watering between March 25th and May 5th.

(ii) Three waterings between the time when the flowers begin to appear which is between July 20th and August 10th and the end of September.

(iii) A fifth and final watering in October.

(b) To what extent do wells exist in the areas commanded by the canals of which you have experience and what steps are required to extend the irrigation under them in those areas?

(c) Have you any experience of tube-wells and do you consider that their use would be valuable in this connexion?

(d) Do you consider that it would be possible sufficiently to improve the canal system by the construction of weirs or in other ways so as to obviate the use of wells?

(e) Can you give an idea of the cost of such an improvement in the canals and the time it would take to carry out as compared with the cost of the construction of the requisite number of wells and time it would take?

57. In case it were found possible to increase the size of canals and consequently the irrigated area under cotton, what addition to gross revenue at present rates for water would you expect? Please illustrate your reply from the statistics furnished in answer to other questions.

58. Can you give a rough estimate of the average area of each crop grown on a holding of 100 acres? How are these areas affected by the water supply, the necessity for growing a fodder crop and of preserving suitable rotations of crop? Would any proposal you have put forward bring about an alteration in these areas?

59. Have you any experience in regard to the lining of canals? Do you consider it a practicable measure?

60. Can you give a rough estimate of the probable cost of lining canals in terms of acreage irrigated? How does this compare with the acreage rates of cost of the canals in their present condition?

61. If it should prove desirable to enlarge a canal, could this be carried out in conjunction with lining? How would you propose to provide for the existing irrigation whilst the work of enlargement and lining was being carried out?

62. What effect would the lining of canals have on seepage problems and the rise in the subsoil water table? To what extent would the expenditure involved be justified on these grounds?

63. To what extent would the lining of canals improve the supply (a) in the summer months, (b) in the winter months? Would the expenditure involve be justified by the improvement, if any, effected under this head?

64. Do you consider that the water rates charged have any effect on the cultivator's preference for a particular crop? Do you consider that any changes are called for in the schedule of water rates?

VI.—IRRIGATION.

(For witnesses from Provinces other than the Punjab.)

65. Please state what experience you have had of irrigation in general and in particular of irrigation under canals. Have you any experience of canal irrigation assessment work?

66. When is cotton watered and what is the volume of water required per acre at each watering?

67. Has it been your experience that cultivators prefer wheat to cotton as an irrigated crop? If so, what is the reason for the preference?

68. Does the supply in the rivers increase gradually in spring and decrease gradually in autumn or are both the increase and the decrease sudden? In either case what is the effect on the cultivator's preference for a particular crop? Please furnish, if possible, a diagram with statistics illustrating your reply from the canals of which you have experience.

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69. (a) To what extent do wells exist in the areas commanded by the canals of which you have experience and what steps are required to extend the irrigation under them in those areas?

(b) Have you any experience of tube wells and do you consider that their use would be valuable in this connection?

70. Do you consider the existing water rates charged for cotton suitable? If you can give statistics to explain your answer, please do so.

71. Can you give a rough estimate of the average area of each crop grown on a holding of 100 acres? How are these areas affected by the water supply, the necessity for growing a fodder crop and of preserving suitable rotations of crops? Would any proposals you have put forward bring about an alteration in these areas?

72. Do you consider that sufficient water is available for a considerable increase in the area of cotton and, if so, why is a larger area not irrigated?

73. Is it your experience that cultivators prefer *deshi* cotton to American cotton? If so, can you explain their reason for the preference?

74. Is it your experience that the canal regulations create any difficulties in regard to the irrigation of American cotton?

I.—United Provinces.

Upper India Chamber of Commerce.

EXAMINED AT CAWNPORE, NOVEMBER 2ND, 1917.

Written statement.

Proceedings of a Conference of representatives of the local Cotton Mills held at the Upper India Chamber of Commerce at 8 A.M., on Tuesday, the 9th October 1917, to discuss and draft replies to the question issued by the Indian Cotton Committee.

PRESENT:

Mr. T. Smith	The Muir Mills Company, Limited.
Mr. T. D. Edleston	The Elgin Mills Company, Limited.
Mr. A. A. Black	The Victoria Mills Company, Limited.
Mr. A. Horsman	The Swadeshi Cotton Mills Company.
Mr. J. G. Ryan	Secretary of the Chamber acted as Secretary to the Conference.

3871. *Preamble*.—The questions issued by the Indian Cotton Committee were read and replies were drafted to such of the questions as appeared to be competent to the interest represented. The questions under the head I.—Agricultural Experience were not touched upon.

II.—COMMERCIAL ASPECT.

3872. (30) *Local trade customs*.—In Cawnpore, the local ginners buy the *kapas* which comes into the market in carts, at so many seers per rupee. The consuming mills buy cotton from the ginners or from cotton merchants. The price is governed by Bombay and Liverpool. A certain amount (3,24,000 maunds in 1916) of *kapas* comes in by rail. The bulk of this is imported by ginners. Ralli Brothers are considerable purchasers in the Cawnpore Market and the Japanese have now come in strongly also. The business of the Cawnpore Market may be said to be entirely "spot."

3873. (31) *Standardization of commercial names*.—The grades here are broadly divided into (a) *Deshi*, which includes all cottons from Bengal and the Punjab, and (b) the longer stapled *Deccani* which comprises all the various grades grown in Central, Western and Southern India. The *deshi* types are graded by numbers rising by halves from 5½ to 7.

(2) We do not consider that standardization on American lines would be possible in India. The name of the place where the cotton is grown counts for so much with the Indian dealer who handles the cotton that it becomes practically a standard in itself. Standardization would lead to the dealer mixing to attain a standard of quality and this is to be deprecated. Manufacturers prefer to do the mixing themselves. Whatever the name of the cotton, manufacturers buy on sample.

3874. (32) *Buying agencies*.—We have no definite workable proposals to make for the elimination of the middleman who handles the cotton between the grower and the consumer.

III.—STATISTICAL.

3875. (33) *Improvement of cotton forecast*.—The present forecasts, while in our experience sufficiently accurate, would gain greatly in value if issued with greater promptness and we suggest that they could be still further improved if experienced responsible officers were detailed to tour in the cotton-growing districts to view the growing crop and to collect accurate first-hand information of the condition of the crop and to make it readily available.

3876. (34) *Improvement of other statistical information*.—Press returns and returns of cotton received in mills based on the voluntary submission of returns by presses and mills are valueless. The submission of these returns should be made compulsory.

3877. (35) *Publication of Liverpool and Bombay prices*.—Cotton dealers in Cawnpore are in constant receipt of telegrams giving the Liverpool, American and Bombay prices.

IV.—MANUFACTURE.

(b) Spinning and Weaving.

3878. (43) *Counts spun and market for yarn and cloth*.—The counts spun in Cawnpore range from fives to 20½'s. The principal market is the United Provinces.

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[Continued.]

3879. (44) *Condition of cotton*.—Cotton arrives at Cawnpore well packed and well pressed, but Deccan cotton, in particular, gives evidence of bad picking, bad ginning and a high percentage of impurities and frequently of an admixture of inferior cotton.

3880. (45) *Effect in cotton market of replacement of short staple cotton by long staple*.—It would have a beneficial effect if the present short staple cotton in India were replaced by a longer stapled *indigenous* cotton.

V.—GENERAL.

3881. (46) *Attitude of buyers to improved cottons*.—Our experience indicates that buyers in the past have been prepared to encourage the growth of improved cottons by offering a premium for them.

ANNEXURE I.

Letter from the Upper India Chamber of Commerce, Cawnpore, to the Deputy Director of Agriculture, Central Circle, Cawnpore, dated April 10, 1917.

We are in receipt of your No. 6938 of the 22nd instant and note that you have received a better offer than ours for the K22 cotton you had for sale.

We note that on the basis of the prices mentioned by us in our letter of the 19th March, K22 would be slightly more profitable than Aligarh white-flowered cotton, by which we presume you mean slightly more profitable to the cultivators, and in this connexion we should have been interested to learn what comparative value the buyer of the K22 would place upon these two sorts of cotton.

Generally speaking, in our opinion, the whole question of the cultivation of these new types of cotton requires very careful consideration, and we think also that the Department would be well advised to obtain the opinion as a whole of the cotton mill-owners of Cawnpore, as to the relative merits of the various new types, not only as compared with one another but as compared with ordinary *deshi*.

We would like to make it clear that though spinners would naturally prefer to get a better cotton, still, until a better type, such as K22, is available in large quantities, we and spinners generally are satisfied to go on using ordinary good *deshi*. We have no desire, in fact, it would be disastrous to us, to see the supply of *deshi* largely curtailed in favour of an inferior type such as the Aligarh white flower, for reasons which we deal with below.

We understand that the cultivation of Aligarh white-flowered is now being carried out on a comparatively large scale, and that efforts are being made by the Department to still further extend its cultivation, and we may say at once that this cotton is entirely unsuitable to the needs of Indian spinners—an opinion which is shared with us by other local mill-owners and managers. The fibre is very short, and exceptionally harsh and coarse, characteristics which are, we believe, accentuated in years of scanty rainfall. From the spinner's point of view, the solitary good feature about the cotton is its good colour but, generally speaking, colour is only a secondary consideration with spinners in the case of short-stapled cottons.

We believe that, in deciding to extend the cultivation of this cotton, the Department takes largely into consideration its high ginning percentage coupled with the fact that since up till the introduction of Aligarh, the difference in quality between the various grades of *deshi* has not been large, the cultivators in any particular district have realized much the same price, namely that of the lowest quality for all their *kapas* whatever the quality.

In this connexion, however, it should be remembered that when cotton prices are normal, the difference in value between ordinary *deshi* and fine *deshi* is only a few rupees per maund, from which it is clear that the difference to the cultivator per maund of *kapas* is really very small indeed.

As the sorting out of the better qualities only commences to take place after the *kapas* has left the cultivator's hands, the resulting appreciation in value as the cotton passes through the hands of the *aratyas* the ginners, and the balers, benefits only these middlemen. Obviously, therefore, the temptation to the cultivator to grow the low class but high-yielding cotton is very great, but it must be remembered that if cotton which the ultimate buyers, namely, the spinners, can only use in small quantities be grown on a large scale, the first result, so far as the cultivator is concerned, will be merely to depreciate the standard of value upon which the price he obtains for all qualities is based. It is true that this may be compensated for at present by the fact that the cultivator of Aligarh produce a larger quantity of *kapas* from a given area than his neighbour who continues to grow *deshi*, but if and when the production of Aligarh begins to seriously curtail the outturn of *deshi*, it seems to us inevitable that, since spinners must have *deshi* its value will appreciate so much as compared to that obtainable for Aligarh that the cultivators themselves who still have *deshi* to sell will commence to realize a price sufficiently high to more than compensate for its lower yield, while those who have something better than *deshi* to sell, such as K 22, will be still better off. By this time however it may be the work of years to eradicate the seed of the inferior cotton, because as we understand it, the chief difficulty which has confronted the Department in every attempt to introduce new types of cotton has always been to prevent mixtures of seeds and to stop the cultivation of the older types. This being so, we presume it would be even more difficult to revert to *deshi* or to substitute another new type for one which had already been widely distributed and encouraged by the Department.

Apart from the cultivators' interests, however, we, as spinners, can only view with very grave apprehension the prospect of any considerable increase in the production of the Aligarh, firstly, because except to a very limited extent, and even then only when the weather is most favourable to spinning, it is useless to us, and secondly because, as stated above, it seems to us that a large increase in its production must inevitably tend to raise the price of the kind of cotton which we want and can use, and may ultimately drive us to obtaining our supplies from outside the United Provinces.

There is another very serious aspect of this matter also which concerns the cultivators equally with the spinners and that is the fear that the Aligarh may be used to adulterate *deshi* and other better cottons.

It is of course well-known that adulteration of the sort is carried out and, notably in the case of Hing-anhat, certain sorts of staple cottons are now avoided by spinners for this reason. It is we think more than probable that adulteration may be carried out even now in places where Aligarh and *deshi* are grown in close proximity, just as was the case a few years ago when it was found that *deshi* was being used to adulterate the American and Dharwar, of which the Department was promoting the growth.

Even however if no such adulteration is now practised, it is certain that this method will ultimately be adopted, whether by the growers or the ginners, or both, in order to get rid of excess and unsaleable quantities of Aligarh, and this we have no doubt the Department would be no less anxious to avoid than we ourselves.

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It is, therefore, we think necessary on every ground for the Department to give this matter their very serious consideration, because obviously your activities, however beneficial they may be at present to the cultivators, should not be allowed to injure the local spinning industry, if for no other reason than that this in its turn must reflect upon the cultivators.

Indeed, so far from attempting to further increase the spread of Aligarh or other similar inferior types, we are of opinion that the time has now arrived for you to consider whether it would not be in the best ultimate interests of the cultivators to curtail their growth, and endeavour to encourage the growth of K22 or other similar sorts instead.

Proceedings of a Conference with the Upper India Chamber of Commerce.

PRESENT ON BEHALF OF THE CHAMBER OF COMMERCE.

Mr. A. Horsman	Swadeshi Cotton Mills Company.
Mr. A. Horsman (Junior)	Swadeshi Cotton Mills Company.
Mr. T. Smith	Muir Mills Company, Ltd.
Mr. A. A. Black	Victoria Mills Company, Ltd.
Mr. B. West	Victoria Mills Company, Ltd.
Mr. S. H. Taylor	Elgin Mills Co., Ltd.
Mr. J. G. Ryan	Secretary.

3882. (*President.*) *The Chamber.* From what we have seen of Aligarh white-flowered cotton, it is very coarse with no staple in it though it has a good colour. We think therefore that the policy of the Agricultural Department in pushing the cotton is a bad one. The cotton is not as good as the ordinary Bengals. The Cawnpore mills will not touch it at all. On the other hand it has a market. The Japanese buy it for special purposes. So far as India is concerned, it is a bad policy to push such a cotton. We would not take any more of it. We should prefer to be without it. Mr. Leake's K22 is generally liked by the mills here. There is not any large quantity of it yet. It is a really good cotton. It spins 16's quite well. Its staple is quite good from our point of view. The length is $\frac{3}{4}$ to $\frac{7}{8}$ th inch.

3883. *Mr. Smith.*—The last lot was very good, the best we have seen so far. The mills here are moving in the direction of consuming longer staple cotton. The proportions are half to half in some mills and three-fifths *deshi* to two-fifths Deccan cotton in others.

3884. *Mr. Taylor.*—In the Elgin mills, the proportion is six of longer staple to one of *deshi*.

3885. *Mr. Black.*—The proportion of long staple cotton used has gone up lately since the war.

3886. *Mr. Taylor.*—We consider as staple cotton, cotton the staple of which is at least an inch.

3887. *Mr. Black.*—If Mr. Leake could bring up his K 22 to an inch in staple, everybody would be fighting for it.

3888. *The Chamber.*—K 22 is not on a commercial basis yet. Though you may have heard from some unbelievers that the Cawnpore people won't pay as much for K22 as for *deshi*, we are of opinion that that is not the case. There will be no difficulty in absorbing all the cotton of this variety which can be grown, in the mills here.

3889. *Mr. Horsman.*—The mills would take all they could get up to 60,000, or 100,000 bales. We like it immensely.

3890. *Mr. Smith.*—We would buy K 22 at the price at which a similar cotton could be purchased elsewhere. The price would be satisfactory.

3891. *Mr. Taylor.*—I have had experience of the ordinary Cawnpore American. I bought it for three years. In the first and second years it was quite good, but in the third year it began to fall off. The yield was particularly small. The yield the first year was about four hundred bales, in the second year it was a little less. Four hundred bales was the largest quantity that we have had in any one year. It has been falling off since then and the quality has not been so good.

3892. *Mr. Smith.*—It used to come in in small parcels which gave an infinity of trouble. We want cotton marketed in big lots. The Agricultural Department sells direct to the mills. That arrangement is satisfactory so far as it goes.

3893. *Mr. Taylor.*—I think the premium paid was a rupee per maund (100 lb) over No. 7, the best *deshi* cotton in the local market.

3894. *Mr. Smith.*—We don't think that Aligarh white flowered is replacing *deshi* in tracts from which we used to get *deshi* before. It is not affecting the supply of *deshi*. At least, so far it is not yet visible.

3895. *The Chamber.*—We have stated in our written evidence that we consider that the standardization of names on American lines is not necessary and that the name of the place becomes a standard by itself. Some years ago, Mr. Johnson, of this Chamber, urged the authorities to adopt measures to prevent deterioration due to inferior cotton coming into an area which was growing cotton of a higher quality. It might perhaps be possible to adopt that suggestion by prohibiting the movement of cotton in anything but fully pressed bales but that might be expensive and troublesome. We believe it is the practice in the Bombay Presidency to carry cotton in *boras* or *docras*. If that were prohibited, it might prevent the mixing which is complained of. There is a great deal of mixing in cotton but it is difficult to detect now.

3896. *Mr. Horsman.*—A fair quantity of Harpalpur (Bundelkhand) cotton may be mixed with cotton from Harda and Wardha.

3897. There are different ways of mixing. There is the mixture of short staple with long staple; then there is mixing with dirt and water. Short staple cotton is not watered. Dirty cotton is mixed with other cotton. Graded cotton is mixed with finer graded cotton. There are two systems of arbitration in Bombay—one for staple and one for grade. There is either a rebate for defective quality or the cotton is rejected.

3898. *Mr. Smith.*—There is no system of arbitration in Cawnpore and no difficulties arise.

3899. *Mr. Horsman.*—Cases are sometimes sent to Bombay for arbitration.

3900. *The Chamber.*—We consider Mr. Leake's line of experiment as the most promising and it is probably better than attempts to establish Cawnpore American.

3901. As to forecasts, Messrs. Ralli Brothers have frequently pointed out the inaccuracy of the forecasts. The Chamber of Commerce is not in a position to point out such inaccuracies as it is not in touch with exports.

3902. *Mr. Smith.*—The returns from cotton presses should be sent in regularly. At present they are of no use to us. To be of any value they must be made compulsory and complete.

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[Continued.]

3903. *Mr. Horsman.*—People can please themselves in regard to their submission at present. If they were compulsory as in America, they would be useful. They would give information in regard to India to the world outside.

3904. *Mr. Taylor.*—There are several reasons which add to the difficulty of making the so-called American cotton from the Punjab a success here. The Punjab Agricultural Department prescribes that we should go and buy our own *kapas* there, have it ginned and pressed under our own supervision. This is hardly workable for an individual firm. This is in regard to the cotton which the Punjab Agricultural Department guarantee as grown from pure seed. Anything we get down of the so-called Punjab American from the Punjab has, in every case, been mixed. In some cases it has been worse than in others. If we could get only pure cotton there would be a very big demand for it, I am sure. The cotton would be liable to be rejected entirely if it were mixed.

3905. *Mr. Smith.*—I tried to get a press in the Punjab (Lyallpur) to gin my cotton for me, but could not get it done. I purchased some cotton through a respectable agent last year. I purchased about one thousand five hundred bales.

3906. (*Mr. Wadia.*)—*Mr. Smith.*—I can think of no alternative to licensing ginneries. Assuming that they were licensed, you would then be able to exercise a certain measure of control. That might be the solution. If ginneries were licensed, one of the conditions of licensing should be that any damping of cotton in those ginneries should be followed by forfeiture of the license. I would certainly recommend that.

3907. *The Chamber.*—We should say flagrant and repeated cases of damping should be penalised both in gins and presses. We would extend that to deliberate adulteration in flagrant cases in which a man mixes *deshi* cotton with Cawnpore American or K-22, or Aligarh white-flowered cotton with K-22 and brings down the quality of the whole. We would make the reservation that the mixing should be fraudulent if an attempt be made to sell the mixture as a better quality. We are aware that up to 1876 there was a Cotton Frauds Act in this country which was repealed on the main ground that the Inspectors under that Act were not honest. If ginneries were licensed and damping and adulteration of cotton were made penal, the same difficulties might arise again. We do not think that legislation would improve the morality of inspectors when you have a venal lot of men to deal with.

3908. *Mr. Smith.*—I do not think that damping was included in that Act, but adulteration came under it.

3909. *The Chamber.*—We are rather inclined to think that a distinction might be made between adulteration and damping. It is impossible to legislate to prevent a man from mixing good and bad cotton.

3910. *Mr. Smith.*—I think that damping could be controlled. We made a representation to the Government of India that damping should be the subject of legislation. It should be controlled at the presses. There is no object in watering *kapas* as the damp has to be got out before ginning.

3911. *The Chamber.*—We have no system of testing for moisture but know of the testing houses at Havre in France.

3912. *Mr. Taylor.*—A testing house would only be useful for specific cases as far as we are concerned. The test would be on the basis of absolute dryness.

3913. *Mr. Horsman.*—A testing house is a good idea, but whether it would pay is another matter. If a testing house were established in Bombay, the cotton might get damper on the way to Bombay. The best remedy to prevent damping and adulteration is for the mills to join together and to gin and press their own cotton. Hathras and Agra can join with Cawnpore and gin and press their own cotton for themselves. That is one way of getting cotton pure. The risk of fluctuations would have to be taken but there would not be much loss.

3914. *Mr. Smith.*—There was one mill at Cawnpore which tried to gin its own cotton. They had to give it up and to sell the ginning plant. It did not prove a success.

3915. *Mr. Horsman.*—I think it would pay the mills to do as I have suggested. The existence of pools causes the mills to pay more for their cotton but makes no difference to the cultivators. The mills pay for the gins and presses that don't work.

3916. *Mr. Smith.*—The mills pay part but in all probability the grower also gets less.

3917. *The Chamber.*—We would welcome any practicable scheme for breaking up ginning and pressing pools.

3918. *Mr. Smith.*—The mixture of unginned cotton with ginned cotton is fairly frequent.

3919. *Mr. Black.*—Any mixture to a large extent of unginned cotton with ginned cotton would lead to the rejection of the bales.

3920. *Mr. Smith.*—The licensing of ginneries and the withdrawal of the license unless a gin is actually working as well as the standardization of ginneries is a matter requiring thought. The standardization of ginneries might lead to the standardization of cotton mills.

3921. As to an export duty on cotton, this Chamber has recommended an export duty on raw cotton. We are in favour of such a duty and we think that this revenue should be earmarked for the improvement of cotton. Lancashire would ultimately benefit from such a measure.

3922. (*Mr. Hodgkinson.*)—*Mr. Smith.*—No pure American cotton is used in Cawnpore. Ralli Brothers are fairly large purchasers of cotton grown in this district. They buy on samples.

3923. *Mr. Black.*—If a farmer has a small quantity of long staple *kapas*, he sells it to the ginneries. He simply sells the *kapas*. The ginneries sell the cotton to Rallis.

3924. *Mr. Smith.*—Rallis buy *kapas* from the middleman who has bought it from the cultivator. They get it ginned. Most of their cotton goes to Bombay.

3925. *Mr. Horsman.*—I doubt if Rallis would give a sufficient price to encourage the growth of long staple cotton unless a large quantity was forthcoming, i.e., not less than 1,000 bales.

3926. *Mr. Smith.*—The Chamber of Commerce has its own arbitration rules but disputes are very few and they are generally settled by the members themselves. We deal with very respectable firms and it would be a serious matter for them if their names were taken off our lists. There is no future market in Cawnpore. In the event of bad weather and crop reports, spot prices go up straight away and the price goes on rising.

3927. *Mr. Horsman.*—Since the last rains the price of ordinary *deshi* has gone up by Rs. 4 and Rs. 5 per hundred pounds, i.e., about $\frac{3}{4}$ l. a lb.

3928. *Mr. Smith.*—Cawnpore American comes in in small experimental lots and is giving evidence of deterioration. It is still in an experimental stage. We shall take it, there is no doubt about that. In the event of large quantities of long staple cotton being grown in this district as well as in India generally, there is no doubt that a large proportion would be used by the Indian mills and a large proportion would be

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[Continued.]

- (b) *Deshi* long-staple cotton.
(c) Exotic cotton.

In order to deal with each of the three qualities it will be necessary to give an idea what difficulties we experience in each variety.

3955. *Difficulties in dealing with "deshi" short-staple cotton.*—This head covers all cotton grown in the United Provinces and Punjab with the exception of the exotic variety grown in these provinces and long staple cotton grown in some of the districts of the North-West Frontier Province.

(2) There are two sowings done in the United Provinces. The early sowing is done in the irrigated areas, i.e., where canal-water is available at the first shower in the month of June and the farmers depend chiefly on the canal-water for watering before the proper monsoon sets in. The second or the late sowing is done when the monsoon is fairly established after two or three good showers.

(3) The cotton sown early benefits largely if, by chance, the monsoon turns out to be a failure but if not, the crop being sown early begins flowering and the pods begin appearing just at the time when the other late-sown cotton wants rain badly and the result is that with timely rain the cotton sown early is either entirely ruined or damage to a great extent is done, injuring both the staple and the colour, to say nothing of the poor yield. This happens almost every year and I would suggest that some suitable steps be taken by the Agricultural Department to induce the farmers interested in sowing at the different periods to regulate their sowing time so that the bad result experienced by the early sower be avoided.

(4) The second stage is the handling of the cotton by the ginneries. Here all qualities of *kapas* are purchased and mixed without the least trouble being taken of keeping good quality cotton separated from the bad. The buyers of *kapas*, who are either interested in the export trade or spinning mills take a good deal of care and do not allow indiscriminate mixing. The gins are very often in such a bad condition that the people responsible for working them, mostly look to the outturn and entirely waive the point of keeping them in good condition, so much so that the setting is sometimes deliberately altered to cut the seed in order to increase the production at the expense of injury to cotton.

(5) The third stage comes in the pressing of cotton. Here again cotton is subjected to the treatment of artificial damping before pressing in order to increase the weight.

(6) The cotton under this head is used in spinning low counts for hand looms up to 14s or 15s, and is commercially called Bengal variety.

3956. *Difficulties in dealing with "deshi" long-staple cotton.*—This includes all the other qualities grown in India with Indian seed and covers a very wide range of varieties of cotton when looked at from the spinner's point of view. This cotton is used by the mills for spinning 16s to 24s and also as far as 30s.

(2) The defect in this variety is mainly the habit of picking *kapas* from the ground after it has dropped from the plants and got mixed with the dry leaves which stick to the fibre so much that it becomes almost impossible for the spinners to get rid of them entirely in spite of the very rigorous treatment to which they put the cotton before spinning. Sometimes this defect is visible in cloth also and makes its appearance bad. It is a matter of great pity that owing to the farmers sticking to the prevalent custom, they spoil cotton to such an extent that percentage of loss becomes a great burden to the spinner. From experience, I can confidently say that if this custom were by some means stopped, the spinning qualities of this class of cotton would improve materially, as the cotton in this case would not be subjected to the same recurring process of cleaning in order to get rid of the dirt and the injury done to the fibre would be stopped. It would not be out of place to mention here that some varieties of cotton although possessing the best spinning qualities are so dirty that the loss does not in many instances amount to less than fifteen to twenty per cent.

(3) The second great defect in some districts where this quality is grown is the most abominable system of watering loose cotton before pressing. In some of the Benar districts, bags of loose cotton are spread out in the afternoon previous to baling on ground which has been completely wetted by water. A second layer of bags is stacked over this and this layer of bags is watered to dripping point and this process is continued till the stacking is finished and then a thick piece of gunny soaked in water is spread on top of the last layer and the stack allowed to remain in this manner until the morning when the cotton is taken out of the bags, well mixed, and then pressed. In some places, a special man is deputed to water the stack by means of a hose pipe twice during the night, once at about 12 o'clock and again at 4 o'clock in the morning, say an hour before the mixing commences. This procedure, while making the purchaser of the cotton a very heavy loser in weight, discolours the cotton and weakens the fibre and thus the original qualities in the cotton are not maintained. Although numerous attempts have been made by the different merchants and the Chambers of Commerce against this practice, nothing so far has been done to wipe out entirely this defect. I am strongly of opinion that nothing less than strong legislative measures would compel the doers of this mischief to abandon this malpractice. The Government of India have not up to now thought it necessary to legislate in this behalf and suggestions have been put forward for the establishment of sample houses where cotton could be tested and a suitable allowance determined to be paid to the purchaser for the defect. This, I have not the least doubt, would work satisfactorily for some time, but looking to the continual shortage of the world's cotton crop to meet the demands of the cotton mills increasing continually every year without a corresponding increase in the area under cotton, the position of mills would become very critical and, instead of buying cotton on the basis of sample houses, they would have to content themselves with whatever cotton they would get. Taking for granted that the position of the spinner would not get so serious by keeping the cotton crop apace with the additions in the number of new cotton mills, there crops up another difficulty to which there does not appear to me a solution. The merchants would start fixing two rates for the same class of cotton: one with the sample house survey certificate, the price for which will be fixed higher than for the cotton without such a certificate. This would continue for some time and gradually there would be more transactions without the survey certificate than with the certificate. This would again help those people addicted to the nefarious habit of tampering with cotton and thus the system would slowly dwindle down to almost nothing. I have seen in some markets the very same sort of thing happening and the sales without survey certificates becoming more popular than the ones with certificates.

(4) Under these circumstances, I very strongly urge that the malpractice now current in the districts where this cotton is grown cannot be stopped without proper legislative measures being adopted.

3957. *Difficulties in dealing with exotic cotton.*—This variety is mainly grown from American and Egyptian seed in some portions of India. The quality so far produced has been very successful and I think that, with proper care of the fields as the preparing, manuring, and sowing, the quality would not only be maintained but improved. The greatest care must be taken to arrange for separate ginning of this variety to avoid

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[Continued.]

the mixing of seed and periodically, say, every two or three years' the seed must be changed by fresh imports from America and Egypt. Seed farms in suitable places must be established for distributing seed to the farmer. Arrangements should also be made either through the Agricultural or the Revenue Department to give suitable directions and hints to farmers for the proper handling of this variety.

3958. (45) *Effect on cotton market of replacement of short-staple cotton by long-staple.*—The replacement of the short-staple cotton by that of long-staple would have a very peculiar effect on the cotton market. The price of long-staple cotton would go hand in hand with the price of cotton of the same quality grown in America. The countries that at present depend on most of their supplies from America would look to India to supply their wants, it not in full, at least for a portion. It would chiefly depend on the quality of cotton grown, how the foreign merchants come into India and try to purchase this cotton. If this cotton would be able to replace considerably the American cotton, I am afraid India would see very high prices as the main competitor would be Japan, who on account of its near situation, would try to capture a good quantity, unless some protective measures were adopted by Government to safeguard the interests of the Indian mills and which I would strongly advocate.

Messrs. JAI RAM DAS and SRI RAM KHANNA, representatives of the United Provinces Chamber of Commerce called and examined.

3959. (President.) *Mr. Jai Ram Das.*—I am a cotton merchant. I bring *kapas* from middlemen and gin it myself. I do the selling and my partner does the ginning. I find a mixture to a great extent in American cotton. But at the Government auctions in the Punjab the percentage of mixture is announced beforehand. I belonged to Lyallpur originally. I buy extensively in the Punjab, but do not buy to any great extent in the United Provinces.

3960. (Mr. Wadia.) I find much damping in the cotton that I buy from the villages. The damping is sometimes done intentionally. The *kapas* is brought in in big carts. The upper layers of the cart are not damped. It is generally in the middle layers that we find the damp cotton. In such cases we cut the price. There is some adulteration with leaves and dirt, but all these facts are taken into consideration when we fix the price of the cotton purchased. I gin myself and sell the cotton to the mills here or send it to Karachi and Bombay. The adulteration and damping and mixing of cottons both ginned as well as *kapas* could be stopped in two ways. It could be stopped by forming co-operative ginneries with a view to keeping up a proper standard of ginning otherwise legislation is the only remedy.

3961. My gins work under a pool arrangement both at Lyallpur and Chuk Jhumra. The pool is only a ginning pool and not a buying pool. My partner is Malik Mathuradas at Lyallpur.

3962. I do not know whether we get a comparatively better price for mixed cotton than for pure American cotton in Bombay. The reason for the mixing that goes on is that, in the Punjab, American cotton is fetching a very high price in comparison with *deshi* and the mixture takes place in order that the *deshi* which is mixed with a certain quantity of American may be passed off as American and thus fetch a higher price. This mixture is done fraudulently. Mixing with *deshi* does not improve the colour of Cawnpore American. My cotton sent down to Bombay is subject to survey there as any body else's. We do business in Bombay through our commission agents and our cotton is subject to all the conditions of the market in Bombay including arbitration. Heavy penalties are at times imposed by the arbitrators for mixing but up till now we have never had any occasion to resort to arbitration.

3963. I have stated in my written evidence that the cultivator has to face great difficulties practically at every step and is therefore unable either to improve the condition of the field or the quality of the crop. The reason for this is that the moment the cultivator finds his crop ready in comes the demand for revenue and rent. He is therefore in a hurry to throw it on the market and the foremost idea that enters into his mind is that his crop should be the very first one to enter the market and so to bring him a price (better or otherwise is no question). In his hurry he does not look to the quality of his article, but he is only anxious to get into the market as quickly as possible. He cannot store it: he must part with it to meet the demands for rent and revenue. If some adequate financial facilities were afforded to the cultivator, prospects would be better. If nothing else is done, at least the village co-operative banks might be asked to advance money on the security of produce. The time for the collection of revenue must be changed. There are some other changes required in the law. For instance, the idea is that the current years produce of the cultivator is liable to forfeiture for any arrears of rent of the previous year. It would be beneficial if the law were altered so as to make the current year's crop only liable to forfeiture for the present year's revenue or rent only. The time for the collection of revenue is too close to the time when the cotton is ready. The revenue falls due in May and June and the second collection is some time in January. The time varies in different districts. The cultivators should be able to get loans from co-operative banks to pay their revenue and to enable them to hold up their produce.

3964. There are a number of intermediaries between the cultivator and the ginner. Usually two. It all depends upon the custom of the market. Sometimes the cultivators bring their produce into the market and sell it through the commission agent. The commission agent is always there. The commission agent only gets his commission, sometimes eight annas and sometimes twelve, and some incidental charges.

3965. (President.) The cotton forecasts as they are at present are fairly accurate. The work is done by the *patwaris*. These men sometimes go round the villages and sometimes they do not. They do not report the condition of the crop exactly, but they simply say whether the crop is good or bad. If the statistical work were taken away from the *patwaris* and placed under the control of responsible authorities, it is bound to do a lot of good.

3966. The submission of ginning and pressing returns should be compulsory for all ginneries and presses.

3967. The publication of Liverpool market prices would be useful to the *zamindars* as well as to the dealers but, under present conditions the Bombay market reports would be more useful. I doubt, however, if the cultivators are in a position to realize their importance and the ginner and middlemen get to know their contents in other ways.

3968. (Mr. Roberts.) My Company is the Lyallpur Sugar Company. We also act for Messrs. Tata's. I do not know how many bales we pressed last year. All the bales did not go to Bombay, but some came to Cawnpore. For a maund of ginned cotton delivered here, I got Rs. 40 to 43, but later on I was offered Rs. 48 when I had no cotton to supply. That rate was offered after the rains. In 1914, I got only Rs. 16 to Rs. 17 for a maund of 100 lbs. of cotton delivered here but that was an abnormal year. I have never bought any Cawnpore American. In my opinion, Punjab American is better. My experience with the local mills is that they are quite satisfied with Punjab American. I get it ginned at Chuk Jhumra.

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3969. *Mr. Sri Ram Khanna.*—I agree. The Punjab American is not mixed.3970. *Mr. Jai Ram Das.*—I have not got a factory in the Lower Bari Doab Colony, but I am contemplating starting one.3971. As to whether I get a better market for Punjab American in Bombay than in Cawnpore, it depends upon circumstances. Sometimes there is a better market in Bombay. In Bombay we deal with commission agents; here we deal directly with the mills. The quality of the Punjab American crop is keeping up very well. There has been no deterioration. I think last year's crop was better than that of the year before. That was the opinion given by the Elgin Mills. The cotton was purchased mostly from the auctions. Some was purchased from cultivators too. The opinion of the *zamindars* in regard to the American cotton is favourable. I came to Cawnpore in 1913. I have had experience in Lyallpur for seven years. I used to get a considerable quantity of American cotton from Jhang District. I think that auctions might be successful here. I see no reason against it.3972. (*Mr. Henderson.*) I know American cotton is being grown here in the United Provinces, but I have never dealt in it. In my opinion Punjab American is better than Cawnpore American. I have heard that it sells at a premium of Re. 1 over *deshi*. This premium is not sufficient, in the Punjab we are getting a price of about Rs. 17, whereas the price of *deshi* is about Rs. 12.3973. The extinction of *deshi* cotton would be harmful to the cotton industry in general. My reason for saying that is that long staple cotton is generally weak in strength and unless *deshi* cotton is mixed with American, the latter is not sufficiently strong. I have not any personal experience as a spinner.3974. (*Mr. Hodgkinson.*) Cotton lies under cover in my ginning factories. It depends on weather conditions as to whether the weight increases.3975. (*President.*) *Mr. Sri Ram Khanna.*—I am a spinner. As to damping and adulteration, the cotton is sold by the cultivator in small quantities to *zamindars* who again sell it to petty merchants, who sell to the mills through the *aratia*. The cultivator damps the cotton to a certain extent. He sometimes does it deliberately and sometimes it is packed wet. He does not worry much about the condition of the cotton handed over to the petty merchant. The intermediaries also do not worry and may add more moisture. It often happens that cultivators, when crossing a river, throw water on the cotton in their carts. This is not so bad now as it used to be two or three years ago. The ginners pay lower price for such damped *kapas*. I do not deal in *kapas* and cannot, therefore, say exactly who is responsible for this damping. I think it is mostly the ginners who are responsible for damping before pressing; and it is sometimes done by the owner of *kapas*.

3976. I buy bales on sample and open up the bales before buying. When we get the bales from a respectable firm we do not worry much. We open two to three per cent. and sometimes as much as five per cent. Last year I bought some Punjab American from Lyallpur. I sent for a sample of Cawnpore American but was too late to get it as there was only a very small supply. In my opinion, on the whole, there would be a great market for long staple cotton if the growing was looked after properly. It would suit my business.

3977. (*Mr. Wadia.*) We spin up to 22s from the *deshi* long staple. We use *deshi* long staple coming from Deccan for these counts. I mean by *deshi* long staple Westerns and Oomras. The *Deshi* cotton here is no good for 20s. My personal opinion is that, if *deshi* cotton were replaced by long staple, the prices would be regulated on the basis of American. There would be great competition in securing cotton and the result would be that the Indian mills would suffer and the only way to avoid this risk would be to adopt protective legislation in the interests of Indian mills. I have not discussed the matter with my Chamber. My mill is the Ram Chand Gursahmal Cotton Mills Co., Ltd., Lucknow. I have 9,000 spindles and no looms.

3978. In addition to damping and mixing, particles of pod and leaf stick to the fibre even after cotton is ginned. This is due to bad picking in the first instance.

3979. I have not considered what kind of legislation would be most suitable. I think that legislation would stop malpractices. I should say that sample houses would not work. You would send in your sample there, and a certain rebate would be fixed if the cotton was found adulterated. The result would be that, owing to rebates, the merchants would get annoyed and they would say that they would not sell any cotton on the condition of its being surveyed in the sample house. Then the result would be that people would buy without the aid of the sample house and thus it will be a failure. It is a bad practice to adulterate anything before it comes to the market and I should think that some punishment in the shape of fine or something of the kind should be imposed for such an offence. I think the ginners and presses are the main culprits. It would be suitable if ginners and presses were licensed and the commission of the offence of adulteration were followed by the penalty of withdrawal of the license.

3980. (*Mr. Hodgkinson.*) The sample from the bales is generally taken from one of the ends. In the case of a merchant of good reputation, it is only necessary to open one bale. If any defect is found, bales are opened up to five per cent. Sometimes an extra rebate is obtained when faults are found at the centre when the whole bale has been opened out. Samples taken from the soft side are good in appearance. It is from the soft side at the end that the sample is taken. We do not take any sample from the middle.3981. (*Mr. Roberts.*) I got Punjab American. I am quite satisfied with it and I get it pure. The price that I pay for it is Rs. 41-8 or Rs. 42. I purchased it through Mr. Jai Ram Das. I have also bought on forward contracts. I have found it satisfactory except that the ginning is bad to a very small extent.3982. (*Mr. Wadia.*) I have bought cotton from the Central Provinces. I have no experience at all of the damping there, but I have heard from persons who have been in charge of factories there that every press as a rule practices damping.

Mr. J. N. COCOLAS, Cawnpore.

EXAMINED AT CAWNPORE, NOVEMBER 5TH, 1918.

Written statement.

I.—AGRICULTURAL EXPERIENCE.

3983. *General.*—The only remark I wish to make in this connexion is that the establishment of seed farms with a view to distributing selected seed on a large scale to cultivators would do more than anything else to improve the quality, class and staple of cotton growing in these districts. The Agricultural Department in Cawnpore have succeeded in growing *deshi* cotton of a most excellent quality, and I see no reason why this standard should not be perpetuated.

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Mr. J. N. COCOLAS.

[Continued.]

II.—COMMERCIAL ASPECT.

3984. (30) *Local trade customs.*—The system followed is that middlemen, as stated, cart the *kapas* down to the central markets where the daily arrivals are bought up by the trade and distributed to the various ginning factories of the place. There is practically no dealing in futures in *kapas*. Advances to cultivators are made entirely by commission agents (*aratyas*).3985. (31) *Standardization of commercial names.*—The commercial names of cotton are exceptionally suitable since they clearly state where the cotton comes from. No alteration should be made and any attempt at standardization under one name would be fatal.3986. (32) *Buying agencies.*—It is impossible, in my opinion, for any organisation to be formed which could handle any appreciable quantity of the crop of these Provinces and consequently the present system whereby the middlemen collect the *kapas* from the village markets and cart it to the central markets will have to continue so long as the present ginning arrangements exist.

III.—STATISTICAL.

3987. (33) *Improvement of cotton forecast.*—The only possible improvement in the cotton forecast would be less delay in publication after it is worked out.3988. (34) *Improvement of other statistical information.*—Unless statistical returns are made compulsory they are useless.3989. (35) *Publication of Liverpool and Bombay prices.*—Present publication is ample.

IV.—MANUFACTURE.

(a) *Ginning and pressing.*3990. (36) *Type and number of gins and presses.*—I have in my two factories Platt Brothers double and single roller gins. 90 double roller gins in Cawnpore, 34 single roller gins in Kanauj and one Nasmyth Wilsons hydraulic press in each factory.3991. (37) *Size of bale.*—The size of the bale is 50"×19"×17".3992. (38) *Saw gins versus roller gins.*—I have never had any experience of saw gins, but I prefer the single roller to the double roller gins.3993. (40) *Factory labour.*—Labour is getting very scarce and more difficult to obtain.3994. (41) *Condition of cotton.*—Very often the condition of *kapas* is objectionable as it is brought in the markets in a very damp condition, which fact not only ruins the class of the cotton but it seriously damages the staple. Cultivators should be taught to pick their *kapas* crop during the day in an absolutely dry condition and not early in the morning when covered with dew as it is the practice in these districts. Buyers of the raw cotton (*kapas*) should also combine and heavily penalise damp goods whilst full prices should be paid for dry *kapas*.

Mr. J. N. COCOLAS called and examined.

3995. (*President.*) I have a good deal of experience of the United Provinces. I think K-22 is a very good cotton. The mills would use very big quantities of it, if they could get it. They are importing it from Ujjain where it has done very well. It has a staple just under an inch but I cannot say what counts it can spin up to. The quality is very good. Aligarh white flower cotton was sent to a spinner in Bombay who said that he was accustomed to spin cotton with two ends and not with one end. It is a good cotton as regards colour. It is mostly bought mixed. If it came in by itself in big quantities, the Japanese might buy it on account of its colour, but the spinners in India would not touch it. It might have an extensive value as gun-cotton. There is another kind of cotton in these provinces, which comes from the eastern part and is called *manoa*. It comes in in May and June from Gorakhpur side. It gives a very poor outturn, its ginning percentage being as low as 22. It is very white and very harsh and very short in staple. It is very good for mixing with wool. I have seen very little Cawnpore American. The Agricultural Department takes it all up and it goes straight to the mills; the staple is satisfactory, being over an inch in length.3996. I am a ginner and a trader in cotton, that is to say, I gin for myself and for nobody else. I am a direct buyer. The cultivator sells his cotton in small quantities to the village *bania* who sends it to the *aratia* and then it comes to the market. If prices are low and the crop is big, the cotton comes in in a beautiful condition, but if prices are high and the crop is low, the condition is exactly the reverse. In a rising market, the buyers do not cut prices as they are glad to take what they can get. *Kapas* comes in so very hot that if one puts one's hand into a number of carts, it would be blistered. In the first place, the cultivator picks early in the morning when the dew is on the plant and ground. The cotton is brought to the middleman who starts watering the ground and after placing the *kapas* on the wet ground covers it with a gunny which he also waters. The *kapas* is left there and is allowed slowly to absorb all the moisture. This causes fermentation of the oil in the seed. A great amount of deliberate watering and adulteration goes on. It is difficult to say how it can be stopped by legislation as it is the small man who does it. Sometimes a deduction is made from the price of every bundle for water. The buyers combine to do this and it goes on for two or three days when the combination breaks up. There is very keen competition.

3997. I consider the trade names of cotton very suitable. High class and high quality of Harda cotton is sometimes exported and delivered in Europe against sales of Broach. I do not see any way of stopping this. It is not very difficult to tell ordinary Harda cotton from Broach. For three years I was a cotton broker in Bombay. It was a common practice to put marks on the end of the bales so that they could be removed when the cotton arrived in Bombay. If bales were marked on the centre under the hoops, the marks could not possibly be removed. In Gwalior State, orders have been issued that no bale is to leave Ujjain unless it is marked by the press either "Pure Ujjain" or Ujjain mixed." Cotton used to be brought into Ujjain from Indore and exported and sold as Ujjain cotton. Bales of cotton or loose cotton imported from Indore and exported again from Ujjain or pressed in Ujjain are not marked "Pure Ujjain" but "Ujjain mixed." The rules were introduced last year.

3998. I consider the multiplication of seed farms necessary as the sweepings of factories are now given out as seed. In consequence of this multiplication of seed farms there should be a large increase of the agricultural staff.

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MR. J. N. COCOLAS.

[Continued.]

3999. I consider that the information contained in the cotton forecast is quite good and fairly accurate and that its publication is necessary in order to help the trade. The dates are quite suitable, provided the forecasts are actually issued on those dates. Ginning and pressing returns are of no use unless they are made compulsory. Otherwise the factories put any figure they like and submit the returns or not as they like. The cultivators would not understand Bombay and Liverpool prices, if they were put up in the local markets. There is no buyer who is without telegraphic information from Bombay.

4000. I am inclined to take the view that the stopping of damping of cotton lies in the hands of the trade. The trade must combine, but the stopping of damping of *kapas* is in the hands of the villager. There is no damping of lint in Cawnpore. I consider it impossible to legislate in regard to damping, because I do not see who is going to supervise. A good deal of damping goes on in Berar. Attempts to stop it would only mean bribery of the factory owner. The factory-owners will not take any trouble to stop the watering of cotton by the owners. There are factories in which steam pipes have been put into the cotton opener in order to enable the cotton to absorb moisture whilst passing through the opener. This is a very good way of damping cotton. There is only an opener for *rui*: the opener is not used for *kapas*. This is the practice in Central India, in the Central Provinces, in the Berars, in the Nizam's territory and various other districts. If the *kapas* is wet, it cannot be ginned. The percentage of moisture put in by these steam pipes is about two to three per cent.

4001. (Mr. Henderson.) It is a mistake to distribute a high ginning cotton like Aligarh white flower. It is good for the cultivator because he gets a bigger outturn per acre, but it has no spinning value. The seed is spreading rapidly and is helping to spoil other cottons. It is spreading in the United Provinces and in the south of the Punjab. There is no cotton like it in the Central Provinces. It would spoil the trade name of any district in which it was introduced as it is so short in staple. I am very much against the distribution of any seed of that class of cotton. K-22 is a very good cotton. I do not know what outturn the cultivator gets from it.

4002. I buy cotton both from irrigated and non-irrigated tracts. That from the non-irrigated tracts is better in colour but not so good in strength as that from the irrigated. The *deshi* in the irrigated tracts has a stronger staple, but is of bad colour. The reason is that in irrigated tracts cotton is sown early and matures whilst the monsoon is on. Cotton from irrigated tracts was brought into the market this year as early as 26th August.

4003. I am in favour of work being carried on to improve the staple of *deshi* cotton. There is a big demand for it. I have no dealings in American cotton. The mills buy it. I have seen Punjab 4-F. It is a very good cotton, but it has different lengths of staple and is mixed. I would prefer K-22 being grown than American. The price of American, is Rs. 20 above Broach in Bombay, and it would pay the cultivator if he could get an equal price here. There would be a very big market for K-22. I do not think that American would do as well round Cawnpore as K-22. If the Agricultural Department guaranteed the staple and yield of Cawnpore American, I should have no objection to it being pushed: the longer the staple is, the better. We import long staple cotton from the south, i.e., from Bijapur, *kumplas*, Miraj, Northern, Westerns, etc. Unless you keep up selection of seed, exotics deteriorate. The Cambodia of last year had deteriorated from what it was its first year. That might be due to mixing, but I cannot say definitely whether it is so. I am therefore in favour of indigenous cotton. K-22 should get a premium of Rs. 40 to Rs. 50 per *khandi* over *deshi* in an average year, i.e., Rs. 5 to Rs. 6 per standard maund of *rui*. That would be an average of just less than Rs. 2 per maund of *kapas*. The market value of Punjab American is Rs. 10 a maund of *rui* over *deshi*, i.e., Rs. 3½ a maund of *kapas* over *deshi* so that when the value of *deshi* is Rs. 10 per maund of *kapas*, the value of K-22 would be Rs. 12 and that of Punjab American would be Rs. 13½. Punjab American is not very uniform in staple. It contains two different kinds of staple, as it comes into the market. I do not know whether it is grown like that or whether it is mixed as I have seen no samples of the *kapas*. If the staple were uniform, it would get a considerable premium over *deshi*, i.e., considerably more than Rs. 3½.

4004. (Mr. Roberts.) I have no experience of the Punjab at all. Bales are marked in some cases on the flat side and in some cases not at all as most of the cotton is used for local consumption, although a great deal is exported. Each bale should be marked at the press on the flat side.

4005. The cultivators bring in *kapas* damped. The moisture is intentional and not natural. A deduction accordingly is made if the state of the market permits. If two people bring in *kapas*, one dry and one wet, the former will get the better price, but it is very unusual that dry *kapas* is brought in in a year like this. All the *kapas* usually comes in in the same state. It is not the general practice to damp cotton in the Central Provinces before pressing but that is frequently done. It does help pressing a little. In Bombay, it is a well known practice. In Bombay, reliable selections are sold at Rs. 10 or Rs. 16 over ordinary selections so that damping is penalised to that extent in the ordinary course of trade. If damped cotton is sent to Bombay, it gets damper still on the sea voyage. For export and during the dry season in India, weights are calculated on the basis of damper cotton at home than in India as it gets still damper in transit home. If damped cotton is not sold quickly, the leaf becomes black and dampness makes the cotton smell. The cotton in Bombay in the monsoon contains four to five per cent of moisture even if it was honestly packed.

4006. There is no market in India which is not flooded with telegraphic information. The buyer is certain that everybody else has the same information as himself. It would be a good thing to stop the publication of market opinions as that would stop speculation to a great extent. Official publications of prices and market opinions would lead to more speculation. In Cawnpore market, the biggest crop ever placed on the market was one hundred thousand bales and yet to-day we have speculation to the extent of 250,000 bales. The seller loses to-day Rs. 4 a maund on account of speculation. Ordinary *deshi* cotton is being bought at Rs. 46-8 per maund of *rui* for speculation.

4007. (Mr. Wadia.) I do not know the rules of the testing house at Havre. I had had no complaints in regard to cotton shipped to Havre although 30,000 bales were exported that year by my firm. Anything that would prevent adulteration would be helpful to the trade.

4008. (Mr. Roberts.) I do not think that it would be difficult to secure for the cultivator a proper price for K-22. Better cotton than *deshi* would get a proper price. Carts are opened and made into bundles of one maund and ten seers of *kapas*, so that the whole of the contents of a cart are thus seen. A full price would be secured for K-22 if a thousand bales could be obtained. Nobody would want fifty bales, except in a few cases. I could make use of it myself as I import large quantities of cotton from Ujjain.

4009. (Mr. Henderson.) There is a real demand for a good clean article and it is possible to produce it. I do not consider that there is any need for mixing and I do no mixing myself, however large the number of grades. I consider that the small man cuts his own throat by mixing.

United Provinces.]

MR. B. R. BRISCOE.

Mr. B. R. BRISCOE, Secretary, Cawnpore Cotton Mills.

EXAMINED AT CAWNPORE, NOVEMBER 5TH, 1917.

No written statement was submitted by this witness.

4010. (President.)—I dislike Aligarh white-flowered cotton very much indeed and should like to see the cultivation of it discouraged if not altogether stopped because I am afraid of its spreading to the detriment of better varieties and or being purposely used to adulterate them. There is also a danger of the seed getting loose about the country and being unintentionally mixed with other varieties. It is a thoroughly bad cotton and is practically unusable, at all events in India and especially in up country mills on account of the hot dry climate. I understand that, so far as the comparatively small quantity at present grown is concerned, it is exported and that the Japanese buy it, probably on account of its good colour which is I consider the only good point about the cotton. It is my idea that if the cultivation increases to a large extent, it may seriously interfere with the supplies of cotton which we want in Cawnpore. I understand that up till now, the Department of Agriculture has, as far as possible, got back the seed and re-issued it in comparatively limited quantities. I should like to see them stop re-issuing it altogether and also stop all propaganda in favour of it. It is not easy for the Indian trade to take any action in the matter as the principal market for it is an outside one.

4011. I know Mr. Leake's improved *deshi* cottons K-22, and K-28. I like K-22 but do not consider K-28 quite so good, though I have not seen it this year. I would always pay a premium for K-22, as I know it, over ordinary *deshi* or Aligarh white flowered, and I have bought it, as a matter of fact, at a premium from the Agricultural Department. Last year I offered a premium of, I think, Rs. 2-8 over fine *deshi* per maund of lint. The price of fine *deshi* was about Rs. 32 at the time. As a matter of fact some other mills offered annas eight more and got it. There was only a small supply available, about fifty bales, and for commercial quantities I expect the premium would have been still better.

4012. I know the variety described as Cawnpore American. When I was in the Elgin Mills, we guaranteed to take the whole crop two years in succession. We liked it then, particularly the variety then known as Saw-ginned Dharwar, and promised to buy the entire crop up to two thousand bales in the first year, but in the end we only got about three hundred bales of usable cotton up to sample. The arrangement was that the price should be fixed fortnightly on the basis of "middling American" in Liverpool and was to be 1/4d. (or 1/2d.) under it the first year and 1/2d. the second year. The staple of the Cawnpore American cotton varied greatly even in the same crop.

4013. The best agricultural policy to pursue in the United Provinces, in my opinion, would be to eliminate Aligarh white-flowered and to push K-22 in the same way as the Aligarh white-flowered has hitherto been pushed. The staple of this cotton is not very long. Last year it was between 7/8ths inch and 1 inch. It is hardly a staple cotton, but it is an improvement on *deshi*—even the best *deshi*—because it is finer and therefore gives a better yarn.

4014. (Mr. Wadia.)—There is much mixing of *deshi* cotton. It is mixed with impurities such as sand (which is a favourite method of weighting), water and also lower grades of cotton, i.e., higher grade cotton is adulterated with lower grades. I cannot say what the proportion is. I have examined samples in which the length of staple varies as much as a quarter of an inch. As to whether anything is mixed with K-22, I can only say that I have not seen it in sufficient quantities and, as far as I know up to last year when I last saw it, it had only been grown by the Agricultural Department on their own farms, where it would not be adulterated in any way. The trade is the only agency which can effectively put a stop to damping and adulteration. Damping is practised according to circumstances by middlemen, ginners and growers. Speaking of *deshi* cotton, I think the cotton is damped by all of them. This year cotton, i.e., *kapas* is coming into the Cawnpore market damped deliberately by growers and by the *aratis*. This is probably due to the crop being short and to prices being high, which forces buyers to be less particular regarding the cotton they accept. Nothing effective can be done by Government to stop damping, though I suppose that it could be stopped by legislation, but the cost in that case would be prohibitive: an enormous staff of inspectors all over the cotton growing districts would have to be employed and they would have to be well paid men. The prevention of mixing of different varieties of cotton lies with the buyers. There are dealers in Cawnpore from whom I would not buy for the simple reason that I should expect to get mixed or damped cotton from them. I expect the same applies to other buyers. My conclusion is that the trade is the agency which can do more than anybody else to stop this practice.

4015. I have no very great experience of ginning or pressing pools, but I know that they exist. They are usually broken up before they have gone very far. Every gin or press has to pay to a common fund some portion of the charges that they levy in order to provide for the factories which are not working. As to the question whether the incidence of such payments falls on the *zamindar*, my own experience is that the cultivator at all events gets much the same price for his *kapas*, however he disposes of it and in whatever quantity and that much money is made between the time the cotton leaves the hands of the cultivator and reaches the mill. I cannot say who gets most of it. I do not think that there would be any great point in abolishing these pools as they are, I think, more generally the result of scarcity of work, owing to the number of gins and presses exceeding the demand rather than of an attempt to put up rates unduly. I have no information at present if any local pool has been formed with any object beyond that of the usual combination. This year pressing charges are up, but this is possibly owing to the high price of gunnies and hoops. Two presses are, I believe, out of action as they are pressing *bhusa* (fodder) and this may have helped the remainder to put up prices. It is true that prices of cotton in Cawnpore are getting more and more governed by the Bombay prices every year. If the ginning charges and pool rates are high, the price paid for *kapas* might possibly be lower, but it would not necessarily follow the Bombay prices exactly. If no pools existed, then the cultivator might get a little more, but on the other hand I expect that some of the gins would have to shut up. It is only by means of pools that so many of them can keep going at a profit. Many gins and presses could not work before these pools were formed.

4016. I do not quite understand what the result would be if testing houses were instituted at Bombay on the same lines as at Havre or what effect the testing house would have if any particular lots of cotton were found to be damped. Any penalties imposed should reach the real culprit, the man who actually damped or otherwise adulterated the cotton. The difficulty would be to get back to the real culprit, because in the first instance, cotton in India is collected in very small lots and bulked by dealers, ginners and balers, lots as

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often as not increasing in bulk as they pass on from hand to hand. The establishment of such a testing house might make the final dealers more careful what they bought.

4017. The mixing of *kapas* with lint is not nearly so bad now as it used to be. We occasionally get cotton in which *kapas* has obviously been put in purposely after ginning but things are not so bad as they were twelve or fifteen years ago. I take it that rejection by mill-buyers here is putting a stop to it. I do not know of any other reason why it should be growing less.

4018. I am not interested in any ginning factories. There was a ginning factory attached to the Cawnpore Cotton Mills, but it has not worked since I have been there. It might be feasible to have a separate entrance for *kapas* and a separate exit for lint. These were separate in the factory I mentioned. I have not had very much to do with ginning factories, but I see the point as regards the establishment of separate entrances and exits for lint and *kapas*, which would tend to prevent accidental mixing by *kapas* dropping over into the lint. I have not had sufficient experience to say whether the licensing of gineries on certain conditions is feasible, but it would probably mean that so far as the above points are concerned, many gineries would require complete remodelling. It would be to the advantage of the trade if it stopped such mixing as now takes place. I have no experience of presses, beyond occasionally visiting one of the local presses. So far as I have seen local presses, lint is kept on the ground at the back of the press, and sand might get mixed with the lint before it is put in the press. It would be a good thing to have all presses paved, but such improvements could not be brought about unless there is some sort of legislation. Some of the gineries or presses would not go to the expense unless they were forced to do so. In regard to the question whether, if licensing were introduced, it would be a good thing to penalise a factory by the withdrawal of the license when such malpractices as that of damping by means of a hose as shown in the photograph on the walls of this hall were detected, I should like this done if it were feasible, but who would inspect? My idea is that there would be no difficulty in the detection of the crime, but rather when it was detected, in getting it reported and punished.

4019. (Mr. Hodgkinson.) I saw K-22 last year. It was fully $\frac{3}{4}$ ths inch in staple. It must have been about that. I have not seen any of it this year.

4020. (Mr. Henderson.) During the last three years, i.e., since the war started, there has been a very great deal of speculation in the local cotton market here. Previous to that, I do not know that there was very much of it in the local market. I do not know whether the local speculation has any particular effect upon the local mills. I cannot say whether this local speculation is increasing or decreasing. If all the stories that I hear are true about the transactions that take place, there must be very large sums involved. Some of the brokers fail occasionally. I do not think that it affects the supply of ready cotton to the mills as a rule, the speculation is mostly in "futures." I have had no such experience myself.

4021. I am not in favour of mills doing their own ginning and buying of *kapas*. As I have mentioned, my Board of Directors have recently, on my recommendation, disposed of the gins which we had. The difficulty is that the buying of *kapas* is quite a different thing from buying cotton ready ginned and requires expert knowledge, and while one may be buying cotton all the year round, the *kapas* season locally lasts only some two months in the year. I do not know whether the profits from ginning are large. I do not know to what extent gin-owners as such speculate. On an average from year to year, gineries may possibly make a profit of ten per cent. in ordinary times and possibly more.

4022. There is no doubt there has been much deterioration in the staple of cotton from various districts. I have found that, in certain tracts, cotton has so much deteriorated or that adulteration is so general that I have had to give up buying. For instance, I have been obliged to give up buying Hinganghat. It used to be a very fine cotton at one time, but it is now very inferior indeed, and if, as I believe, there is still some of the original good cotton grown there, it is very difficult to procure this pure without being on the spot to buy and gin one's own *kapas*, which is where reliable dealers "score" in establishing good permanent connexions with the mills. It is not true that such deterioration has taken place in all districts. The quality of the cotton from any given district varies naturally and considerably from one year to another. This year so far as I have seen it, the new Akola Khamgaon cotton is much superior to what it was last year, while this year's Ujjain is very much inferior to last year's. Regarding Broach cotton, I have heard it stated in Bombay that Broach has deteriorated very considerably in the last few years, which I believe to be true though I do not know much about it, as it is many years since I handled any Broach in bulk. Really fine Broach is certainly still a very good cotton, but I am told that there are many inferior varieties. I do not think that there has been any appreciable general or permanent deterioration in Indian cotton. Even taking a series of years, I do not think that, apart from deliberate adulteration and ordinary seasonal variation, the cotton of to-day is worse than it was, say, ten or fifteen years ago.

4023. (Mr. Roberts.) The Hinganghat cotton we used to buy was usually bought from local Cawnpore dealers. I do not recollect very accurately what the staple was. It spun twist yarns, 15s. and 16s., suitable for powerloom weaving. It has deteriorated considerably of late years, due partly to the mixing of good and bad *kapas* and partly to the continued use of inferior seed. I should say it has deteriorated very much from what I have seen of it, but I have not seen much of it during the last two years. I should say that a bad reputation like that would to some extent affect the growers of superior cotton in the same tract. The name would get disliked and people would not consider it worth their while buying it at all.

4024. My dealings used to be to some extent with *aratyas*, but of late only with the big brokers who accumulate the cotton. The man we buy from is the big cotton merchant, who in his turn deals with the ginner. The usual sequence is, cultivator, middlemen,—small or big, ginner, other brokers and finally the mill. As to whether cotton is always damped by the growers or the *aratyas*, I can only say that, just at present, the *kapas* that is coming into Cawnpore is deliberately damped; whether it is damped by the man who grows it or by the *bania* or *aratya* who collects it or both I cannot tell you. This year the damping is probably due to the fact that the price of cotton is going up and that "fine" cotton this year is likely to be very scarce, so that the big buyers, ginners, dealers or mills are not in a position to refuse to buy damp *kapas* or cotton. The remedy in normal times is in the hands of the trade to a great extent. I mean to say that the trade as a rule will not continue to buy cotton from a man who sells damped cotton. I know of several dealers whose cotton I have rejected for that reason. There is no combination among mill buyers to refuse damped cotton. I would not advocate any combination among mill buyers to refuse damped or adulterated *kapas* for the reason that I do not think that it would be possible, and as regards dealers they certainly would not combine.

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4025. I have experience of real American and Punjab American. I have used them both fairly extensively. I bought Punjab American in 1914-15 and 1915-16. I have not purchased it since then because during the past season (1916-17) I was not in the country until the end of December and by the time I came back from home, the Cawnpore Cotton Mills had already made most of their contracts and purchases. This year's crop is not yet on the market. I do not particularly like it, because it is always mixed, more or less, with *deshi*, both intentionally by ginners and pressers, and accidentally in the field. I do not remember what price I paid or how it compared with prices for other Indian staple cottons. I have had it very good and I have had it very bad. I know at least one dealer who admits that there are two main sorts purposely mixed and otherwise, and who quoted two prices.

4026. Last year I offered a premium of Rs. 2-8 per maund on K-22, i.e., Rs. 25 per *khandi*. As to whether that was a fair premium, I can only say that would depend upon the quality of the available ordinary *deshi* as compared with the quality of the K-22 I was then offering to buy. K-22 varies I expect just as ordinary *deshi* does from one year to another and last year I considered that Rs. 2-8 was a fair differentiation between the two cottons available.

II.—Central Provinces.

Mr. T. H. N. THALLASINOS, Agent, Messrs. Ralli Brothers, Nagpur.

EXAMINED AT NAGPUR, NOVEMBER 13TH, 1917.

Written statement.

I.—AGRICULTURAL EXPERIENCE.

(a) "Deshi short-staple cotton."

4027. (1) **Experience.**—I am stationed in the Nagpur district where much cotton is grown. I am in this district for over four years. I am not in direct touch with cultivators.

4028. (2) **Varieties.**—The varieties of short-staple cotton grown in Nagpur district are *gaorani* (the average quality) and *roseum*.

4029. (6) **Comparative returns.**—I understand that the higher lint outturn obtaining from the *roseum* cotton brings in more to the cultivator than the premium usually obtained for long stapled cotton.

4030. (7) **Conditions affecting increase in area.**—All the cotton sown here is of short staple style. However, sowing of *roseum* is increasing and the area under *gaorani* will therefore decrease.

4031. (8) **Uses of seed and seed selection.**—The seed is generally used as fodder locally and what is exported from Nagpur to other districts is generally utilized as fodder. Before the war a good deal was exported to Europe. Hand-ginned seed is generally preferred and used for sowing by the cultivators, but when this is unavailable, machine-ginned seed is used for sowing.

4032. (9) **General economic conditions.**—As short staple crops germinate much sooner than long staple, there is less risk attendant from climatic causes in growing the former, added to which, the cultivator gets a quicker return.

II. COMMERCIAL ASPECT.

4033. (30) **Local trade customs.**—The cotton is brought in the market for sale as under :—

- (1) *Kapas* (cotton and seed as picked from the fields).
- (2) *Churka* (hand-ginned cotton).
- (3) Cotton (machine-ginned in factories outside this market).

The *kapas* and cotton is brought to the market for sale by the cultivators direct and by petty traders who buy the cultivators' *kapas* or cotton in their villages. Some cultivators sell their cotton before the cotton is ready for sale and this is called *kaone* or future contract terms. This is a speculation carried on by the petty traders or *malguzars* at times, but on a very small scale. Brokers advance money to the cultivators on condition that the production of those cultivators' fields will be sold under their *arat* (commission).

4034. (31) **Standardization of commercial names.**—The varieties of cotton are :—

- (1) *Gaorani*.
- (2) *Roseum*.
- (3) *Zoria*.

The commercial names of the grades are Superfine, Fine, Fully Good, Good, which I consider suitable. All these grades come from one and the same area, but at different times of the seasons.

III.—STATISTICAL.

4035. (33) **Improvement of cotton forecast.**—The forecast figures at present are nearly correct so far as the area sown is concerned, but the forecasts of outturns in quantity at times differ with the actual production.

4036. (34) **Improvement of other statistical information.**—I would point out that the fortnightly cotton press returns in their present form are very unsatisfactory, the figures received from the Native States which are at present collected by the Bombay Chamber of Commerce being particularly unreliable. I would suggest therefore that all these figures should be taken over by the Department of Statistics, and I would recommend, in this connexion also, that a system of licensing of ginning and pressing factories should be instituted, as we think that if this were done, correct figures could be easily obtained. The system of licensing factories in the Native States might at a later date be introduced with good results. I would also suggest that the Department of Statistics should employ a staff of travelling auditors to collect the figures from presses, mills, railways, etc., and the figures thus collected would afford a valuable check on the fortnightly returns.

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[Continued.]

(2) I would also point out that the cotton crop forecasts might be ameliorated by drawing the estimate to a greater extent than is the case at present from non-official agencies, such as local merchants, mills, gins, presses, etc., and too much reliance should not be placed on the official reporting agency which is at present a revenue agency rather than an agricultural reporting agency.

4037. (35) **Publication of Liverpool and Bombay prices.**—I do not consider publication of Liverpool and Bombay prices at upcountry markets necessary as those prices are already known through Bombay agents of upcountry merchants.

IV.—MANUFACTURE.

(a) *Ginning and pressing.*

4038. (36) **Type and number of gins and presses.**—The gins in our factory are double roller (Platt Brothers, makers). The number of gins in our factory are 48 double (96 rollers). The press is a Cummin's Patent.

4039. (37) **Size of bale.**—The size of the bale is about 8½ cubic feet.

4040. (40) **Factory labour.**—I experience difficulty in getting labour for our factories.

4041. (41) **Condition of cotton.**—Generally the condition of raw cotton arriving in the market is satisfactory, although in some cases adulteration such as damping, etc., is resorted to.

GENERAL.

4042. (46) **Attitude of buyers to improved cotton.**—The cultivators get better prices for improved and carefully picked cotton.

Mr. T. H. N. THALLASINOS called and examined.

4043. (Mr. Wadia.) The cotton forecasts are at present nearly accurate so far as the area sown is concerned, but the forecast of outturn is very different from the actual production. Perhaps the present system of getting the figures from the various factories is not accurate. In these provinces, the system of sending weekly returns from ginning and pressing works well. The figures for India as a whole are not reliable; the figures from the Native States are not very reliable. Please refer to my answer to question 34 (paragraph 4036) in regard to the licensing of ginning and pressing factories. I think that system there suggested would help in getting more accurate figures. I cannot say where the difference between the forecast and the actual outturn comes in. As to whether the Agricultural Department, when they made their forecasts of outturn, should consult firms like ours, it might be an advantage but on the other hand we have to depend on Government because Government is the only agency which can give us the actual information. The information that we gather from outside may be considered as more or less bazaar information. The information that we gather from the forecasts, there is no necessity to consult the trade at all. The rumour. On the whole, in regard to the forecasts, there is no necessity to consult the trade at all. The fortnightly press returns and other press returns are very unsatisfactory. This complaint refers to the whole of India and not specially to the Central Provinces or the Native States. The figures which are supplied by the Bombay Chamber of Commerce are unreliable, and I therefore think that the compilation of these figures should be taken over by the Department of Statistics. As to the respects in which the returns are unreliable, I can only say that this remark was suggested to me by my Bombay firm who might be asked more about it when the Committee goes to Bombay. They will be able to reply more explicitly on the subject. I personally have nothing to suggest in this connexion.

4044. I have suggested that a system of licensing of ginning and press factories should be instituted with a view to obtaining accurate figures and the only way this can be done is by legislation. I am not in a position to advise as to the kind of legislation to be adopted. In licensing ginning and pressing factories, rules should be introduced in regard to damping and adulteration. As far as my experience goes, I do not think that there is much damping resorted to in these provinces since the Bombay Cotton Trade Association circulated a notice some years ago that damp cotton would be very heavily penalised. Damping has stopped to a very great extent in these provinces since then. We very seldom get *kapas* in a damped condition except occasionally when the carts have to cross small rivers and part of the cart gets wet. Villagers who bring in hand ginned cotton say that they have to damp the gins in which the cotton is packed in order to strengthen its resistance. This is only an excuse. It is done only in the case of hand ginned cotton but not in the case of machine ginned cotton. There is not much hand ginned cotton sold in the market. Owing to the establishment of so many ginning factories, the quantity of hand ginned cotton has been greatly reduced, but of course a certain quantity must be hand ginned as the ryots always give preference to hand ginned seed for their own sowings. As to adulteration and mixing of different varieties of cotton in these provinces, I may say that cotton is mixed. We have here *gaorani* and we have *roseum*. The *roseum* is spreading in this market. *Gaorani* and *roseum* are mixed in the ginning factory. The *kapas* is also mixed. *Gaorani* is mixed with *roseum*. *Roseum* is an improvement on *gaorani*. There is also *jari*, which is also mixed. *Jari* is an inferior cotton, in point of outturn but of better staple. It is mixed with *gaorani* and *roseum*. Stained cotton is separated in the ginning factories. In marketing inferior *kapas* or cotton, villagers occasionally mix it with good cotton in such a way as to avoid detection. It is kept separate in the factories. There are no longer stapled varieties of cotton in this district than *gaorani* and *roseum*. By this province, I mean the Central Provinces excluding Berar. Some *bani* is grown the staple of which is good, but the outturn is very poor. Now all the villagers are giving preference to *roseum* because they get a better outturn and better price. They do not mix *bani kapas* with *roseum*. *Bani* is brought in separately. The local mills are very keen about it, as it is long stapled. I buy very little myself. Whether *roseum* is mixed with *bani* when the latter goes to the ginning factories, I cannot say, but I do not mix them myself. If I buy *bani*, I keep it separate. As to what is the case with others, I do not think they mix because it would not be profitable for them to do so. If they kept *bani* separate, they would get a better price for it owing to its longer staple. If ginners were licenced, we might get over some of the difficulties about damping and adulteration.

4045. As regards the marketing of cotton, all cotton which comes into the market, is sold through an *aralya* (broker). *Aralyas* are at the same time both bankers and brokers. They advance money to the villagers on condition that they bring all their produce to the market and sell it through them. The *aralya*

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holds a license as a broker. In Nagpur, all the brokers have to be licensed by the Municipality. Every buyer must have a license as well: both the buyers and the brokers have to get licenses. They have to pay Rs. 10 for their license every year. The fees go to the Municipality. I am certain about the Nagpur market, but I do not know about the markets in the other districts. I think it is so at Hinganghat, Wardha, Katol, Saoner, Pulgaon and Warora. As to whether it is a good thing that these *aralyas* should secure the best cotton for themselves or their friends by advancing money, I would explain that the *aralyas* of the Berars and the *aralyas* of the Central Provinces are quite different. The *aralyas* of the Central Provinces do not deal on their own account. The villagers bring the cotton to an *aralya* and he sells it for them. Being brokers, they are not allowed to do business for themselves. A broker is not allowed to do business on his own account. I am not sure whether there are any rules preventing his doing so, but here no broker is allowed to do business on his own account. In this market, there is no swindling by these *aralyas* in order to secure good cotton at a less price by alleging that the cotton is of inferior quality. The ginning factories give fair weight. There is no swindling by using bad weights. As a rule before the cultivator brings in his *kapas*, he has an idea of what the weight of it is and there is often the chance of the weight being checked by another firm in the case of refusal by the first firm. The cultivator would know which factory gave proper weight. No firm here offers a higher price than the regular market price. The price is fixed by auction. All the buyers meet together and each of them is asked what price he is willing to pay. When the highest price has been reached, that is considered as the rate of the day. The buyer who is willing to pay the higher price gets the bigger share of the *kapas* and cotton of the day. But even by paying the highest price, one cannot get the whole lot of the *kapas* owing to the existence of the custom that the brokers must send some portion of the arrivals to each factory. There is no working arrangement between me and other buyers that such and such percentage of the crop should come to me and that the rest should go to others. The only reason why I could not get the whole crop for myself is that it is not possible for me to get it. That is the custom. There is a sort of unwritten division of the day's arrivals. For instance in the Nagpur market, it is known that Rallis will get about one-third of the market, that Volkarts will get something less and that the balance will be divided between the other buyers. Besides the smaller buyers say that, if they do not let the bigger buyers get their proper share, they will bid higher and so put up the price against them.

4046. There are ginning pools in my district. There is a ginning pool in Nagpur. There is also one at Saoner in Nagpur District. Ginning factories charge different rates. This year the charge in Nagpur is about Rs. 7 per *bhoja* of 392 lbs. of lint. In Saoner, it is Rs. 6-13-3. I do not know how much of this goes to the pool as my firm is not a member of the pool. We confine our gins to our own trade in this district, and do not gin for any one else. There are pools among the presses also. The charges are about Rs. 7 per bale of 392 lbs. net. The gross weight comes to 400 lbs. I cannot say what proportion of these charges go to the pools. It is a difficult question to answer whether these pools, both ginning and pressing, are to the advantage of the cultivator, but I do not think that they are to his advantage. The crops have been failures for the last three or four years and the number of ginning factories has therefore been more than was required by the cotton crop, but in a normal season they are not too many. It is the case sometimes that factories are erected simply for the purpose of getting into the pools and drawing a share of the proceeds. There are idle factories in a bad season, but in a good season there will be work for all the factories. It is only occasionally that factories are erected for the purpose of sharing in the pool. The ginners as a rule buy *kapas* for themselves, but they gin also for outsiders.

4047. Though I have a considerable experience of ginning factories, I have not found *kapas* sometimes mixed with lint in ginning factories. Of course, such a thing ought certainly to be penalised. It is penalised by the buyer, but an agent who despatches cotton to Bombay can mix *kapas* with it because he cannot be detected. In order to prevent mixing, cotton here after ginning is packed at once and therefore *kapas* cannot be mixed with lint unless this is done intentionally. In the United Provinces, there is a chance of mixing as both *kapas* and lint are stored in godowns loose and coolies can make a mistake and mix them.

4048. The bulk of my cotton is sold in Bombay through our Firm there. We have not got any surveyors so far as I know. My people survey their own cotton and I do not know whether they engage any surveyors or not.

4049. (Mr. Hodgkinson.) It is not the case here that *kapas* is picked in the early morning wet with dew and that it comes into the market more or less in a damped condition. The *kapas* here arrives in the market dry. It is not wet at all. As regards adulteration with sand and other impurities, in this district there is very little mixture with sand and dust. I do not say that they are entirely absent in Nagpur. I have no experience of saw ginning.

4050. As regards the testing of weights by Government, in Nagpur there was a nominal cotton market sub-committee, but it did no work for several years. Last year all the buyers requested proper management of the cotton business in the market. There is now a market sub-committee of which I am the chairman. The committee has introduced several improvements and the question of checking the scales is under its consideration.

4051. (Mr. Henderson.) The chief cotton markets in the Central Provinces are, Nagpur, Warda, Hinganghat, Pulgaon, Dhamangaon. Pulgaon is a small market but it is known in Bombay. The Kamptee market has been practically now transferred to Nagpur. The styles of cotton quoted in Bombay are three, Nagpur-Kamptee, Warda-Hinganghat, and Pulgaon-Dhamangaon. Of these, the best is Warda-Hinganghat. Nagpur-Kamptee cotton fetches Rs. 2 less than Warda-Hinganghat and Pulgaon-Dhamangaon is another Rs. 2 less per Bombay *khundi*. That is to say Pulgaon-Dhamangaon is Rs. 4 less than Warda-Hinganghat.

4052. The above are the three main trade classifications for the Central Provinces. There are other districts in the south of the Central Provinces such as Chanda. Though Chanda is a name by itself it is unimportant and the crop is a small one. The three mentioned comprise the majority of all the Central Provinces cotton. Nagpur Kamptee is *roseum-gaorani*. *Zoria* is an inferior cotton. *Zoria* is the local name. It is difficult to give a rough idea of the different proportions of these three classes. They vary every year. The quality also varies. It varies at the beginning of the season, at the middle of the season it improves and again at the end of the season it falls off. As to the total crop in the Central Provinces and the proportion of the different classes to the total, I can only say that the Nagpur district in a good season gives about one hundred thousand bales and that includes Nagpur, Saoner, Katol and Umrer, but I cannot give you any rough idea as to the figures for the other classes. I can send you figures from my office which would be very reliable. I should say that Warda-Hinganghat would be about fifty thousand bales and

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[Continued.]

Pulgaon-Dhamangaon would be from thirty to forty thousand bales.* The first class, that is the Nagpur-Kamptee is *roseum* type of cotton with a high ginning percentage. It is a short staple cotton. The third class Pulgaon-Dhamangaon is also a short staple cotton with a high ginning percentage, but the second class Warda-Hinganghat especially Hinganghat, has a better staple with a lower ginning percentage. The class known as Berars include *Oomras* from outside the Warda-Hinganghat tract, i.e., from Amraoti, Badnera, Akola, Khamgaon and other places. I do not know nor have I heard any opinion as to whether there has been a deterioration in recent years in the type of cotton that is being produced in the Central Provinces. I cannot say whether the Warda-Hinganghat type is now the same as it was twenty years ago. Not much hand-ginned cotton comes into this market.

4053. (Mr. Roberts.) As to whether the Central Provinces cotton comes under the term *Oomras* and whether it is the same as the Berar cotton and what is the difference between the two, I would explain that the Central Provinces cotton is much the same as *Oomras*, but that there is a difference. The Central Provinces cotton is better than Berars and fetches a better price. *Oomras* is a general name. These are not grade classifications but when cotton is sent to Bombay it is sold under these denominations. These are different styles of *kapas* which come into the market here. As to the difference between them, it may be stated that between *gaorani* and *roseum* there is a small difference in favour of *roseum*. *Zoria* is inferior and fetches a smaller price than *gaorani* or *roseum*. By *roseum* I do not mean a pure variety. It is not pure; it is mixed when picked but it contains a high percentage of *roseum*. It is not pure *roseum*. I can tell it by examination and from its high ginning percentage. In staple it is not much shorter than *gaorani*. *Gaorani* is a short staple consisting mostly of *roseum*. The cotton here has not got a good staple. In some places in Berar you get a better staple, Akola for instance. I have had no experience of *buri* cotton or of Cambodia or of American.

4054. I have already stated that the returns are at present collected through the agency of the revenue officials. The Agricultural Department should take a more active part in the collection of the information for the forecasts. Now it is done by the Tahsildar, who asks his *patels* to collect the information. I do not know whether there are officers of the Agricultural Department in every centre. That is a point which can be elucidated by Mr. Clouston. The point that I wanted to emphasise was that it would be an advantage to have the opinion of the Agricultural Department on the yield. If the information came through the Agricultural Department, it would be more reliable because it would be more scientific. As to whether it would be better if, by some kind of voluntary system, Government could inform the presses of the total return for the province, the system at present in force is faulty. A post card showing the returns of the work of each factory (pressed bales) is sent to the Department of Statistics by each factory, but the question is whether it would not be better if such information were given by Government sending back to the factory a post card showing the return for the province. It would be a good thing for the ginners to know what is going on, but I do not think that it would have any effect in improving the sending in of returns. The forecasts are published promptly enough, but the information there is not as up to date as it might be. I cannot tell you anything more specific about it.

Mr. N. P. DANTRA, Agent, Messrs. Volkart Bros., Nagpur.

EXAMINED AT NAGPUR, NOVEMBER 13TH, 1917.

No written statement was submitted by this witness.

4055. (Mr. Wadia.) I am sorry that I have not been able to put in written evidence. My experience in the Central Provinces has been confined to this district. I have been in this district for about five years. I have also been in Bhagalkot and Bijapur. Whether I stay here throughout the year depends upon the orders that I get from my head office. I was here all through the year last year. In other years, I went elsewhere. During my stay here, for the last five years, I have had considerable experience of the different kinds of cotton grown in this district. The principal varieties of cotton in the Nagpur district are *bani*, *jari*, and *roseum* cotton. A fourth variety is grown in the Kathol district, which is called *vilaiti jari*, which is a mixture of Upland Georgian and local *jari*. The seed of the Upland Georgian was sown, say, about the eighties. As regards the purchase of *jari*, we do not make any distinction between *bani* and *jari* as they are brought in mixed in the same cart. For our purposes *bani* and *jari* go in the same class. It is rather difficult to distinguish these two in the same cart of *kapas*. Our classification depends on the selection that we make from our heaps. If I get *bani* mixed with *jari*, I give a lower price on account of the lower ginning percentage of *bani*, but some allowance is made for the better staple of *bani*.

4056. We have got no agency at Hinganghat. Before the war we had a sub-agency here but there is none now. For the present we only buy in Nagpur itself. My experience is entirely confined to the Nagpur district. When we send our cotton to Bombay we make our own classification. We have got our own commercial marks, and advise our Bombay office accordingly. We do not rely on the classifications "superfine," "fine," "fully good" and "good" to any great extent. Our best quality might be "fine," one lower than that might be "fully good" and so on. In making our classification, we have to look to staple, colour and other qualities.

4057. The market here at Nagpur is entirely in the hands of the brokers. All business is done through the brokers. These brokers advance money to *kunbis* (cultivators) and the *kunbis* bring all their produce to their particular broker. In fact everything is done through the broker. There is no direct contact between the buyer and the cultivator. All ginned cotton is auctioned, but for all *kapas* the buyers combine to fix the rate of the day. Of course the buyers combine, but they do not combine as regards prices. As a result it is not the case that in one day one could buy the whole quantity that is obtainable in the market. One can only get one's own share in one day out of the whole quantity available. This is the system that has been going on for several years in this district and no one has ever thought of improving it. It is really in the interests of the brokers that things are carried on in this way. It would be a good thing for the *kunbi* cultivator if he could sell his cotton direct and it would be in his interests if *kapas* were sold by open auction.

* The witness subsequently reported that these figures were correct.

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Mr. SHIVNARAIN.

[Continued.]

4058. We have our own ginning factory and pressing factory in Nagpur. We have got one at Amraoti but that is in Berar. We have no other factories in this district. We gin cotton for ourselves only and not for any constituents. There is a pool here. We were members of it for two years, but have withdrawn this year. Under the pool rates the charges for ginning this year are Rs. 6-13-3 per *bhoja* of 392 lbs. It is the same for pressing full pressed bales of 400 lbs. The gross weight is 400 lbs. and the net weight of the ginned cotton is 392 lbs. A standard weight has been adopted. Of Rs. 6-13-3, I believe about Rs. 1-12-0 has to be paid into the pool for ginning as well as pressing. We have withdrawn from the pool because we find ourselves in a better position to carry on our business outside it. Practically, the charge for ginning and pressing comes to about Rs. 5-1-0. Our rates are quite separate from the combine rates. The rate we allow is Rs. 5. This covers the cost of ginning and pressing. The Rs. 1-12-0 that is paid by the factories joining the pool is an extra profit taken from the buyers of cotton which eventually comes in the end out of the cultivators' pocket. In the interests of the cultivators, it would be a good thing not to continue the pools, but it is in the interests of the factories that there should be a combine, especially in a poor season. Of course in a normal season, there is no necessity for a combine but the combines are for short periods; the pools formed this year are only for two years. The members do not enter into an agreement for longer periods. At the end of two years any one of the parties may withdraw from the pool. It is advantageous to the factory owners themselves to have a combine in poor seasons but not to the trade generally. I could not recommend such a radical step as the abolition of these pools.

4059. There is some damping of cotton resorted to in these provinces. The firms do not do it. We do not buy damped cotton. As regards mixing of cotton of different varieties and of different pickings, I may mention that we have got our own types. We do not mix our types. We buy the different varieties at different centres. There are merchants who mix different varieties of cotton as for instance, *zoria* which is of a very inferior quality. They mix it with cottons of higher grade. They do not mix it with *roseum*, but they mix it with *gaorani*. I have not heard that the Indian gin owners damp the cotton after ginning. Of course, there may be some unscrupulous people among them, but damping is not carried on to such an extent as it used to be formerly. Cotton may be placed on damp ground. Formerly it used to be damped wholesale with a hose pipe. The practice has been stopped owing to the action of the Bombay Cotton Trade Association in penalising all damped cotton.

4060. The fortnightly ginning and pressing returns are satisfactory, but with a view to get more knowledge of the crop it would be better if the figures of exports from a district in different directions were supplied. Nagpur produces so many bales, but we do not know the distribution of the produce. Some of it goes to Bombay from Nagpur and some to Calcutta. It would be of much use to us if we could know how many bales of the total produce go to different places. This will show the distribution of the whole production. If these figures could be got it would be very interesting. It is very difficult to get these figures from the railway returns or from the railway authorities. I do not know whether the owners of gins and the pressing factories send their returns regularly. I send my returns regularly. I do not think that there is any necessity to alter the present system except only to the extent that I have mentioned, if that is possible. I do not think that there is any necessity to compel the factory owners to send their returns by law.

4061. We have Platt's double roller gins in our factory. They are 28 in number. We have also a Cummin's Patent press. I have no experience of saw gins.

4062. I do not think that there is any cheating going on in the factories on account of weighment. When we get carts of *kapas* in our factory and find that the cotton is of inferior quality, we settle the price by making an allowance in the rates. We deduct so much from the weight or we get a special allowance. The question is not decided solely by us. We come to a mutual settlement. Of course the cartmen have to depend on us, but there is the broker who watches their interest. The broker has to watch their interests as well but a middle way is reached somehow or other.

4063. (Mr. Hodgkinson.) In the case of *kapas*, the broker gets his brokerage both from the cultivator as well as from the buyer. In case of ginned cotton, he gets the brokerage only from the seller. It cannot be to the broker's advantage to get as large an allowance as possible if the *kapas* is inferior. If the allowance is too large, then he loses the custom of the *kunbi*. He has to keep in well with his cartmen. We test our *kapas* before ginning. It is done through the opener. That is the usual custom. I do not think it interferes much with the staple.

4064. Hose pipes used to be used for damping some ten or twelve years ago, say about 1907. I have no experience before that. I came to Nagpur in 1912. Since I have been here I have not seen any watering of cotton. There is no adulteration of cotton with sand. I might almost say that there is absolutely none.

4065. Formerly, the Kamptee market was considered a big cotton market but some of the buyers settled down here at Nagpur, and that is the reason why the *kapas* market was started here. I do not think that the grower's interest is affected by the transfer of the market to Nagpur. I do not think that this would make any difference in the price because the price that we pay depends upon the orders that we get from our principals at Bombay. I do not think that the market has been brought here for the benefit of the Municipality. Of course if the auction system were introduced, it would not do any very great harm, but the present system is much better and I do not see any necessity for changing it. There are many markets like this one in the Central Provinces, for instance at Warda, Hinganghat, Dhamangaon, Pulgaon and all the neighbouring markets. I do not know whether there is any such market in Akola.

Mr. SHIVNARAIN, Broker, Nagpur.

EXAMINED AT NAGPUR, NOVEMBER 13TH, 1917.

No written statement was submitted by this witness.

(Translation).

4066. (Mr. Wadia.) I am a broker, and cultivator as well as a *Sahukar*. I have got three villages the areas of which are from four to five hundred acres each. In one village in the Pandhar district, I grow rice, and in the two villages of Nagpur, *jari* cotton is grown. I have very little cotton in my villages which at the most produce 100 to 125 *khandis*. I grow *jari* cotton entirely.

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[Continued.]

4067. I sell all my cotton in the Nagpur market. Besides I act as broker for about 100 to 200 cultivators on the one hand and Messrs. Rallis and Volkarts on the other. I generally advance money to the cultivators before the crop is harvested. Those to whom I advance the money bring their *kapas* to me. I always make it a condition when I advance money that the cultivators should sell their cotton through me and through no other broker. I have got many *kashis* who bring their *kapas* to me. As soon as the cotton is sold, whatever I recover from Messrs. Rallis or Volkarts or others, I return to the cultivators less the advances made and less my brokerage. I get from the cultivators four annas for brokerage per cart whether the cart contains one *khandi* or one and-a-half *khandis* of *kapas*. I take interest on the money advanced to the cultivators at the rate of annas 8, 10 and 12 or Re. 1 per cent. per month, according to the standing of the borrower. I also get brokerage from Messrs. Rallis and others at the rate of four annas per cart. For the double brokerage, I attend to weighing, recover money from the buyers, settle allowances, etc. All carts of *kapas* are weighed on the weighbridge, but all carts containing ginned cotton are weighed on the ordinary scales, *dindekti* weight. The weights given by the weighbridges are accurate. Sometimes I get carts of *kapas* in a damped condition. They are mostly so when the carts have had to pass through streams and rivers. Only very few cultivators dump their cotton intentionally. If cotton is found damped or if it is of an inferior quality, I settle the allowances in conjunction with the buyers, but in no case has the cartman or the cultivator any say in the matter. The cartman has nothing to say but to accept the allowance which is settled. If the cartman is dissatisfied with the allowance, he sometimes refuses to have his cotton bought that day and offers it for sale the next day. But he is generally satisfied with the allowance fixed by me because my allowances are fair. I have to make them fair as otherwise I should lose my business. Most of the carts which arrive in this market do not contain a uniform quality of *kapas*. Sometimes *xoria* is mixed with *gorani* and *jari* cotton. I sell both hand-ginned as well as machine ginned cotton. The brokerage for the former is annas two per half *bhoja* of seven maunds of 28 pounds. This works out to about four annas per bale of ginned cotton. I get this brokerage only from the seller and not from the buyer. Most of the ginned cotton is bought by firms like Ralli Brothers, Volkart Brothers and others who press it and send it to Bombay.

4068. (Mr. Henderson.)—As regards the allocation of the carts coming to the market to the different firms, i.e., so much to Rallis, so much to Volkarts, and so on, this is done by the brokers themselves in proportion to requirements. The allocation is mainly done by the brokers on the basis of demand as well as of supply. That is, the brokers settle the allocation in proportion to the requirement of the different firms and the quantity available in the market.

Sir BAZONJI DADABHOY MEHTA, Kt., Manager, the Central India Spinning, Weaving and Manufacturing Company, Limited, Empress Mills, Nagpur.

EXAMINED AT NAGPUR, NOVEMBER 13th, 1917.

Written statement.

II.—COMMERCIAL ASPECT.

4069. (30) Local trade customs.—My demi-official letter of 3rd January 1917 to Mr. Leftwich fully deals with this question. A copy is enclosed herewith. (Annexure I).

4070. (31) Standardization of commercial names.—Copy of my letter demi-official No. 29 of 3rd July 1917 to Mr. Hindlay Shirras deals with this question. It is enclosed with this (Annexure II).

4071. (32) Buying agencies.—Our system is to send our own men, whom we can trust, to the several markets, where *kapas* or cotton suitable for our purpose is obtainable, to make purchases for us under directions of the Head Office at Nagpur.

III.—STATISTICAL.

4072. (33) Improvement of cotton forecast.—Considering the circumstances, I do not see how the cotton forecasts can be made more accurate. They are only an indication of what may be expected, though subject to climatic changes from time to time. I cannot suggest an improvement, unless a most elaborate system is adopted as in America; and even that is liable to considerable variations. I enclose a translation of our Agent's observations on this subject. (Annexure III).

4073. (34) Improvement and other statistical information.—Cotton press returns, if issued weekly and expeditiously, instead of fortnightly, would be more useful. In any case, these should be issued within a reasonable time, say, a week or ten days after the expiration of the period to which they relate. Improvement in this direction is absolutely necessary in regard to the present All-India press return, which is usually several weeks old on the date of issue. The Central Provinces local returns are being regularly issued within four or five days; and the All-India one should not be delayed beyond ten days, if it is to serve a useful purpose. Steps should also be taken to improve the accuracy of the press returns. Here too, I believe, the Central Provinces returns exhibit a high degree of accuracy, and the other Local Governments may be asked to assimilate their procedure in a line with the Central Provinces one, so as to ensure the best results. The Bombay Presidency figures particularly appear to be much wide of the mark in this respect. Endeavours should also be made to obtain press returns from Hyderabad and Central India under the Native States. It seems to have been found impossible to obtain these particulars from them so far.

4074. (35) Publication of Liverpool and Bombay prices.—The daily publication of Liverpool and Bombay cotton prices at up-country markets would not be of any practical use, and it would only be money wasted. Please see paragraph 4 of Annexure I.

IV. MANUFACTURE.

(a) Ginning and pressing.

4075. (36) Type and number of gins and presses.—We have 161 gins in all at nine factories as per Annexure IV, 24 of which are Platt's Macarthy, and the rest Dobson and Barlow's revolving knife roller gins. We have a hydraulic press at each factory worked by an oil engine.

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[Continued.]

4076. (37) Size of bale.—Our presses turn out bales from twelve to thirteen cubic feet, with a density of cotton pressed to 25 to 27 lbs. per cubic foot. Details of some are given in Annexure V.

4077. (38) Saw gins *versus* roller gins.—I believe the saw gins cut the fibre even when finely set, which cannot often be done; and even the American cotton fibre would be in a far better condition than it is if these gins were thrown out for there is always a quantity of short fibre observable. I believe, even Platt's Macarthy gins cut the fibre, though to a much smaller extent. In my opinion, the best gins are the revolving knife roller gins made by Messrs. Dobson and Barlow, which do not cut the fibre, but which have one disadvantage of curling the lint, which makes it unmerchable. The curls are opened out in the blowing room, and we suffer nothing from a practical point of view from such a disadvantage, which is merely that of appearance.

4078. (40) Factory labour.—Factory labour is scarce as ginning and picking seasons commence and continue nearly at the same time. But, on the whole, the difficulty has not been insurmountable, especially where the working hours and the comfort of the operatives are looked after.

4079. (41) Condition of cotton.—Since we buy most of our requirements in *kapas*, and gin and press the cotton ourselves, we experience no objectionable conditions in the cotton we receive.

4080. (42) Effect of replacement of short-staple cotton by long staple.—No substantial alteration in our machinery will be needed if short staple cotton be replaced by long staple, which indeed would be a welcome change.

(b) Spinning and weaving.

4081. (43) Counts spun and market for yarn or cloth.—We spin from No. 2 to No. 60 counts. Our chief markets are in the Central Provinces and Bihar and Orissa. The other markets—Calcutta, Amritsar and China—are on a smaller scale.

4082. (45) Effect on cotton market of replacement of short-staple cotton by long-staple.—It would be a very great advantage not only to India but even to Lancashire if long staple be encouraged and grown in place of short staple. We have to go to Navsari, Dharwar, Hubli, and the Nizami Territory for the long staple cotton we require for our spinnings. I attach hereto a list of our purchases during the last cotton season (Annexure VI), giving the percentages of lint from the *kapas* purchased at each buying centre by our Agents. It will be noticed that the long staple *kapas* gives a low percentage of lint, and the difference between the short and the long staples, in some places, is as large as nearly forty per cent which makes it prohibitive for the agriculturists to grow long staple cotton. In this connexion, I submit herewith extract from my evidence given to the Indian Industrial Commission (Annexure VII). I also submit Statements showing the average strength of the several fibres tested at various periods (Annexure VIII—XI). Annexures Nos. XII—XIV are copies of letters on the subject of cotton generally, which I venture to submit herewith, as the Committee may find them of some interest. I am also enclosing a comparative statement (Annexure XV) of prices of American, Egyptian and indigenous cottons *bani* (long staple) and *jari* (short staple), just to show that at times it has been cheaper to import American cotton *via* Liverpool than to buy long staple in India. Even where the prices seem somewhat higher, American has been found advantageous, as it gave greater production and better strength.

ANNEXURE I.

Copy of letter, dated Nagpur, the 3rd January 1917, from Sir Bazonji D. Mehta to Mr. C. G. Leftwich, I.C.S., Director of Agriculture and Industries, Central Provinces.

With reference to your demi-official of 7th ultimo, I have consulted all my men who are buying cotton for our mills in the various markets of the Central Provinces and Berar as well as other Presidencies in regard to the proposal for the publication of telegraphic advices about Bombay cotton prices and other cognate matters and give below my views.

2. The Hon'ble Mr. Standen's description of the usual practice in Berar generally applies to our local markets, but so far as I know, the buyers in Nagpur and all other markets meet together and formally declare the rate of the day on receipt by most of them of information from their principals in Bombay. It is not uncommon for the seller to refuse a buyer's offer for quality not up to standard, or which is below the rate he expected. He takes his cart to another buyer or even brings it back to the market and waits his chance till the next day.

3. The information given by you to the Punjab authorities is in the main correct, but you will please understand it is only a very small proportion of the actual cultivators who bring their crops to the recognized markets. The proportion of the total cart arrivals, which is brought by the cultivators themselves, is stated to be only about a fourth of the whole in the Central Provinces and about a half in Berar. The rest of "sellers" in these markets are really middlemen who make their purchases direct from the ryots at their fields or homes. It follows, therefore, that any scheme which contemplates such changes in the existing conditions as to ensure the cultivator getting the best value for his produce would therefore have to be considered separately so far as it affects those who sell their produce in the markets as well as the larger number who do so in the fields.

4. Taking the markets first, I agree with the Hon'ble Mr. Standen that the putting up of telegrams every morning announcing the Bombay prices would not only be impracticable but also serve no useful purpose. An ordinary cultivator would not comprehend the Bombay value of lint cotton; what he cares for and understands is the price which he receives for his own *kapas*, and it would hardly be feasible for Government to work the latter out on any rigid basis of calculation from day to day. Every buyer, though guided by the declared market rate, arrives at the equivalent *kapas* price in his own way according to his own expenses and requirements. A large firm like Rallis or Volkarts having its own factories, may be calculating about Rs. 5 only per bale for ginning and pressing charges on the basis of their actual cost, while other buyers may have to take into consideration these at the usually high levels—anything from Rs. 10 to Rs. 14 per bale—charged by ginning and pressing combines. Again, the price to be paid for *kapas* depends on the percentage of lint output which varies a good deal with the *kapas* of different qualities and localities arriving in the same market. It would, therefore, be very difficult for Government to give the cultivator an idea of the equivalent *kapas* price on the basis of the Bombay cotton prices. Besides competition among buyers who get daily and even hourly advices from Bombay is usually so very keen as to defeat any attempts at forcing down prices below their natural level. In fact, barring aberrations due to unforeseen factors or local circumstances, etc., and surveying the price movements as a whole, the *mofussil* markets in their ups and downs will usually be found

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[Continued.]

to be a faithful reflex of the Bombay prices. At times when cotton is on a rising tide from day to day, buyers in the *mofussil* often pay rates which are even higher than the Bombay parity, and so too when the situation is stagnant or dull the *mofussil* prices may be found relatively lower; but, on the whole, the seller in large markets has the advantage of operating amid conditions where the law of supply and demand has more or less full play and where competition between rival interests results in a very reasonable price being fixed consistent with the Bombay parity from day to day.

5. As regards the difficulties and abuses, these, as the Hon'ble Mr. Standen rightly points out, have no relation to the market prices, but are due to unscrupulous and collusive action by brokers and buyers against whom the market rules are not rigidly enforced. In Berar, the evil practice of *aratyas* buying under other names seems to be extending in all markets and requires to be put down with a strong hand. Such a practice, as Mr. Standen shows, naturally gives rise to abuses to the detriment of the ryots' interests. The *aratya* system seems to be non-existent in the Central Provinces where the *dalals* merely act as mere intermediaries between buyers and sellers. All my buying agents tell me that these *dalals* invariably take the cultivators' side in regard to all disputes about quality, price, etc. The *aratyas* too are reported to be acting in precisely the same manner unless when their own interests clash with those of the sellers in which case the latter must suffer. Where competition is keen, even the *dalals* act in collusion with the buyers who pay them more than the rate of brokerage fixed by rule in consideration of their bringing to them a large proportion of the carts. Many sellers are in the hands of particular *dalals* who have advanced them money, and though they may find it not to their interests to go to them, they are compelled to do so because of their indebtedness. Gradually every buyer has to follow suit, and the higher rate of brokerage becomes the rule rather than the exception. The buyers take this in their calculations as an extra charge on cotton and regulate their purchasing prices of *kapas* accordingly, thus passing on the burden of the former on to the sellers in the long run.

6. The Market Committees or Local Bodies can do much to see that their excellent regulations are strictly observed, but, with all this, such evils are inseparable from a state of society where an ignorant peasantry has to hold its own against hard-headed business people in the persons of buyers and brokers, some of whom would not hesitate to stoop to any nefarious practices to serve their own private ends.

7. With all the attendant abuses, however, the market system is, in my opinion, in the best interests of the sellers who, after all, fare usually better by bringing their produce in the markets instead of disposing of same in their own fields. These domestic sellers again can be divided into two categories. A proportion of these people sell forward long before the crops mature, while the rest, owing to small quantities, poverty or other disabilities, sell their produce to middlemen during the season. The first class is compelled to sell forward owing to financial embarrassments or other difficulties at usually very low prices. This class, as a rule, may be expected to earn a much better value only if it is possible to wait till the crop is harvested. Government can help these producers by enabling them to obtain a reasonably cheap credit on the pledge of their potential crops through the agency of co-operative societies or other sources. I understand that such forward sales of crops at very low rates are steadily diminishing and are resorted to only in cases of extreme necessity.

8. As regards the other class who sell their produce to big cultivators or middlemen, I am informed by many of my own men that the latter usually pay about the same price as that prevailing in the adjacent markets or slightly less just to cover carting charges. It seems to me this can hardly be the case. The middleman is no philanthropist. He is out to make profits, and whatever he gains must come from the pockets of the cultivator. Even if he pays the same price as in adjacent markets, he must be recouping himself in other ways. The commonest trick he plays with the seller is in regard to weighment. I understand these dealers usually take over all *kapas* from the ryots on weighment against stone pieces of alleged standard weights and a good deal of fraud is being practised on the unsuspecting sellers in regard to these stones. I think this evil can be effectually checked if the State provides facilities for obtaining standard iron weights in every cotton village and after advising all cultivators through Government officers or other village headmen, prohibits the use of any weights other than these standard ones.

9. As regards the prices paid for these purchases in the fields, it frequently happens that the dealers are at times heavily hit if the market takes a downward course and the cultivator actually gains a good deal by getting advantage of higher market conditions which may prove transitory, but then there are equal chances of the market rising; and on the whole, the cultivator by selling privately must needs suffer as he loses the great advantage of open competition amid a large number of keen buyers. It is also likely, in these individual sales in the fields, the dealers must be getting the better of the cultivators in regard to prices owing to their comparatively superior knowledge of market conditions. It would therefore be desirable if the daily *kapas* rates of the nearest regular markets are made known in every village through the agency of *kotwals* or *patwaris* or village headmen for the guidance of the cultivators in their bargains with middlemen.

10. But after all, these measures, even, if brought into effect, are but palliatives. The dense ignorance of the average peasant makes him peculiarly susceptible to every form of economic injury when he comes into contact with a stratum of society even a little superior in intelligence to his own and what we are discussing is, as you know, a solitary phase of the same phenomenon. As Mr. Crosthwaite put it before the Industries Commission, his income is low enough and he is being bled white at every turn. No amount of dry-nursing here and there will fit him for the battle of life in all its phases. We can only hope to strike at the root of the mischief when the idea of universal elementary education comes within the sphere of practical politics.

11. I take the liberty to enclose herewith a summary of the opinions on the subject-matter of your enquiry, exactly as received from our buying agents in the Central Provinces and Berar as well as some of the large markets in other parts of India. Their conclusions may not be logical in all cases, nor all their suggestions practical ones; but I send these extracts for what they are worth knowing that it will interest you to have an insight into the points of view of a typical set of people having no interests of their own to serve, who come in daily intimate touch, and do business worth lakhs every year with all classes of cotton sellers in many of the principal markets all over India.

ENCLOSURE (i) TO ANNEXURE (I).

Reports from our cotton buying agents on Professor Todd's proposal and other cognate matters. Dated Nagpur, the 3rd January 1917.

Wardha.—We note Government contemplate publishing telegrams about Bombay cotton prices in every cotton market. Here cultivators' carts are about a fourth of the whole; the rest are all dealers. Even the

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[Continued.]

latter do not get any information about Bombay prices. We cannot think of any other way in which matters can be improved for the cultivator, but possibly, if cultivators happen to know about telegrams being posted in the markets, they may be coming there in larger numbers.

Hinganghat.—We do not see any advantage in the Government proposal to publish telegrams of Bombay prices in cotton markets. The buyers cannot conceal reports about brisk or dull markets even if they wish to. Further, the rates in our market are usually higher than Bombay parity and so there is little advantage in such publication. Only one suggestion occurs to us for improving matters for the cultivators. We have no assurance about the actual crop till almost the end of the season. This year the season is nearly over and yet some people speak of an eight-anna crop and others a four-anna one. If Government, even at some extra cost, manages to turn out an accurate forecast by the commencement of the season, the big and well-to-do cultivators would keep back their *kapas* and sell only when the market rises, or they might sell quickly if a large-crop estimate points to lower prices in future. This might benefit the cultivators to some extent, though not much. The cart arrivals in our market consist of one-fourth cultivators' and three-fourths of dealers' carts. The dealers who buy from cultivators in their fields do not get *kapas* at any lower rate at all. If the rate in Hinganghat is 120, they also buy from the cultivators at 120, but then they play tricks in weighment, or some water the *kapas* or cotton to make it heavier before bringing it in the market for sale. This can be remedied by Government giving standard iron weights to all cultivators. Again, you should not imagine that the cultivators always lose by selling to dealers from their fields. Many a time the former sells during a strong market at high rates. The market suddenly takes a downward course and the dealer is thus ruined. We have also asked some of our other friends, who are of opinion that, while there would be no tangible advantage from such telegrams, Government will incur a lot of unnecessary expense to be recouped by extra taxation, which will ultimately come from the pockets of the poor ryot.

Warora.—We consulted a few *malguzars*, who approve of the Government proposal. They say that mere Bombay rates would be useless to the cultivators. The Warora equivalent for *kapas* should also be mentioned in the notice exhibiting the telegram. The notice should also be exhibited at all principal "*nakas*" from which *kapas* carts come to our market. The proportion of cultivators' carts in our markets is about one-fourth, and dealers' carts three-fourths. In our opinion, if the buyers here are paying less than Bombay parity, such notices would be advantageous to the sellers, but not when the case is reverse.

Akola.—We do not see any advantage in the Government proposal. All buyers receive telegrams from Bombay which soon become public property. All *kapas* carts are bought through *aratyas* or *dalals*, who always take the side of cultivators and manage to get for them the best possible prices, because they receive one per cent brokerage. But the cultivator suffers much for some time past by the practice adopted by many *aratyas* and *dalals* of buying their cultivators' *kapas* under other names, because then they are said to value the cotton very strictly and also not to give correct weighments. They are bound by an agreement with the Municipal Committee not to trade in their cultivators' cotton, but still do so with impunity owing to laxity of control on the Committee's part. Here the proportion of cultivators' carts is three-fourths, and dealers' one-fourth. The dealers who purchase from the fields and bring carts in the markets for sale run the risk of profit or loss according to market situation.

Ycotmal.—The Government proposal is worth consideration, but in our experience *mofussil* rates do not much depend on exact Bombay parity. If the market exhibits a declining tendency, buyers would try to purchase here at Rs. 5 or 10 per candy less. If the market is brisk, purchases at even higher rates than the Bombay parity are not uncommon. The rates in *mofussil* markets also depend on the number of purchasers. If the latter are a large number, the cultivator gets a very good rate owing to competition between them. If, however, the buyers are few and arrivals large, the rate would to some extent be favourable from their point of view. You should not imagine that the cultivator suffers any loss by not knowing the Bombay rate. Nor would he be a gainer by such telegrams. In fact, the cultivator as well as the dealer who buys from his fields are both illiterate and would not understand the significance of Bombay rates. We think this arrangement would only be welcomed by small buyers, who would know Bombay prices at Government expense. If Government could effect some necessary alterations in the Cotton Market Rules and see that the latter are rigidly enforced, the cultivators' interests would be effectively protected. The cultivator badly needs protection against what he suffers from the collusive trickeries of the buyer and *aratya* or *dawal*. In Amraoti, the market rates are usually declared very high ones; but *dalals* combine with buyers and agree to unnecessary reductions in rates and weights. The prevention of such frauds is much more advantageous to the ryot than mere publication of Bombay telegrams. The Hon'ble Mr. Standen has made these points quite clear in his circular letter. He will do the Berar cultivators a real service if he insists on Cotton Market Committees stamping out such malpractices. The proportion of carts in our market is more than half dealers', rest cultivators'. Now the dealers do not get any great profit from their purchases. The costs of cartage, interest, and the risk of decline in market are all borne by the dealer, and he is heavily hit at times. This year, when the market grew stronger every day, they made some profits, but with the heavy decline in the last few weeks they have lost heavily, with all previous profits being wiped off. We do not think it is at all advisable to do away with these middlemen. Again, all the cultivators do not desire to bring their carts to the market. They are of two classes—one selling in the market and the other at their homes.

Pandharkuanda (Berar).—We have consulted many in the cotton trade, who are of opinion that information about telegraphic advices from Bombay, if put up at the markets, will soon spread among all cultivators. Otherwise the Government might make arrangements with *dalals* to inform every one who brings his carts in the market. But mere Bombay rates would be of no use. The cultivators will only be able to understand the equivalent price of *kapas*, and Government should give this information to them as well. In our market the proportion of carts brought by the cultivators themselves is about ten annas, and other dealers or middlemen six annas. If Government is in earnest to improve conditions for the cultivators, we think, it must stop all dealings by middlemen. The latter usually deceive the buyers also, as they water the *kapas* before bringing it in the market. Many are also of the opinion that even want of knowledge of the Bombay rates does not prevent the cultivators from getting full value for their produce. It is difficult for buyers to conceal the Bombay situation, and cultivators here generally get a rupee or two over the Bombay parity.

Umre.—The proportion of carts coming in our market is one-fourth of cultivators' and three-fourths of middlemen's. Information about Bombay prices can easily be spread among cultivators in the following manner. The Tahsildar should receive telegraphic intimation from Government about Bombay prices, and that officer will inform the *kotwals* of all villages where there are cattle-pounds, and the *kotwal* should be

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[Continued.]

made responsible for communicating these prices to all villages which are served by such pounds. In this way such news will reach every cultivator.

Umri (Nizam's Territory).—Here the bulk of the crops is invariably sold long before maturity, as the cultivator wants money for his agricultural and other expenses. If any balance remains, this also is sold by him in the fields. He does not bring his carts to the market. Telegraphic advices of Bombay prices would only be of use to the cultivator if Government helps him by means of loans and prohibits him from making forward sales of his crop. If the cultivator sells on the basis of Bombay parity after his crops are ready, then only he would be a gainer, not otherwise. In this market, ready *kapas* is brought almost entirely by middlemen or dealers. The cultivators' carts do not aggregate even an anna in the rupee. In Parhani, Jalna, etc., where, though it is not the custom to sell forward, the larger proportions of carts are also brought by middlemen. If telegraphic advices are posted in these markets, there is every probability that the cultivators on learning this may bring their carts to the markets themselves instead of selling off their produce to dealers. It is also desirable for such advices to be posted up in the cultivators' own villages.

Lyalpur (Punjab).—Small dealers and middlemen usually pay to the cultivators less than the intrinsic worth of their crops. Here the carts brought by the cultivators themselves are about four annas in the rupee, the rest being small dealers'. The latter, on learning news about the strong condition of the markets at Bombay and Karachi, proceed to up-country markets and buy up from the cultivators what they can. The ryot, even if he wishes to learn news about the Bombay or Karachi markets, could not do so, he himself being quite illiterate, and his educated neighbours would not care to explain to him the market news from the papers every day. The best way to overcome this difficulty is for Government to open markets at all places and post there a competent clerk in charge who should receive telegrams about the Bombay and Karachi prices and explain their contents, in equivalents of the local weights for *kapas*, to all the cultivators who may be coming in such markets and advise them not to sell at less. Again, some of the owners of factories here frequently enter into a combination to stick to a low rate for buying cotton irrespective of market conditions. Government must take steps to prevent such unfair dealings by which the cultivator suffers unnecessary loss. No scheme for the publication of Bombay prices will be of any avail to the large number of the poorest classes of cultivators whose financial embarrassments compel them to sell forward a portion of their crops at very low prices, which make them sink deeper and deeper in poverty. This class has the very first claim on such assistance as the State can manage to give by cheap loans or any other way. The bigger cultivators and all others are in a relatively better position to protect their own interests.

Shegaon.—It would be very difficult for Government to publish accurate information about rates because buyers get telegrams every hour. However, an arrangement by which the previous night's Bombay rate is made known in the whole market by means of a notice is worth a trial. It is also desirable that *patels* or other headmen should be instructed to send a man to the nearest market to bring information about the prevailing *kapas* rate every day and this news must be proclaimed throughout the village and a notice thereof posted at every village "naka," so that the whole body of cultivators may be conversant with the ruling market rates.

Hingoli (Nizam's Territory).—The Government proposal is likely to benefit the cultivators in the long run, but the cultivator being absolutely illiterate, it will be some time before he comes to appreciate the advantage of the scheme for the publication of Bombay prices. It will also benefit small traders, who, without any knowledge of market conditions, go on buying in the wake of bigger people and many a time find themselves stranded. The cultivators here sell seventy per cent of the crop at low rates in their own fields, and only about thirty per cent. of the crop is brought by them to the market.

Amraoti.—Out of the carts coming in this market about half belong to the cultivators and the other half to dealers. We do not see any advantage in the Government proposal, as all the carts which arrive here are sold through *dalals* who are all aware of Bombay prices, and so the seller does not suffer any loss. If Government is anxious to publish these prices for the benefit of cultivators, the best course would be for the *patels* and *patwaris* of villages to receive this information from Government and to circulate same among the entire body of the peasantry.

Mirpurkhas (Sind).—The Government proposal is a very good one, but it would only be of advantage in regard to established markets. It would be very difficult for Government to circulate the information about Bombay prices in every small or large village growing cotton. Even if this were done, in the absence of markets, the cultivators must needs sell to the dealers in their own villages at low rates. Government would therefore be acting in the best interests of the ryots by dividing all cotton villages in groups and establishing markets in a central situation for every group; and the cultivators should then be compelled to bring their crop for sale in such markets only. In our market, no ready *kapas* comes for sale; only the dealers bring it from the villages and earn a large profit by sale to buyers. The poor cultivator gets very little for his goods, the lion's share going to the middlemen. It is therefore essential for the ultimate good of the ryots that markets should be established and that cultivators should be compelled to resort to such markets only, where information about Bombay prices should be published by Government. In this way they will get the proper value for their crops. A large number of cultivators live from hand to mouth, and they are compelled to make forward sales of a portion of their crops, before even it is sown, at very low prices with a view to provide ways and means for the purchase of seeds. Government must try to help them here by the provision of facilities for obtaining cheap credit.

Ahmedabad.—The cultivators are less liable to be deceived if they get some information about Bombay prices. We think, Government should post notices at convenient centres, so that all cultivators can come and see them. In our markets, the proportion of cultivators' own carts to the total arrivals is hardly even two annas in the rupee. The cultivator usually sells his crop four months previous to its arrival in the market, because those who are in penurious circumstances must have money to provide for their agricultural expenses, and this he manages to get by selling his crop forward on the day that he commences his sowing operations. In these cases the cultivator hardly obtains a half of the intrinsic value of his produce. The wealthier type of cultivators has no difficulty in getting information about Bombay prices and they are well able to take care of themselves. It is the poor and small cultivators who suffer most from ignorance and poverty, and Government should do what they can to protect them. If the State grants loans to these men at a reasonable rate of interest at the time of sowing operations, they will not be under the necessity of making precipitate forward sales and would obtain the proper price for their crops during the season. Government do not stand any serious chances of loss, as the cultivator will always be in a position to discharge his liabilities in full at harvesting time no sooner he sells his *kapas*.

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[Continued.]

ENCLOSURE (ii) to ANNEXURE I.

Translation of letter, dated the 26th January 1917, from our Coimbatore (Madras Presidency) Agents.

We note our reply to your letter, dated the 22nd December, in connexion with Government's proposal to circulate telegrams of Bombay cotton prices among cultivators has not reached you. We again give below our views on the subject. We think there is some exaggeration in the information received by the Government that the cultivators do not get proper value for their cotton. In the villages on this side, the cultivators themselves bring a greater proportion of their produce for sale, and, owing to keen competition among merchants, they at once come to know the trend of the market. Only a small proportion is bought by petty dealers in the fields, but here again the cultivators do not get very low rates as is supposed. There is competition among merchants everywhere and consequently dealers at times make profit or loss according to the tendency of the market. The dealings of these middlemen afford some convenience to the cultivators. In our opinion, the chief cause of poverty of the peasant class is the high revenue tax, and it is necessary to make a reduction therein. Again, this tax is collected every six months at present. We think it would be better if this is done quarterly. Interest is another reason for their poor condition. Not only have the cultivators to pay a ruinously high rate of interest on loans received from money-lenders but they are also at times compelled by the latter to guarantee the sale of their produce to them at low rates. It is therefore essential to establish co-operative credit societies at almost all places. The total crop of Cambodia cotton is about 50,000 bales in Coimbatore and Tiruppur. A bulk of this is sold by cultivators themselves to merchants, only 15,000—20,000 bales being purchased by dealers. There is no cotton market at any of the places on this side. Agents of Bombay cotton mills therefore make their purchases direct from cultivators in fields.

ANNEXURE II.

Letter No. 39, dated Nagpur, the 3rd July 1917, from Sir Bazonji Mehta to Mr. G. Findlay Shirras, Director of Statistics.

Many thanks for your demi-official No. 2068 of 30th ultimo. A supplementary classification of the usual forecast into trade descriptions will, I am sure, be welcomed by the Trade, as enhancing the utility of these returns. I would suggest that the comprehensive description of *Oomras* and also of *Bengals* be sub-divided into the different districts, as the Bombay Cotton Trade Association do in their daily and weekly returns of arrivals, etc. This will bring your returns into a line with those of the Association as well. I enclose herewith a newspaper cutting showing the classification as adopted by the Association. You will, no doubt, also be consulting that body in the matter.

ENCLOSURE TO ANNEXURE II.

Receipts of various growths of cotton at Bombay to date compared with the corresponding periods in the previous season.

Growths.	Total for the week ending 5th July 1917.	TOTAL TO DATE (IN BALES) SINCE SEPTEMBER 1ST.	
		1916.	1915.
	Bales.	Bales.	Bales.
Khandesh	718	287,388	359,793
Central India	8,621	167,405	229,140
Barsee and Nugger	110	115,671	247,539
Berar	3,565	395,402	684,733
Central Provinces	...	91,532	182,109
TOTAL OOMARS	13,014	1,057,311	1,703,614
Dholera	8,232	387,047	101,635
Broach	1,725	302,272	261,858
Compta and Dharwar	11,757	134,135	158,575
Western-Northerns	6,078	75,741	127,759
Bengals (N.-W. Provinces)	446	274,388	313,086
} Rajputana	8,248	167,194	91,793
Sind, Punjab	12,388	311,987	184,350
Cocanada	514	19,145	26,599
Persian	2	264	525
Tinnevely and Cambodia	304	23,877	33,267
Americans	...	66	...
Egyptian	...	463	792
Other sorts	...	10,861	2,645
TOTAL	62,708	2,764,783	3,006,498

Central Provinces.]

Sir BAZONJI DADABHOY MEHTA.

[Continued.]

ANNEXURE III.

Translation of our Agents' observations regarding publication of cotton forecasts, etc., dated Nagpur, the 3rd November 1917.

The forecasts appearing in the Central Provinces and Berar serve no useful purpose so far as the business community is concerned for the following reasons :—

1. The forecasts appear very late, which if it were otherwise would be very helpful to the dealers in arriving at their conclusions.
2. As compared with the American forecast, ours is deficient in the matter of correct estimates. The accuracy of the American forecast is far ahead of the local forecast, as will appear from a comparative study of the two for the last year.
3. The forecast is not freely available to buyers as well as sellers. It would prove of greater use if Government were to circulate it freely among all parties.
4. The forecast is published in English only, but the major portion of the dealers being unacquainted with the English language, it does not appeal to them. All the forecasts ought to be printed in Hindi, or the vernacular of the proper district, and circulated broadcast so as to serve their purpose.

The same arguments apply to returns other than those of forecasts published by the Government. It is but meet that the Government introduce the above changes, if they expect any appreciable proportion of buyers and sellers to benefit by these publications.

ANNEXURE IV.

List of ginning factories and presses owned by the Empress Mills at different places. Dated Nagpur, the 3rd November 1917.

Serial No.	Town.	Province.	No. of gins.	Type of gins.
1	2	3	4	5
1	Nagpur	Central Provinces	22	Dobson's Single Knife Roller Gins
2	Wardha	Do. do	12	Do. do.
3	Hinganghat	Do. do	17	Do. do.
4	Warora	Do. do.	18	Do. do.
5	Akola	Berar	11	Do. do.
6	Yeotmal (old factory)	Do	10	Do. do.
7	Yeotmal (new factory)	Do.	8	Do. do.
8	Pandharkawada	Do.	14	Do. do.
9	Umri	Nizam's Territory	12	Platt's Single Macarthy Gins.
			10	Dobson and Roscoe's Gins.
			12	Dobson's Single Knife Roller Gins
			12	Platt's Single Macarthy Gins.

N.B.—There is a press as well in each of the above factories, turning out bales of about 320—365 lbs.

ANNEXURE V

Statement showing average dimensions and density of cotton bales pressed at Empress Mills factories., dated Nagpur, the 3rd November 1917.

Places.	Dimensions.	Cubic feet.	Weight.	Density per cubic foot.
1	2	3	4	5
Yeotmal	48—3/4" × 19—1/2" × 24-1/4"	13	320 325	25/26
Hinganghat	48—1/4" × 19—1/2" × 23-3/4"	12 13	320 334	26/27
Pandharkawada	48— × 19—1/4" × 24-1/2"	12 13	320 325	25/27
Umri	48—1/4" × 19—1/4" × 25-3/4"	13 14	360 365	27/28

Central Provinces.]

Sir BAZONJI DADABHOY MEHTA.

[Continued.]

ANNEXURE VI.

Statement showing total purchases of Jari and Bani Kapris by the Empress Mills, at different places during the season 1916-17, with the respective percentages of lint produced therefrom, after ginning process. Dated Nagpur, the 31st October 1917.

Places.	JARI PURCHASES.		BANI PURCHASES.	
	Bhojas of 392 lbs.	Lint percentage.	Bhojas of 392 lbs.	Lint percentage.
1	2	3	4	5
Nagpur	2,123	35.45	...	...
Umri	1,291	36.14	...	...
Katol	28	34.78	...	...
Wardha	2,494	34.77	...	...
Hinganghat	1,952	34.36	44	26.13
Warora	1,847	34.69	1,336	26.97
Yeotmal	8,474	34.75	5	27.05
Pandharkawada	5,397	35.17	623	24.99
Akola	136	31.12	1,497	34.76
Hingoli	1,304	33.35	...	...
Umri	...	...	3,878	20.92
Parbhani	...	...	246	30.36
Bhensa	...	...	1,612	...
Hubli	...	...	3,173	28.22
Jaora	2,015	29.34	...	...
Wadliwan	...	...	162	34.75
Ahmedabad	...	...	575	...
Navsari	...	...	1,090	32.08
Mirpurkhas	680	35.59	...	...
Lyallpur	...	...	1,529	32.43
Coinbatore	...	...	148	32.29
TOTAL	27,741	...	15,927	...

We also use Egyptian cotton for fine counts and consume about 250 bhojas (of 392 lbs each) per year

ANNEXURE VII.

Extract from Sir Bazonji Dadabhoy Mehta's written evidence given before the Indian Industrial Commission in October 1916.

Though the long-staple cotton can be imported, it would accelerate the development of the Indian cotton industry a good deal, if it is successfully grown in large quantities in India. The best indigenous long-staple cotton was once the famous Hinganghat, the whitest, cleanest and strongest staple in the world; but unfortunately owing to its poor yield per acre it has all but died out. Many exotics have been tried by the Agricultural Departments all over India. Some of these have given great promise of success; but in almost every case the results have been disappointing, due in a large measure to the cultivators and dealers not understanding their ultimate interests and, with a view to present gains, mixing the long-staple with the short staple which is a comparatively abundant yielder. I think Government should devote their attention by every means in their power to increase the yield of the indigenous long-staple or bani, as the exotics seem to deteriorate on account of adulteration, combined no doubt with climatic influences. The average yield of lint per acre in India is not even half that in America, and that of long-staple considerably less. Persistent attempts in the direction of intensive cultivation, especially in connexion with the long staple variety, are necessary towards discovering such chemicals or other artificial fertilisers as are best suited to the Indian soil and climatic conditions. A few American expert agriculturists may also be employed as an experimental measure towards this end. In several districts the rainy season being of short duration, the cotton plants do not get sufficient moisture for the crops to be matured, and irrigation, in such case, would help greatly the increase of yield, especially of long-staple cotton.

Central Provinces.]

Sir BAZONJI DADABHOY MEHTA.

[Continued.]

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8	Pandharkawada	Do.	14	Do. do.
9	Umri	Nizam's Territory	12	Platt's Single Macarthy Gins.
			10	Dobson and Roseoe's Gins.
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Central Provinces.]

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ANNEXURE VII.

Extract from Sir Bazonji Dadabhoy Mehta's written evidence given before the Indian Industrial Commission in October 1916.

Though the long-staple cotton can be imported, it would accelerate the development of the Indian cotton industry a good deal, if it is successfully grown in large quantities in India. The best indigenous long-staple cotton was once the famous Hinganghats, the whitest, cleanest and strongest staple in the world; but unfortunately owing to its poor yield per acre it has all but died out. Many exotics have been tried by the Agricultural Departments all over India. Some of these have given great promise of success; but in almost every case the results have been disappointing, due in a large measure to the cultivators and dealers not understanding their ultimate interests and, with a view to present gains, mixing the long-staple with the short staple which is a comparatively abundant yielder. I think Government should devote their attention by every means in their power to increase the yield of the indigenous long-staple or bani, as the exotics seem to deteriorate on account of adulteration, combined no doubt with climatic influences. The average yield of lint per acre in India is not even half that in America, and that of long-staple considerably less. Persistent attempts in the direction of intensive cultivation, especially in connexion with the long staple variety, are necessary towards discovering such chemicals or other artificial fertilisers as are best suited to the Indian soil and climatic conditions. A few American expert agriculturists may also be employed as an experimental measure towards this end. In several districts the rainy season being of short duration, the cotton plants do not get sufficient moisture for the crops to be matured, and irrigation, in such case, would help greatly the increase of yield, especially of long-staple cotton.

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[Continued.]

The local Agricultural Department is doing much useful work in this direction ; but it is a fact that it has almost been obliged to give up experiments with the long-staple and devote itself more and more towards encouraging the shorter staple, which is such an abundant yielder. The Department is quite justified so long as the cultivator obtains a comparatively more remunerative return for the shorter staple on his farm, but I do not think we should despair and give up further trials with fertilisers of different kinds and with irrigation, where possible, towards improving the yield of the long-staple. Even if there is failure in one province there are no doubt other parts of India more suitable for growing long-staple cotton, and the yield there might be capable of great expansion under the right kind of fertilisers or irrigation of both.

It may be mentioned in passing that, if the Agricultural Departments in all parts of India, as in these Provinces, looking to the immediate interests of the cultivators, encouraged the growth of the short-staple, as it certainly would prove a more abundant yielder under similar circumstances than the long-staple, a time must come when the price of the short-staple with fall in relation to the longer one and the former possibly become a drug in the market. It may then take years to revert to the long-staple.

If even some approach to the American yield is practicable in India, the problem of the long-staple indigenous cotton would be solved, the crop would be enormously increased, and thus a powerful stimulus would be imparted to the development of the Indian cotton industry, benefiting growers, spinners and exporters alike. The demand on cotton crops throughout the world is continuously outgrowing the supply, and American cotton prices even during the present war crisis have soared to heights which were only reached during the Civil War. It is even feared that in a short time America may utilize the whole of its crop for its own manufactures, and Lancashire will have to look for its raw material elsewhere. It is therefore imperative for the Government of India and even the Imperial Government to leave no stone unturned in exploiting the possibilities of the Indian crop.

ANNEXURE VIII.

Statement showing results of trials of different growths of long-staple cotton taken at the Empress Mills from 1912 to 1917.

Serial No.	Bani cotton.	Average tension.	REMARKS.
1	2	3	4
		lbs.	
1	Umri	67	Average count spun— 20s Twist.
2	Dharmabad	62	
3	Navsari	62	
4	Hubli	61	
5	Lyallpur, Sind (American seeds)	60*	
6	Pandharkawada	57	
7	Warora	57	
8	Coimbatore	53	

* This is the result of trials of the 1916-17 crops. We had received this variety in 1915-16 also, but it was found a bit weak then.

ANNEXURE IX.

Statement showing results of trials of different growths of Jari cotton taken at the Empress Mills from 1914 to 1917.

Serial No.	Jari cotton.	Average tension.	REMARKS.
1	2	3	4
		lbs.	
1	Warora	59	Average count spun—12s twist
2	Hinganghat	59	
3	Yeotmal	54	
4	Umrer	54	
5	Wardha	52	
6	Nagpur	50	
7	Akola	45	

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ANNEXURE X.

Statement showing tests of yarn produced at the Empress Mills from Egyptian and Uganda cotton.

Tests made in	Counts.	Tension of Egyptian cotton.	Tension of Uganda cotton.	Turns per inch.
1	2	3	4	5
	Twist.	lbs.	lbs.	
July 1916	50	32	31	31.68
Do.	40	41	40	25.20

ANNEXURE XI.

Statement showing average tension, etc., of 20s yarn produced at the Empress Mills from American and Indian cotton.

	Actual count.	Tension.	Twist wheel.	Turns per inch.
1	2	3	4	5
<i>American Cotton.</i>				
Middling	19.93	64.87	40	18.7
<i>Indian Cotton.</i>				
20s mixing consisting of Warora, Navsari and Parbhani Bani.	19.96	56.79	38	19.56

ANNEXURE XII.

Copy of letter No. 2091, dated Nagpur, the 20th October 1916, from Sir Bazonji D. Mehta to the Director of Agriculture, His Highness the Nizam's Government, Hyderabad (Deccan).

I beg to acknowledge receipt of your favour No. 4 of 12th instant and thank you for all the information you give about the arrivals of pure *goarani* at Jalna and Parbhani. I am asking our agents at Umri to make arrangements for purchases there, and should they or we require any further particulars hereafter we shall write to you.

Our experience with pure staple such as we are buying at Umri, Newga and Bhensa is that it is quite about the strongest to be found anywhere in India. We used to buy at Parbhani and Nander some years ago, but have ceased altogether owing to the largely adulterated cottons which arrive in these markets. I hope with the vigorous efforts your Department is now putting forth, you will soon succeed in stamping out the short staple altogether from His Highness' Dominions.

May I in this connexion suggest that your Department might also impress on the cultivators the necessity of careful picking so as to eliminate as much of dirt, dust, leaf, etc., as possible from the *kapas*? *Goarani*, as I have said above, is the strongest; at the same time there must be very few varieties of Indian cottons of which even the best types are so full of dirt, dust, leaf and other foreign matter. The blow room loss comes to something like fifteen per cent against six to eight per cent in fine Central Provinces or Guarat or American fully good middling. Such heavy admixtures of foreign matter, which cannot all be eliminated by even the best cleaning machinery, detract greatly from the value of these high-grade cottons and hence they do not command the value commensurate with the intrinsic worth of the staple. If the staple cottons like those of Umri and Bhensa are but reasonably clean they might stand without a competitor in India and command the topmost prices, as Hinganghat did some time ago.

ANNEXURE XIII.

Copy of letter No. 1602, dated Nagpur, the 8th December 1912, from Sir Bazonji D. Mehta, to the Deputy Commissioner, Nagpur.

With reference to your endorsement No. 2710 of 28th ultimo, accompanying papers on the subject of cotton-growing in India (herewith returned), I submit the following remarks, though the subject seems to have been adequately dealt with in the letter of the Government of India.

Damping of Cotton.—This is openly done by the press owners at the desire of their customers, who are both sellers and exporters. The buyers are also quite aware of the fact. It is for the latter to reject such damped cotton; but they do not. There are two advantages claimed for the practice. One is that it renders the fibre softer in feel and longer. It is well known that in dry weather, the fibre gets coarser and shorter, it is also harder to press, and the second advantage consists in its not requiring excessive pressure in

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baling. The fibre will only absorb a certain percentage of moisture and no more, and any excessive damping will only stain the fibre. Besides in the dry climate, it does not take long to evaporate a good quantity of the moisture. I do not mean to say that the practice is good. We ourselves do not adopt it at our own presses. But it is one with which Government need not interfere. The trade should be strong enough to stop it, if it had any objection. Evidently it has not.

Additional European agricultural staff.—I think that the time has come when Indian graduates should be taken up as apprentices on salaries commencing with Rs. 50 a month under the existing European staff, say two or three under each Deputy Director and thoroughly trained up in the agricultural line. The cost to Government would thus in time be reduced and efficient supervision attained. The agricultural schools as at present organized attract students, who could only be employed as Inspectors or Superintendents of Farms, but could scarcely initiate experiments or suggest other methods; or study them as elsewhere practised. It would be best to devise means to attract graduates, who have taken degrees in agriculture as of the Bombay University, and further, some of them might be made to specialise mainly in cotton, devoting their whole time to studying and experimenting with a view to the introduction of long-staple varieties, improvement in methods of cultivation, etc.

Statistical returns.—These as now adopted by our Agricultural Department, if adopted everywhere else, should give as much reliable information as possible to the trade. Instead of fortnightly returns, weekly ones would be preferable, if they do not entail too much trouble or expense.

Improved staple cotton.—Our Agricultural Department has done much towards the attainment of this subject. The cultivation of *buri* cotton has been successful to a degree but unfortunately lately it has been found to be deteriorating in strength, while the cultivators are not careful in keeping it clean or quite separate from inferior growths. Cambodia cotton is really good, and if its cultivation be encouraged wherever the soil is suitable and irrigation available, it will certainly benefit both the cultivators and the cotton industry generally. In the matter of the American cotton grown in Sind, it is unfortunate that the cultivation is not carefully done and consequently the quality is neither uniform nor reliable and there being no central market, it is almost impossible for purchasers to offer fair prices. The proposed buying agencies will probably degenerate into monopolies, which might not be fair to the cultivators.

Mixing of cotton.—This question has been often discussed with regard to legislative action being taken by Government even after the withdrawal of the Cotton Frauds Act by the Bombay Government, but it has been rightly dropped as impracticable. If any steps can be taken by Executive Officers to check the frauds, they should be welcome indeed. But I fear that they would be taken as unnecessary interference with the trade.

ANNEXURE XIV.

Copy of letter No. 5028, dated Nagpur, the 10th May 1917, from Sir Bazonji D. Mehta, to Messrs. Tata Sons & Co., Mills Department, Bombay.

With reference to your favour of 5th instant, I beg to enclose with this a report from our Lyallpur agents in connection with Professor Roberts' enquiries. Some of the suggestions made by them are hardly practical ones, but the report will, no doubt, interest the Lyallpur authorities in regard to what is being thought about the present arrangements by people on the spot, who have some considerable experience in the cotton-business in other Provinces.

I regret we have no direct personal experience of the conditions prevailing in Lyallpur except what is derived through these agents. Our connexion there is of very recent growth. It seems to us, the principal desideratum is the establishment of central cotton markets in the principal cotton centres in the Colony. Such markets will attract a large number of buyers and ginners in course of time and owing to keen competition among them the cultivators are likely to get the best value for their money. These markets will of a certainty tend to minimise all other abuses as well, as is the universal experience in the Central Provinces and other large cotton centres where they have been established.

We do not think licensing of factories with a view to control the qualities, mixing, etc., will serve any useful purpose. Government control can only be exercised through petty officials, which will give rise to such other abuses as will render the remedy worse than the disease. We believe, this was amply proved by experience in regard to the old Cotton Frauds Act in the Bombay Presidency, which had to be repealed soon after enactment.

It would be desirable if standard weights passed by Government or other Municipal bodies are alone permitted to be used in all cotton transactions.

It is also eminently desirable that the weights and measures used in the cotton trade are standardised all over India. The Central Provinces Government has taken the first step in this direction by prohibiting the various weights prevalent in the different markets in these Provinces and prescribing a uniform standard assimilated to that of Bombay. This standard has been firmly established without the slightest hitch in less than a year and has proved a blessing to cultivators as well as all large merchants, who have to make their calculations on the basis of the Bombay parity. In fact, its only opponents were people who used to trade on the ignorance of the ryots as to the intrinsic value of their produce owing to the bewildering variety of standards of weights at different places. The Punjab Government will therefore be taking a step in the right direction and benefiting the agriculturists to no small extent if it follows the Central Provinces in establishing central cotton markets and prescribing the Bombay or the Central Provinces standard weights only for use in connection with all cotton transactions.

ENCLOSURE TO ANNEXURE XIV.

Translation of letter from our Lyallpur agents in connexion with the enquiries from the Professor of Agriculture, Punjab.

We have received copy of letter from the Professor of Agriculture, Punjab, in connexion with the proposed reforms in the system of ginning factories, etc. in the Punjab, and give below our views on the various points, as requested :—

- (1) Cotton seeds are sold on this side by merchants under the name "*bij*" (i.e., seeds of good quality, fit for the purposes of cultivation). They pass off seeds of inferior quality also under such a misnomer with a view to get higher prices. This fraudulent practice should be prohibited, as

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the quality of cotton suffers considerably in consequence of such mixed seeds being used for cultivation. Government would be well advised to make some rules so as to permit of seeds being sold for cultivation only after inspection by a Government official, who should observe the following points in passing such seeds for sale :—

- (a) The seeds should be quite ripe, as otherwise the crop turns out very weak in strength.
- (b) All the seeds should be of good staple American cotton.
- (c) Seeds of good quality only should be permitted to be sold so that the percentage of lint may be high.
- (2) Government use up their own seeds and are particular about the quality of seeds only. In our opinion, they should pay greater attention to the quality of cotton.
- (3) The picking of *kapas* is not made with care and needs attention. The *kapas* is full of leaves, which depreciates its value to no little extent. Again, the cultivators store their *kapas* in a pressed condition. The presence of leaves detracts from the quality of the *kapas*, and dampness or moisture causes the leaves to turn black and thus the quality is spoiled all the more.
- (4) The cultivators mix up the crop of last picking with *kapas* of good quality, which should be prohibited. It is necessary to keep the last picking quite separate as the staple thereof is generally very weak, and when such inferior quality is mixed up with good *kapas*, the latter suffers as well. In fact, the evil is cumulative when seeds of such mixed qualities are used for sowing the new crop and the result is steady deterioration from year to year.
- (5) Cotton markets should be established at all important centres and sales of *kapas* effected in these markets only. There being none in Lyallpur, the cultivators take their carts wherever they like.
- (6) The establishment of markets will be beneficial to sellers and purchasers alike in that they will all meet together at one place. The markets will grow in importance in course of time and attract a larger number of dealers. The cultivators will benefit particularly, as they are likely to get higher prices for their produce owing to competition among purchasers. Markets of the type existing in Akola and other centres in the Central Provinces and Berar should be established in the Punjab. This is probably the most urgent reform necessary.
- (7) The system of weighing *kapas* on this side is not as it should be and needs to be improved. There should be some such arrangements as detailed below :—
 - (a) Scalesmen for weighing *kapas* should be appointed by sellers and charges for weighments borne by buyers, so that in case the scalesman passes off a larger quantity fraudulently he can be dismissed by sellers and likewise if his scales show less than the correct weights, the charges for weighment will not be paid to him by buyers. Being thus under the dual control of both parties, he is likely to do his work honestly and carefully.
 - (b) Scales and weights should be passed by the Municipalities at a nominal fee of Rs. 5 per annum, if necessary, and inspection thereof made every month by municipal officials. Such a system will inspire confidence in dealers as regards their accuracy.
- (8) Some dealers have their *kapas* passed through an opener, before ginning it and this process renders the staple somewhat shorter. The opening, however, is advantageous in some respects as detailed below :—
 - (a) The *kapas* is cleared of leaves, etc., and it looks whiter.
 - (b) On this side the *kapas* is covered with a good deal of earth and this is removed by the opener.
 - (c) The opened *kapas* gives greater outturn of lint.
 - (d) If *kapas* giving out less than 32½ per cent. of lint is ginned without being passed through the opener, a fair quantity of seed cotton passes off along with the seeds through the grids, and causes a great loss.
 - (e) The opener should be provided with such a device that during the process of opening the *kapas* is thoroughly cleaned without the staple being affected and seed cotton so flattened out as not to permit of its passing through the grids in any case.
- (9) Sellers must particularly see that one type of cotton is not mixed up with another and each type is scrupulously kept separate. The mixing of inferior quality with good *kapas* lowers the value of the latter considerably.
- (10) Hand-ginned cotton is mixed up with machine-ginned. This should be stopped.
- (11) Some dealers moisten the cotton and then bale it up. This should also be prohibited, as not only does the moisture turn the leaves in cotton black but engenders heat in the pressed cotton, and weakens the staple.
- (12) Factory labour in the Punjab is not skilled, as will be seen from the following :—
 - (a) The ginner does not feed the gin carefully but throws *kapas* therein at random, with the result that the latter gets mixed up with cotton.
 - (b) Coolies carrying *kapas* on to the gin platform are also equally careless and a lot of *kapas* is allowed to be dropped all along the way from the *kapas* stack up to the platform. Cotton is also handled in the same way.
 - (c) Gin fitters too are very indifferent and do not pay any attention to the proper working of the gins or the prevention of damage to the goods. It is therefore absolutely essential to improve this class of labour. Ordinarily, the production of lint per gin per hour is 40 lbs., but in the Punjab it is barely 24 lbs.
- (13) Indian merchants are not a powerful combination and so, whenever export firms stop purchases for a few days, there is a sharp decline in prices. The Government should not therefore be very harsh towards the merchants as such a policy is calculated to prejudicially affect the trade.
- (14) Government insists on the weighment of all auctioned *kapas* in a day, which causes great loss to dealers. About 5,000—8,000 maunds are auctioned at a time and such a quantity cannot in any circumstances be weighed in a single day. Some change in the rules in this direction is imperative. A buyer should not be compelled to weigh and take over more than 2,000 maunds on any single day.

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- (15) Cotton ginning in the Punjab dates from about 1885. The first ginning factory was put up in Kasur in that year. And yet not one of the dealers knows anything about the staple at all. Lint percentage seems to be their sole criterion of value.
- (16) The *kapas* auctioned by Government does not give the same lint percentage. The latter ranges from 30 to 32½ per cent. Government should arrange to sell lots of different percentages separately. The outturn of good staple *kapas* in the Punjab is generally low, but the American cotton in Sind, in spite of having a good staple, yields a high outturn. In the case of the Punjab American cotton, the shorter the staple the greater is the percentage of lint and *vice versa*.
- (17) The auctioned cotton is delivered by Government at any place in accordance with the buyer's wishes, but they should also arrange for a quick supply of wagons for its transport, as these can be obtained very spasmodically at times and buyers are put to heavy losses and risks in consequence.
- (18) A heavy tax should be levied on those factories which do not work satisfactorily. This question should, however, be decided after careful consideration, lest the charge may prove unnecessarily harsh and even fatal to the existence or expansion of the ginning and pressing industries.

ANNEXURE XV.

Statement showing cost per bhoja of 345 lbs. at Nagpur, of American and Egyptian cotton purchased by the Empress Mills, during the years 1904-1912, with the relative cost per bhoja of Bani and Jari cotton as per prices ruling at the time in Warora, Pandharkawada and Nagpur markets. Dated Nagpur, the 3rd November 1917.

Date.	American	Bani.	Jari	Date.	Egyptian.
	Rs.	Rs.	Rs.		Rs.
12th July 1904	150	154	103	29th April 1904	207
3rd August 1904	137			25th October 1904	176
15th September 1904	136				
26th November 1904	124				
20th December 1904	110	100	68	16th May 1905	178
30th December 1904	105				
6th January 1905	98				
25th January 1905	96				
27th February 1905	108				
11th March 1905	110				
27th May 1905	135				
1st September 1905	144				
19th September 1905	137				
23rd September 1905	133				
17th October 1905	131	140	95	13th March 1906	216
12th January 1906	150			22nd October 1906	207
16th February 1906	145				
6th May 1906	150				
17th June 1906	148				
28th July 1906	150				
31st August 1906	128				
10th August 1906	142				
20th August 1906	128				
26th October 1906	182				
8th December 1906	198	129	91	12th March 1907	255
14th February 1907	151	126	84	14th August 1907	240
14th March 1907	153	129	90	25th November 1907	220
4th April 1917	151	130	87	19th March 1908	175
9th September 1907	180	...	...	3rd April 1908	173
11th September 1907	163	...	...	11th April 1908	170
18th September 1907	160	...	...	20th April 1908	167
1st October 1907	157	...	...	6th May 1908	152
8th October 1907	158	...	...		
12th October 1907	153	...	...		
17th October 1907	152	...	...		
24th October 1907	150	...	...		
29th October 1907	131	...	...		
12th November 1907	150	115	92		
27th February 1909	130	127	82	13th August 1909	210
18th March 1909	126	124	89	2nd December 1909	215
4th October 1911	136	...	...	12th July 1910	261
17th October 1911	130	...	...	January 1911	244
27th October 1911	130	...	...	6th June 1911	241
7th November 1911	143	...	100	8th November 1911	197
24th November 1911	133	127	98	9th December 1911	191
13th December 1911	132	118	96		
6th February 1912	135	134	110	28th March 1912	203
26th November 1912	168	150	137	10th June 1912	226
				27th June 1912	226
				5th October 1912	209

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4083. (President.) My experience of cotton goes back for 41 years. Our two varieties of cotton are the short *jari* and the long staple *bani*. Then, of course, there is *huri* but that is disappearing now. Upland Georgian was also tried by the Agricultural Department but it was found to deteriorate after two or three years. I think it had to be given up. *Bani* was the indigenous cotton grown on the Hinganghat side. The staple of *bani* is about ¾ths to 1¼ths of an inch. The staple of *huri* is a little longer. That of Upland Georgian is about the same. The staple of all three is under an inch. There is a large quantity of *jari*—or short staple cotton. *Roseum* was started by the Agricultural Department. The staple of *roseum* is shorter than what we call *jari* but it yields much more than *jari*. It is a very heavy yielder. The average length of the staple of *roseum* is less than half an inch. The staple is half an inch at most. *Roseum* is produced on a very large scale. I think it is mostly exported or mixed with other short staple cottons. I would not buy it myself. I believe it is mostly taken by the Japanese, and that formerly it was exported to Germany for mixture with wool. I should think that the market for it may not be very stable. The mill-owners in India do not want it. The market for it is not likely to disappear entirely. If the cultivation of *roseum* increased to a very large extent, it might not be found as profitable as at present. *Jari* is bought by the mills in the Central Provinces.

4084. We have eight ginning factories. The ginning factories at Nagpur, Wardha and Hinganghat deal only in short staple. The one at Hinganghat used to deal with long staple. At Warora we have a factory and there also the short staple has got in. We have also established a factory at Pandharwada. Long staple used to be grown there but here also it is fast disappearing. The factory at Akola deals with a mixture of long and short staple. We have also factories at Yeotmal and Umri. We buy some cotton at Hingoli also though we have no ginning factory there.

4085. We have to go to Navsari, Hubli and Dharwar for long staple cotton. We buy very little long staple cotton in these provinces. Chanda *jari* is a long staple cotton. We buy some of that. The ginning percentage of *bani* is only 26 per cent. That is the difficulty. It would be an advantage if the ginning percentage was greater. I think that it would be worth while in view of the consumption of long staple cotton in these provinces to try to produce it locally and that experiments should be made by the Agricultural Department in that direction. I am fairly well acquainted with the Agricultural Department in this province and have followed its development. As I have said, they have been trying to get long staple cotton but it soon deteriorated. The Upland Georgian experiment was started long ago even before the Agricultural Department started experiments. But that has gone out too. It might be worth while to have picked officers to try further experiments. The Agricultural Department has done its best but there may be something left yet: one cannot say. Still it is a line of experiment which might be followed up. If necessary there might be an increase of staff on that account.

4086. The Government forecast serves a useful purpose. The Central Provinces forecast is better than the Government of India one. I do not see how it can be improved very much unless something like the American system were adopted. The American system is very elaborate and I do not think it can be carried out here. I think the dates of publication might be improved. I think the forecasts should be published a month earlier because the second forecast is now published just about the time cotton begins to come in. I am afraid, however, that if the forecasts came out a month earlier they might not be so accurate. A monthly forecast from July to February would be helpful to the trade.

4087. The ginning and press returns published by the Government of India are of no use. They take such a long time to come out. I only received the copy for August to-day. Even then it is not complete and does not include the returns from Native States. The Central Provinces returns are much more prompt. The Director of Agriculture posts them to me. Even the Bombay returns do not seem to be correct. The submission of the returns should be made compulsory by legislation and the provincial returns should be telegraphed to the Director of Statistics, so as to ensure more prompt publication.

4088. I do not think that the publication of Bombay prices at up country markets would be of any use to the cultivator. The differences in the growths of cotton in the grades, in the cost of transport to market, and in ginning and pressing charges would make a difference in the calculations which the cultivator would have to work out.

4089. (Mr. Wadia.) Damping is very much resorted to in this part of the country. I do not see how you can stop it: it is the business of the trade. The objection to legislative action is that the inspectors and supervisors would be liable to temptation and might go wrong. Experts sometimes make mistakes in regard to the mixing of different varieties of cotton and I do not therefore think that the inspectors would be able to find them out. The mixing of cotton certainly leads to mixed seed being issued to the cultivators and to the deterioration of the crop. That has been the case with Upland Georgian and with Cambodia. To keep types pure I would look to the field. The thing to do is to supply pure seed to the cultivator and to see that it is used instead of having inspectors for checking mixture, adulteration or damping. What we ought to do is to see that pure seed is given to the cultivator and that the fields are watched. I quite realise that this is an enormous task and of course it cannot all be done at once. If you go on giving pure seed to the cultivators year after year and show them the advantage of using it, the cultivation of pure varieties of cotton will be greatly extended. It is not necessary that Government should look to every field but they should exercise a sort of general supervision. My idea is that Government should take over the whole business of seed distribution. That is the only remedy in my opinion. I quite understand that it would mean a tremendous increase in the staff of the Agricultural Department, but I think it could be done gradually and that if the people understood the advantages they would derive from it, then perhaps such a big staff might not be wanted. Ginners should not be allowed to give back seed to cultivators. I have had some experience of Indian University Graduates who have done very well in all our departments. They have succeeded very well with us. I have had no experience of Graduates of Agricultural Colleges but they should do equally well in regard to the supervision of seed distribution.

4090. The existence of ginning and pressing pools all over the districts only shows that there are more gins and presses than are required. These pools are not in the interests of the cultivators. I do not see how legislative action could be taken against these pools. If pools could be abolished it would be a good thing. The profits which these pools make must come out of the pockets of the cultivators because the buyers calculate what the charges will be and fix the prices they pay accordingly. Government could not very well fix the maximum prices to be charged for ginning and pressing. It is not the business of Government and I do not see how they could do it. Competition is the only way to bring about the

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proper rates. I do not think that you can very well fix the number of factories, or the price they should charge. If this pooling business is stopped, competition must do everything else.

4091. I have heard of Khandesh and *roseum* cotton being taken to Broach for admixture. I have been very seriously thinking how adulteration like this could be stopped but I have not been able to come to any conclusion. I do not think that you could stop the carriage of *kapas* from one place to another. Amraoti *kapas* is at present coming to Nagpur as Nagpur cotton has a higher price than Amraoti. In the same way, *kapas* goes from one district to another by rail as well as by road to get the name of the place to which it is taken. I do not see how you can stop this. They did try to do so in Berar some time ago but they failed.

4092. (Mr. Hodgkinson.) The staple of Cambodia is one inch in length or slightly less. Lately we have found it mixed and slightly deteriorated. This is the evil that goes on whenever there is a good cotton. It can be spun up to 40s weft. It will spin up to 32s warp. I have not had the strength tested. In the case of Cambodia, the blow room loss is about ten to twelve per cent. The card room loss would be a further four per cent. so that the total loss would be sixteen per cent. to spindle point. If Cambodia were saw ginned instead of roller ginned, it would certainly be cleaner but, in my opinion, the saw gins would cut the fibre. For spinning 32s to 40s weft, we use cotton that we get from the Nizam's territory which is called *Umri*. We also use the cottons that come from Dharmabad, Hubli, Dharwar and Navsari. Dharmabad is also in the Nizam's State. *Umri* cotton is better than Cambodia in strength.

4093. (Mr. Henderson.) So far as we are concerned, the trade names of the cotton here in the Central Provinces are *jari* and *bani*. *Roseum* is another but generally we talk of the short staple as *jari* and the long staple as *bani*. The trade name is given by the Bombay people. The Agricultural Department has given the local trade names. The general trade name for the cotton grown in Berar is *Oomras*. There are no trade names for *bani*, *huri* and Upland Georgian. Pure *bani* is still to be bought in the Nizam's Territory at *Umri*. That is not the only place but we get it in Hubli and Dharwar in the Southern Mahratta county. Navasari cotton is pure *bani*. What they call *Surtee* is really *Surat* cotton. It is quite pure. Deterioration has been most marked in Cambodia and Dharwar cotton. In the neighbourhood of *Umri* also there is a great deal of deterioration going on. The cotton that we are getting from Parbhani and other places is coming in mixed with short staple and Mr. Kenny who is in charge of the Hyderabad Agricultural Department at Hyderabad is very anxious to get nothing but *bani* produced there. Navsari has not deteriorated but Broach has and Broach is only a name now. We buy a large quantity of *kapas* at Navsari and so far we have not had any cause to complain. It is very clean and very white. The low ginning percentage of Akola *jari* mentioned in Annexure VI to my written evidence is due to mixing. Mixing is very general all over the place. I think the indigenous cotton of the *bani* type would be better for experimental work than American. The tension of *bani* is greater than of American.

4094. I am not quite satisfied with Punjab American but it is quite a step in the right direction. I would like something stronger and unmixed. Last season long and short staple cotton were mixed together and of course it was much cheaper. Our mills at Bombay and Ahmedabad bought it simply because it was cheaper. The reason why it was mixed was that the cultivators did not get sufficient seed. I could not say where the mixing took place. It must be the cultivators because they said they could not get seed. Our people purchased the lint only. I think American cotton would be still better if saw gins were not used as they cut the fibre.

4095. I am in favour of millowners ginning their own *kapas*. That is what we are doing. They would then know exactly the kind and quality of cotton that they were getting. It is a much easier thing to detect a mixture in *kapas* than in ginned cotton. I am generally in favour of a large extension of superior cottons specially in a new country like Sind and the Punjab, in fact all over India if you could get it. Of course, there is the difficulty of bridging over the gulf between the time when such cotton is produced in small quantities and the time when it is produced in commercial quantities. The buyer can do nothing with a small quantity. I should be quite prepared if any experiments were made, to lend assistance by taking as small a quantity as 25 bales at a fair price. Even now, as it is, the difference in ginning percentage between long and short staple cotton is so great that unless the price of long staple cotton is about fifty per cent. higher than for the short staple cotton, it does not pay cultivator to grow long staple.

4096. I have suggested that a few American agriculturists should be employed as an experimental measure. Whether such an experiment will have greater advantages than the present system I cannot say. The Americans have greater experience and they might be able to suggest something to improve the yield or in other directions. Their ginning percentage is very high and their yield is high. I suppose the Americans cannot grow Egyptian cotton because of some soil difficulty.

4097. (Mr. Roberts.) Standard weights have been introduced in this province for cotton markets and the system is working very well. I do not remember my agent reporting anything about this point so far as it concerned the Punjab but he has certainly suggested that weights should be standardised. This is an important measure which should be adopted throughout India. Our weights are exactly the Bombay weights. We have taken 28 lbs. as equal to one maund and fourteen maunds are equal to a *bhoja* of 392 lbs. That is half of the Bombay *khandi* and a bale is made up of 392 lbs. The weights were standardised by getting the principal men from the different cotton markets to agree and by asking the Municipalities to introduce standard weights. I should say that the weights should be uniform throughout a province. Of course it would be better to have uniform weights for all India but I think that might be difficult to introduce. Government have had this question under their consideration for sometime but nothing has been done as yet. If a standard weight was adopted for all India, I suppose it ought to be the standard maund as the cultivator would understand it better.

4098. Sometimes the sellers complain that after the price has been fixed and the *kapas* is taken to the ginning factory, the buyer finds fault with it. He says that the cotton is bad or is damped and he wants to cut down the price. In that case the seller takes it away if he is not satisfied. Sometimes, however, it would be too much trouble to re-load the cart and he agrees to accept the price. Markets like those in the Central Provinces might be introduced in the Punjab. The weighbridge system is much more satisfactory than the weighment in small bundles. The cotton markets here are simply places which are controlled by the Municipal Committee. A committee of buyers is appointed by the Municipal Committee and they manage the business. The cotton markets have been established for a very long time—twenty years or more. We find that they work quite satisfactorily. The only objectionable feature is as regards the brokers' commission. The Municipality fixes the rate of commission for the brokers and the buyers give the brokers a secret commission simply with a view to get more carts into the presses or gins. The rate fixed is four annas for a *khandi* of *kapas*. I believe some of the buyers pay twelve annas. That is really speaking illegal. The Market

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[Continued.]

Committee ought to stop it but has not been able to do so. The point is that the whole charge falls upon the seller whether the commission is given secretly or otherwise. I would advocate stricter enforcement of the rules to stop this practice.

4099. When cotton is transported from one station to another, it is done in half pressed bales though some is sent in pressed bales. So it would be very difficult to mark cotton by the name of the station from which it comes and would be impossible in the case of loose cotton.

4100. I have had to go further and further afield for staple cotton. We have to go to the Punjab, to Southern India, to Hubli and Dharwar. We could pay better prices for long stapled cotton if we could get our cotton as near home as possible but it would not pay the cultivator if the ginning percentage was as low as that of *bani*. We have a ginning factory of our own at *Umri* but none at Dharmabad. We have a Marwari purchaser who acts under our instructions. Whenever we have to buy, our man goes himself. Wherever we have ginning factories, we gin our own cotton ourselves. Our work is mostly done by our own people.

ANNEXURE I.

Further note by Sir Bazonji Mehta.

Damping of cotton.—*Kapas* after being picked is kept in damp pits to receive the moisture before being carted. In passing across rivers, the carts are at times purposely taken through water or are tilted, so as to receive some moisture. The *kapas* is exposed to dew falling during night. But with all this, the climate in these parts is so dry that in a few hours, the moisture is evaporated to a large extent. This cannot be checked but the buyer, if he feels the *kapas* damp, deducts a small percentage at the time of weighing it over. The ginners do not damp the *kapas* or lint. The presses do to any extent the owner of the cotton desires. If reasonably damped, the fibre looks longer and softer, and is easier to press. In the exceedingly dry climate in our part of the country, the fibre swells and looks short and coarse and is very difficult to press. If inordinately watered, the cotton gets stained, discoloured and weakened. This the buyer of bales can himself find out. If inspectors are appointed to supervise the presses, unless they have authority of some kind, they would be powerless to check the evil of too much damping. Besides, Government control can only be exercised through petty officials who will have to be invested with a dangerous amount of authority. Again dampness due to rains cannot be helped. I think, this is a matter which does not call for any legislative action on the part of the State. The remedy for excessive damping seems to me to be entirely with the buyer. He alone can stop it if he cares to.

Mixing of kapas and cotton.—This question has also often been discussed with regard to legislative action by the State, but here too the difficulties in regard to authority being invested with petty officials seems to me insuperable. The experience of the Bombay Cotton Frauds Act of 1863, which had eventually to be repealed, does not seem encouraging in regard to the results of State intervention. If seed farms are organised and selected seed given out to cultivators at reasonable rates, there may be less chance of mixed seeds being utilised in the fields and reliably pure strains of cotton obtained. Government need not have all farms of their own. Private seeds farms or Co-operative Unions of such under the supervision of Departmental officers may be encouraged. The local Agricultural Department is also doing much useful work in this direction. Beyond this, it should be left entirely to the trade to check the evils complained of. Even if law is passed making mixings penal, it would have to be really very elastic. Even cotton from the same place but hand or machine-ginned, or first or last picking, means no little difference in quality and their mixture will affect the quality to no little extent. The prevention of all such mixtures would even be a hardship to some extent and besides it would need such expert knowledge and such minute supervision as to involve almost certain failure if undertaken through State Agency. The trade in this matter may be left to look after its own interests. No amount of legislative action will, in my opinion, effectively prevent such mixtures, so long as people consider it worth while buying them.

Export duty on cotton.—I cannot see my way to recommend an export duty even to provide funds in connexion with measures for the improvement of cotton cultivation or the preventing of adulterations. It must be remembered cotton is not a world-monopoly for India like jute. An export duty, in normal times, will only result in lowering the price received by the poor agriculturist for his crop. It seems to me the few interested in the cotton manufacturing industry will benefit thereby at the expense of the large mass of cultivators. The burden ought not, in any case, to fall on those least able to bear it.

ANNEXURE II.

Statement showing results of trials of cotton at the Empress mills, Nagpur.

(i) FEBRUARY 1917.

20th Twist.

Average counts 20-21.

	Blow room loss per cent.	Tension.
Umri	12-87	67-05
Dharmabad	11-51	65-62
Lyallpur (American)	12-08	57-83
Hubli (Mungari)	11-99	54-16

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[Continued.]

(ii) APRIL 1917.

20s Twist.

Average counts 20-01.

	Blow room loss per cent.	Tension.
Umri	12-04	66-35
Lyallpur (American)	11-36	59-84
Navsari	7-73	59-18
Purbani	14-26	59-16

(iii) MAY 1917

20s Twist.

Average counts 20-01

	Blow room loss per cent.	Tension.
Navsari	7-13	65-43
Hubli (Kumpta)	13-19	62-81
Lyallpur (American)	12-38	62-19
Dharmabad (exceptionally weak)	10-90	50-88

ANNEXURE III.

Letter from Sir Bazonji Dadabhoy Mehta, to Mr. W. Roberts, B. Sc., I.A.S., Professor of Agriculture, Punjab, Lyallpur, dated 31st March 1916.

We have now completed our spinning tests of Lyallpur and Mirpurkhas American cotton purchased at the Government auctions and also of the former as obtained from dealers. The results, I regret to say, are not quite satisfactory and neither of these is suited to a good strong 24s wrap as we had expected. I think, this is due to some admixture of short fibre which, however small, militates considerably against the value of such otherwise high-grade cottons. You will see from the results given below that ready American cotton obtained from dealers has fared worse than the *kapas* we purchased at auction probably because of the heavier admixture of short fibre or *deshi* in the former.

We know from experience that the strongest indigenous staple cottons are to be found in the Nizam's Dominions (Hyderabad) and some of the neighbouring Berar districts. We have taken some trials of the American cottons against these under virtually identical conditions, and give below for your information a summary of the results both in respect of blow room loss and average tension :—

1.

20s TWIST.

Exact count 20-01.

Average of 80 wrappings.

	Blow room loss per cent.	Tension lbs.
Umri (Hyderabad)	10-90	67-32
Lyallpur American (purchased from dealers).	10-80	52-08

2.

20s TWIST.

Exact count 20-01.

Average of 120 wrappings.

	Blow room loss per cent.	Tension lbs
Dharmabad	11-15	69-99
Umri	11-25	69-98
Lyallpur American (purchased from dealers)	11-64	59-60

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[Continued.]

3.

20s TWIST.

Exact count 20-01.

Average of 100 wrappings.

	Blow room loss per cent.	Tension lbs.
Pandharkawada (Berar)	7-89	70-51
Nevga (Hyderabad)	10-45	68-45
Mirpurkhas American (purchased at auction)	5-76	60-30
Lyallpur American (purchased at auction)	10-96	59-05

4.

24s TWIST.

Exact count 24-11.

Average of 120 wrappings.

	Blow room loss per cent.	Tension lbs.
Pandharkawada (Berar)	7-89	51-91
Nevga (Hyderabad)	10-45	50-68
Lyallpur American (purchased at auction)	10-96	46-02
Mirpurkhas American (purchased at auction)	5-76	45-50

You will see, the Americans have turned out relatively much weaker than the best indigenous Hyderabad or Berars.

I take this opportunity to tender to you my best thanks for the kind assistance which yourself and the officers of the Agricultural Department were so good as to render to our agent in connection with his purchases.

ANNEXURE IV.

Letter from Sir Bazonji Dadabhoy Mehta, to Mr. T. F. Main, B.Sc., Deputy Director of Agriculture, Sind, Mirpur Khas, dated 12th April 1916.

My agent, Mr. Bansidhur, has sent me a copy of your letter No. 529, dated 20th February, to the Director of Agriculture, Poona, which you kindly favoured him with, and I have perused it with interest.

The ten bales spared for him were duly received by us and I was much struck with the quality of the cotton, its fairly long staple and its remarkable whiteness and purity. In actual trials, however, it has not quite come up to our expectations as we find it is not suited for a good strong 22s or 24s wrap. The results of our tests side by side with Lyallpur American and some of the best indigenous types we are using, are tabulated in a letter I have addressed to the Professor of Agriculture, Punjab, as per copy herewith enclosed which, I hope, will be of interest to you.*

On examining a large sample taken out of a bale rather minutely, I find that though most of the staple is a fairly long one, it does contain some very small percentage of a shorter and what looks like a more or less different type of fibre. I send per separate post two small samples "A" and "B" taken out of the same bale for your inspection. "A" is the usual run of staple observable in this cotton, while "B" contains the smaller fibre which I refer to. The latter is certainly not *deshi* but it is shorter than, and somewhat different from the excellent type "A." Of course, the cotton being the produce of your own farm, there can be no intentional admixture whatever and I do not know how the difference can be accounted for, but it does seem to exist and, I am afraid, our poor results are perhaps to be attributed to this irregularity in staple.

Your cotton is saw-ginned and as you are probably aware such types of gins are likely to cut the fibre, unless they are set most accurately. I am unable to say whether this is the case in the cotton we have received for it is very difficult to detect broken fibre to any appreciable extent. Perhaps you have already tried ordinary Platt's Gins and may not have found any difference.

ANNEXURE V.

Letter from Sir Bazonji Dadabhoy Mehta, to Mr. W. Roberts, B.Sc., I.A.S., Professor of Agriculture, Lyallpur dated 28th April 1916.

I am obliged by your favour of 22nd instant. Sind American was a remarkably clean cotton due, no doubt, to its being saw-ginned; but such gins, unless most accurately set, are likely to cut the fibre. This cotton seemed to me to be a particularly good one in staple, but here again there was some admixture of short fibre which lessens its value a good deal. I enclose herewith copy of a letter I addressed to the Deputy Director of Agriculture in regard to our trials with this cotton, as I think you will be interested in same.

* Vide Annexure III.

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[Continued.]

As regards admixture of *deshi* or short staple I know it is a universal practice ; all the same it is a most pernicious one and should, if possible, be discouraged especially with exotic growths like American which the Agricultural Departments in some of the Provinces are so much at pains to introduce. I must explain that mixing of different types of cotton is a duly routine in the mills, but as a spinner I would much prefer to purchase reliable and *uniform* types of different grades and to mix them in the proportions best suited to my requirements. In this way I can make myself sure about their exact proportions in a particular mixing. To leave this work to the ryots at their sowing operations or to the middlemen at the ginning factories almost always leads to fraud, as it is not easy to detect the proportions of long and short staple ; especially when these are mixed at the gins. Again such a practice necessarily involves the mixing up of seeds which leads to a steady deterioration in the quality of the succeeding crops till the whole degenerates into pure *deshi*. This is exactly what has happened in regard to local long staple cottons like Hinganghats, once famous throughout the world ; and I am afraid, it would be the same with Lyallpur, seeing the extent to which *deshi* already comes to be mixed therewith.

I think the principal aim in our efforts to develop American cotton would be to supply the great need in India of long staple cottons for spinning good strong warps and wefts of medium counts like 24s, 30s and 40s. Even a small admixture of short fibre renders the cotton unsuited for such purposes and thus again the primary object of its introduction is frustrated.

With regard to our own purchases at Lyallpur, our man had strict instructions not to touch any but pure Americans only. He did his best in this direction, but the fact remains that the lots he purchased even at auctions contained some admixture. The large quantity of mixed cotton, which he bought was on behalf of one of the other mills managed by Messrs. Tata, Sons and Company.

ANNEXURE VI.

Letter from Sir Bazonji Dadabhoy Mehta, to F. Noyce, Esq., I.C.S., Secretary to the Indian Cotton Committee No. 28th, dated 14th November 1917.

With reference to Professor Roberts' suggestion during my evidence yesterday, it did not occur to me at the time to say that the railways mark every package of every consignment of cotton or other goods with the initials of the despatching and receiving stations with also a progressive number of the consignment, for their own purposes of identification. These marks can, of course, be obliterated, or even the bagging changed, specially if it be the top part of a bale which is marked as is usually the case.

With reference to Mr. Henderson's question regarding trade names of cotton, they are generally known by the names of places whence the cotton is marketed, as you will see from the cutting enclosed. There are a few exceptions, such as 'Compta,' which comes from Dharwar, Hubli and places adjacent, and 'Cambodias' from Southern India. "Bengals" is only a trade name for all cotton from the United Provinces, Rajputana, etc. The enclosed newspaper cutting gives the trade names in the Bombay Cotton Market.

ENCLOSURE.

Bombay Cotton Exchange Co. Quotations.

Market Quotations for Ready and Forward Delivery Contracts as fixed by the Rate Committee of the exchange.

(At 4-30 P.M.)

Growth.	Superfine.	Fine.	Fully good.	Good.	Delivery.
Bengals M. G.	...	...	...	...	
Bengals M. G.	314	304	294	...	Ready
Scind-Punjab M. G.	319	309	299	...	Ready
Do.	...	...	...	...	
Khandeish M. G.	...	355	325	...	Ready
Do.	...	...	...	...	
Jalna M. G. G. S.	...	...	352	...	Ready
Barsee M. G. G. S.	...	...	375	...	Ready
Do.	...	...	...	...	
Nandid M. G. (Good Staple)	...	...	425	...	Ready
Akola-Khamgaum Karanja M. G.	...	366	346	...	Ready
Oomrawatee Descriptions M. G.	...	364	344	...	Ready
Dhamangam-Poolgaum M. G.	...	369	354	...	Ready
Do.	...	...	...	...	
Yeotmal M. G.	...	373	358	...	Ready
Do.	...	...	...	...	

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Bombay Cotton Exchange Co. Quotations—contd.

Growth.	Superfine.	Fine.	Fully good.	Good.	Delivery.
Nagpore Kampti M. G.	...	383	371	...	Ready
Do.	...	...	...	...	
Wardha Hinganghat M. G.	...	383	371	...	Ready
Do.	...	...	...	...	
Broach M. G.	...	409	403	...	Ready
Do.	...	...	...	...	
Mathia M. G.	...	349	339	...	Ready
Do.	...	...	...	395	1-25 April 1917.
Bhagalkoto Bijapur M.G.	...	...	...	...	
Do.	...	...	...	...	
Saw-ginned Dharwar	...	...	...	...	
Do.	...	...	...	...	
Do.	...	...	...	...	
Wadhwan M. G.	...	418	403	...	Ready
Do. H. G.	...	408	393	...	Ready
Westerns M. G.	...	...	...	...	
Do. H. G.	...	...	...	...	
Compta M. G.	...	...	...	...	
Do.	...	...	...	...	
Miraj M. G.	...	...	...	...	
Do.	...	...	...	...	

The Official Quotations of the Exchange are (unless otherwise stated) "Jaitha Terms," i.e., inclusive of eight annas per bale of Muccadam allowance.

M. G.—Machine ginned.

H. G.—Hand ginned.

G. S.—Good Staple.

Mr. SRIRAM SURAJMAL, Chairman of the Akola Cotton Market Committee.

EXAMINED AT AKOLA ON NOVEMBER 16TH, 1917.

No written statement was submitted by this witness.

(Translation.)

4101. (Mr. Wadia.) In the market only five persons act ; the buyer and seller, *aratya* or commission agent, broker and the weighman. These are the five persons. It is not compulsory for every seller to engage an *aratya*. If he requires one he should engage him, for which, according to our rules, he has to pay up to one per cent. He can pay less by mutual agreement but cannot pay more. If the seller takes the help of the commission agent, the latter finds a buyer for the cotton and settles the rate. If he does not take the help of the commission agent, he always has to do it for himself. The commission agent settles the rate and arranges delivery. When delivery is made, the commission agent collects the payment from the buyer and pays it over to the seller. He must, according to the contract between him and the seller, pay the seller at once and collect from the buyer. These are the functions of the *aratya*. There are two other persons, the broker and the weighman. The broker, according to the present rules, receives fees both from the buyer and the seller. But here in Akola since the time the system has been in force, the broker receives fees from the buyer alone. In consequence, the broker looks much more to the interests of the buyer and the *aratya* to the interest of the seller. Although it is not compulsory to engage a commission agent (*aratya*), still all the sellers engage one because he watches their interests. If there is any difficulty about rates, the broker settles it. He is always present at the time of delivery. If there is any hitch as to the quality of the cotton or in regard to dampness, he settles it between the parties. These are the functions of the broker. Formerly the rate of brokerage was three annas per *bhoja* of 280 lbs. but since last year, it is four annas and six pias per *bhoja* of 392 lbs. So practically it is the same. Therefore the *aratya* is much more popular than the broker. The brokers are also popular because when outsiders come, they do not know what system prevails there and they have to take the help of the brokers as they do not know much about the place. The duty of the weighman is simply to weigh the *kapas* or the ginned cotton. He is paid by the seller. He

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is paid two annas per *khandi* of 784 lbs. of *kapas* or *bhoja* of 392 lbs. of lint. The cotton market belongs to the committee. We get one anna per cart of *kapas* and one anna per *bhoja* of lint and this goes to the market fund. Besides we receive Rs. 50 from every *aratya*, Rs. 5 from every weighman and Rs. 20 from every broker. The money is spent on roads in the cotton market area, on lighting, *darwans*, etc., and the surplus at the end of the year goes to the Municipality. The land in which the market is situated belongs to Government, handed over free to the Cotton Market Committee. The land is given for use as a market and it will revert to Government if the market ceases to exist.

4102. The practice of damping cotton has now stopped altogether as far as Akola is concerned.

4103. We do not publish the Bombay and Liverpool prices in the market. The publication of these prices would not be of much help here. Here the commission agents or *aratyas* are all merchants and so there is much competition in the market. There are several buyers and generally speaking the rates are known to the buyers and sellers, and are not secret, so publication of prices would not be of much use.

4104. The rule is that no cotton should be sold within a mile of the market. If any cotton is sold in that area, we recover the cess from the seller whether he uses the market or not, because the jurisdiction of the market is supposed to cover the municipal area. He could sell it outside municipal limits and then he would not be charged. All weighmen and brokers are licensed. There are no unlicensed brokers or weighmen. When the cotton is taken to the gin by the buyer and there weighed and a sample is drawn to test the quality, if the cotton is not up to the sample, an allowance is made. The allowance is settled between the commission agent and the broker. The former acts for the seller and the latter for the buyer. If there is no broker, the buyer and the commission agent settle it but the seller has no voice in the matter. The reason is that the seller is not competent to do so. If he were competent, he would not engage a commission agent. The buyer and the seller would then settle themselves. If the buyer and seller do not come to terms, the seller removes his cart and goes to another buyer. The allowance and rate are settled before the cotton is weighed. Weighing means here actual delivery. The allowance and rates are not settled late at night unless the buyers and seller are friends or where they can see that they can settle matters amicably. The terms must be settled before the weighing. If the cart came late in the night, then the cotton would be weighed the next day. If the seller removes the cart from the market, he can then sell it to another buyer. It is better for him to sell the cotton through *aratyas* and brokers. Brokers are engaged only by the buyers here. The system of *aratyas* has prevailed for a long time. The *aratya* pays money at once whereas the broker may keep the seller waiting. *Aratyas* do not buy cotton for themselves. They enter into a certain agreement with the Cotton Market Committee and, according to that agreement, they must not buy cotton for themselves. If any *aratya* bought cotton for himself and the fact came to the notice of the cotton market committee, the Cotton Market Committee would take suitable steps. An *aratya* can buy cotton but he cannot buy cotton which comes to him for sale. He may buy cotton from other *aratyas*. When an *aratya* wants to get cotton for himself, he can buy it from other *aratyas*. The *aratya* receives a commission from the seller and he cannot therefore act both as a commission agent and a buyer. If he has to receive the commission from the seller he must sell the cotton to somebody else. He can buy himself from another *aratya*. There is no necessity to engage a commission agent for the buyer here. Some of the buyers who do not send their representatives, however, engage commission agents. These commission agents are considered to be buyers themselves. When *aratyas* who deal in cotton buy cotton for themselves, they cannot look round and secure the best quality for themselves, because the cotton is sold to the highest bidder. When an *aratya* buys cotton for himself, it is the licensed weighman who weighs it. There is no difference in the system. As to the check on the work of the weighman it is possible that he may be bribed. But in such cases we can dismiss the weighman at once. We have got a clerk who always checks the weights and inspects the licenses of the weighmen. The *aratya* is not bound to engage the same weighman. No instances of bribery have occurred here. If such things came to the notice of the committee, the weighman would be at once dismissed.

4105. (Mr. Hodgkinson.) The buyer and the seller settle the price, they look at the sample and they pull the sample out of the bag as the Committee saw this morning. They judge on that sample. Sometimes staple cotton comes here for sale from the Nizam's Dominions, and in that case it is tested for staple. Two years back there was no railway near Hingoli and so staple cotton from there used to come here for sale. As a rule they do not test the staple. When such cotton used to come, we used to test the staple. In British territory, there are certain parts where staple cotton is produced and if that comes here for sale and if it is to be bought as staple cotton, the buyers look to the staple.

4106. As to the other forms of adulteration besides damping, sometimes when the last pickings of crops come there, these are poor in quality and are sometimes mixed with previous pickings. There is no adulteration with sand or soil except in a very few cases in which cultivators bring in *kapas* for sale and put some soil in it. But when it is detected, an allowance has to be made for it.

4107. (Mr. Roberts.) There are no markets in small places. Only where there is a big quantity of cotton to be dealt with is there a market. The distance from which this market draws *kapas* is about fifty miles. The nearest markets to Akola are Balapur (12 miles), Akote (28 miles) and Bassin (40 miles). There is no system in the establishment of these markets. It is not necessary that there should be markets where there are gins. There are ginning factories outside Akola but they buy direct. There is a ginning factory at Burgaon, which is ten miles from Akola, but not a market. At Medsi, fourteen miles from Akola, there is also a ginning factory which buys direct.

Mr. BALWANT R. GADGIL, Secretary and Manager, Savatram Mills Co., Ltd., Akola.

EXAMINED AT AKOLA, NOVEMBER 16TH, 1917.

Written statement.

I.—AGRICULTURAL EXPERIENCE.

(a) "Deshi" short staple cotton.

4108. (1) Experience.—I have been living at Akola in Akola District for the last 25 years. I am not in actual touch with the cultivators.

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[Continued.]

4109. (2) Varieties.—Generally there is only one kind of *deshi* short stapled cotton which is called *jari*. Several names, however, are given to it after the names of villages in which it is grown.

4110. (6) Comparative returns.—The proportion of the return of the *deshi* short stapled cotton if compared with that of *deshi* long stapled one, is about three to two.

4111. (8) Uses of seed and seed selection.—The cotton seed is used for feeding the cattle and for crushing oil in the local mills. Most of the quantity is exported for the above purposes in the Punjab and some other places in India and for the crushing purposes to the continent. The cultivators whose financial position is good select *kapas* of good quality at the time of the second picking from their fields and gin it separately; and the cotton-seed produced from this ginning is used for sowing purposes for their own fields and also for selling to their customers for the same purpose. The practice of using cotton seed of hand gin machines is being abolished, partly because of the exorbitant rates of that kind of seed and partly because the cultivators have now realized that there is no appreciable difference in the seeds from machine gins and hand gins.

(b) "Deshi" long staple cotton.

4112. (11) Varieties.—There are two kinds of *deshi* long staple cotton—*pukkaghat* and *adghat*, though several names are given to them after the names of villages in which they are grown up. In fact, *pukkaghat* is not grown in Akola District. That kind of cotton comes in this market from other places, such as, Risod, Dhanki, Waduna, Marwari, etc. All these towns and villages are situated in Yeotmal District.

4113. (15) Condition affecting increase in area.—I have been dealing in cotton purchases for the mills for the last thirteen years. During the first eight years, I had no difficulty in getting sufficient *deshi* long staple cotton for our mills. The outside mills also were buying here freely. Among the above varieties, specially the Dhanki cotton was fair in staple and also in class and used to come in big lots in Akola market. But during the last four or five years, there is great scarcity of this cotton. Owing to this scarcity, I have to import such sort of cotton from outside stations, such as, Nander, Omari in Moglai and Pandharkawada and Chanda in Berar. The thing is the cultivators have realized that the production of short staple cotton is nearly fifty per cent. more than that of long staple and besides the yield is earlier. They are now taking cotton seed of short staple cotton from here for their sowing purposes. The result is, owing to this scarcity, I have to pay higher prices than before for the staple cotton and still the cotton is not of one and the same kind, it is mixed with a small proportion of short staple cotton. In paying higher prices, my opinion is that the mill owners are not losing. They are getting proportionately higher rates for higher counts. Some three or four years ago, the difference in the prices of 10s and 20s. was about one rupee while the present difference is about about rupees two and annas eight. If the mill people continued to pay still higher prices for the long staple cotton, it will be an inducement to the cultivators to sow cotton seed of long staple cotton. For this inducement it is also necessary that the Government must try for the selection of the cotton seed and see that only selected cotton seed is sown. This is the only chance of increasing the production of staple cotton. This experiment can be tried only on places such as Dhanki, Waduna, Risod and all the villages in the vicinity of the above towns, because these places are favoured with proper site and climate to suit the purpose. The benefit of this, however, will be available for Berar and Central Provinces mills only. The Bombay mills cannot stand the competition of these mills, they being close to this market. If Government were pleased to undertake this sort of experiments, they will not get full success, unless the cultivators are educated and their financial position is improved.

III.—STATISTICAL.

4114. (33 and 34) Improvement of cotton forecast and other statistical information.—The present cotton forecasts and the cotton press returns are quite sufficient and I have nothing to suggest any improvement therein except one, that the returns in case of latter should be received from all the mill and press owners so as to have accurate figures in the end.

4115. (35) Publication of Liverpool and Bombay prices.—The telegrams of the Bombay cotton market reports are received here by the big merchants according to the fluctuations. These reports are of no use to the cultivators and they have to depend for the prices upon their *aratyas*. As for the reports of Liverpool market, it is not possible to get these telegrams direct in up-country markets, as it is very costly. This information is duly received by those concerned from their Bombay agents and there is no other possible way for it.

IV.—MANUFACTURE.

(a) Ginning and pressing.

4116. (36) Type and number of gins and presses.—I have got 60 gins and one cotton press.

4117. (37) Size of bale.—The size of the cotton bale pressed in the factory is 50 inches long, 20 inches broad and 22 inches high.

4118. (38) Saw gins versus roller gins.—The saw and double roller gins are successful with Indian cotton of long staple only.

4119. (40) Factory labour.—I always experience great difficulty in securing labour for gin and press and more so for cotton mill.

4120. (41) Condition of cotton.—The raw cotton which reaches this market is mixed with leaves more or less and this is due to bad picking by the labourers in the fields and the great anxiety of the cultivators to send their production to the market as early as possible to realize money.

(b) Spinning and weaving.

4121. (43) Counts spun and market for yarn or cotton.—I spin from numbers 8 to 26 and the principal markets for our yarn are Purulia, Dhamtari, Sambalpur and Calcutta, and for cloth the Central Provinces and Berar.

Mr. BALWANT R. GADGIL called and examined.

4122. (President.) The Committee saw my mills this morning. We do spinning, weaving, ginning and pressing. We get staple cotton from Waduna, Omerkhed and Risod in the Yeotmal District. The cotton

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[Continued.]

comes here for sale as it is a big market. This is *bani* but it is not so good as it was four years ago. *Bani* also comes from the Nizam's dominions. For *roseum* we pay Rs. 2 to Rs. 3 more per *khandi* over ordinary *jari*. For *bani* we pay Rs. 10 more. Four years ago, we used to get *bani* in abundance and pay the same price for it as for *jari*. Now we pay Rs. 10 more per *khandi* for *kapas*. The present *khandi* is 784 lbs. Formerly it was 560 lbs. There is no *bani* in the market this year. As to the counts that we can spin from *bani*; from *pukkaghat* we can spin up to 26s weft. From *Waduna* and *Nander* we can spin up to 24s warp and 30s weft. From *roseum* we can spin twist from 16s to 18s. As mill-owners, we want to have more long stapled cotton. It is only the mills that want long stapled cotton here. *Roseum* is a good cotton for short counts but it is always mixed by the cultivators. They say that it is *roseum*, but pure *roseum* is not coming into the market and when it comes in a small quantity it does not fetch its proper price as the buyers cannot get it sufficiently. It is only a few cultivators who bring it in separate carts. The other kinds of cotton that we get here are *jari*, *adghat* (*jari* and *bani* mixed, from *ghat* side) and *pukkaghat*, i.e., *bani*. We get them from Omerkhed, Risod and Waduna. Pure *roseum* is always difficult to get. There is a lot of mixing going on still with *jari* because some of the cultivators are illiterate and do not know its value. So they do not bring it in separately and this is the reason why they do not get better rates for *roseum*.

4123. We buy *kapas* in the market seeing only small quantity of *kapas* from carts. We see the samples from two or three carts and then give our offer to the seller. If he prefers our rate, the bargain is settled for the whole lot of carts. The carts are sold through the *araiyas*. In other markets, these *araiyas* are called brokers. When the carts come into the factory compound, we again see the samples from each cart at the time of weighment. If the *kapas* is inferior to average quality or if there is damping, we make some reduction in the rates offered in the market. In fact the prices that are settled in the factory yard are the true prices. The prices offered in the market are not final because it is not possible to settle final prices there, there being no possibility of seeing the whole stuff properly. Thirty-nine maunds of *kapas* give fourteen maunds, i.e., one *bhoja* of 392 lbs. of lint for ordinary *jari*. In offering the price, if we think that the lint will be less and that we shall have to purchase more *kapas* than 39 maunds to get one *bhoja* of lint then the price of *kapas* will be proportionately less. If it is more, the price will be increased. These things are approximately estimated in the market.

4124. I cannot tell you the difference between *roseum* and *jari*. *Roseum* has a slightly better staple and better colour than *jari*. From *jari* we can spin up to 14s and from *roseum* we can spin up to 18s twist and the percentage of loss in the blow room is less in the case of *roseum*.

4125. I do not find that there is much damping of cotton in this market. If there is, it is due to rain falling on the way. There is no deliberate watering of the cotton coming in the market. Petty merchants sometimes damp. It used to be very common but is not now.

4126. (Mr. Weehen.) We buy our *bani* from Nander. Some four years we used to buy it in Akola as *Dhanki* cotton used to come here. Now-a-days, cultivators of *Dhanki* are buying cotton seed from Akola district purposely for their sowing purposes and so the *Dhanki* cotton is turned into short staple. The object of the cultivators in doing so is in their own interest, because the production of short stapled cotton is more than that of the long stapled and besides the yield in case of the former is earlier. *Dhanki*, *Wadhuna*, *Omerkhed*, these towns are near to each other and the climate is good for the production of stapled cotton in great quantity, provided the cultivators make a point to use cotton seed of their own production for sowing purposes. Thus there was scarcity of long stapled cotton and we had to send our men to Nander and Parbhani. This cotton is leafy and so the loss percentage in blow room is more than that of *Waduna* and *Omerkhed*. We pay a higher price and buy selected crops, so the mixture in our purchases is less than average. If there is any mixture, it is in the field. It is not especially adulterated by merchants. We buy mostly *kapas* because we have to prepare a class and staple just according to our requirements.

4127. We gin our own *kapas* in our own gins which we have to buy for the purposes of our mills only and therefore we do not take into consideration the extra price that we have to pay for better cotton. There are some factories at Nander which are owned by Marwaris and Parsis. The ginning is very bad on Nander side. The seeds are crushed and not much attention is paid to ginning.

4128. I do not know what the present price of cotton is at Nander but last year it was six and a half annas per pound of *bani* and went up to seven annas. The price of *jari* here at that time was five annas. There was thus only a difference of one and a half or two annas per pound over Akola cotton. It costs us about half an anna to bring cotton from Nander to Akola. Last year I paid two annas per pound more for Nander cotton than I paid for *jari* cotton. Practically we paid Rs. 100 per *khandi* for Nander or other long stapled cotton than for *jari* cotton here. The difference has increased during the last three years. By that the millowners are not losers. There is a big demand for long stapled cotton now. It has increased for the last two years and the difference in price between long and short stapled cotton has widened. For weaving purposes we want long stapled cotton, especially as the climate of Akola is dry and changeable.

4129. There is no market for our yarn in this district. We sell at Nagpur, Calcutta, Jharsuguda, Sambalpur, Purulia and Dhamtari. The counts that we sell are from No. 6 to No. 22. At present the biggest demand is for 14s to 14½s from Purulia and Dhamtari. Two years ago, the biggest demand was for counts from 10s to 14s. I think that the demand for finer counts is increasing. For our weaving purposes, we use 20s warp and 26s weft. We always spin 20s warp. 16s warp will not be profitable to us. I know there are people who spin 16s but I do not know how they make a profit out of it. My experience is that the lower the count, the less the profit. For long cloth we use 20s warp 26s weft. We still sell long cloth in the Central Provinces. We have been spinning the same counts always. We have got a limited market. We are not sending our cloth to Bombay where the system is quite different from here. If we could get more long stapled cotton, we would like it. It has been very difficult for us to make a sufficient stock for the last four years owing to shortage of long stapled cotton. I am quite prepared to pay a higher price for it if we could get it. I cannot say exactly what higher price I should be willing to pay for it. The present season has just commenced and I cannot give you the figures. We were last year paying actually Rs. 10 more and we were prepared to pay something more if the difference in the price of yarn remained the same. If the price of long stapled cotton increases, the difference in the price of yarn will also increase. It has actually increased during the last two or three years. The difference of price between the two qualities of yarn, viz., 10s and 20s was Rs. 1-4-0. The present difference is Rs. 2-10-0 for our yarn. This is due to the high price of long stapled cotton.

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4130. (Mr. Hodgkinson.) I had some experience of Cambodia cotton at the outset. When we were short of stock we had to buy some cotton of that description from Bombay. Of course price could not be taken into consideration when we wanted to keep the mill going and we had to use Cambodia. But as long as we can get cotton from Nander and locally, we do not go to Bombay. We used Cambodia to spin 20s warp. We mixed it with cotton from Pandherkepada in Yeotmal and from Nander and it worked all right.

4131. The percentage of size that I put on my warp of 20s, depends on the texture of the cloth. Sometimes we have to put on six per cent., sometimes 16, 20, 25 up to 30. It depends on the quality of cloth. When we are manufacturing *khadies*, that is very thick cloth, we have to put forty per cent. size on the warp. We have never tried 16s warp. We have been only spinning 19s and 20s. When we spin 20s, the size-gain is more than in the case of 16s or 18s warp. That is the reason why we want long stapled cotton, as it takes more size than the short stapled. As to the question whether if we get a slightly higher count say 24s instead of 20s warp for putting on fifty per cent. size, I should say no, as at the same time we must keep the texture of cloth, as 24s warp with same kinds of reeds and picks will give thin texture and the cloth will not be approved of among the users in the long run.

4132. (Mr. Roberts.) I have already said that I paid Rs. 10 more per *khandi* of *bani kapas* of 784 lbs. last year. This year we have paid Rs. 10 to Rs. 12 more for *bani kapas* but according to the present calculations, if we take into consideration last year's rates, we shall have to pay Rs. 15 more on the basis of *jari*. But this will depend on the quantity of *bani* cotton available and on the question of the supply and demand of the stuff. If the arrivals are less, perhaps we shall have to pay something more because we must buy to keep the mills going. The staple of *roseum* is slightly better than *jari*. The percentage of loss of *roseum* in the blow-room is less than that of *jari*. For the last four years, we have found it very difficult to get long stapled cotton. There is a great scarcity of long stapled cotton. Before that we used to get all the cotton we required in the local market but now we have to send our own men to the different parts simply because there is scarcity of long stapled cotton.

4133. I have heard of Mr. Clouston's Seed Unions but I had nothing to do with them. Their object is to ensure a supply of pure *roseum*. I do not get my *roseum* from Rai Saheb Ganeshdas Kundan Mal. I buy from the local market. When the cultivators bring in their carts, they say that this is *roseum* but it is not so good as on the Government Farms. In spite of the efforts of the Agricultural Department, *roseum* does not come to the market in the pure condition.

Mr. E. S. SHROFF, Agent, Messrs. Volkart Brothers' Agency, Khamgaon.

EXAMINED AT KHAMGAON, NOVEMBER 18TH, 1917.

Written statement.

I.—AGRICULTURAL EXPERIENCE.

(a) "Deshi" short staple cotton.

4134. (1) Experience.—I have been stationed for over 22 years as cotton purchasing Agent for Messrs. Volkart Brothers, Bombay, in Khamgaon under Buldana district and in some of these years was deputed at the fag ends of the Khamgaon seasons to Aligarh, Surat, Broach and Wadhwan for purchasing cotton. I have been Manager in Khamgaon for 22 years of Volkart's United Press Company, Limited, Press and Gin Factories. I was chairman for over fifteen years before 1914 of the Khamgaon Cotton Market Committee. I have had opportunities of being in touch with cotton cultivators in Buldana district.

4135. (2) Varieties.—*Deshi* short stapled cotton, familiarly known as *jari* is grown in Buldana district of two varieties

- (a) white flowered called *roseum*.
- (b) *howri*, a general name.

4136. (3) Size of holdings.—I have no accurate knowledge as to the average size of holdings of cultivators. They vary from three or less to forty acres and more.

4137. (4) Yields and profits.—Please refer for reply to the statement below :—

Deshi short stapled cotton grown in Buldana district cotton area 722,290 acres.

Varieties.	Percentage of Area under cotton	Ginning percentage of lint to seed.	Average yield of lint per acre.	At present price worth	Profits per acre.
			lbs.	Rs.	
1. <i>Roseum</i>	22	38 to 40	200	200	Not knowing the expenses cannot estimate the profit per acre.
2. <i>Howri</i>	78	34 to 36	145	72	Not knowing the expenses cannot estimate the profit per acre.

4138. (5) Rotations and manures.—Usually cotton cultivation one year is followed by *jari* or *bajra* cultivation the following year. But owing to unprecedentedly high prices ruling in past two years, cotton is sown consecutively without a break. If the system of rotation of crop is not observed and the cotton is consecutively sown, it is affected by cotton wilt generally. For manure, house refuse and cattle and sheep dung is used generally.

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[Continued.]

4139. (6) **Comparative returns.**—Please refer to statement below :—

Returns of *deshi* short and long stapled cotton, and of exotic long stapled cotton (under normal conditions of weather) compared—

Varieties.	Ginning percentage of lint to seed.	Average yield of lint per acre.	At present price worth.	REMARKS.
<i>Deshi short staple.</i>		lbs.	Rs.	
1. <i>Roseum</i>	38 to 40	200	100	
2. <i>Howri</i>	34 to 35	145	72	
<i>Long staple.</i>				
1. Indigenous <i>Bani</i>	28 to 30	100	60	
2. Exotic <i>Buri</i>	33 to 35	125	75	

Roseum.—Highest yielding superfine classed of soft feeling cotton, gradually replacing other short stapled varieties. Cannot resist wilt disease, spins 16. to 20. yarn.

Howri.—Lower yielding fine classed cotton. Cannot resist wilt, spins 16s. to 20s. yarn.

Bani.—Long stapled, lowest yielding, silky, fully good class, best tensioned cotton, cannot resist wilt spins 30s. and above. Can take good quantity of sizing.

Buri.—Long stapled, better yielding, fine classed, tensioned cotton, can spin 30s and above.

The entire district is covered by *deshi* short stapled cotton excepting a few patches of hilly grounds where no other than the upland Georgian type can be sown.

4140. (8) **Uses of seed and seed selection.**—The seed is used at home partly for sowing and for cattle and is exported to Bombay, Kathiawar and Punjab for cattle requirements. Care is being taken for selecting seeds for sowing. *Kapas* buyers generally gin separately best outturned *kapas* and sell the liberated seeds to *kunbis* for sowing at a higher price than of ordinary seed. *Kunbis* get ginned their best *kapas* intended for securing sowing seeds, and reserve a portion for their sowing purpose and sell the rest to other cultivators for sowing. There are centres opened under the control of the Agricultural Department where purest *roseum* cotton seed is sold to *kunbis*. Some *kunbis* hand gin their select *kapas* for sowing seed.

4141. **General.**—I should respectfully suggest that as long stapled cotton is a desideratum both for England and India, and is also in demand for Japan, its cultivation should be extended as much as possible in a way that would prove profitable to the cultivator.

(2) As a long stapled cotton requires a full six months to be matured and is therefore at the mercy of weather for two months longer than required for short stapled cotton, which besides is converted into money two months earlier than the long stapled cotton and as it also is low yielding, it is necessary that a cross between *roseum*, the short stapled and highest yielding *kapas*, and a long stapled *kapas* be established, so that a combined result of a long stapled high yielding four months growing type of cotton can be brought about which may not be affected by wilt and might find favour with the cultivators pecuniarily.

(3) I should suggest an experimental crossing and breeding between a high yielding short stapled cotton like *roseum*, and a good yielding best stapled cotton like Cambodia from the South of India or any other from any place where the conditions of rain and temperature are similar to that of Berar. For this purpose Agricultural Chemists are needed for different districts who can experimentally find out the right sort of manure containing such component parts as are to be found in the soil where both the crossed types are growing.

(4) I should suggest for each *taluk* one expert Assistant Agricultural Inspector instead of one in a whole district containing six *taluks*, who should have come out of Pusa or Poona Agricultural Colleges.

II.—COMMERCIAL ASPECT.

4142. (30) **Local trade customs.**—There are five central cotton markets in Buldana district to which cultivators carry their *kapas* in carts, which they entrust to agents or registered *aratyas* of the cotton market who for a commission not exceeding one per cent. (as fixed by the market committee) sell the ready *kapas* and ginned ready cotton brought from gin factories in the interior, at highest rates to buyers, in the market. The *aratyas* furnish weighing scales and weighers and give the deliveries of *kapas* to the buyers in factories compounds by weighers in their service. They collect the proceeds from the buyers and pay over to the cultivators. They lend money to cultivators for field work and domestic purposes which they gradually recover with interest from proceeds of *kapas* or cotton sold by them for the cultivators. There is no future buying of *kapas* and cotton. Only ginned cotton is at times sold forward for eight or ten days delivery.

4143. (31) **Standardization of commercial names.**—All *kapas* and cotton coming to markets from Buldana district is called *howri*, and that from *ghat* side which has somewhat silky short staple is called *ghat kapas* or cotton. These distinguishing names are appropriate and do not require to be altered.

4144. (32) **Buying agencies.**—The present system is the best form of buying agency. All local buyers or exporting firms agencies have proper arrangements for buying.

III.—STATISTICAL.

4145. (33) **Improvement of cotton forecasts.**—I have had no opportunities of testing the correctness of forecasts of acreage published by the Agricultural Department but I am under an impression that it is carefully prepared by a Revenue Inspector in each *taluk* of a district.

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[Continued.]

(2) The cotton forecast in regard to the outturn of cotton is published in the Central Provinces Gazette and it might be made more clear. For instance, in regard to one district we read a remark "cotton outturn equal to 80 American notation," but the equivalent in lbs. of 100 American notation are not noted in it. In regard to another district, the term notation is dropped and a remark made "thirteen annas crop." What we require is, how many bales of 400 lbs. may be estimated for the acreage of a particular district or *taluk* as we notice in American cables forecasts of American crops. I should suggest that to ensure best possible accuracy and to enlighten the cultivators in matters agricultural, and to collect data, each *taluk* of a district should have an Assistant Inspector instead of one for the whole district.

4146. (34) **Improvement of other statistical information.**—The return of cotton bales pressed in presses, as published in the Central Provinces Gazette, comes to hand two weeks after the bales are pressed. There is no room, however, for an improvement. But the return of arrivals in cotton markets of Berar furnished by the cotton markets to the Director of Agriculture and Industries and published in the Central Provinces Gazette furnishes figures of weekly and up to date total arrivals as under :

(1) Number of carts of *kapas* (in 4th and 5th columns).

(2) Number of carts of *bhojas* ginned (in 6th and 7th columns).

Persons in cotton trade can work out the quantity of *kapas* by multiplying the number of carts by an average outturn quantity, say, 36 to 37 maunds (of 28 lbs.) per cart. But the terms in 6th and 7th columns "number of carts of ginned cotton *bhojas*" is meaningless. It should be altered to "Number of ginned *bhojas*." A cart brings from one-half to five *bhojas* and any attempt to discover the number of *bhojas* from the number of carts would be in vain. A *bhoja* weighs ten to eleven maunds on an average, and the number of *bhojas* might be multiplied by ten or eleven maunds by an inquirer to get an idea of the quantity of arrivals of ginned *bhojas*. It would be the easiest thing for cotton markets to mention the "number of *bhojas*" in their returns to the Agricultural Departments, because market duty is taken at one anna on each *bhoja* and not on each cart containing *bhoja* or *bhojas*.

4147. (35) **Publication of Liverpool and Bombay cotton prices.**—The buyers keep in touch with the Liverpool and Bombay cotton prices, but the sellers in the markets have not that facility. They would welcome the publication of these quotations published in right time to be of any use.

IV.—MANUFACTURE.

(a) Ginning and pressing.

4148. (36) **Type and number of gins and presses.**—We have a Hodgart's press and finisher, others have the same or Nasmyth type. We have gin factories of Platt's single roller gins. Our gin factory contains 47 gins.

4149. (37) **Size of bale.**—Our factory and all factories press bales of 400 lbs. gross.

4150. (38) **Saw gins versus roller gins.**—I have no experience as to the merits of saw gins. But I understand that the saw gins are used for *kumpla*, a strong fibred *kapas* and the fibre is a shade hurt by the saws but the cotton comes out in white nice layers. Saw gins are suited to *kumpla* cotton and not to other descriptions. Roller gins are suited to the cotton of districts where they are used. They don't cut the fibre if correctly set.

4151. (40) **Factory labour.**—We experience greater difficulties in obtaining factory labour which becomes scarcer and dearer every year.

4152. (41) **Condition of cotton.**—The condition in which raw cotton reaches our factory is not objectionable.

4153. (42) **Effect of replacement of shortstaple cotton by longstaple.**—No change in the machinery of press or gin factory would be necessary if any large quantity of short stapled cotton is replaced by long stapled cotton.

V.—GENERAL.

4154. (46) **Attitude of buyers to improved cottons.**—*Bhoja* buyers, i.e., mill-buyers would certainly see their advantage in encouraging the growth of long stapled cotton, because the tendency now-a-days is to weave fine counts but their wish to encourage the growth is hampered by their having to pay the duties on yarn or counts spun in India. Were it not for these duties, they would naturally like to give the cultivators a higher price than they would now wish being saddled with the duties.

4155. (49) **Effect of tenure of land.**—The land tenure in no way affects the extension of cultivation of cotton.

VI.—IRRIGATION.

4156. (73) **Deshi versus American cotton.**—Cultivators do prefer to cultivate *deshi* cotton to American cotton as the former gives a higher yield per acre, and takes two months less in maturing and has to be at the mercy of the weather for two months less. Its proceed is realised two months earlier than for American cotton and at the right time for paying Government revenue.

Mr. E. S. SHROFF called and examined.

4157. (President.) I have a very long connexion with this market extending over a period of 22 years. At present there is only one kind of cotton that comes into the market and that is *jari*, a short staple cotton. There are now two varieties of this—one is the newly introduced white flowered *roseum*, and the other is called *howri*. There is no long staple cotton to be seen now in this market. *Bani* used to come there in the old days. It has not been coming during recent years. It is not now grown. I can distinguish pure *roseum* from ordinary *jari*. We do get pure *roseum* and pay a higher price for it over the ordinary *jari* mixture. The premium might amount to Rs. 10 per *khandi* of *kapas* because the seed is sold at a very high rate and we have to make an allowance for that. The other day I paid Rs. 3 more per *khandi* of *kapas* for

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[Continued.]

roseum which means Rs. 8 more per *khandi* in Bombay, but I got it back over the seed which fetched Rs. 4 over ordinary seed. *Roseum* is softer to the feel than *howri* cotton and is also cleaner as it is free from leaves. The staple is short. We gin and press ourselves here. Owing to war conditions, most of the cotton is now being sold in Bombay to the Bombay mills.

4158. I am a very old resident of this part of the Central Provinces and take some interest in its agricultural development. I have brought for inspection some samples of Cambodia cotton which I have grown in my own compound this year. This I ginned to-day. I do not think the soil is favourable to its growth. I grew only a few plants just to see whether it could be grown. The ginning percentage is about 38½ per cent. It loses a little in colour when ginned, possibly on account of the heat. I was surprised to notice this difference in colour. I had it ginned in a Platt's single roller gin. I sowed it in October 1916, because it is sown in October in the south of India. There were flowers on it in April but they dropped and there was no fruit. I allowed the plants to remain and in June there was rain and the plants improved greatly and gave such an abundant crop that it was a slight worth seeing. I have sown it again as a rain crop in my field but it has not yet fruited. It is in fair condition considering the bad weather this year. I have no land of my own. I experiment on the land belonging to my Company.

4159. I buy all my cotton in the cotton market. I deal largely in *kapas* and not in ginned cotton. I buy from the local market. I have some experience of cotton coming from Nander in Hyderabad. It is a very long staple cotton. It used to be pure *bani* but it is now being gradually mixed.

4160. As to cotton forecasts, I consider that a good service is done by the Central Provinces Gazette in publishing the forecasts but they should be published in a way that people can understand them. For instance, the last forecast of yield for the Akola district said that it was 80 American notation. I do not think that any body could easily understand this. The forecast for the Buldana district was given in annas. It is difficult to compare a forecast in American notation and one in annas. I should like the Agricultural Department properly manned so that there should be one assistant in every *taluk* instead of one assistant for a whole district which contains as many as five or six *taluks*. The yield should be expressed in an equivalent of bales of 400 lbs. so that one could get a commercial idea of what may be expected.

4161. The press returns are complete because all cotton has to be pressed in some press and all the presses are sent post cards on which they send the returns of bales pressed in their presses and therefore there is no room for mistake. I did not know that many presses do not send in any returns. If that is the case, I should think that the returns ought to be made compulsory. Possibly you do not get returns from some presses as they are not working. I think that it would be a good thing to make the submission of the returns compulsory. I have criticised the present weekly returns for the following reason. Every cotton market levies a tax of one anna per cart of *kapas* and also one anna per *bhoja* of ready cotton. In the sixth column of the statement in the Central Provinces Gazette, it is simply mentioned that so many carts arrived. This has no meaning at all because a cart can carry half a *bhoja*, two-fifths of a *bhoja* and so on. It should be stated how many *bhojas* arrived as it is very easy to work out the total arrivals by the market receipts. One rupee receipt would mean the arrival of sixteen *bhojas*.

4162. I think it would be to the *kunbis*' advantage to publish the Bombay and Liverpool prices in the local markets. All the brokers and *arayas* do not get information from Bombay, only those persons who buy for Bombay.

4163. (Mr. Wadia.) I have not seen *bani* for the last five years but when I last saw it, I saw a sample of an excellent cotton as well as some which was called *bani* but which was not as it was mixed. This mixture was probably done by middlemen. The *kunbis* do not gin. The middlemen buy *kapas*, gin it and sell it to exporters. In order to get a profit and because they get short stapled cotton very cheap, they mix it with long staple cotton and foist it on the public as long staple cotton.

4164. As to the mixing of the local varieties of *jari* and pure *roseum*, the *kunbis* bring in the *roseum* separately but if they happen to have some mixture when they have some *howri* *kapas*, they take things easily. I gin *howri* and *roseum* separately, but then again I mix *roseum* with *howri* in order to send it to Bombay after ginning. Sometimes the *kapas* comes in mixed, *howri* and *roseum* and *Ingrazi*, a *kapas* which has black seed. The mixing of *kapas* goes on in the Indian ginning factories. The cotton is mixed before ginning. They do it sometimes on account of the quality. They may have some very fine *kapas* and they may have, on the other hand, some bad *kapas* and in order to make it a class they mix a small proportion of the bad *kapas* with the good and make it a class by itself. I mix cotton after it has been ginned accurately in order to bring up the class of my cotton. When *kapas* is mixed, it is not done accurately.

4165. The cultivators are very careful about seed. The seed for sowing has a special name. It is called *biwai sirki* and a higher price is paid for it. Sometimes, if a man is unscrupulous and he sees that the greater portion of the seed is *roseum* but that a little is mixed, he passes it all off as *roseum* and the poor *kunbi* is deceived. The Agricultural Department is doing a very good thing indeed in keeping seed pure. The *kunbis* are buying from them as well as in such places as they believe that they can get genuine seed.

4166. It does not necessarily follow that it would be better to send the two classes of cotton separately to Bombay as both classes have the same staple and mixing gives the class that is wanted in Bombay. Certain exporters press bales separately of fine class, superfine class, fully good class and good class and sell on the types they send from here to Bombay and make up the price. I am not aware of the details of my principals' business. They make type samples in Bombay and send me instructions as to what I am to do. When they receive cotton, they consider whether it is up to the samples and inform me accordingly. If I get superfine cotton, I try to mix a small proportion, say two to three per cent., of inferior cotton with it so as to give the whole a good class.

4167. *Kapas* called *Ingrazi* comes in occasionally. I think it is a type of American Upland Georgian which came in some five hundred years ago and has assumed its present form. *Buri* is a different variety of Upland Georgian. *Buri* is a better cotton than *Ingrazi* but it is not now seen in our market: it used to be seven or eight years ago. None is now grown in this district. *Bani* is a long staple cotton which takes six months to grow. People do not care to grow any cotton that is exposed to the mercy of the weather for another two months. If a higher price was paid proportionately to compensate for the disadvantages, the cultivator would certainly grow long staple cotton but the proportion is never paid. If *roseum* were sold at four annas per pound or say at Rs. 200 per *khandi* and *bani* at about Rs. 300 or Rs. 320, the people would jump at the latter but that has never been the case and the utmost that they pay is only Rs. 15 to Rs. 20 per *khandi* more than for *jari*. I have bought *bani* many a time and I did not get more than Rs. 10 extra for it in Bombay. I was not aware that the price of Khamgaon-Akola to-day is Rs. 450, and that of Broach Rs. 480 whilst the quotation for Nizam's territory pure *bani* is Rs. 590 but if there is such a big difference as that, I should think

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that it would pay the cultivator to grow the long staple. If pure *bani* fetches such a high price as that, I do not think there would be any mixture in the ginning factory because when a man pays such a high price for *bani*, he would not care to mix it with *roseum* or any short staple cotton. I have seen Parbhani cotton. I opened our agency there. That cotton used to be very good some years ago: but then it was mixed with *Jalna* and the cotton is getting worse and worse every year. I do not see any remedy to stop mixing. I would not suggest legislation to stop mixing because it would interfere with the liberty of the subject. Why should Government take so much trouble on behalf of the people who want long staple cotton, i.e., on behalf of one section of the population as against another? People must pay for what they want. If they pay for it, there will be many people who will be quite ready to give them the stuff they want but I do not think it would be fair for Government to legislate. The question was thrashed out many years ago and I think the Government did right in rescinding their legislation. The cultivators will produce pure *bani* cotton if they are paid for it.

4168. I have written a letter, dated the 22nd October 1912, to the Commissioner of the Berar Division regarding the damping of cotton which I wish to put in as evidence (Annexure). I think that there is an idea that too much damping is done. The damping here is about one per cent. This makes no difference and there is no fraud in it. I admit that there are others who damp very heavily, and palpably but this small moistening does no harm. On the contrary, it does good. The buyer here must compete commercially. He buys for profit and if others do it, he has to do, otherwise he would be driven out of the market. If the damping is more than one per cent, it is bad. If cotton is allowed to remain in the godowns during the monsoon season at the end of the monsoon, you will find it eight to ten per cent. heavier than before. The cotton is the one thing in the world which sucks up moisture very readily whenever it gets a chance of doing so. Even if we send our bales quite dry in the cold weather from here, they would still lose in weight by the time they reached Bombay but in the hot season, they gain in weight. There must be something in the atmosphere which brings about this change. Nothing suggests itself to me as a remedy for evils like these. If there were legislation to prevent damping, it would be fair to all business people alike. In Sholapur in the Deccan and other places, there is rain in the cotton season and you cannot stop the cotton being damp. I bought some *kapas* in Aligarh for a few months and I had to expose it to the sun for days to get it dry and to pick out the yellow stained stuff as it was picked early in the morning. Would the legislation proposed remedy all these things entirely? There is no objection as far as I can see to legislation instituting a testing house.

4169. I have already advocated that all ginning and pressing factories should be compelled by legislation to submit their returns. Power may be given to the magistrate of the district or the tahsildar or the cotton market committees or a section might be introduced in the Factories Act to ensure the submission of correct returns but, as regards licensing gins, you might as well introduce licenses for mills or other factories. I should certainly object to the introduction of a licensing system under which if a man damped heavily his working license would be withdrawn. A merchant is not an ordinary man to be licensed to do his business honestly.

4170. My idea in regard to crosses, which is that of a practical man and not of an expert is this. The defect in the *bani* *kapas* is that it has a very low ginning percentage, about 26 per cent, while the ginning percentage of Cambodia *kapas* is about 36 to 37 per cent. Then again *roseum* has a good ginning percentage but a short staple and as Cambodia is the best staple cotton found in India, a cross between them, if it were possible, would be a good thing. The Cambodia which I have produced has been watered from a well. It was grown under irrigation from October to April; thereafter it got only rain water. I have also planted it under rain water in June and it has done well with no irrigation at all. I think the long staple cotton requires six months to grow and that is the greatest drawback to long staple cotton. *Roseum* being cotton of four months' growth and Cambodia of six months, it is possible that a combination might be made which would result in a better cotton with a shorter period of growing.

4171. I have stated in my written evidence that the *arayas* lend money to the cultivators. The interest they charge for this is about Re. 1 per month, sometimes perhaps more. The highest that they charge is about Rs. 1-8 per month or eighteen per cent. per annum.

4172. The statement in paragraph 4150 of my written evidence that the fibre of cotton is cut by saw gins is not based on personal experience, and I should like to cancel it.

4173. (Mr. Hodgkinson.) I did not change the grid of the gin to gin the Cambodia cotton I have produced. There is a difference in the colour of the *kapas* and the ginned cotton, but I do not think that it is due to the crushing of seed. On account of the untimely rain in October and November, there has been this discolouration. The grid is generally altered to suit big cotton seed. Spare grids are kept. This cotton would not be cleaner if it were ginned with a wider grid. At the beginning of the season, we use the wider grid but at the end of the season when the *kapas* becomes very inferior, we have to put in the narrower grid. Two sizes of grids are quite sufficient.

4174. As to whether there is any adulteration besides damping, I do not call damping adulteration. There is, however, a form of adulteration which I will explain to you. The day before yesterday, I saw two wagons of *kapas* coming from Jalgaon, Khandesh. They were stocked in a ginning factory as a matter of favour and were carted again the next day to the Khamgaon cotton market and bought by certain merchants who were tempted by a couple of rupees less rate and were resold again in the Khamgaon market as Khamgaon cotton. The difference between Khandesh and Khamgaon cotton is nearly Rs. 25. If you call that adulteration, there is certainly adulteration to a great extent. There is no adulteration with sand or dirt but there used to be when hand ginned cotton came into our market. Now-a-days hand-ginned cotton is a negligible quantity.

4175. (Mr. Henderson.) Whatever *roseum* cotton I get I gin separately and sell the seed. I sell about three thousand bags of *roseum* seed, at a premium of Rs. 3, 4 or 5 over *deshi*. I sold yesterday *roseum* seed for sowing at Rs. 26 and ordinary seed I sold at Rs. 21. *Roseum* seed is dearer this year because the *kunbi* says that there has been untimely rain and the *kapas* is bad and he is anxious to get supplies of good seed for next year. The quantity of pure *roseum* which comes into the market is not very large. I should say it is only about fifteen per cent. It does not contain any admixture at all unless the *kunbi* has been deceived when buying seed as *roseum* which is not *roseum*. I can tell the difference between the seed of pure *roseum* and of *roseum* mixed with *howri* by the shape of the seed and in other ways. *Roseum* has about nine or ten seeds and *howri* six or seven. I should think that the cultivators do not find any difficulty in getting pure seed now that central farms had been established. Certain cultivators do not like to sow *roseum* on account of its being liable to wilt. There is a small proportion of Upland American in ordinary *jari*. It is

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about fifteen to twenty per cent. If the cultivators want to get pure seed, they know where to go. The reason for their growing *jari* is that they have a sort of belief that their soil will not grow anything else but *jari*. They are satisfied with what they have been growing and they do not like to change. They are very conservative. They grow it because they like it and not because they cannot get pure seed.

4176. *Bani* has disappeared in Berar. It has disappeared because, as I have said, it is a six months' crop whereas *roseum* is a four months' crop. *Bani* is therefore exposed to the vicissitudes of the season for two months longer than the other variety and the money for *roseum* is realized two months earlier just at the time when the Government assessment falls due. *Buri* is not much in favour now that *roseum* has come in. *Buri* has the same period of growth as *bani*, i.e., six months or perhaps more. The growing period of Upland (Georgian) is more than four months; it puts in an appearance a month after the ordinary *deshi kapas* comes in. I think there is a demand for *Ingrazi* seed as there are some soils which do not grow any other. *Ingrazi* cotton has a longer period of growth than *deshi*. I would not favour the introduction of a good *Ingrazi* seed to meet that demand as the outturn will be poor.

4177. (Mr. Roberts.) The seed that I sell is not passed by the Agricultural Department. I take the responsibility myself. We buy the *roseum* in the market and must find a purchaser for it at the higher rate and we therefore keep it separately. We work independently of the Agricultural Department. The figures as to the yield of *hourti* and *roseum* that I have quoted in my written evidence are based on what I heard when I was in Akola from agricultural gentlemen, possibly Mr. Dube.

4178. I have already suggested that the crop returns should show the number of *bhojas* and not the carts but it is the case that cotton is sold in certain places where there are no markets. As to how returns of *bhojas* should be obtained where there is no cotton market, the answer is that where there is no cotton market, the cotton comes in the shape of *kapas*. In Khamgaon, *bhojas* come from places where there are gins and in order to have an idea as to the quantity actually arriving at Khamgaon, the number of *bhojas* should be stated. More accurate information could be got from the return of the pressed bales.

4179. (Mr. Wadia.) We stamp the sides of the bales as well as the top. Everybody stamps on the sides now. The owner's name is also stamped.

4180. I should like to say something about manure which I have not mentioned in my note. It is believed that, many years ago, the soil of India was more fruitful than it is now. The people were allowed to have free access to the forests to get wood for burning as fuel and therefore more cowdung was available for manure instead of being used as fuel. Bones were not exported so largely and were not drained out of India as they are now. Now that the forests are closed and cowdung is in request for fuel, there is nothing to take its place. The bones of the cattle that die are all exported. If legislation is called for for protecting trade and for protecting industries, then there is a very strong reason for legislation to protect the *kumbis* in the way that manure may be reserved at home. The manure question should be taken up and bones should to a certain extent be allowed to remain in the places where they are required. To go on further, Government might on behalf of the agriculturists construct some bone crushing mills and only make a nominal charge or give the manure to the *kumbis* gratis. The cost would be returned to the Government many times over by the good that the manure would do to the soil. Something should be done in the shape of a protective duty on exports. Government should help the *kumbis* as they do the planters and other bodies. Why not help the *kumbis*? Because they have no voice. The *kumbis* will use the crushed bone meal very readily. I do not think that they would have any caste objection.

ANNEXTURE.

Extract from a letter addressed by Mr. E. S. Shroff, Agent, Messrs. Vollart Brothers' Agency, Khamgaon, to the Commissioner of Berar, dated 22nd November 1912.

Damping cotton.—Damping cotton in a moderate degree is not only necessary in order to safeguard the pressing machinery, but such moderate damping certainly also improves the quality of the cotton to the advantage of the consumer at home, inasmuch as, through damping the cotton, it certainly gets silkier and longer in staple, so that the consumer can make use of it for a much better quality of yarn, than he would be able to, if the cotton were not damped at all. On the other hand, I admit that damping is taken recourse to in a very excessive way by some merchants, natives chiefly, not only with a view to improve the quality of the cotton, but also in order to increase its weight, that, therefore, damping should not be interfered with officially, as long as it is done moderately, but that there is no doubt that it would be very desirable, indeed, to put a stop to excessive damping but I realize that it is very difficult for the Government to exercise a control over the point where the line should be drawn.

I should submit that the remarks passed by Mr. Arno Schmidt are too severe, even with excessive damping. The consumer at home is hardly a sufferer. As cotton loses moisture always as readily as it takes it up, and as cotton is generally sold on basis of the weight found on delivery at the point of destination, there is ample time between despatch from up-country and arrival of the goods at port of destination, for the contents of moisture in the bale to adjust itself. It is chiefly the buyer in Bombay who is the loser, because he pays for more weight than he will eventually land at home. Experience has shown that cotton damped in India always loses more or less and sometimes very heavily, in weight between the shipping date from India and the date of delivery at port of destination.

Mr. GHULAM YASIN KHAN, Chairman of the Cotton Market Committee, Khamgaon.

EXAMINED AT KHAMGAON, NOVEMBER 17TH, 1917.

No written statement was submitted by this witness.

4181. (Mr. Wadia.) I am Chairman of the Cotton Market Committee. If there is any friction between buyers and sellers, the Committee settles it then and there after listening to the complaints. The Committee checks weighments in the yards, and also sees that no samples are taken from carts from which no purchase is made and that there is no underhand dealing. The weighmen there are private servants of the *aratyas* and are not independently licensed. We have no licensed brokers. The *aratyas* have to pay a fee of Rs. 35-8-0

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per annum to the Market Committee. No fees are charged for weighment. The *aratyas* pay two annas per cart from the income they get from the *kumbis*. The *aratyas* get a commission of one per cent. *plus* expenses which amount to about seven annas per cart. The *aratya* has to provide hands for unloading and weighmen and has also to pay the one anna cotton market fee per cart. The *aratyas* do not get any commission from the buyers. They are only allowed a commission from the sellers. The *aratya* is not allowed to buy cotton for the sale of which he acts as agent. Sometimes when the buyers get telegrams about the dealings of Bombay market, they reduce the rates. At such times *aratyas* are at a disadvantage but generally there is no difficulty about settling prices. The seller has no voice, as the *aratya* represents him and it is the latter's business to look to the interests of the sellers. I would favour the appointment of arbitrators. That would be far better. Sometimes buyers unreasonably refuse to take delivery and in such cases arbitration would benefit the seller. I would appoint as arbitrators any two persons on the buyer's side and any two persons on the seller's side and both the buyer and seller should be present at the arbitration. These arbitrators should be independent. They should have no concern with the transaction. Weighments are carried out fairly. No deductions are made. Unfair weighment is not given, because the *aratya* is responsible for the mistake of the weighman. So it is his business to check the weighman. If he is caught by the buyer, then he is responsible for his negligence. The weighman cannot be bribed as the weighing is done in the presence of both the seller and the buyer. The weighman is the servant of the *aratya* so he cannot show any favour to the buyers. Sometimes deductions are made owing to the dampness of the cotton. The *aratya* settles the rate with the buyer. The *aratya* pays the sellers at once whether he has recovered from the buyer or not. He pays from his own cash and then gets back the money from the buyer. Some of the *aratyas* advance money to the cultivator and some do not. I have no experience of what interest they charge. Though I am an *aratya* myself, I have never lent money to cultivators.

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Messrs. FINLAY, FLEMING & Co., Managing Agents, the Burma Cotton Co., Ltd.

THESE WITNESSES WERE NOT ORALLY EXAMINED.

Written statement.

I.—AGRICULTUREAL EXPERIENCE.

(a) "Deshi" short staple cotton.

4182. (1) *Experience.*—We have experience of the dry zone in Upper Burma for thirteen years.

4183. (2) *Varieties.*—The variety grown is what is generally known as "Rangoons."

4184. (3) *Size of holdings.*—The plots are small, as a rule one to five acres. All of the holding if not fallow is generally under cotton.

4185. (4) *Yields and profits.*—The yields vary greatly, running from 50 to 120 viss of *kapas* per acre.

4186. (5) *Rotations and manures.*—Occasionally millet is planted otherwise fallowed. No manures are used.

4187. (7) *Conditions affecting increase in area.*—The area fluctuates considerably according to price obtained during the previous season and incidence of rain at time of planting. Given high enough prices, the area can be increased considerably. Rainfall and probable better return from cereal crops are the chief factors in limiting increase.

4188. (8) *Uses of seed and seed selection.*—Seed not required for cultivation is crushed by the European ginning companies who have special crushing mills. There is very little seed selection practised. The big ginners are always willing to gin specially and return the seed to cultivators but the *kapas* has, as a rule, got into the hands of middlemen before it reaches the ginners. The middlemen water freely with the result of damaged seed. Given a low level of prices for *kapas*, a certain amount is hand ginned for seed. The Agricultural Department are attempting seed selection but cannot get ahead for want of funds.

4189. (9) *General economic conditions.*—We consider that while it is improbable that a long stapled cotton could be grown successfully in Upper Burma on account of the general poor nature of the soil, and uncertainty of the rainfall, a great deal could be done to improve the indigenous cotton by the establishment of seed farms. The Agricultural Department are we understand doing all they can but as mentioned above without funds, their task is hopeless. We would also suggest the farming by the Agricultural Department of three or four holdings of say five acres each in some of the largest cotton growing districts. The land should in no way be specially selected and the same plots should not be kept permanently. Conditions should make no radical change from cultivators present methods but give actual proof that by proper ploughing, some manuring (not expensive as the cultivator cannot as a rule afford this), selection of seed, weeding, etc., a very much increased outturn can be obtained. This should at the same time automatically improve the standard of the cotton obtained resulting in a higher basis of price to every body concerned.

(c) *Exotic cotton.*

4190. *General.*—Experiments were made by us with various American and Egyptian varieties as field crops and were uniformly a failure.

II.—COMMERCIAL ASPECT.

4191. (30) *Local trade customs.*—The cultivator in Upper Burma in the cotton districts is as a rule a small holder with little or no means. Two good crops in three years are considered exceptional. He is thus a poor man and as a rule has to raise money on a part at any rate of his crop before it comes to maturity. This brings in the jungle trader, a small man with a little capital. After him we get the big trader or speculator who, as a rule, does not operate to any extent until the *kapas* is actually in godown. Ginners in turn employ brokers to whom considerable advances have to be made in order to get supplies from one of the above named sources.

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Messrs. JAMAL'S COTTON AND PRODUCE COMPANY.

III.—STATISTICAL.

4192. (38) **Improvement of cotton forecast.**—The cotton forecast for Burma, so far as outturn is concerned, is generally very far out. This is probably caused by the large variation in outturn per acre and the difficulty in gauging effects of weather until the crop is actually marketed and a ginning outturn obtained.

IV.—MANUFACTURE.

(a) *Ginning and pressing.*

4193. (38) **Type and number of gins and presses.**—We have Platt's gins—60 at Myingyan, 40 at Myinmu; total 100, also a Henry Berry hydraulic press.

4194. (37) **Size of bale.**—7½ Cubic feet is the size of the bale produced by our factory.

4195. (38) **Saw gins versus rollers gins.**—We tried a saw gin but it did not compare with roller gins.

4196. (40) **Factory labour.**—Until recently labour has been plentiful but on account of the past few years of good crops and high prices, it is becoming increasingly difficult to obtain.

4197. (41) **Condition of cotton.**—*Kapas* is watered and mixed but the only remedy would seem to lie in ginners hands. Concerted action to make it unremunerative for the suppliers to adulterate should soon stop this but, under present conditions, this is impossible.

Messrs. JAMAL'S COTTON AND PRODUCE CO., LTD., Rangoon.

THESE WITNESSES WERE NOT ORALLY EXAMINED.

Written statement.

I.—AGRICULTURAL EXPERIENCE.

(a) *"Deshi" short staple cotton.*

4198. (1) **Experience.**—The company owns cotton ginneries at Myingyan in the M^oktila Division and at Allammyo in the Thayetmyo Division of Burma. Our representatives at the ginneries are in actual touch with the cotton cultivators.

4199. (2) **Varieties.**—The variety of cotton grown in Myingyan district is known locally as *wa-gale* and that in the Allammyo district as *wa-gyi*.

4200. (3) **Size of holdings.**—Holdings in which cotton is grown vary greatly in size but are mostly small, the average being probably only a few acres.

4201. (4) **Yields and profits.**—The average yield of raw cotton per acre is round 300 lb. We are unable to say anything regarding the profits per acre obtained by the cultivator.

4202. (5) **Rotations and manures.**—Manures are not usually applied. In Myingyan district, cotton appears to be cultivated without any regard to rotation whereas in the Thayetmyo district we understand most of the cotton is grown on temporary clearings worked for a single year only.

4203. (6) **Comparative returns.**—The two varieties of Burma cotton, viz., *wa-gyi* and *wa-gale* are both short staple. Exotic cottons have been experimented with but without success.

4204. (7) **Conditions affecting increase in area.**—The area under cultivation of cotton in Burma varies considerably year by year, the principal determining factor being the prices obtained by the cultivator for his cotton. If cotton prices rule high in one season, the cultivator usually increases his area under cultivation for the following season and *vice versa*. There is a possibility of the area under cultivation of short staple cotton in Burma increasing. The chief factor which would limit the increase in cultivation is price obtained for the raw cotton as compared with other crops which could be grown on the same ground. The area in Burma suitable for growing cotton is limited but undoubtedly a considerable increase in the area at present under cultivation could be effected.

4205. (8) **Uses of seed and seed selection.**—The principal uses to which cotton seed is put are—

(a) Sowing.

(b) Crushing for the expression of oil and manufacture of cake.

(c) Export.

(d) Cattle feeding.

Seed selection (for delivery to cultivators for sowing purposes) is practised by the ginners to the extent that only seed obtained from the first quality of raw cotton delivered to the factories is re-issued to the cultivators. Seed produced from inferior qualities of raw cotton is not issued to the cultivators. A certain amount of hand ginning is done in Burma. The seed obtained therefrom is utilised for sowing purposes but the bulk of the seed used for sowing is obtained by the cultivators from the large ginneries.

4206. (9) **General economic conditions.**—In our opinion, the two varieties of cotton grown in Burma, viz., *wa-gyi* and *wa-gale* are perhaps the most suitable for the conditions and climates of the respective districts in which they are cultivated. Experiments with exotic cottons have not been successful. Useful experimental work is being done by the Government Agricultural Department in endeavouring to improve the present varieties of cotton by careful seed selection and cultivation. Results so far obtained are encouraging. Experiments so far have been on a small scale only. The cultivator makes no attempt at selection of raw cotton. He mixes good and inferior qualities indiscriminately, his object being to obtain a uniform price from the millers for his produce. It is impracticable for the ginners or millers to re-grade the raw cotton after it has been carefully mixed by the cultivator. If the cultivator would grade his raw cotton according to quality and deliver it without mixing to the ginners, he would be able to obtain for seed purposes from the ginners seed produced only from the best raw cotton. Ginners have endeavoured for years past to impress this on the cultivators but with only partial success. If the cultivator could be made to understand that by grading his cotton as above, the yield obtained the following year from the superior seed would amply reward him for the trouble taken at time of plucking in grading his cotton, our opinion is that the result would not only be a larger yield of raw cotton per acre but also a longer and more uniform staple cotton.

Burma.]

Messrs. JAMAL'S COTTON AND PRODUCE COMPANY.

[Continued.]

(2) In our opinion, the best results in improving the standard of cotton cultivation in Burma are likely to be obtained with the assistance of the Agricultural Department. This Department would at present appear to be handicapped through insufficient staff. The ginners would gladly assist, as far as it lay in their power, the efforts of the Agricultural Department to improve the cultivation of cotton. Perhaps the most disastrous factor affecting the cotton trade in Burma in recent years has been the pernicious practice indulged in by some cultivators and middlemen of adding water to their raw cotton before delivery to the ginners. Cotton which has been 'watered' very soon heats when stored in large quantities. The result is that fermentation sets in, and the seed becomes damaged and unfit for sowing purposes. The lint is also damaged both in colour and strength. This practice of watering cotton was very prevalent in Burma a few years ago. The ginners have now practically entirely stamped it out by refusing to accept cotton which has been watered. It is not, however, always possible for the ginners to detect cotton which has been watered. The object of the cultivators in watering their cotton is to increase the weight and thus obtain a larger return for their produce.

(c) *Exotic cotton.*

4207. **General.**—Long staple cottons are not grown in Burma. Experiments with exotic long staple cottons have so far proved abortive.

II.—COMMERCIAL ASPECT.

4208. (30) **Local trade customs.**—The larger firms owning ginneries appoint agents at the principal stations or villages in the districts. The agents buy the raw cotton through brokers who deal direct with the cultivators. The bulk of the cotton crop in Burma however is brought direct to the ginneries by the brokers. The ginneries are situated more or less in the centre of the cotton growing districts. The firms advance money to the brokers who buy the raw cotton from the cultivators. The brokers are paid a brokerage by the firms. It is a common practice for ginners to make contracts with brokers for a specified quantity of raw cotton to be delivered within a definite period at a fixed price. A certain amount of raw cotton is brought direct to the ginneries by the cultivators but, as a rule, the cultivator prefers to sell to the brokers who take delivery of the cotton on the spot and thus save the cultivator the trouble of taking his cotton to the ginneries.

4209. (31) **Standardization of commercial names.**—There are no generally recognised standard commercial names for the various grades of raw cotton in Burma. The cotton is delivered at the ginneries in carts containing about 200 viss on an average. The ginner examines each cart of cotton and grades it No. 1, No. 2 or No. 3 quality according to his standard of classification. No. 3 quality at one ginnery does not necessarily correspond with No. 3 quality at another ginnery. We do not consider it practicable under present conditions to standardise the different grades of classification.

4210. (32) **Buying agencies.**—The present system of buying agencies as outlined in answer to question 30 (paragraph 4208) is in our opinion the best suited for Burma.

III.—STATISTICAL.

4211. (33) **Improvement of cotton forecast.**—The Government cotton forecast as at present published supplies useful information as to the acreage under cultivation and is, in our opinion, sufficiently accurate.

4212. (35) **Publication of Liverpool and Bombay prices.**—Most if not all of the ginners obtain regular information regarding cotton prices ruling at Liverpool, etc. We do not think any useful purposes would be served by a daily publication of Liverpool and Bombay Cotton prices at upcountry markets.

IV.—MANUFACTURING.

(a) *Ginning and pressing.*

4213. (36) **Type and number of gins and presses.**—We use Platt's roller gins. Our Myingyan ginnery contains 100 gins and our Allammyo ginnery 60 gins.

4214. (37) **Size of bale.**—The size of bale produced is 3ft. 1 in. x 3ft. 1 in. x 1ft. 7 in. or say 7.75 cubic feet weighing about 400 lb.

4215. (38) **Saw gins versus roller gins.**—We have no experience of saw gins but understand they are unsuitable for short staple cotton.

4216. (40) **Factory labour.**—Difficulty is occasionally experienced in obtaining a sufficiency of labour at the ginneries (especially pickers) during the height of the season when all the ginneries are working full bore.

4217. (41) **Condition of cotton.**—Please see our answer to question 9 (paragraph 4206). The ginners would much prefer that the raw cotton be graded by the cultivators and not delivered in a carefully mixed condition as is at present the practice in Burma. If the cultivators would keep the different qualities separate, the ginner would be saved the trouble and expense of picking over the cotton and would be able to pay the cultivator a correspondingly higher price for his cotton.

(b) *Spinning and weaving.*

4218. **General.**—There are no spinning factories in Burma. We understand Burma cotton owing to its short staple is unsuitable for spinning unless mixed with long staple cotton.

V.—GENERAL.

4219. (46) **Attitude of buyers to improved cotton.**—Ginners would gladly pay a higher price for improved raw cotton corresponding to the higher value obtainable for the cleaned cotton in consuming markets.

VI.—IRRIGATION.

4220. (68) **Fluctuations in river supplies and their effects.**—The rivers increase rapidly at the beginning of the rains say June and gradually decrease October onwards. The rising and falling of the rivers has little effect on the cultivation of cotton in Burma. Rainfall is the principal consideration. The cotton is sown at the beginning of the monsoon season. We do not think irrigation enters largely into the question of increasing the cultivation of cotton in Burma.

4221. (73) **Deshi versus American cotton.**—Our experience is that the Burmese cultivators are very conservative in their ideas of cultivation and are very reluctant to experiment with new varieties of cotton

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IV.—Punjab.

Mr. CH. MOULAKIS, Agent, Messrs. Ralli Bros., Amritsar, Punjab

EXAMINED AT LAHORE, JANUARY 9TH, 1918.

Written statement.

I.—AGRICULTURAL EXPERIENCE.

(a) "Deshi" short staple cotton.

4222. (1) **Experience.**—I was stationed in Sind for seven years and have been in the Punjab for the last five years. I came into actual touch with the cultivators in Sind, but do so only occasionally in the Punjab.

4223. (7) **Conditions affecting increase in area.**—The area under cotton fluctuates; the tendency for it is to go on increasing. The factors, influencing the area sown yearly with cotton, are principally economic ones. An increase in prices of cotton will always bring about an increase in area, and a slump in prices results in a shrinkage of the area by discouraging the grower, who only extends his cotton cultivation at the expense of other crops, in the hope of better returns.

(2) The climatic conditions at the time of sowing have also an influence on the area put under cotton. Seasonable and favourable rains account for a larger area in unirrigated tracts being sown with this crop. On the contrary, the area diminishes, if the rainfall is insufficient or if unseasonable and excessive rains damage the sowings or cause failure of germination.

4224. **Bad handling of cotton.**—Under favourable conditions, there are possibilities of a great development of this crop. An increased yield as well as an improvement in quality may confidently be anticipated in the course of time. The way, however, the *kapas* is handled in the field, market and, to a much greater extent, in the factory, is not conducive either to preserve the quality of cotton up to the necessary standard or to arrive at the best results for selection of seed. This selection would gradually bring about both an increase in the yield per acre and a higher ginning outturn of lint, thereby making the crop more paying and consequently more attractive to the grower. The *kapas* is mostly picked early in the morning, damp with dew and collected in the shadier part of the field often in the empty irrigation channel, so that not only should it not lose any of its dampness, but with a view to absorb more moisture before it is carted away for marketing. This affects the colour of the *kapas*. Deliberate damping of *kapas* is not practised and only occasional cases have come to my notice. All *kapas* from a field, good, bad, or indifferent, ready for picking at a certain time, is picked together. The *kapas* suffers further by bad handling in the markets, where the cartloads have to be unloaded in the *mandis*, being repacked in bundles when sold and removed to the factories. All this unnecessary handling and throwing on the dusty or damp ground affects the quality.

(2) In markets where *kapas* is sold in carts and then removed to the factories without further handling, better qualities are invariably obtained. What the cultivator commences unknowingly and because he had no inducement to do better, the ginner completes by deliberately mixing all his purchases, in the attempt of turning out a uniform quality, and by bad handling and ginning, due mostly to the inadequate means at his disposal, and his short-sighted policy of preferring an immediate likely better return to all future possibilities.

4225. **Recommendations in regard to increase of production and improvement in quality.**—If the desired increase of production and improvement in quality is to be secured, (1) the grower should be made to realize that the price to be obtained for his crop depends, not only on the actual outturn of *kapas* per acre, but also on the percentage of lint in the *kapas* (the price of *kapas* being based largely upon the amount of lint it yields) and (2) on the standard of purity of *kapas*. The ginner also should be induced to increase the standard of purity and general condition of the cotton.

(2) What is required is—

- (1) In the fields—Stimulation of improved methods of cultivation and a certain selection of *kapas*, not only by the Agricultural Department, whose work comes under the notice of comparatively a small number of people, but by the large landowners. There is no better inducement to a ryot to adopt an innovation than to see his neighbour growing better crops or adopting methods through which he gets more money.
- (2) In the market—Marketing of all grades separately with as little handling as possible.
- (3) In the factory—Careful grading at the factory of all *kapas* and separate ginning of each grade after proper drying and picking, in order to preserve the purity of the grade and increase the standard of quality.
- (4) Seed of the best grades to be kept separate by gimmers and sold for sowing purposes to cultivators at the price of ordinary seed. This would bring good seed within the reach of the cultivators comparatively in a short time, and prove a very effective method of spreading the use of seed of any strain that would be recommended.

(3) At present, the only work in seed selection is done by the seed farms and seed unions, but their number is inadequate, and they can only supply very limited quantities of seed. Gimmers in the meantime can greatly help in the direction of seed selection, and I beg to give an instance. When Messrs. Ralli Brothers erected their ginning factory in Mirpurkhas (Sind) in 1907 the average yield of lint per maund of *kapas* in the district was 12 seers 8 chataks at most. Under the guidance of the Agricultural Department and with the assistance of Messrs. Ralli Brothers, who had been setting aside the seed of the lots of *kapas* giving the highest lint outturn and had supplied the same to the cultivators at equal rates with ordinary seed, the gradual improvement of the crop was secured, and in 1913, when I left the district, the average yield of lint per maund of *kapas* stood between 13 seers 4 chataks and 13 seers 12 chataks.

(c) Exotic cotton.

4226. **Requisites for success.**—The success of the exotic varieties is governed by the principles mentioned above. The variety of long-stapled cotton which will give a larger acreage profit over other cottons (taking into consideration the more expensive and careful mode of cultivation it requires, and the greater length of time it takes from sowing to harvesting, and also the greater risks from the vicissitudes of the weather) is sure to find favour with the grower, and be given preference over less profitable varieties.

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4227. **Dangers of adulteration and deterioration.**—The dangers of the adulteration and of the deterioration of these classes of cotton are much greater than for ordinary varieties, and may be sub-divided into two categories, the remediable and the unremediable ones.

(a) **Remediable.**—I consider as such those resulting from bad selection of seed, defective cultivation, deliberate mixing, and bad picking in the field, market and factory. Also bad ginning.

(b) **Unremediable.**—Those dependent on the poor nature of the soil and the vicissitudes of the weather.

The methods enumerated above for *deshi* cotton, if applied more strictly in this case, will meet most of the dangers.

4228. **Remedies.**—The gimmers can do a great deal gradually to reduce the dangers of deterioration and adulteration to a minimum—

1. By buying each lot of *kapas* on its own merits of purity, and standard of quality, thus teaching the grower that it is to his advantage to keep separate the different grades of *kapas* and offer them for sale separately.
2. By judicious selection and classification at the factory of all grades and the separate ginning of such grades.
3. By strict and careful selection of all *kapas*, the seed of which is to be kept separate and sold to the cultivators for sowing.

II.—COMMERCIAL ASPECT.

4229. **Necessity for control of ginning factories.**—The part played by the ginner in all likely improvements regarding cotton is so great that without his co-operation very little can be attained. In order to secure his co-operation, I am strongly in favour of some kind of control being exercised over all factories.

(2) No factories ought to be allowed to be put up before plans have been submitted and approved and all new as well as existing factories to be allowed to work only after obtaining a license to this effect.

(3) Factories ought to be provided with adequate space for proper drying, storing, and handling of *kapas*. The evils resulting from insufficient space cannot be emphasized too strongly. The building proper of the ginnery ought to be on a model that would minimize the risks of unintentional adulteration. The principal improvements that I would recommend are—

1. Spacious *kapas* platforms behind the gins.
 2. A mechanical contrivance for carrying *kapas* on to these platforms or, if this is difficult in practice, a separate entrance leading to these platforms for the men carrying the *kapas*.
 3. All gins to be fitted in front with a board of twenty to thirty inches high to prevent part of the *kapas* thrown into the gins from falling over into the ginned cotton.
- The above will prevent much of the mixing of ginned cotton with *kapas*.
4. Small lattice-work platforms to be placed on the *kapas* platform before each gin; the *kapas* in handfuls should be shaken on these platforms before it is thrown into the gin.
 5. Similar lattice-work platforms to be fitted on the floor before each gin, where the ginned cotton drops from the roller.
 6. The front plates of the gins should be properly fitted, and should not allow any seed to drop, as it does at present, where the ginned cotton is.
 7. Automatic transport of cotton seed.
 8. Factories ought either not to work at night or otherwise be well lighted with electric light.
 9. Proper setting of gins with a view to the better mode of ginning and not only with a view to better outturn per gin.

(4) Licenses to be granted to all new factories on the above stipulations, and non-compliance with any of these regulations to be regarded as an offence. Existing factories to be given a period (say six months) within which to conform with the new regulations.

4230. **Necessity for change in attitude of trade to cotton of improved quality.**—An improvement of quality means a certain loss in weight of *kapas* through dryage and cleaning; there is also greater expenditure on labour, etc. It would be natural, therefore, and necessary for the trade to encourage the efforts of the ginner (as the ginner will be expected to encourage the grower) by giving preferential treatment to better qualities and paying prices that would compensate the ginner for any likely loss, expenditure, or trouble for turning out better qualities.

(3) As far as I am aware, buyers contract for cotton of fair average quality of the season, and pay no premium if they are offered better cotton at the time of delivery, and are unable in many cases to fix allowances, if the cotton offered is inferior. So they encourage the turning out of a uniform quality, and indirectly of turning out inferior qualities. The ginner, who has to turn out one quality in his turn, does not encourage the grower to offer his different qualities of *kapas* separately by paying preferential rates for good clean parcels, but regulates his prices by offering an average rate for the day's arrivals.

4231. **Pools and pressing returns.**—Pools are organized for the benefit of their members at the expense of the grower. Pressing returns are helpful to the trade, and I am in favour of having them published weekly.

Mr. CH. MOULAKIS called and examined.

4232. (Mr. Henderson.) I will first state my experiences of the American cotton that I bought in Sind. The quality was very good but the drawback was that it did not give the same return per acre as *deshi*. I have not much experience of long staple cotton but I should think that it was about the same as 4F. I have not been buying any American cotton in the Punjab. I have been buying all *deshi*. There was American cotton at Lyallpur when I was there. One of the difficulties in dealing with American cotton in Sind, was that there was a prejudice against the seed. The cultivators objected to it as they said the cattle would not eat it. The premium paid for American over *deshi* was very small, in fact, in some cases there was no premium at all because of the lower ginning percentage of the American. For this reason we bought often American *kapas* in Sind practically at the same rate as *deshi*. There was no encouragement to the cultivator to grow it as it required more cultivation and was not giving a better return than *deshi*. I think that there are good prospects of success for American cotton in Sind if the cultivator got a proper price for it. I have seen fields of American cotton in Sind which looked much better than *deshi* cotton. I have seen plants over six or seven

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feet high. The *zamindars* said that they could grow the crop but that it did not pay them to do so. I did not hear any objection on account of leaf light. The amount of money that the cultivator would get from his crop would be the deciding factor as to whether this variety would find favour with him.

4233. I was in charge of Ralli Brothers' factory at Mirpurkhas. In certain districts in Sind, such as Shakhoblit, the *kapas* gives the very high ginning percentage of as much as fifteen seers per maund. In these districts, the cultivators only sow the seed that they themselves have hand-ginned so that the purity of the seed is retained. They do not buy their seed from the ginning factories. At Mirpurkhas the ginning percentage was very low; it was about 12 to 12.8 at best. The Agricultural Department at that time were trying to improve the ginning percentage. Of course, in a big district, it was very difficult to select seed. We tried on our part to improve it. We imported every year a large amount of *kapas* from Shakhoblit, and other places, ginned it and kept the seed separately. We used to ask the cultivators who came to the factory for seed, whether they wanted seed for feeding their cattle or for sowing purposes and if they required it for sowing, we gave them the special seed at the same price as ordinary seed and told them not to use it for feeding cattle. The Agricultural Department recommended all the cultivators to buy seed from us because they knew that ours was a selected seed. The very first year, there was a noticeable improvement and the ginning percentage began to increase. Up till now the improvement has been permanent. The trade revenue of the Jamrao district has increased considerably in consequence. From a maund of forty seers, we used to get 12½ seers of lint. Now from the same amount we get 13½ seers; so that there has been an increase of at least a seer. There have been lots which gave 14½ seers of lint to the maund of *kapas*. I think the cultivable area commanded by the Jamrao is about six hundred thousand acres, so that naturally there has been considerable increase in the crop.

4234. Co-operation between gineries and the Agricultural Department is quite a feasible thing so long as there is some kind of control over the factory owners. I do not think they would be willing to give their assistance. There must be some control in some way or other so that they should be made to help, because after all it is to their benefit to do so. I did not find any difficulty in persuading the cultivators to take the seed. I have come across native factory owners in many places trying to make a little more money from the seed by selling inferior seed to the cultivators at the rate of good seed. I certainly think that there is an opening in Sind for this class of work by collaboration because if seed selection is not kept up, the cotton naturally will deteriorate. Seed selection must continue. It is not necessary to import all the seed because the seed of the Jamrao tract at present is just as good or better in some respects than the seed which was originally imported. I should think that the firm of Ralli Brothers would be very willing to help in a matter of this kind especially as it would be also to their interests. I cannot of course pledge them to anything.

4235. I came to Sind towards the end of the growing of Egyptian cotton. It was a delicate crop and was attacked by bollworm. A great mistake that was made, in my opinion, about this crop was that people who had no experience of this variety of cotton were allowed to commit themselves to forward sales exceeding the actual production of the crop. These people in order to fulfil their contracts encouraged the picking of all inferior *kapas* and got together all sweepings as long as same were coming out of Egyptian cotton plants. The result was that the cotton turned out was inferior and the reputation of the variety was spoilt. I do not think that Egyptian cotton has really had a fair trial on its merits. In the first year, it was a success, in the second year, the quality was spoiled by middlemen as just explained. I do not think that there is anything against Egyptian cotton in Sind. As far as the quality of cotton went, I heard that the first year's crop which had been picked pure was sold at a very good price and compared very favourably with real Egyptian. It is a matter of organization; if it is well organized, my belief is that it will be a success. The seed for sowing and particularly the *kapas* should be carefully selected, because cotton plants of different varieties are bound to be found in every field and the strain will never be kept pure without such selection. If the cultivator was left to his own devices, he will pick all the *kapas* and mix it together. What is required is organization and selection. The whole thing can be greatly assisted by the ginning factory owners. If the work of the ginning factories is regulated, the selection of *kapas* as well as of seed will come by itself. If a factory owner pays a certain price for a certain quality of *kapas* and proportionately less for an inferior quality and refuses to take mixed stuff, the cultivator will be taught to select his *kapas*. It will be to his interest to do so. That will enable pure Egyptian cotton to fetch a big premium. The ginning percentage of Egyptian cotton was poor but I think it would pay if it were carefully selected. The cultivator will always give preference to the cotton that pays him best whether it is *deshi*, American or Egyptian. There is an opening in Sind for capitalists to take up land and grow Egyptian cotton, but the Jamrao canal must work regularly and not give the difficulties which have been experienced in recent years.

4236. As to the comparative merits of cotton in the Punjab and in Sind, I am not an agriculturist, but I think that in Sind the percentage of the lint of *deshi* cotton is higher than it is in the Punjab and that cotton is generally better treated in Sind than it is in the Punjab. In Sind, no *kapas* is ginned unless it is previously dried and cleaned a bit. As to the comparative yields per acre, they are higher in Sind, where picking goes on for a longer period. I think in Sind we can reckon safely on six or seven maunds of *kapas* per acre taking the average of the districts, whilst in the Punjab, I doubt whether it comes to more than four in both the irrigated and unirrigated areas. The limiting factor in Sind is that cotton is confined more or less to the south. I think there is scope for the cotton in the north of Sind. I was only a short while in Sukkur. I think that the people did not grow cotton there because they did not know the crop they had never tried it before and they did not know what return it would give them. If people were anxious to grow cotton, I do not think there would be any difficulty about it.

4237. I think that attempts in the past to grow exotic cotton in Sind failed through want of proper organization. It is true that the staff of the Agricultural Department was rather a small and the tract was a very big one but, no matter how big the staff of the Agricultural Department is, it will be insufficient to deal with the problem unless it has the co-operation of the trade and of the ginning factories.

4238. The Indian cultivators, as a rule, are not prepared to take good advice when it is given to them. They want demonstration. It is not sufficient to grow things on the Government farm to convince them; they point to the amount of money spent and the conveniences the Government farm people get in regard to water supply and so on, but if they see that their neighbours are growing some thing which pays, they naturally do likewise the following year. I do not think that the staff of the Agricultural Department will ever be too much. A large extension of the Agricultural Department would do immense good to the country.

4239. (Mr. Roberts) Cotton growing is getting popular with the cultivators because it pays them better than any other crop. It is my experience both in the Punjab and Sind, that cotton pays better than wheat in most tracts. I have been in the Punjab for five years. I came here at the beginning of 1913. I was

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stationed at Lyallpur, and in charge of practically all the districts from Wazirabad to Shorkot Road in one season. Since then I have been in Amritsar. I did not buy any American cotton when I was at Lyallpur. I have seen 4F, and thought it a nice cotton of long staple. I tried to buy some at the auctions but I was overbidden by the ginning factory owners who were selling it at Bombay.

4240. I should like to explain the system of buying in the Punjab and how it works against the improvement in quality. The buyers commence buying cotton on contracts before the crop comes in. In such contracts, no particular quality is mentioned but only fair average quality of the season's production. When the time of delivery comes, buyers have to accept against their contracts any cotton turned out by the sellers factory as long as such cotton is not very much lower in quality than the cotton turned out by the other factories in the place. All buyers do not naturally buy blindly but make their own estimate of what the quality of the crop is likely to be for the season and offer prices accordingly. If they are offered better cotton at the time of delivery than the quality of their original estimate on which they fixed the contract price, they pay no premium to the seller. But neither can they recover any allowances, if the cotton offered is inferior, and more or less uniform in all the factories of the place. In the first instance, their business shows a profit, in the second a loss. This gives no inducement to the sellers (factory owners) to improve the quality of their ginning, but on the contrary, encourages them to turn out the lowest possible quality that would be passable against their contracts. They won't spend anything in cleaning or drying the *kapas* because the more impure the cotton, the more the weight and the more money they will get for it.

4241. In the same way, the cultivator has no inducement in any way to pick his *kapas* separately and offer good *kapas* to the gineries separately because the ginner pays the same price for good, bad and indifferent *kapas*. If the factory owner were to go to the market and pay for a cart containing better quality Rs. 13 and for carts containing lower qualities Rs. 12.8 or Rs. 11, the cultivator would see that it was to his interest to pick his *kapas* separately and to keep it separately.

4242. Apart from personal efforts by members of the Department, I should say that if the work of the factory owners were regulated by some kind of legislation or other, co-operation would come by itself. At present, the cultivators buy most of their seed from the factory owners and if the factory owner were compelled to select the *kapas*, the seed of which he was going to sell to the cultivators for sowing his co-operation on this score would be complete. I do not think it is against the interest of the factory owner to try and do some seed selection, because he would be the first man to benefit from it. A good deal of mixing, both intentional and unintentional, takes place in the ginning factories. It is the unintentional that could be very well prevented by taking certain steps recommended in my written evidence.

4243. (President.) It would be a great stimulus to the extension of cotton like 4F and Sind American, if there was a standard trade mark for it on which it could be sold in the Liverpool market on the basis of a type quoted in India. The thing is that there must be some standard so that a new cotton can establish itself with the trade. You cannot merely offer the buyer at home Sind American or Punjab American, a quality which he has not seen before. He must see a sample, and try it; he must be certain of what he buys and as to the quality that he will get. A new cotton has therefore to establish its market. The present time is very favourable for getting to a standard; owing to the difficulties of freight, very little American cotton is coming out. Indian mills have been buying Punjab American largely and naturally it will establish itself.

4244. As to forecasts, I find that they are fairly reliable. We make very elaborate ones ourselves; the difficulty is that we have not got the same distribution of districts as Government and it is therefore very difficult to compare our figures with those of Government. The Government forecasts are fairly accurate for the districts I have been able to check. The dates of publication are fairly suitable from the trade point of view.

4245. As to the returns from gins and presses, I consider them very necessary as, if they were complete, they would enable the trade to get an accurate idea of the crop. I think that submission should be made compulsory. They do not entail any extra expense or trouble to the factory owners. They have got their figures and all they have to do is to total them up and send them. I would have submission made compulsory by legislation.

4246. (Mr. Wadia.) As to classification and whether I would suggest that Sind should be separated from the Punjab for the purpose of classification in Bombay, I have no experience of what is done in Bombay. In the matter of classification, as long as there is the Cotton Trade Association in Bombay, every seller and buyer can refer any dispute about classification to the Cotton Trade Association and the difficulty is overcome because each side is bound to get the right valuation of the cotton whatever the quality is. Whether you call it Sind Punjab or anything else, it comes to the same thing as long as you get the right amount of money for the cotton. The trade have a good deal of faith in the Bombay Cotton Trade Association. If pure American cotton is sent to Bombay, I would suggest separate classification. I think that the arbitration rules of the Bombay Cotton Trade Association work fairly both to the buyer and the seller. I am aware of the clause which gives the buyer the option when the final award for inferiority of quality is in excess of Rs. 5 per *khandi* either to take the cotton at the allowance fixed or to refuse it. Take a case in which a mill or a buyer makes a forward contract for so many bales of Sind Punjab fine, when the cotton is tendered for delivery in Bombay, if the arbitrators fix more than Rs. 5 allowance for inferiority of quality, the mill or buyer would have the option of either taking the cotton with that allowance or of rejecting it. If the mill or buyer rejects it, the seller has always the option of reselling to some one else on the actual merits of the cotton. As to the arguments that he does not suffer because he can always dispose of the cotton, I should say that he is liable to suffer because in the *mandi* or market the rate might be quite different and much lower at the time. If protection of this nature is to be afforded to buyers, why not have it for everybody? You must not protect the millowners alone. The same rule must apply to all three, gin owner, seller and millowner, and must be applicable everywhere. If a millowner buys a certain class of cotton, he does not want to get anything below that, because for the class of goods that he wants to turn out, he cannot permit any lower quality to be tendered so, he stipulates in his contract that he must get "fine." If it is below that class by more than Rs. 5, he refuses it and then the seller in his turn must have the option, if the ginner tendered to him cotton more than Rs. 5 lower than "fine" (if the contract is for "fine") to reject it also. It is the business of the ginning factory owners to know what will be the quality he will turn out and to sell accordingly. I do not favour a set of arbitrators at up country markets. Factory owners may want their money at once but in that case, they can always get eighty per cent. of it on the railway receipt and the difference after the final award of arbitration. If this system of selling on quality is established, the cultivator will eventually get a better price and so will the factory owner who sells the cotton. The cultivator will also be taught to keep his stuff cleaner.

Punjab.]

Mr. CH. MOULAKIS.

[Continued.]

4247. There are no platforms in the compounds of ginning factories in the Punjab for drying or stacking *kapas*. There is very little accommodation in all the factories. As a matter of fact, we have no factories with proper all-round arrangements in the Punjab. The only cotton dried in the factories is cotton that the factory owner is afraid may rot. *Kapas* is put anywhere in the factories even in places where coal has been previously thrown. The *kapas* is thrown there and left. Large platforms should be constructed. There is great difficulty in ginning damp *kapas*. The first year I was at Mirpurkhas, the rains were exceptionally heavy, and the whole place was flooded for days and the *kapas* that we had in the factory got badly damaged. Although the gins next year turned out six to seven maunds of lint a day, we could not gin three maunds that year on account of the dampness of the cotton. It does not pay to dry it because it loses in weight. There is no deliberate damping, so far as I am aware except in a few cases in Jullundur where *kapas* is brought in deliberately damped. In other places they throw a little water on the ground to lay the dust and then put the *kapas* on it. All over the Punjab, *kapas* is brought in loose, in cart loads. Small quantities are brought in gunnies or *boras* on donkeys.

4248. The best class of *kapas* coming into the market should be picked out and made a separate quality. Different pickings of the cotton are mixed together at present: the first pickings are very often very inferior whilst the second and third pickings are as a rule of the very best quality. If the first pickings were kept separate, and the second and third pickings, i.e., the best part of the crop, were kept separate and also the fourth and last pickings, which are also inferior, naturally there would be two different qualities—one consisting of the first and last and one of the middle pickings. The latter would be better in class, in strength, in staple and in every way. That is what I meant by selection. It is not done now. The pickings are not brought in separately because the cultivator knows that he will get the same price for all his *kapas*. He keeps his first pickings back and mixes them with the others. This year heavy rains in October damaged the *kapas*. Arrivals were later than usual because all the cultivators kept all the bad *kapas* back in order to mix it with the better *kapas* of latter pickings and sell it at the same price.

4249. There is a great deal of mixing of American and *deshi* cotton in Lyallpur. I was only in Lyallpur for a year but during that time I often went with Mr. Roberts to the factories and we tried to find out the exact percentage of American cotton in the cotton which was called American. It is very difficult to say; I do not think there is any expert who would find out the exact percentage from the cotton itself. You can only say it is not pure American. It pays the factory owners to mix even if the mixture contains fifty per cent of *deshi*. This mixing is due first of all to the trader who does not give the necessary encouragement to ginning factory owners. The first thing to be done to put a stop to this adulteration is to regulate the work of the factory owner. The ginning factories are to blame but the trade is also to blame because they do not buy on a certain guarantee of purity and quality in order to induce the ginners to improve their quality. If the factory owner knew that he had to deliver a certain class or to pay a penalty, then he would turn out that class. The arbitration rules in Bombay should be made applicable to ginning factories in the *mofussil* so that they should sell on a certain quality and not sell blindly on the fair average quality of the crop. Cotton should be sold on mutual allowances. If the seller delivers better cotton, he should get a better price and if he delivers inferior, he should receive so much less for delivering a lower quality.

4250. I think licensing would be the best method of exercising control over ginning factories. I think this should be done by legislation. No factory should be allowed to be put up or worked unless it had a license. I know that there was a Cotton Frauds Act in Bombay which had to be repealed principally on account of abuses of the staff employed to work it. It is very very difficult to give an opinion as to how to prevent undesirable people being employed to carry out the work. Risks have always to be run in matters of this kind. All the heads of Departments in a place where a factory is situated, for instance the Deputy Commissioner and the Deputy Superintendent of Police might be *ex-officio* inspectors of factories. I would go so far as even to have a few honorary inspectors like the agents of European firms who have experience in the line. There might be trade jealousy on account of this, but you could not very well avoid that. I think licenses should be granted by the Commissioner of the Division and not by a central body. It will be the buyer's duty to bring any irregularities to the notice of the authorities.

4251. I do not think that each bale should be marked on the flat of the bale with the name of the ginning factory. Buyers buy cotton from different ginning factories in a loose condition and then have it pressed and they very often mix two lots together to make a uniform quality. Suppose they get from one factory cotton a little higher than "fine," and from another cotton a little lower than "fine," they mix both to make "fine" out of it. In Bombay and Karachi they do not know from which factory the cotton has come. I do not think that I would advocate that, as a condition of license for a pressing factory, the name of the station should be marked on the bales. I do not think it is necessary.

4252. As I said just now, there is not a press attached to every ginning factory. The buyers will be the people who will bring any irregularities to the notice of the authorities. The authorities must visit factories from time to time and see what is going on. You cannot control the factories from head-quarters when cotton goes to Bombay. You must control the factories at the time they are doing the work. It is no use trying to put them right after they have done their work. If the factory owner does anything against the regulations, his license should be suspended and he will be very careful in future not to repeat the offence. I would have the license suspended according to the nature of the offence.

4253. In my written evidence, I have suggested the construction of small lattice work platforms. The idea is that there always is a lot of dry leaf and dust adhering to *kapas* when it is carried into the factory. If it is shaken off from these *kapas* platforms, the leaf will go through the lattice work and the *kapas* will go cleaner to the gin. As a matter of fact, there are such platforms in Sind. The mesh should be such that the *kapas* will not fall through—say about a quarter of an inch. The *kapas* platforms are narrow in all ginneries. I should think that the bigger they are the better. The minimum should be about eight to nine feet, because what happens is this: *kapas* is piled on the platform late at night and early in the morning to keep the factory working during the day time and to have enough to start it at 5 o'clock in the morning. It is therefore piled up to such an extent that it falls over the gin into the space where the cotton falls between the two lines of gins. As to the lint platform between the two gins, the bigger it is the better. We have not tried the boards, suggested in my written evidence, in our factories. That is a simple contrivance, and I think it a very good one. The board should be made removable so that it would not interfere with the setting of the knives of the gins. As to the lattice I have suggested in front of the gins, half an inch mesh I think would do. Cotton would not fall throughout. We have tried some of the automatic feeders and they were not successful.

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4254. Some factories are very badly lighted. Even where there is electric light, the light is very bad. There are not many lights and the dust is allowed to accumulate on the lamps.

4255. I do not think that the speed at which the gin is worked has anything to do with the quality of the cotton, especially in Sind. What effects the quality of the cotton is the speed at which the roller works and not that of the knives. Gins of all factories are not regulated at the same speed. The knives are sometimes regulated so as to allow crushed seeds to go through. If the gin is properly set, no crushed seed can get through. It is difficult even for small leaves to get through. The diameter of the roller is not always the same, owing to the leather wearing out. Small diameter rollers are, of course, against the interest of the factory owners. The smaller the roller, the less the outturn of the gin.

4256. In the Punjab wherever there are pools they are of two kinds. In one kind of pools they fix the rate of ginning and pressing at a certain rate. They also fix their cost of pressing and ginning at a certain rate. The difference between the rates is distributed among the members of the pool according to the greater or smaller number of gins they have got. All that naturally has to come out of the price they pay for *kapas*, and make the price of *kapas* so much lower. In the other kind of pools, the ginning price is fixed at a certain figure and every one who buys *kapas* has to pay into the pool eight annas or four annas per maund of *kapas* he buys. They do not regulate their pool profits in this case according to the price of ginning or the price of pressing but according to the quantity of *kapas* bought from every *mandi*. This kind of pool fixes the price to be paid for *kapas* in *mandi* daily. The natural result of the pools is that there are more factories than there is work for. Ginning factories are often put up simply with the object of sharing in the profits of pools. Every body who has a few thousand rupees and wants to invest it whether he be a pleader or a doctor, puts up a ginning factory to share in the profits of the pool whether he works the factory or not. I do not think it is necessary to make it a condition of a license that ginneries should work at least a couple of months or so. I suggest that pools should be abolished by legislation on the lines of the Trust Laws in America.

4257. (Mr. Hodgekinson.) It should be the same thing whether the gins work for themselves or on commission. The person who holds the license should be responsible whether he works on his own account or for anybody else. There should be a standard plan for a model ginning factory. It would not be very difficult to get one of the engineers who has got experience in that line to draw up a plan.

4258. (Mr. Roberts.) I have heard there was a plan in print drawn up by Mr. Brooker. I have seen a contrivance for carrying *kapas* to a certain part of the *kapas* platform of the factory. That was in Sind in one of the native factories—Pallumall Tawardass. The *kapas* was carried by an elevator to the platform into the factory and from there distributed.

Mr. F. G. MILLADIS, Agent, Messrs. Ralli Brothers, Lyallpur.

EXAMINED AT LYALLPUR, JANUARY 11TH, 1918.

Written statement.

II.—COMMERCIAL ASPECT.

4259. (30) **Local trade customers.**—The *kapas* is principally sold by the *zamindars* to the village *banias* who after taking delivery in the villages bring it to the ginning centres for sale through the middlemen (commission agents). The village *banias* receive advances from their commission agents, which the former distribute to the *zamindars*, thus binding them for the sale of their products at rates fixed at the time. There is very little or practically no contracts business on *kapas* in the *mandis* in the Chenab colony.

4260. (31) **Standardization of commercial names.**—There are no commercial names for the various grades. So far as the local markets are concerned, simply they sell cotton at higher and lower prices according to the differences in quality. This is the position in this colony. Of course, the commercial names could be standardized if they introduced standard classes for the various qualities.

4261. (32) **Buying agencies.**—The best form of buying would have been if the *zamindars* could be induced or in some other way helped not to depend on the *banias* for the marketing of their produce but to bring the stuff themselves in to the *mandis* and sell it at the market values of the day which would have been profitable to them and the trade generally. By this way there will also be general improvement in the quality of both *deshi* and American as the *bania* is the chief cause of adulteration.

III.—STATISTICAL.

4262. (33) **Improvement of cotton forecast.**—The final forecast in this colony is as near accurate as possible. Closer and stricter supervision from the part of the canal and revenue officials would minimize any possible differences.

4263. (34) **Improvement of other statistical information.**—Press returns cannot give full information to meet statistical purposes as cotton is also despatched in loose condition to other districts. In 1914, the quantities so despatched to Gujrat, Jhelum, Rawalpindi, Kohat, Bannu, etc., were fairly large, and unless these are taken into account the statistical records cannot be complete and reliable. We would suggest the railway despatches of pressed as well as loose cotton (of course, loose cotton despatched to other places of the district for pressing to be excluded) would give accurate information.

4264. (35) **Publication of Liverpool and Bombay prices.**—Information is daily received here by the factory owners and other dealers. Of course, it will be useful if such information was conveyed also to the *zamindars*.

Mr. F. G. MILLADIS called and examined.

4265. (Mr. Wadia.) I have been at Lyallpur for eleven years, and in the Punjab for seventeen years. Until the introduction of Lyallpur American cotton, I purchased mostly *deshi* cotton. This year my purchases have been from 75 to 80 per cent of American but not at the Government auctions. The *deshi* cotton from Gojra and Toba Tek Singh was a better staple cotton than that from Lyallpur itself or from Sangala. There is practically little of it left now. Now the production at Gojra is twelve to thirteen annas American. In Lyallpur, it is four annas *deshi* and the rest is American. I am talking of the Chenab colony except Toba Tek Singh where it is about eight to nine annas American.

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[Continued.]

4266. There are no commercial classes of cotton in the Punjab. Of course, a higher price is demanded for better cotton and a lower price for inferior classes. If it is agreed that I should pay at the rate of Rs. 20 for white cotton and I am given a lower class of cotton, or cotton with leaf or mixed with seed, I would pay a reduced rate, say Rs. 18. *Deshi* cotton is not bought on staple. In a good year, the staple of Gojra and Toba Tek Singh cotton would be 3-8ths to 7-16ths of an inch. That is a good staple for *deshi* cotton. This class of cotton is mostly sold under the name of Sind Punjab in Bombay and Karachi. As a matter of fact, there are no commercial classes in this part of the country. You may buy Toba Tek Singh and Gojra cotton at the same price as Lyallpur. The price may depend on financial arrangements. Lyallpur is the centre of the colony and a native may pay here a far higher price for an inferior quality than for a better quality at Gojra or Toba Tek Singh. Conditions at Lyallpur are better than at Toba Tek Singh or Gojra.

4267. I see the Bombay quotations every day and these do the factory owners. The Agricultural Department has made arrangements to publish the quotations everywhere in the colony. I think the quotations posted in the markets are a little bit too high. The factory owners' quotations are on the basis of Bengals. They guide themselves on the basis of Bengals.

4268. Multan cotton has a better reputation simply because that district is more fit for producing a good quality of cotton; the climate is drier and the *kapas* is therefore cleaner than it is here, especially north of Lyallpur. The variety is different and the cotton is silkier at Dera Ghazi Khan. There were no gins there fifteen years ago and the cotton was all *churka* (hand ginned) of fine superior class. As to Multan, the railway facilities there, enable the ginners to bring *kapas* from other districts and mix it with real Multan up to fifty per cent. and the cotton is sold as Multan. There is very little pure Multan cotton now-a-days. It is mixed with other varieties. Amritsar cotton is a good *deshi* cotton. There are varieties of cotton coming from Saharanpur and other places which are also quite good cottons. The days of *deshi* cotton are over in this colony. In two or three years, there will be no *deshi* left. As regards the cultivation of American cotton in Multan, it depends on irrigation: they must have perennial canals to grow the American type. American would do very well there, especially at Dera Ghazi Khan. The Shahpur district would be another good centre of American cotton. I think that, in the Hissar district, the cultivators will always give preference to wheat owing to high prices for Rajputana. The prices of cotton will always be high but the present prices are abnormal. I believe that, in the Multan district, cotton could be extended under the Sidhnai canal and in other places.

4269. I think that 4F is quite a good cotton but I prefer the previous American varieties. They were more silky and longer in staple. Of course, 4F stands climatic conditions better; it is a good cotton.

4270. I would suggest that mixing should be stopped and the only way to stop it is to license the factories. It is in the interest of the spinner, of the *zamindar* and of the factory owner that it should be stopped. If you license the factories, I am certain that adulteration can be stopped within two or three months.

4271. The reason why I prefer other American varieties to 4F is that they have a longer and silkier staple. The staple of 4F in the Chenab Colony is 3-4ths or perhaps 7-8ths of an inch. If you take 7-8ths of an inch as an average, it is a good staple. The predominant seed is now 4F but three or four years ago other varieties were grown. There was a variety which had a small seed which, I believe, was Memphis Mississippi. It was very long in staple and very silky. 4F is rougher; it is not as silky as the other varieties but stands the climatic conditions better. You cannot get pure 4F. In some places it is less mixed but contains two or three per cent. of another variety. The bulk of American cotton now is 4F type. I do not buy as 4F. I buy American which is mixed with other varieties of American seed. In Montgomery, the 4F is more or less pure but not in this colony. It is a very difficult thing to make a selection of pure 4F. They market it as 4F but of course there are different types of seed mixed in it. One American is quite a different thing from another American; and therefore selection is uneven. The higher class depends on the weather and the watering of the fields. I can show you pure American which one would think contained ten per cent. of *deshi* though that is not the case. It is because it is poor *kapas*. When I send such cotton to Bombay or Karachi, I send it as American mixture. When *deshi* cotton is selling at the price of Rs. 510 the price of American with a mixture of about five per cent. *deshi* would under normal conditions be about Rs. 600 at least so far as this market is concerned. I do not think that you would get that price in Bombay.

4272. As regards the marketing of cotton, as stated in my written evidence, the *zamindars* depend on the *baniyas*. These *baniyas*, who are called *aratyas* advance money to the *zamindars*. The *zamindars* besides paying interest on the money advanced are also bound to sell their cotton through them. Sometimes these people speculate; they buy the crop on the ground. If the *zamindars* could be induced to bring their *kapas* direct to the open *mandis* when the crop is ready and get rid of the middleman, they would realize much better prices and it would be much better for them and for us. The *baniyas* do not fix the price of cotton when they advance more money except when they buy the crop forward. I cannot say whether, in the case of forward buying, the *zamindars* get the proper price of the day but now that the crop has begun to move, he gets the price more or less. The *aratyas* bring the *kapas* to the ginning factories. They sell the cotton to the factory owners or to others. Owing to the advances, the *zamindars* receive from the *aratyas*, they are tied down. This could probably be got rid of by some system of co-operative banks or something of that kind. In this colony, some very good *zamindars* are not dependent on the *aratyas*. The *zamindars* here are more prosperous than in any other district in India. In spite of this, it is their custom to ask for advances. If the Government collected the assessment two months later, the same thing would go on. They are always in debt. It is very difficult to stop the middlemen altogether in India. It would take years and years. No carts are sold direct by the *zamindars*: all are sold through *aratyas*.

4273. No ginning factories work on commission. They all buy and sell on their own account. Owing to the difficulties of railway freights due to the scarcity of waggons, they are selling now locally but before the waggons difficulty, I should say two-thirds of them used to send cotton direct to Bombay and Karachi. They have a lot of banking facilities and they get three quarters of the value of the cotton on the railway receipt.

4274. My experience of the Government auction sales is very good as the *zamindars* get the highest possible price. The prices are at times higher than the Bombay and Liverpool prices. The prices at the auctions are not a criterion of the price ruling during the day as there is a good deal of jealousy between factory owners who raise the price. The factory owners do not work on a sound basis. They buy

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[Continued.]

expecting higher prices tomorrow. Suppose this higher price is not realized, the buyer buys *deshi* and mixes it to reduce the cost of the American. He can always reduce the cost of his cotton by mixing *deshi* with it.

4275. The American *kapas* that comes in in this colony is badly watered. There has been much watering during the last two years. There is no watering by factory owners. The *zamindars* water the ground very badly and then they collect the *kapas* and put it on the wet ground and then they remove it to the carts. This should be stopped. When the American *kapas* has been watered to this extent, it spoils the brilliancy of the colour and the staple. It takes several weeks to dry it thoroughly. This can easily be stopped. It is not due to picking in the early morning. Picking begins at 10 o'clock. American *kapas* is damper than *deshi* but for the last two years, it has been overwatered. It is the *zamindars* who do it, not the factory owners. It is all nonsense to say that cotton gets wet owing to picking in the early morning. I would suggest the stoppage of watering by penalising it in the various *mandis* (markets). I think the Deputy Commissioner could very easily do that by informing the *chaudhris* (market authorities) that any cart that come in containing unnatural dampness would be heavily penalised. At Tadianwalla, the damping amounts to as much as seventeen to eighteen per cent. in some carts. The top is fairly dry but when you put your hand into it, you find that it is damp. That spoils the brilliancy of the cotton entirely. If the carts are unloaded when they come in, it is quite all right but, if not, the cotton gets fermented. Cotton seed is an oil seed and it is bound to ferment if damped and, after fermentation, the lint becomes yellow. I have seen *kapas* damped by rain owing to not being covered by a tarpaulin and fermenting after three or four days. The mixing and the watering of *kapas* can be stopped very easily. I have been informed that the Sikh *zamindars* do not damp but that the Muhammadan *zamindars* do so, especially the *fanglis* of this colony.

4276. When American cotton was first introduced in this colony, American and *deshi* were mixed in the fields but now you will hardly find a field of American cotton containing more than one or two per cent. of *deshi*. The mixture takes place in the factories and the American *kapas* that comes in from the villages comes in pure. The greatest mixture you will find is less than 1½ per cent. The ginners mix thirty-five to forty per cent. In the beginning of this season, the mixture was about fifteen to eighteen per cent. The buyers understand Punjab American better than they used to do and they are more careful now. I believe the best way to prevent mixing is to license the factories and fix a penalty. There is no necessity to mix *deshi* with American in order to improve the colour if the American is properly dried. You will find heaps of *deshi* cotton lying in the compounds of the factories for ten to fifteen days before it is ginned whilst American is ginned immediately on arrival because otherwise it would lose weight. If American *kapas* were dried more, there would not be so much leaf in it. American cotton is always leafy on account of its dampness. The gins also are not quite fit for American *kapas*. There is always a cry of cut seed. As a matter of fact American *kapas* is better in colour than *deshi*; but the cultivator spoils it by watering. The ginners find it difficult to gin wet *kapas*. When buying wet cotton, they do make a deduction on account of dampness. The only way to stop deliberate mixing is by licensing the factories. The inspections under the licensing system could be done by the local authorities. If once or twice a week, a man were sent to factories where mixing is done, they could easily detect it, especially at night, before the seed is removed from the factories and they could see the percentage of *deshi*. Once the factory owners know that the inspectors are after them, they will stop mixing, although I believe that, in the course of the next two or three years there will not be any *deshi* to be mixed in this district. If there were some control, it would be better, otherwise people are free to do anything they like. The withdrawal of the license would be quite enough. As to the suggestion that there should be a central committee in Bombay to control the licensing, I do not see how Bombay can control Lyallpur. Licensing should apply to the pressing factories also. No mixing is done by the pressing factories after cotton has been ginned. Ginned *deshi* and ginned American cotton cannot be mixed. The mixture takes place before ginning. If ginned *deshi* cotton is mixed with ginned American, it can be detected immediately. As to cotton being brought in Lyallpur and sent to Karachi or Bombay with the Multan mark, I personally would not buy cotton because the bale was marked Multan. I should buy it on its merits. If licensing were introduced, I would certainly make it compulsory that every bale should bear the name of the station and the name of the pressing factory. This can be done; I do not see any difficulty about it.

4277. I would not suggest a separate classification for Punjab American separate from Punjab Sind. So far as I know there is no class here. Of course the American is a class by itself so far as the staple is concerned. As to how it should be classified if that is necessary, that is entirely for the Bombay and Karachi markets to decide.

4278. (Mr. Hodgkinson.) The actual damping is done by the *zamindars*. The *kapas* is damped after it has been picked. The ground is watered three or four times and the *kapas* is put on it and left there for a day. I have had no experience of saw gins.

4279. There were three or four saw gins here in Jaranwala which my firm brought but 4 F has not been ginned in them. I know the owner ginned some *deshi* cotton three years ago in saw gins and despatched it to Bombay but could not sell it there.

4280. The prices obtained for American cotton at the Government auctions are too high. The high prices are not altogether due to the fact that the cotton is subsequently mixed. A good exporter would not mix. The bulk of the cotton is marketed in open *mandis*.

4281. (Mr. Henderson.) I have been to America. I was there for five or six years. I worked in Calverton, Houston, Texas. Houston is a staple district. I did not work in Mississippi. I worked in Augusta, Georgia. A lot of Mississippi cotton goes through Augusta to Mobile and Charleston. I have not seen cotton in America as good as Egyptian. The American mills use very high class cotton and so far as I know they import Egyptian cotton every year up to 150,000 bales. If they could grow such cotton, there would be no necessity to import Egyptian cotton. This import has not taken place during the last two years. It has been going on since 1894 and 1895 when I was in America. Cheroni Benaki is the name of the exporting firm. It had a branch firm at Boston.

4282. Cotton improves as one goes south of Lyallpur. American would do very well in the Multan district and in Dera Ghazi Khan. South of Multan up to Shujabad and Bahawalpur, it would be far superior to Lyallpur. Of course, that depends upon irrigation. As to whether there has been any deterioration in 4F, during the last four years this year's cotton is not as good as it was last year. This is not due to deterioration, but to unfavourable climatic conditions. I believe the area of American

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cotton in the three colonies, viz., Chenab, Lower Bari Doab and Jhelum, this year will be 200,000 to 240,000 acres. Next year the area will be larger on account of the high prices this year.

4283. The Irrigation Department never repair their canals in time for early waterings. They should always do it in the winter and be ready to distribute the water early in April or by the end of March. They should not leave the canals for repairs till March. American cotton must be sown before *deshi*.

4284. As to seed distribution, people are more anxious to get American seed than they were four or five years ago. So far as this colony is concerned, I do not think it possible to improve the present system of distributing seed. You can get thousands of maunds of practically pure American cotton with not more than two per cent. *deshi* which is good enough.

4285. (Mr. Roberts.) I have seen a good deal of American cotton in the field. The yield, I should say, is six maunds per acre or perhaps five and three quarters on an average. American compares very favourably with *deshi*. This year has been a bad year. I put my last estimate at 5½ to six maunds per acre. The *deshi* is far below this owing to the very unfavourable climatic conditions in November and up to the middle of December last. In every way, the American has done better than the *deshi*. It is a much safer crop. It has been safer for the last two or three years. I have been here since 1906. I have seen the American grown in this colony since then. It was then on a small scale. The *zamindar* does not care now for *deshi*. They all want American in this colony. I believe, in the Jhelum colony, it has stood climatic conditions better and the yield is better.

4286. It is difficult to say whether the *zamindars* prefer cotton to wheat. Wheat is, as you know, a favourite crop of the *zamindar*; he does not forget his fodder but, of course, cotton comes next. It will gradually take the place of *toria*. With the present prices of Rs. 19 to 21 of *kapas*, I believe next year the sowings of cotton will be increased by 25 per cent. provided of course there are showers in the beginning or end of March and plenty of canal water.

4287. I do not know why Sind and Punjab are classified together. They are quite different in style. Sind is a better cotton than *roseum*, and the staple of the Punjab *deshi* is better. Sind cotton is very rough.

4288. There is no doubt that the sellers of cotton here are encouraged to produce a good quality. It is the buyer's interest to have a higher class. If you give him a superior cotton, he will give you a superior price. The ginning factories are now beginning to recognise this. There has been an improvement in this direction. Though the *zamindar* is much in the hands of the *bania*, there is very little forward selling, especially of *kapas*. It is a different thing to be obliged to sell cotton through a *bania* and to sell it direct. There is much less mixing than in the past. It has improved. I have been told that in Bombay American cotton which was considered pure realised Rs. 550 and that American cotton mixed with thirty per cent. *deshi* realised the same price, but I consider this impossible. Five per cent might escape detection but not thirty per cent.

4289. (President.) As to the cotton forecasts, I will confine my remarks to this province. The forecast here is more or less accurate so far as the area is concerned. Now everything depends on the estimate of yield. There is a great difference between our yield and that of Government. Our yield frequently differs from Government by forty per cent. The Government estimate is always too low. Our results are accurate. It would be quite easy to get an accurate estimate if the Tahsildar and other revenue officials were compelled to be more accurate in their estimates of yield. Take the Lyallpur district; there are 150,000 acres under American and *deshi* cotton. That is the Government figure as well as our estimate. I make my estimate of the crop of the Lyallpur district on the basis of a calculation at 5½ maunds per acre at 57,000 bales of which 48,000 bales are American. If you ask the cultivators, they will tell you the outturn is only 3½ maunds to four maunds per acre. These Tahsildars form their opinion accordingly.

4290. I do not consider the pressing returns very satisfactory at present. It would be a good thing to make them compulsory by legislation, but care must be taken to include cotton coming in to a district to be ginned and to exclude cotton going out. Suppose I buy loose cotton, I have my own press at Jhumra and I do not want to press it here. I send it from Lyallpur to Chak Jhumra. This should not be included twice over in the production of the district.

4291. The fancy price which Mr. Roberts gets at his auctions has got something to do with the guarantee given that it is pure. There is also pure American cotton to be got outside of the auctions. As an exporter of American cotton, I am anxious that American cotton should be pushed in the Punjab. Multan is a good place in which to push it. Shahpur is also a good district. I believe that in time there will be sufficient production to get a quotation on the Liverpool market. As a matter of fact, this would already have been done had it not been for the war. If the price of *deshi* is high, the price of American will also be high. As to the premium of American over *deshi*, I believe the present price of American is rather too high. This is due to the war and the failure of the crop everywhere all over India owing to heavy rainfall. As a rough figure, I should say that the premium is Rs. 6 to 7 per maund of cotton at present. Rs. 70 per *khundi* would be a fair average over *deshi* cotton. This year it is more. I have noticed a deterioration in the yield of cotton during the last ten years. When I came here eleven years ago it was quite high. It was fourteen to fifteen maunds per acre of wheat and 7½ and even 8½ per acre of cotton. The land is getting exhausted and there is very little manure. I used to estimate my cotton crop at 8 to 8½ maunds. In 1912-13, the weather conditions were ideal but the crop of cotton was only 6½ to 7 maunds per acre.

Mr. J. C. EVANGELINIDI, Agent, Messrs. Ralli Brothers, Lyallpur.

EXAMINED AT LYALLPUR, JANUARY 11TH, 1918.

Written statement.

II.—COMMERCIAL ASPECT.

4292. (30) Local trade customs.—The local customs regarding the marketing and selling of the *kapas* vary almost in each market in the Multan District, and may be summarised as follows:—

(a) *Zamindars* bring their stuff and sell it in the *mandi* through a commission agent; very few sell their products themselves.

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(b) Village *banias* sell *kapas* in the *mandi* personally or through a commission agent for account of *zamindars*.

(c) Factory owners buy *kapas* in villages from *zamindars* and village *banias* and take delivery of the stuff locally or at the nearest railway station.

(d) Before the crop is matured, factory owners and speculators buy *kapas* at a fixed rate from *zamindars* and village *banias*, the seller generally receiving an advance of about Re. 1 per maund of *kapas*.

4293. (31) Standardization of Commercial names.—The various grades of cotton are known locally as "American," "*deshi*" and "*churka*." Of course the firms have their own classes for the various qualities of cotton and pay their prices accordingly. It is difficult to suggest any means by which the commercial names could be standardized, as *zamindars* and the majority of the cotton sellers are ignorant of the various qualities of cotton.

4294. (32) Buying agencies.—The *zamindars* should be encouraged to deal direct with the buyer, without the interference of the middleman, who simply lives on the former. Also the system in vogue in many markets to sell *kapas* on a certain basis of lint, any difference over or under the basis to be mutually recovered, should, for obvious reasons, be abolished.

II.—STATISTICAL.

4295. (34) Improvement of statistical information.—Cotton press returns could not be relied upon for statistical purposes as loose cotton and *kapas* sent from one district to another will not figure in them. Railway returns showing the quantity of cotton (loose or pressed), and *kapas* despatched to and from other districts would give accurate information.

4296. (35) Publication of Liverpool and Bombay prices.—Local traders receive daily telegrams from Bombay and Karachi regarding the prices of cotton and besides the rates offered by buyers are known to them.

Mr. J. C. EVANGELINIDI called and examined.

4297. (Mr. Wadia.) I have been at Multan as well as in Sind. There are different kinds of cotton in each market but, on the whole, the system of marketing is much the same as Mr. Miliadis has described for Lyallpur. There is more forward buying. The buyer makes advances to the *zamindar* and fixes the price. For forward purchases, the price is always fixed. Any change in the price later on affects the buyer of the cotton and not the seller. Either by mixing or by letting in crushed seed in the cotton or leaving *kapas* in it, the ginners protect themselves against loss.

4298. I have no experience of damping in Multan. My experience of American *kapas* is that it absorbs much more moisture than *deshi kapas*. As the carts travel at night, especially at this time of the year, the *kapas* absorbs much dew in it. There is no actual watering in the ginning factories, none at all.

4299. Mixing is done entirely in the ginning factories. Last year they did not do it much in Multan and this year I have noticed none in Lyallpur during my short stay. They used to do a lot. They used to import *deshi kapas* from Montgomery and mix it with the Multan *deshi kapas* which is a superior cotton. Multan *deshi* cotton always commands a higher price. It is very difficult to give any opinion in regard to mixing. The best thing would be if the buyers penalised it. Legislation would improve matters to a certain extent but the remedy remains entirely with the buyer. If the buyer penalised any mixed lot, it would be stopped as it has already been stopped in the case of American cotton. They do not mix the lint. They mix the *kapas* and after ginning it they sell the mixed lint. That mixture should be penalised. The Bombay buyers should penalise more heavily than they are doing now. If the buyers are ready to buy these mixed lots, then factory owners will not stop mixing. People realize now that for a less mixture of *deshi* in America they get so much better price and there are many more buyers of pure cotton than for mixed lots. There is a marked difference this year. On the whole, I consider legislation necessary. It should be accompanied by the licensing both of ginning and pressing factories, one must go with the other. The penalty of withdrawal of the license would be quite enough, or a temporary closing of the factory.

4300. *Kapas* is taken from one district to another. It is not always done for the purpose of mixing. In some places they do it, because by doing so they can get better rates. It is transported both by rail and also by carts. It depends on which is cheaper. At present it is done by carts because there are no railway wagons available. It is transported to a distance of say twenty to thirty miles by road. By railway they used to transport *kapas* from Sargodha to Kasur. It is not advisable that railways should make a rule prohibiting the transport of cotton from one place to another, except in fully pressed bales. This would, I think, interfere with trade. There may not be enough ginneries provided in a particular place. There may not be a ginning pool in a particular district or people may bring in their *deshi kapas* there for the purpose of mixing with *deshi* to improve the quality. It is difficult to say whether *kapas* is exported from one district to another to improve the quality or to deteriorate it: in some cases you improve the quality and in some cases you deteriorate it. It might be that cotton might be exported from one place to another simply for sale as it was, because in such a case the market is the same even without any mixing being done. It may pay a man in Multan to bring either American or *deshi kapas* from Montgomery, gin it pure and sell it at Multan, because the Montgomery man may not want to take risks. There are men who do not want to speculate. I do not think that it would be advantageous for the whole of India to have transport by rail prohibited. I think it helps the trade if *kapas* is transported from one district to another. It is already done by carts and there is no reason why it should not be done by railways provided, of course, there is no mixing. The mixing is done by the factory owners in the factories, and if that were prevented, it is of no consequence whether *kapas* is transported from one district to another provided it is ginned separately. Legislation to control ginning factories is all that is necessary.

4301. (Mr. Hodgkinson.) I have no experience of saw gins. I have seen only one in Mirpurkhas. The Agricultural Department had a saw gin when Mr. Henderson was in Mirpurkhas. It ginned American cotton grown at Mirpurkhas. As far as I can remember, the American cotton there was superior to the one that we have here, 4 F. There was only a small quantity. We sent about twenty bales to Liverpool and that got a good valuation.

4302. (Mr. Henderson.) There are some saw gins at Nawabshah. They have been put up a Nawabshah by my firm to gin American *kapas* bought from the Montgomery line. I do not think they have been able to work them yet because they could not get the *kapas* railed down.

4303. I consider that Sind is more suitable for cotton growing than the Punjab. The soil and climate are very suitable and the cultivators grow nothing but cotton. They grow very little wheat or other

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[Continued.]

(3) In all matters of crop estimates, the definite aim should be to utilise the agricultural staff more and more and to depend less and less on the district and *deshi* staff. It is not looking very far into the future to foresee a time when all such returns will be prepared entirely by the agricultural staff. The areas will always be supplied by the district staff, and the final areas of crop returns in the Punjab are more accurate than in any other country in the world. It should be possible to say as much of the crop estimates.

(4) The time is approaching when we shall have to show exotic and *deshi* cotton separately in our crop returns. The yields are so different that it is difficult to estimate correctly without separate crop figures. There is no difficulty in preparing such figures, but as all the water rates are differentiated on crops and as exotic cotton is more valuable than *deshi*, the fact of differentiation in crop returns might give cause to an expectation of differential assessment, and might hinder progress. This difficulty is real enough, but the effect on cotton cultivation would not be considerable. However I should welcome a pronouncement by Government that there was no present intention to differentiate water rates on different varieties of cotton. Government could hardly be asked to bind the future policy of future Governments, and a declaration of present policy would be sufficient. The Canal Department, which is the assessing Department, do differentiate now for statistical purposes only, and there is no indication of any check thereby on the replacing of poor *deshi* cottons by exotic cottons. As a matter of fact, the advantage of the exotic staples where there is an advantage far outweighs any possible difference of water rate.

4315. (35) **Publication of Liverpool and Bombay prices.**—Daily price lists are now being posted in all the markets of the Lyallpur district. They cause lively satisfaction to *zamindars*, who value them highly. In the case of one market, Tandlianwala, the difference between Lyallpur and local prices fell in a few days from Rs. 2 to a few annas. The former difference was due to a pernicious ring, which has been weakened by the cotton price returns aided in this instance by a little healthy official pressure and by publicity.

Supplementary written statement submitted by Mr. A. J. W. Kitchen, C.I.E., I.C.S.

4316. **Inspection of ginning factories.**—Previous to the Factory Act of 1911, the Inspector of Factories in each district was the Civil Surgeon, with the District Magistrate as *ex-officio* Joint Inspector. The inspections were found to be done in a very perfunctory manner, and after the passing of the Factory Act, a qualified Factory Inspector was appointed. The range of his duties lies over the Punjab, North-West Frontier Province, Delhi and Ajmer-Merwara. His duty is to inspect every factory twice yearly and every seasonal factory (*i.e.*, ginning mill) once in the season. The District Magistrate is still a Joint Inspector, but is not expected to do any inspection and in fact, does nothing. The conditions of work in the ginning factories are described in lurid colours in paragraphs 12 and 13 of the Punjab Factories Report of 1916. In that report, it will be noted that the conditions are worst in the districts of Gujranwala, Jhang, Lyallpur and Montgomery. In other words, the conditions are worst in the Lower Chenab and Lower Bari Doab colonies. Now in the colonies the ginning factories are only in the colony towns, where there are *mandis* where there are generally resident officials of some standing and where inspection could easily be arranged for. Thus we find the conditions at their worst, where they could be at their best. Moreover they are at their worst in those tracts where the officers of the Agricultural Department are most in touch with agriculture and trade. Within the last few weeks, the Inspector of Factories has joined the Army and Deputy Commissioners have been called upon to make their own arrangements for inspections. The results have at once followed that the departure of the single overworked Inspector has resulted in a great increase in the frequency and effectiveness of inspections. In the last few days, I have personally caught one factory working at night without permission, and have found three children of about ten years of age at work. In addition an Extra Assistant Commissioner, inspecting under my orders, has found one child under age at work and has pointed out numerous defects of less serious nature. The inspection work is only beginning. The influence of these inspections has been marked not only as regards conditions of labour, but in the attitude of the ginners to the *zamindars*. Monopoly working and monopoly swindling is breaking down. False scales are known to be used, but we have not yet detected any cases. Thus the removal of the official Inspector has improved the inspection. How are we to stop these factories working on holidays or at forbidden hours unless they are watched and watched continuously? The highest penalty under the Factory Act is a fine of Rs. 200. The factory owners can afford to pay such fines and to defy the law. The Factory Inspector at his best can only catch them once or twice a year.

(2) My proposal is that the Deputy Commissioner should again be made responsible for inspection of ginning factories in his district. It is a universal rule in India that departmentalism always breaks down, and that local administration is alone successful. The Factory Inspector is most necessary, but his duty should be to exercise a professional supervision over the inspections done in districts. An exact analogy will be found in distilling inspection and in the prevention of illicit distillation. I suggest that ordinary ginning factory inspection should be done by Inspectors and Sub-Inspectors of Excise under the general supervision of the Excise Officer and of the Deputy Commissioner. It would be easy to arrange for weekly inspections, and for regular inspection on Sundays and at night. The Agricultural Department might fairly be called in to help. They have exceptional opportunities of giving assistance. Such unprofessional inspections might well be confined to simple unprofessional matters—hours of working, age of children, weights and scales, sanitary conditions and so on. All this could be done at once and without any legislation whatever. The immediate result would be to secure correct pressing returns, which are now not obtained at all, and a much closer control over the relations of the ginning mills with the cotton trade. This can be done without legislation and at once. As regards legislation, it should be possible to license factories and to withdraw the licenses of those factories which disobey the provision of the law and of rules made under the law. There would be no need to limit the number of ginning factories, if proper conditions were enforced effectively in the ginning factories which are allowed to work. The trade of ginning is a monopoly trade and official control is most necessary and desirable.

Mr. A. J. W. KITCHIN, C.I.E., I. C.S., called and examined.

4317. (Mr. Wadia.) I am speaking without expert knowledge. I am talking only from the point of view of a district officer. As to the question of difficulties in regard to weightment in the factories, I believe that untrue weights and scales are used but I have not sufficient evidence to secure a conviction.

4318. I am producing something which may interest the Committee (Annexure I). It is the pool agreement entered into by the ginning factories in Lyallpur and extracts from the proceedings of meetings of the members of the pool. It will be seen that at a meeting held at Lyallpur on the 16th November 1917, the ginners

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agreed that no partner would get cotton cleaned or kept free from mixture owing to the difficulty in obtaining labour. So here there is a pool bound not to get cotton cleaned. I have not had the opportunity of comparing this copy of the agreement with the original documents but I believe it is correct. Amongst other things objections are made to the use of the presses for baling *bhusa* (fodder) for the use of the army in Mesopotamia.

4319. It is generally alleged that weightments are wrong. I have not been able to get any evidence which would justify me in a prosecution. The weights so far as I have had them tested are right. The blame is not all on one side. We know that the *zamindar* waters his *kapas*, puts his best cotton on the top of the cart, his worst in the middle and bricks at the bottom.

4320. I do not know whether there is any deliberate damping done in the ginning factories. It is not a point on which I can speak with authority. I do not know whether the people mix the cotton of different pickings or different varieties. My own belief is that the *zamindars* do not care what they do. I am not a cotton expert and I cannot speak with authority on the matter.

4321. As to whether pools cannot be done away with by legislation, my own view is that legislation should follow public opinion rather than precede it. As to the stopping of damping by legislation, I have put in a supplementary note in which I have advocated such a measure. You won't get any final settlement of the matter without legislation but legislation may take time. Preparatory to the enactment of legislation, a great deal could be done by enforcing the law as it now exists. Since I wrote my supplementary note, my experience of inspecting factories has given me more knowledge of the subject. It is only three weeks old, *i.e.*, since the Factory Inspector went to the war. Since writing that note a week ago, I have found factories working at night without a break in 27 cases, and working on Sundays in six cases; children were employed in twelve cases. This was all in the course of last week. Under the Factory Act, if the number of persons employed simultaneously or one day is less than fifty on one day, the Act does not apply at all. A small factory containing ten or twelve single roller gins can be worked with an establishment of less than fifty persons. It is not then necessary to follow the provisions of the Factory Act. You can employ boys and girls of any age, you can work the factory day and night, in fact, you are free from any kind of restraint whatsoever. I should like the Factory Act amended to deal with such cases.

4322. It is true that the pool profits come out of the pockets of the cultivators but I do not know enough to condemn pools absolutely. But it is certain that the pool is banded together to make a profit out of the cultivator. At one of the markets in this district, Tandlianwala, there is a close pool of two factories. When we started publishing Lyallpur prices, the price of cotton as compared with Lyallpur went up by Rs. 1 to Rs. 1-8 a maund. I have a list showing how the prices went up each day during the month of November. These two factories combined to keep the price fixed at that place. That has been the most striking case of the results of posting prices in the *mandi*. Of course the trader knew the prices more or less before but the *zamindars* did not. Now he does. This monopoly was created by Government. Government only can give out land in the colonies. They gave out land in this case for two ginneries and presses. They were put up and nobody could put up any more because they could not get a site from Government. As to ginning and pressing charges, I suppose they are such as to leave a good profit. I could not tell you what the profits are but they are supposed to be large. Pools ought to be controlled. As to the method by which they can be controlled I can only suggest various methods, but here again, I am speaking without expert knowledge of the trade. I can only point out the difficulties. Licensing would do it. What I want to impress upon the Committee is the reality of the scandals in connexion with ginneries and presses and to ask them to find a remedy.

4323. Then as regards the sale of cotton, when the Agricultural Department hold auction sales, they not only sell the cotton but they look after the weightment also, which is directly against the interest of the ginners, or I should say against their apparent interests. I would suggest the establishment of cotton markets with ample storage accommodation. May I venture to say that I should like the agricultural associations associated with them? I do not know whether that would meet the difficulty at all. There is at present no storage accommodation in any market for loose cotton. A man comes with his cart to the market, he cannot store his cotton and has to take what price he can get for it. The establishment of separate cotton markets for each district has been suggested. In fact, Mr. Roberts and I are under engagement to start one at Lyallpur but we are waiting to see what the Committee recommends. We want more storage godowns. The proposal was accepted by a Committee which met in this room about eight months ago but I am not in a position to say whether it would meet the difficulty or not or whether there is any real demand for it. It is not a subject which I have threshed out with the people. It would not, of course, meet all difficulties. Cotton is the one crop which we cannot store. There is plenty of accommodation in the *mandi*, and in the houses round for storing ten thousand tons of wheat. Another *mandi* would be necessary. Then there is the question of the establishment of a licensed factory in each *mandi*. What I mean (I am assuming that we do not propose to legislate) is that one standard factory which would be run on decent lines should be put up at each *mandi* and that would make the worst conditions of a pool practically impossible. I am assuming that you are not going to control all factories. It is no use asking for Government factories. There is little chance of Government starting one but you might get a Government controlled factory. You could get that without much difficulty. A site could be found even now at Lyallpur. I have also suggested that a market law is required. We have no market committees or market rules as in the Central Provinces. Of course we have *chaudhris* but they are unable to enforce any rule. I should like to have a market law as in the Central Provinces. That was what I had in my mind. I will mention a concrete case. Cases of watering of wheat existed in one of the *mandis*. It was condemned by the *chaudhris* and it was condemned by the trade. I caught a gross case and the man was convicted. It was held, on appeal, I suppose correctly, that no offence had been committed. There we have the *mandi*, the *chaudhris*, the exporters, the trade and myself all trying to stop an evil and we all failed. Mere *mandi* opinion is not sufficient against an individual defaulter unless the law is behind it. As to whether I would advocate a law similar to that in the Central Provinces not only regulating how cotton is to be marketed, but also prescribing the rules under which brokers, *aratyas* and licensed weighers are to work. I should welcome as much legislative control as the Committee could bring themselves to propose but I could carry on with less. The Committee could hardly propose more control than I would welcome.

4324. In ten or fifteen years, we shall have a net work of the Agricultural Department all over the province. They will, of course, be in close touch with the Deputy Commissioner everywhere. We shall get them in and out of every branch of our work, if the Punjab is going to be of any use in agriculture. The difference in the last five years has been tremendous and in the next five years it will be even greater. I am simply prophesying. More students will be turned out of this college. During the three years I have been in Lyallpur, I have seen

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an enormous difference. The six months class in the college is congested, owing to the want of class rooms and teachers. It is proposed to open another school at Gurdaspur. The demand for agricultural education both elementary and advanced, is enormously in excess of the present supply. There is a rush to fill every gap in the class rooms and one of the troubles of the Agricultural Department is that officials come here for training. Candidates for Government service come here to go through courses. There is a proposal that Naib Tahsildars should do so but the difficulty is to find room for them.

4325. As regards inspection of factories, there was no Inspector of Factories until recently, *i.e.* eight or ten years ago. The Civil Surgeon was the inspector and the Deputy Commissioner was the joint inspector. The Civil Surgeon used to get a fee for inspections. Ordinary inspections, I believe, were not very well done. Then the Factory Act was passed and an Inspector of Factories was appointed. The Factory Inspector has, I believe, something like 368 factories to inspect in the course of the year. He has to cover four provinces, *e.g.*, North West Frontier Province, Punjab, Delhi and Ajmer-Merwara. The present Inspector, Mr. Taps, has gone to Mesopotamia. I am told that they get about twenty prosecutions in a year for the whole province but I have had 49 prosecutions in the last three weeks. People know when the Factory Inspector is coming. The District Magistrate has powers under the Factory Act and I do not ask for any more powers. I approach the question with very little knowledge and I can only offer suggestions. I am far from suggesting any complete scheme to be accepted for the whole of India. I am only pointing out difficulties which I have met with from my experience of the last three weeks. My own idea is to differentiate between the big factories run on decent lines and the petty gins with their insanitary conditions springing up all over the country. They do not deserve to come under the control of fully qualified inspectors. They should be handed over the control of the local authorities and the big factories should be kept for the professional inspector. There are rules as to the conditions of labour, observance of Sunday, etc., but they are never observed. I have not seen any factory which does not work extra hours nor have I been to any factory in which children were not employed. There are cases here in which the machinery is absolutely unprotected. The excuse is that fifty people are not employed in the factory and therefore the Factory Act does not apply. Under the law, no man wearing a loose cloth is allowed to clean machinery while it is working. A man wearing an ordinary blanket started cleaning the machinery of a factory here during the last fortnight. His blanket was caught in the machinery and he was killed. Who is responsible criminally? I cannot find any provision of law which makes the manager criminally liable, and so nothing can be done. The maximum penalty under the Factory Act is Rs. 200. If a factory works at night and the owner is fined Rs. 200 only once, it would not matter much to him but I doubt if he would do it if you caught him every time he did it. It used to be the case that every District Magistrate was bound to visit each factory in his district and send in a report about it. I used to do it myself. I used to send a notice saying that I was coming and everything was found in order when I went round. I sent in a report; sometimes I found mistakes and sometimes I did not. If I made the inspections, I was put down in the Annual Administration Report as having done my duty and if I failed, I was called upon for an explanation. One cannot expect a Deputy Commissioner to run round and inspect factories during the night. Under the present Act only an Inspector has powers. The District Magistrate has powers as he is an Inspector under the Act. Among other powers, he has the power of entry into the factory. As a matter of fact, most of my inspections are done by men other than myself who have not the power of entry. No one can sanction a prosecution except the Inspector himself. If you add to the number of Inspectors under the Act, every Inspector will have power to sanction prosecution and the control will be removed from the head inspector of the district and will be put into the hands of subordinates. So, if you add to the number of inspectors, you add to the opportunities for corruption. On every ground, the present Act is insufficient. I have merely suggested some ways in which something can be done.

4326. It is the case everywhere that there are more ginning factories than there is work enough for. That is why pools exist. I do not see any particular advantage in giving concessions to ginning factories where there are too many in order to induce them to move. The whole point about the ginning factories is that Government has created a monopoly itself and having created it, it seems to me that the responsibility lies upon Government to control it. The origin of the pool is business pressure. I am not suggesting that a pool is immoral in its origin. It may have been due to necessity but the result of this combination is restraint and damage to trade. It is the case in this province that ginning factories have been erected where there was no work for them with no other object than that of sharing in the profits of the pools. That is so here too but the conditions of the colonies are peculiar in that all the land belongs to Government and the conditions under which factories have grown up are the direct result of Government action, not of course deliberate, but, none the less, the direct result of the policy adopted by it. If you look at Mr. Taps' annual report on the Punjab, you will find that he says that conditions are worst in the districts of Gujranawala, Jhang, Lyallpur and Montgomery. Those are the colony areas. Factories exist only in the colony towns, where inspection is very easy. Wherever you get factories scattered all over the district, inspection is not easy. In the colony towns, it should be very easy, but it has never been done, though it is there that the worst conditions are said to exist.

4327. (Mr. Hodgkinson.) As regards the system of weighing and the scales that are used, so far as my experience goes, the ordinary beam scales are used in the *mandis*. As regards untrue scales and weights, I have not been able to find out anything, but it is generally alleged by the *zamindars* that the scales are loaded. The seller is always present when his stuff is weighed. I do not suppose anything very serious occurs. I have no right to say that weighments are habitually wrong. I do not know that they are. I know that it is generally asserted that they are. The weights I have seen are not stamped. We have got a Weights and Measures Act but it is not in force. We could get a man under the municipal regulations if he was using untrue weights.

4328. As I have already said, the Factory Act does not apply to a factory which employs less than fifty men. I do not know what was the original idea of that. The factory inspector has to inspect every factory not less than twice a year, and every seasonal factory not less than once a year. That is to say every ginning factory has to be inspected once a year. I am advocating increased inspection and I say that it could be done without any increase in the professional staff.

4329. (Mr. Henderson.) As to the value of land from the agricultural point of view, a square is 28 acres. The price of land is rising. It is now from Rs. 7,500 to Rs. 8,000 a square. Rs. 250 an acre would be a pretty fair average. It goes above that occasionally but is seldom below. There has not been an auction of land for a long time, as there is no Government land to sell now, but there is going to be one next month. There is a small extension of about eight to nine thousand acres in the south of the district. The district is fairly complete. Its irrigation conditions have been worked out and I am altogether against any increase of

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cultivation. I want the district to settle down as it is. When I came here three years ago, the Deputy Commissioner had power to sell land at a fixed price. At my own suggestion, the power has been taken away. The price I have mentioned is the price at which land changes hands. I could not tell you how it compares with the other canal colonies but have no doubt that it is very much higher. We give full proprietary rights as one of the conditions of the sale.

4330. I have no considered opinion as to whether there has been any deterioration in the fertility of the land in this colony. I know that the price of land is continually rising but it is generally alleged that the yields are not as high as they were. I would rather not answer the question whether there is any foundation for that, as there are others better qualified to do so than I am. I think the average yield per acre is a good deal above five maunds of *kapas*. The settlement average is four maunds an acre all over the colony. I work on a supposed average of six and a half maunds. I do not know whether that is correct. This year, although they say that the crop has been a complete failure, I sent my men round to make an estimate and I found it was five and half maunds. I think six and a half maunds an acre is a good all round figure. As for wheat, I should say that the average figure is half a ton.

4331. (Mr. Roberts.) The rules drawn up for the American cotton auctions have proved very useful this year. I suppose they are necessary. It is the universal cry from the *zamindars* that they find it very difficult to get justice in the ginning factory. That is one of the reasons for the popularity of the auctions. The auctions are getting beyond control as so much cotton is coming in. We are getting thousands of maunds, where we were getting only hundreds a year ago.

4332. As to the licensing of factories, I presume the Committee will lay down certain absolute conditions which are necessary for the improvement of the marketing of cotton in India and say that the ginning factories shall conform to them. The working over hours and employment of children, are of secondary importance. The licensing question could not be worked unless such control over factories were exercised as would make the wholesale ignoring of the existing law impossible. The important thing is the license for trade conditions and not for sanitary and factory conditions. It is for the Committee to say what the minimum standard should be and to see that it is conformed to. I should say that there is very little chance of getting a combination amongst ginners. The ginners as a class are not interested in the trade except for what they can get out of it. They are a good class but they are very largely members of other professions who are not in the cotton business at all. The legal element is very large. The manager is never a resident in Lyallpur and is always away. All the owner wants is a good return for his money and he does not care how he gets it. I do not see much hope of co-operation in existing conditions.

4333. As regards market rules, I would only ask that the experience of other countries should be considered. I do not want a swarm of *mandi* officials. As far as possible the arrangements should be run by the trade itself. The general moral sense of the trade itself is very much higher than the moral standard of many of the individuals who belong to it. The trade itself would impose more careful and stronger regulations than are at present in force. The ordinary *chaudhris* of *mandis* are quite decent people but they are helpless against defaulters. No one appoints them. They are just leaders of market. *Chaudhri* is a very loose term indeed but they are looked upon by their fellows as leaders. I would be inclined to give these *chaudhris* more legal powers.

4334. (President.) I am not particularly hopeful of the public opinion of the *mandi*. It is not sufficiently strong. Legislation is the best public opinion.

4335. The preparation of the forecasts should be taken over by the Agricultural Department. It should be done not at Lahore but at Lyallpur when the establishment is increased.

4336. The development of the economic side of agricultural education has not begun yet. What you have got to get is a man who is interested in economics and has had some preliminary training. Then give him some problem to work out and as turn him loose and his knowledge and experience expand, he will do something. I would emphasize the importance of agricultural economics. The ordinary economic matter is only the ground work. The point is that there should be a man to tackle the economic problems of the province.

4337. The ginning and press returns should be made compulsory. I have pointed out that even now I could get correct returns if anybody asked me to do so. I have not heard of any abuses in regard to the posting of prices in the local *mandis*.

ANNEXURE I.

Papers regarding ginning and pressing pools at Lyallpur.

(I)

Agreement in regard to the establishment of a Ginning Pool at Lyallpur.

A pool (union) is established on the following terms for four years between the following factories situated at Lyallpur: (1) Sri Guru Nanak Co., Ltd., through Rai Bahadur Hari Chand, (2) Sh. Mahomed Ismail Maula Baksh Ginning Factory, (3) Punjab Cotton Press Co., Ltd., (4) Sh. Mahomed Ismail Mian Mahomed Ginning Factory, through Mian Mahomed, (5) L. Ganga Sahai Ginning Factory, through L. Bhooja Mal, (6) L. Bhawan, Sahai Kanshi Ram Factory, through L. Brij Lal Malhotra, (7) L. Kirpa Ram Brij Lal Ginning Factory, through L. Hareharan Das, (8) Seth Sukhdeo Baksh Factory (large) No. 2, through L. Prabhu Dyal, (9) Seth Sukhdeo Baksh Ginning Factory (small) No. 2, through L. Prabhu Dyal, (10) Krishna Ginning Factory, through Rai Bahadur Hari Chand, (11) Seth Lorinda Ram Sewa Ram Ginning Factory, through Seth Prem Chand, (12) Gyan Mills Ginning Factory, through L. Fateh Chand:—

1. This union will be called by the name of "Local Ginning Pool, Lyallpur."
2. It will remain in force for four years, *i.e.*, from 16th August 1914 to 15th August 1918, but this pool will be considered as cancelled if within this period the Punjab Cotton Press, Ltd., does not remain in the possession of Sh. Mahomed Ismail Maula Baksh, who for the present occupy it for one year till the end of June 1915.
3. A sum of Rs. 4 per maund will be credited to the "Pool Fund" on all the cotton purchased at Lyallpur *mandi*, and As. 3 per maund on all the cotton purchased at *mofussil*. A maund will be of forty seers. Pool rate will be calculated on the cotton weighed.

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4. Pool rate will be distributed daily according to the number of ginning machines as per detail below :—

- (1) Sri Guru Nanak Co., 50 gins, (2) Sh. Mahomed Ismail Maula Baksh, 24 gins, (3) Punjab Cotton Press Co., Ltd., 28 gins, (4) Sheikh Mahomed Ismail Mian Mahomed, 10 gins, (5) L. Ganga Sahai Factory, 44 gins, (6) L. Bhowani Sahai Kanshi Ram, 48 gins, (7) L. Kirpa Ram Brij Lal, 5 gins, (8) Seth Sukhdeo Baksh Factory (large) No. 1, 64 gins, (9) Seth Sukhdeo Baksh Factory (small) No. 2, 3 gins, (10) Krishna Cotton Factory, 24 gins, (11) Seth Lorinda Ram Sewa Ram, 30 gins, (12) Gyan Mills Cotton Factory, 16 gins.

5. No partner will have any objection to show his account books and ledgers to other partners or their managers. A special arrangement will be made from the beginning of the season to keep a check on the accounts.

6. A clerk and a peon will be engaged for the Pool Fund who will work under the supervision of the managers and will be paid for from the Pool Fund. The office of the Pool Fund will be in the factory of Seth Lorinda Ram Sewa Ram or Krishna Cotton Factory, for which no rent will be paid.

7. Every partner will have one vote, and cases under dispute will be decided by majority of votes and the decision will be final.

8. The partners who have agreed to work their factory under the pool conditions will get their full share whether their factories work or are closed, and even if closed on account of an accident during the season. Every partner will give written notice to the Pool Manager up to 25th August each year about the working or closing of his factory according to condition 9.

9. During the period of pool the following factories will be at work and closed :—

- (1) Sri Guru Nanak Co., will remain closed for two years.
 (2) One of two factories owned by L. Bhowani Sahai Kanshi Ram and L. Ganga Sahi Factory will remain working at a time throughout the period of pool.
 (3) Seth Lorinda Ram Sewa Ram Factory will remain closed for two years.
 (4) Krishna Cotton Factory, Gyan Mills Ginning Factory and Sh. Mahomed Ismail Mian Mahomed Ginning Factory will remain closed altogether.
 (5) The small factory No. 2, owned by Seth Sukdeo Baksh will remain closed for two years during the period of pool, and at this time L. Kirpa Ram Brij Lal Factory will be at work, i.e., for two years.
 (6) Seth Sukhdeo Baksh Factory No. 1 (large), Punjab Cotton Press Co., and Sh. Mahomed Ismail Maula Baksh Factory will not be closed throughout.
 (7) The factories can exchange their turns with one another and the conditions settled between any two that so exchange will be binding on all other factories in the pool. The pool will become null and void in the case of breach of this condition and the party breaking the conditions will be liable to pay the loss to others that may incur on account of the failure of the pool.

10. The factories at work will have to pay to the owners of the closed factories a sum of Rs. 50 per gin before the 15th September each year as a security against regular payment of the instalment from the pool fund, and this security will be refunded to them in five equal instalments beginning from November and ending at March. If, on account of any reason, the pool share is not paid to the owners of closed factories for more than a week after due date the balance from the amount of security deposit of Rs. 50 per gin will lapse to them and they will be at liberty to work their factories. The pool will then cease and all the shareholders in the pool can claim compensation from the factory at fault in accordance with conditions 9 and 16.

In the case of pool system remaining in force, the factory which remain closed at the beginning of the season cannot be allowed to work in the middle of the season.

11. If the factories at Chak Jhumra buy cotton for themselves at Lyallpur, then the factories in pool at Lyallpur are at liberty to purchase cotton at Chak Jhumra. The rate to be credited to the "Pool Fund" on the cotton purchased at Chak Jhumra will be decided upon by the Pool Managers and all the other managers of the factories.

12. If any working factory is closed on account of any reason during the season then it will be necessary for the owner to get it repaired before the next season.

13. The Pool Managers will work by turn without any compensation as "Pool Manager."

14. If any new factory is erected during the pool period, then Pool Managers will arrange to call a meeting of the owners and decide about it. The decision will be by majority of votes.

15. During the continuance of the pool, if any owner of the factory gets more gins erected, he will receive no share for them, but if on the other hand he removes some of the gins to other place, his share will be decreased accordingly.

16. The decision of Rai Bahadur Lala Hari Chand and L. Harkishen Lal will be final in all disputes connected with the pool.

If any owner of the factories in pool does not abide by the above mentioned conditions he will be liable to pay a sum of Rs. 10,000 as compensation in addition to the amount of compensation payable under condition 9. Besides it will be incumbent on all working factories to abide by the old conditions by mutual agreement. If any working factory becomes out of order, it can ask some other to work in its place till the repairs have been completed. No factory can be given on lease or contract during the pool.

Sd. R. B. Hari Chand, Managing Director for Sri Guru Nanak Co., Ltd., Ginning Factory.
 Sd. Mian Mahomed for (1) Punjab Cotton Press Co., Ltd., (2) Sh. Mahomed Ismail Maula Baksh Ginning Factory, (3) Sh. Mahomed Ismail Mian Mahomed Ginning Factory.

Sd. L. Bhoopa Mal for L. Ganga Sahai Ginning Factory.

Sd. L. Har Charan Das for L. Kirpa Ram Brij Lal Ginning Factory.

Sd. Hari Chand for Krishna Cotton Factory.

Sd. Hardial for L. Bhowani Sahai Kanshi Ram.

Sd. Prabhoo Dyal for Seth Sukhdeo Baksh Factory Nos. 1 and 2.

Sd. Fateh Chand, pleader, for Gyan Mills Cotton Ginning Factory.

NOTE.—Both the Gyan Mills can erect flour mills and oil presses on their present engine and boiler.

Sd. Seth Prem Chand Sindhi for Seth Lorinda Ram Sewa Ram Ginning Factory.

NOTE.—The factory will be at work for two years and will remain closed for two years according to the will of this owner.

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[Continued.]

(II)

Copy of proceedings of Ginning Pool and Press Pool Committee, Lyallpur, dated 13th September 1917.

Present (1) L. Kirpa Ram for Kirpa Ram Brij Lal, (2) L. Prabhoo Dyal for Sukhdeo Baksh Factory, (3) L. Brij Lal for L. Bhowani Sahai Kanshi Ram, (4) Seth Hukumat Rai for Lorinda Mal Sewa Ram, (5) L. Fateh Chand for Gyan Mills, (6) Goosain Dewan Chand for Dewan Chand Ram Labhaya, (7) M. Mathra Das for Thakar Das Mathra Das and Guru Nanak Co., (8) L. Bhoopa Mal for Ganga Sahai Factory, (9) Shah Maula Baksh for Mahomed Ismail Maula Baksh, Punjab Cotton and Mian Mahomed Ismail Factory.

At the proposal of L. Prabhoo Dyal, L. Fateh Chand was elected as President of the meeting.

Proposed by Shah Maula Baksh that proceedings about Lyallpur Press Pool be taken in hand first, as all present are of the same opinion, and added that the total amount realized on account of Press Pool up to now be distributed.

L. Prabhoo Dyal raised an objection on Rai Bahadur Hari Chand who had given his factory on lease and enquired whether the Pool was in force or not and said that this point should be decided first. He added that Rai Bahadur Hari Chand is liable to penalty if the Press Pool has broken down. The accounts should be settled up to the date of lease if the Press Pool is in force and M. Mathra Das is desirous of joining it, and if all agree the Pool can continue and the accounts cleared up to date.

On this M. Mathra Das said "I am desirous of joining the Pool from 1st August and am ready to accept all conditions."

Another objection was raised by L. Prabhoo Dyal relating to the lease of press of L. Bhowani Sahai Kanshi Ram Factory for pressing *bhusa*, saying that no report was received. The point to be cleared is whether or not he was authorised to give it on lease. A report should have been submitted according to the term of the agreement.

L. Brij Lal replied "I will send the account and report to the Pool Manager and am responsible for the amount."

L. Prabhoo Dyal again said that the account should be sent up to date.

Another matter was brought up by M. Mathra Das which was agreed upon by all that no press should be given on lease for cotton pressing to any contractor.

Proposed by L. Prabhoo Dyal and passed.

That cotton of those gins should not be accepted for pressing which were not included in the Pool.

M. Mathra Das said that he will not press cotton of such factories at Chak Jhumra and L. Kirpa Ram and L. Prabhoo Dyal should not do so at Gojra.

Proposed by Sh. Maula Baksh and passed.

That Gyan Mills be included in the Pool at annas 11 as proposed in the letter, with all expenses mentioned in it. As the price of iron has increased, the pressing charges of a bale be fixed at Rs. 7-8-6, out of which Rs. 3-8 should be paid into the Pool Fund by every press working and the balance of Rs. 4-0-6 kept on account of expenses.

Moreover, it was passed unanimously that if the cotton from Chinot factories is pressed at Chak Jhumra, then the owners of presses at Jhumra should pay a sum of Rs. 1-12 per bale pressed to the Press Pool Fund at Lyallpur and if that cotton is pressed at Lyallpur, then the Pool Manager will pay the sum of Rs. 1-12 per bale to the press owners at Jhumra through M. Mathra Das.

M. Mathra Das holds himself responsible for both the presses.

(Sd.) L. FATEH CHAND.

(Sd.) MAULA BAKSH.

(Sd.) BHOOPA RAM.

(Sd.) MOHAN LAL.

(Sd.) M. MATHRA DAS.

(III)

Proceedings of meeting of Ginning Pool held on 30th September 1917.

Present.—Besides the managers, the following were present :—Seth Hukumat Rai for Seth Lorinda Mal Sewa Ram, Goosain Dewan Chand for L. Dewan Chand Ram Labhaya.

M. Mathra Das said that he has given a letter to Brij Lal accepting all the terms for inclusion of the factories of M. Thakur Das, Mathra Das and Sri Guru Nanak Co., which he has taken on lease in the Ginning and Press Pools and requested that he may be accepted on the same old terms. This was accepted by all.

Passed unanimously and accepted by M. Mathra Das that cotton purchased in Lyallpur *mandi* by any agency will not be accepted for ginning at any factory at Chak Jhumra. If Sheikh Fazal Din himself or others of the Chak Jhumra factories buy cotton at Lyallpur, then Lyallpur factory owners can do so at Chak Jhumra. A Ginning Pool fee of Rs. 0-1-6 per maund and Press Pool fee Rs. 1-12 per bale will be levied on such cotton. If the Lyallpur factory owners begin to buy cotton at Chak Jhumra, then M. Mathra Das can also buy cotton from Lyallpur; but this will not apply to cotton purchased at auctions by the Agricultural Department.

(Sd.) L. FATEH CHAND.

(Sd.) SH. MAULA BAKSH.

(Sd.) GOOSAIN DEWAN CHAND.

(Sd.) L. BHOOPA MAL.

(Sd.) SETH HUKUMAT RAI.

(Sd.) L. KIRPA RAM.

(Sd.) L. BRIJ LAL.

(Sd.) M. MATHRA DAS.

(Sd.) SETH MOHAN LAL.

(IV)

Further agreement in regard to the establishment of a Second Ginning Pool at Lyallpur.

This day the 15th November 1917, we, the partners of working ginning factories, with the exception of L. Dewan Chand Ram Labhaya and Seth Lorinda Ram Sewa Ram, have come to the following decision, which is binding on us all. If any owner does not conform to these conditions singly or conjointly shall have to abide

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[Continued.]

by the decision of the Committee arrived at by the majority of votes, and the defaulters will have to pay Rs. 2,000, as penalty, which will be distributed equally amongst the others.

1. All factories, the number of whose ginning machines is given below, are at work. As the cotton is not sufficient to meet our demand, the following decision has been arrived at. From to-day every owner of the factory will buy cotton to keep 32 gins at work and he will get a sum of Rs. 0-1-6 per maund of cotton purchased from the Pool Fund besides the sum already allowed by the General Pool in order to compensate him for not working the rest of his gins, that is to say, every partner is allowed to buy cotton sufficient to work 32 gins, but he is at liberty to get work from the other gins also. The weight of cotton thus purchased will be verified every fourth day. The weight will include all cotton purchased from *mofussil* with the exception of that purchased in *mandis* on railway line between Lahore and Khanewal and Jhang railway station.

2. The Pool has been organised for 1917-18 only and will be termed as "Second Local Ginning Pool" and Sh. Maula Bakhsh has been appointed as permanent Manager who will be in sole charge of all arrangements concerning the Pool.

3. The amount of Pool money will be distributed every second day.

4. The weight of cotton will be verified every fourth day and any owner of the factory found in possession of more cotton than others will have to stop his purchase to enable others to make up their deficiency. And if within eight days, the deficiency cannot be made up then other partners will not be liable in any way about their deficiency.

5. The cotton purchased and weighed by any owner of the factory up to 14th November is excluded from this Pool if it has been entered on the General Pool.

	Number of gins working.	Number of gins closed at second pool of Rs. 0-1-6 per maund.
(1) Seth Sukhdeo Bakhsh and Jagdish Narain Factory	102	70
(2) M. Thakar Das Mathra Das	74	42
(3) L. Kirpa Ram Brij Lal	50	18
(4) Mahomed Ismail Maula Baksh	62	30
(5) L. Ganga Sahai Factory	44	12
TOTAL	332	172

6. Any owner of the factory if he does not wish to work his factory with cotton sufficient for 32 gins only can close it on giving notice in writing to Pool Manager within a week from the date of the institution of the second pool. He will get Rs. 150 per gin (32 only) as deposit money against the regular payment of Pool money, and if he gives information of closing his factory after a week but before 1st December he will be given a sum of Rs. 100 per gin for 32 machines only as security deposit. A sum of Rs. 50 per gin will only be given for those machines closed according to clause 5. The accounts will be cleared after the close of the season, but the amount of Press Pool will continue to be distributed as usual.

7. If any owners of the factories wish to work together, they can do so. They will get cotton at the rate of 32 gins per factory whether they keep working two factories or one.

8. If any owner of the factory wishes to close his factory during the season, he will give notice to the Pool Manager and after which he will not be allowed to work his factory. In that case pool money will be calculated at "Second Pool" rates.

9. Copy of above be forwarded to Seth Lorinda Ram Sewa Ram at Karachi with the request that he too should join and if he accepts then he too may be included in the "Second Pool" from the date of sanction.

10. To-day the rate of pressing has been increased by Rs. 2 per bale. This extra amount of Rs. 2 recovered from purchaser of cotton (ginned) will be kept by the press owners and the extra amount of Rs. 2 recovered from those who get their cotton pressed should be given to the Pool Manager which will be distributed after every week in equal shares.

(Sd.) MATHRA DAS for Thakar Das Mathra Das.

(Sd.) L. JAI GOPAL for Kirpa Ram Brij Lal.

(Sd.) L. BHOOPA RAM for Ganga Sahai Factory.

(Sd.) L. MOHAN LAL for Sukhdeo Bakhsh Factory.

(Sd.) SH. MAULA BAKHSH for Mahomed Ismail Maula Baksh.

(V)

Proceedings of the meeting held on 16th November 1917 by the partners of the Ginning Pool.

1. Passed unanimously that from to-day no cotton whether American or country will be sold except in bags, that is to say, it will be sold on delivery in bales. The contracts entered into prior to this date are given below :—

Name of factory.	Name of party.	Bales.
1. Seth Sukhdeo Bakhsh Factory	1 Ramji Mal Trikha	1000
	2 Khushi Ram Bihari Lal	50
2. Ganga Sahai Factory	1 Ramji Mal Trikha	50
	2 Khushi Ram Bihari	50
3. Sh. Mahomed Ismail Maula Baksh	1 Ramji Mal Trikha	75
4. Kirpa Ram Brij Lal Factory	1 Ramji Mal Trikha	100
	2 Sewa Ram	50
	3 Dewan Chand	50
5. M. Mathra Das Thakur Das	1 Tirath Das Lorinda Ram	51
	2 Tota Daya Ram	11
	3 Forbes	151
	4 Tata	51
	5 Dewan Chand	200

2. No partner will get the cotton cleaned of mixture owing to the difficulty in obtaining labour. If any owner of the factory acts against the settled matters, he will have to pay a sum of Rs. 301 as penalty to others. The Committee of the shareholders will decide by majority of votes as to the person at fault and the decision will be final and binding. Before the meeting of the Committee, every shareholder

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will have to deposit a sum of Rs. 101 with the Pool Manager, the balance of Rs. 200 will be realized by the Manager from the share of Pool money of the defaulter.

(Sd.) SH. MAULA BAKHSH.

(Sd.) SETH MOHAN LAL.

(Sd.) L. JAI GOPAL.

(Sd.) L. BHOOPA MAL.

(VI)

Proceedings of 9th December 1917.

Present.—L. Bhoopa Mal, Sh. Maula Bakhsh, Seth Hakumat Rai, L. Jai Gopal and M. Mathra Das.

The following matters were decided about "Second Ginning Pool" :—

It was decided that the second ginning pool organised on 15th November 1917, by which every partner was bound to buy cotton sufficient to keep only 32 gins working and for which a sum of Rs. 0-1-6 per maund was to be charged for the pool, may be cancelled. It was also decided that the resolution, dated 26th November 1917, fixing a penalty of annas 4 per maund on cotton purchased in excess of the quantity required for working 32 gins may be cancelled.

As the two factories owned by Seth Sukhdeo Bakhsh and the Jagdish Factory have been sold, the Pool Manager will call a meeting of the shareholders for 16th December 1917 at 4 P.M. on Sunday to settle the working of the pool system in future. The distribution of pool fund has on this account been stopped.

(Sd.) L. BHOOPA MAL.

(Sd.) M. MATHRA DAS.

(Sd.) SH. MAULA BAKHSH.

(Sd.) L. JAI GOPAL.

(VII)

Agreement in regard to establishment of a Press Pool at Lyallpur.

We, the owners of press factories at Lyallpur, agree and bind ourselves to abide by the following conditions :—

(1) Messrs. Kirpa Ram Brij Lal Press Factory, (2) Sri Guru Nanak Company, (3) Messrs. Bhowani Sahai Kanshi Ram Press Factory, (4) L. Ganga Sahai Press Factory, (5) Punjab Cotton Company, Ltd., (6) Seth Sukhdeo Bakhsh Press Factory :—

(1) This agreement is made for four years, i.e., from 15th August 1914 to 15th August 1918, and will be considered valid after that date also unless any of the partners is desirous of leaving the pool, in which case the party concerned will have to give a registered notice about his intention of leaving it. The term of the notice will not be less than eleven months and notice cannot be given before the 15th August 1918. The pool will continue after the notice has been given and on the expiry of the period of eleven months it will cease to exist.

(2) If any owner of the press removes his press to another place, he can do so, but he will not be considered a member of the Pool after its removal and will get no share.

(3) If any party transfers his press to another on account of some reasons, then the person to whom it is transferred will have to abide by these conditions.

(4) The rate of pressing bales of cotton weighing 400 lbs. with packing will be Rs. 4-8 and for each bale of wool weighing 300 lbs. with packing will be Rs. 3-8. After deduction of Rs. 1-8-6 on account of expenses, etc., the balance will go to the Pool Fund and will be distributed equally among the owners of six presses.

(5) If any other article is pressed with the exception of cotton and wool, then the owner is at liberty to charge any rate, but he will have to pay a sum of annas 8 per bale into the Press Pool Fund.

(6) Pool Manager will be appointed from among the managers of the six presses by turn and will be honorary. A clerk and a peon will have to be engaged at a cost of not more than Rs. 25 a month. This amount will be paid from the Pool Fund and will be deducted by the Pool Manager. If a press is closed, when its turn to give manager for Pool work comes, the manager can be appointed from the press whose turn comes next.

(7) In case of disputes the decision of Rai Bahadur L. Hari Chand and L. Harkishen Lal will be final.

(8) The managers of the presses at work will send reports of pressing bales daily to the Press Pool Manager and the income of one day will be distributed among the partners on the morning of next day.

(9) Rai Bahadur L. Hari Chand and L. Harkishen Lal are authorised to press cotton of outsiders at a low rate and to refuse pressing of cotton of other ginning factories.

(10) Presses whether working or closed on account of some accident during the season are entitled to their full share. The press which becomes out of order during the season will have to be set right before the next season begins, or in default will lose its share. If during the period of the Press Pool, any new press is established at Lyallpur or in its vicinity and if loss is anticipated then Rai Bahadur L. Hari Chand and L. Harkishen Lal are authorised to arrange to get the new press included in the Press Pool on suitable terms, or in other case arrangements will have to be made for competition.

Dated Multan, Saturday, the 14th February 1914.

(Sd.) KIRPA RAM BRIJ LAL, Sri Guru Nanak Company.

(Sd.) BHOWANI SAHAI KANSHI RAM, Ganga Sahai Press Factory, Punjab Cotton Press Company, Ltd. and Seth Sukhdeo Bakhsh Press Factory.

(Sd.) L. PRABHOO DYAL.

NOTE.—We, the owners of the above presses, have also ginning factories at Lyallpur and we do hereby promise not to give on lease or contract or in any other way our ginning factories to exporting firms during the continuance of the Press Pool. Exporting firms include all European, Japanese and other trading firms.

(Signed by all above mentioned.)

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[Continued.]

(VIII)

Further agreement in regard to the Press Pool.

This day, the 15th of September 1917, the following has been agreed upon by the press owners:—

1. Owing to the rise in the price of iron plates, packing materials and coal, the charges for pressing bales be increased by Rs. 2 per bale, i.e., Rs. 9-8-6 will be charged for each bale instead of Rs. 7-8-6 and out of this sum an amount of Rs. 3-8 per bale will be paid into the Press Pool Fund by the owners of the working presses and Rs. 6-8-6 will be retained as expenses. The Pool Manager will notify this rise of charges to purchasers. The previous rate of Rs. 7-8-6 per bale will be levied on all entered into and on all cotton lying unpressed with the following presses prior to 15th September 1917:—

Name of factory.	Name of owner.	Quantity in bags.
1. Sukhdeo Bakhsh Factory	1. Bussain Co.	251
	2. Ramji Mal Trikha	300
	3. Khushi Ram Bihari Lal . . .	50
2. L. Ganga Sahai Factory	1. Lorinda Ram Sewa Ram . . .	152
	2. Forbes Co.	25
	3. Ramji Mal Trikha	50
	4. Khushi Ram Bihari Lal . . .	50
3. L. Kirpa Ram Brij Lal	1. Lorinda Ram Sewa Ram . . .	125
	2. Bussain Co.	51
	3. Ramji Mal Trikha	100
	4. Diwan Dhanpat	131
4. M. Mathra Das Thakar Das . . .	1. Bussain Co.	257
	2. Tirath Das Lorinda Ram . . .	251
	3. Tota Daya Ram	11
	4. Diwan Dhanpat	200
	5. Forbes	151
	6. Tata and Sons	51
5. Sh. Mahomed Ismail Maula Bakhsh .	1. Diwan Dhanpat	40
	2. Ramji Mal	75
	3. Lorinda Ram Sewa Ram . . .	30
	4. Bussain Co.	30

2. L. Kirpa Ram Brij Lal has promised to give a rebate of eight annas per bale to Seth Tirath Das Lorinda Ram provided the latter signs an agreement and sends it to the Press Pool Manager within a week that he will get pressed from L. Kirpa Ram Brij Lal all the cotton ginned at his factory during this season. No other press in the Pool is allowed to give any rebate whether in cash in rate or in weight to any ginning factory.

3. In the case of decrease in pressing expenses or in case of some loss to the Press Pool the shareholders can call a meeting to consider the question of reducing the new rate for pressing.

(Sd.) L. LACHMAN DAS,
for Bhowani Shai Kanshi Ram.
(Sd.) L. ISHAR DAS, for Gyan Milla.
(Sd.) M. MATHRA DAS.
(Sd.) SETH MOHAN LAL.
(Sd.) L. BHOOPA MAL.
(Sd.) SH. MAULA BAKHSH.
(Sd.) L. JAI GOPAL.

ANNEXURE II.

Statement showing the daily rate per munda of American and Deshi cotton for the month of November 1917 at Tandilawala and Lyallpur Mandis.

Mandis.	Date																														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
American.	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.
	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.
Tandilawala	13 8	13 14	14 4	14 0	14 0	14 2	14 7	15 0	15 7	15 12	15 13	15 10	15 15	15 15	16 5	16 7	16 13	17 0	17 0	16 14	16 15	17 2	17 0	17 8	17 17	18 8	17 12	17 12	17 10	17 12	17 14
Lyallpur	16 0	16 0	16 4	16 0	16 0	16 0	16 14	17 6	18 0	17 0	17 0	16 12	17 0	17 4	17 12	17 2	16 15	17 0	17 4	17 10	18 4	17 14	18 0	18 0	18 12	18 8	18 18	18 8	18 0	18 0	18 8
Deshi.																															
Tandilawala	10 8	10 8	11 8	11 9	11 8	11 9	12 8	12 11	12 9	13 0	13 4	12 14	12 13	13 11	12 13	13 6	13 9	13 0	13 8	13 12	13 12	13 12	13 8	13 8	13 14	14 4	13 4	14 6	14 12	14 12	
Lyallpur	12 0	12 0	12 4	12 0	12 4	12 4	12 7	12 8	12 9	12 12	12 12	12 12	13 0	13 2	13 2	12 13	12 14	12 14	13 0	13 2	13 6	13 6	13 6	13 7	14 0	14 0	14 2	14 2	14 0	14 4	

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[Continued.]

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MR. SARAN DAS JALOTA.

Mr. SARAN DAS JALOTA, partner of Mr. Mohan Lal Badhwar, Cotton Ginner and Presser, Hansi.

EXAMINED AT LYALLPUR, JANUARY 12TH, 1918.

Written statement.

I.—AGRICULTURAL EXPERIENCE.

(a) "Deshi" short staple cotton.

4338. (1) **Experience.**—I have been most of the time in Hansi, District Hissar, and my experience of the place ranges from 1905. There have been good as well as bad years and the quality of cotton has ranged from "good," "fully good" and even to "fine." We have sold our cotton locally, and have often sent it to Bombay and Karachi.

4339. (3) **Size of holdings.**—Land in this district is under the control of big landlords, who sublet it to farmers. We may say, on an average, a tenant works on about ten acres of land. Sixty per cent. of his holding he uses for *khari* and forty per cent. for *rabi* crop. Of sixty per cent. *khari*, half, viz., thirty per cent. is put under cotton cultivation.

4340. (4) **Yields and profits.**—The total number of acres under cotton in this district varies from seventy thousand to a lakh or near about (definite figures may be obtained from District Officers). Yield of *kapas* or raw cotton is very poor and amounts to about 3·7 maunds per acre. Taking the average price of *kapas* for the last ten years at Rs. 9 per maund, and deducting from its cost of ploughing Rs. 6 per acre, weeding Rs. 6 per acre, revenue, water tax and land rent, Rs. 9 per acre, the net income of a tenant, including his labour for six months, comes to (Rs. 42·3—21·21·3) Rs. 21·3 per acre. The average holding being ten acres and thirty per cent. of it being under cotton (hence) from the cotton crop the farmer makes about 21·3 × 3 = Rs. 63·9 in six months.

4341. (5) **Rotations and manures.**—Usually cotton is sown either after wheat or on the land where cotton was sown in previous year. The financial condition of tenant being very bad, landlords not taking any interest to make land yield more, being always afraid of enhanced revenue, manures not being obtainable in large quantities, artificial manures not being introduced in India to any extent, hence all crops are grown without any manuring. These being the conditions for all kinds of cottons, the farmer, if by good luck he happens to sow seed of a cotton that yields more lint, gets better prices than his brother who sowed seeds of cotton giving poor lint.

4342. (7) **Conditions affecting increase in area.**—The area under cotton cultivation varies, depending upon canal water-supply and timely rains. Often a tenant cannot sow cotton because he does not get enough water and that in time.

4343. (8) **Uses of seed and seed selection.**—The seed is mostly used as cattle feed. In some villages seed selection is effected, and that on the principle that the farmer takes the best bolls, hand gins them, uses the lint for spinning and keeps the seed for sowing.

II.—COMMERCIAL ASPECT.

4344. (30) **Local trade customs.**—The system of marketing is that the farmer brings *kapas* from his field to his house where he stores it, in order to mix all pickings good and bad, a petty trader goes into the villages, purchases small amounts of cotton from most of the farmers, mixes the *kapas* thus gathered and brings it to the ginning factories where it is sold through his commission agents.

4345. (31) **Standardization of commercial names.**—Future (forward) buying or contracts are not entered into by traders with farmers but among themselves. There is no commercial name of different grades of cotton, it is all *deshi*. It is impossible to standardise any names as the quality of *deshi* of one place may be good enough to pass in "fine," while of another place it may go in "fully good" and of a third place may be classed as "good" or even below. The cotton when it reaches Bombay is seen by the experts and classed under whatsoever class it comes.

4346. (32) **Buying agencies.**—The present system of buying, as it is, is best. A man brings his goods and sells for the best prices through his commission agents to the highest bidder, the purchaser looks at the goods and if the price suits him he purchases, otherwise he refuses. No agency under Government control seems practicable. No rates can be fixed as *kapas* of one cart may be so very different from another. Each cart of *kapas* fetches what it is worth and often more where there are more factories than the production of *kapas*, as in this place (Hansi) where there are so many gins, which, working all at a time, would finish the whole crop in fifteen days.

4347. **General recommendations for improvement of quality of cotton.**—To obtain the best results for producing better quality cotton it is absolutely necessary that experimental research work should be carried on to improve the condition of the plant, but research work should be done in such a way that farmers or ginners may obtain the maximum benefit. To obtain that end, it will be necessary that results obtained by research staff should be published and distributed free of cost among farmers and others interested in the line.

(2) Most of the farmers are illiterate and very conservative in their methods. It will be much better if, in each cotton-growing district, some plots of lands, for a certain period, be given to some *enterprising young men*, who will undertake growing of cotton or other articles under the direction of Director of Agriculture, they to keep all kind of records as desired by the Department; in short these farms should work as demonstration farms and they should be given all possible assistance. These young educated farmers by means of these demonstration farms will do improvements in ten years which by means of present experimental farms may take a century.

(3) The most regrettable thing is that although India possesses the best soil and best climatic conditions, yet its people through their own ignorance and poverty are unable to take the full returns from them. An American farmer gets double the yield of *kapas* per acre and their *kapas* fetches more than double the price, simply because he is educated and progressive, makes use of manures, sows better seeds, is always in touch with the Government research station, and looks to them for help which is given as willingly as freely asked. Make such conditions in India, help the farmers by establishing demonstration

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[Continued.]

farms and the condition of farmers will be changed and Indian as well as Lancashire Mills will be saved from paying too high prices to America which sells always at highest.

4348. **Necessity of control of ginning factories.**—For the production of *kapas*, to manufacture it and to prepare goods of selected kind, ginning factories should be controlled, and kept in touch.

(2) In any place more factories should not be allowed than are necessary. In certain stations, there are more factories than needed while at others there are none, hence at one place money invested is wasted and at others the crop suffers, there being no machinery to handle and move it.

(3) Small factories of a few machines working day and night, not being under the Factories Act, and disposing of their goods locally for quilts, etc., often assist in lowering the standard of cotton, as no picking is made in what is to be sold locally, price goes on rising, big factories cannot afford to do what small factories are not doing, hence in competition for cheapness the quality of cotton and seed is ruined.

(4) Usually McCarthy roller gins are used in India, saw machines being neither suitable for short-staple nor for very big staple, hence they are not used successfully in the Punjab. Long-staple cotton can be ginned on the existing machines but present buildings of ginning factories are not suitable to handle valuable cotton—*kapas* and cotton gets mixed up, there being only one passage for men handling both *kapas* and cotton. Sometimes seed also, though separated by the machine, yet it again gets mixed being accumulated too much under the machine, therefore for obtaining pure quality of cotton changes should be made in the buildings of the ginning room. It is immaterial how these are effected as long as cotton, *kapas* and seed each remain separate.

(5) In our opinion, it will be much better if in each cotton growing district, Government puts up a model factory or arranges to have a factory put up by giving some help to some factory owner for making the alteration.

4349. **Measures necessary to increase cultivation of long-staple cotton.**—In our humble opinion, any of the following methods be adopted, if possible, to assist growing of long-staple cotton in place of *deshi* :—

- (1) Government to start demonstration farms run by itself and show the people profit arising from sowing long-staple *kapas*.
- (2) Government to give assistance to present farmers in seed and manures.
- (3) In each cotton growing district, Government to give lands for a certain number of years to enterprising educated young men to start demonstration farms.
- (4) Canals to supply plenty of water when it is needed for sowing long-staple varieties.
- (5) Government to introduce improved agricultural implements and lend or rent same to the farmers or to assist some local firm to take up the work in each district.
- (6) Lands of each district to be analysed and manures, as thought proper by Government experts, to be prepared and given or sold to farmers at nominal prices.
- (7) Lowering water and land tax for the farmers who sow long-staple cotton to give them an impetus.
- (8) A model factory to be erected by Government or through its assistance, that factory to supply seed of pure quality and cotton that gets out of it to be called by standard name.

In case Government thinks fit to accept any of the above proposals or any others, we are willing to co-operate and do as much as in our power in establishing demonstration farms, in erecting model factory etc., under instruction of the Director of Agriculture or as otherwise advised.

MR. SARAN DAS JALOTA called and examined.

4350. (Mr. Wadia.) I am a partner of Mr. Mohan Lal of Hansi. At the present time, we have got 66 gins working. We have 110 gins at Hansi in all but during the recent rains a part of the factory fell down and 44 gins were damaged. We have also got a press. There are ten ginning factories in Hansi, Hissa and Bhiwani with over a thousand gins. If all the factories at these places were working, the work would not be enough for fifteen days. The average total crop is about two lakhs of maunds. This year five of the factories are working but not at their full capacity. Many of the buildings were damaged by the rains. The number of gins in the factories varies from about 20 to 110. The crop is extremely bad this year, and will be only about 80,000 maunds. We expected about seven to eight lakhs of maunds from the sowings, so that we shall only get about one tenth.

4351. There can be no better system of buying than that at present under which the seller brings his goods to the market and sells them through his commission agents. Goods are so varying even in one cart that you cannot fix any price. You cannot ask the purchaser to purchase on a fixed price. Neither the purchaser nor the seller would be satisfied if any prices were fixed. The seller brings his goods through his commission agent to the ginning factory. If he is satisfied with the price and the purchaser is satisfied with the goods, a deal is done. If either of them is not satisfied, the seller takes his goods to another place and sells them there. Sometimes it happens that one party offers more than others.

4352. The reason why cotton comes in in a mixed state, is that the farmers are not so very careful in their pickings. They try to get the best price from the ginners and therefore put some bad cotton in the middle and some good cotton at the top to give an appearance of better quality. Cotton always comes in in a mixed state. It is very seldom that we get pure quality. The farmers sell part of their *kapas* to the *banias* and *aratis*. Sometimes the *bania* goes to a village and purchases *kapas* from two or three different farmers and mixes the whole lot before bringing it to the ginning factory. The *bania* and the farmer both mix *kapas*. The farmer does not keep the different pickings separate. He does not take into consideration that a better quality will get a higher price.

4353. The *bania* who purchases cotton does not advance money to the cultivator but there are *banias* who advance money to the cultivators and act as commission agents. They do not purchase cotton themselves on a big scale. They do not buy the standing crop in my district. In practice, the factory owner fixes his own price when cotton is brought into his factory. It may be the price of the day or not. In a place like Hansi where there are so many factories and so little crop, for the last seven or eight years the cultivators have been getting better prices than they could get anywhere else. All over the Punjab, the ginners and pressers buy on their own account. The system is very different here from that in the United Provinces. There the ginners and pressers only work on commission. In the Punjab, everything is done by one and the same party. It is the factory owners who purchase the *kapas*, gin it, press it and then send it to Bombay for sale there. The factory owners pay for thirty maunds of *kapas* what on that day is the rate for one *khandi* of lint plus the price of twenty maunds of cotton seed less cartage, commission, insurance and Rs. 7 to the pool. Every ginner thinks the more he can gin the less will be his expenses.

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Mr. SARAN DAS JALOTA.

[Continued.]

4354. The price of ginning and pressing is fixed. Where the gins and press belong to the same person, it is immaterial whether his profits are made on ginning or on pressing. There is a ginning pool at Hansi. Four annas per maund of *kapas* are paid into the pool and the total is afterwards distributed among the ginners according to the number of gins each factory possesses. The pool does not regulate the price for ginning and pressing. Undoubtedly if different charges are made by different factories, the one which made the lowest charge would get the greatest amount of *kapas*. The pool does not fix the price of *kapas*. There is no buying pool, there is only a ginning and pressing pool. Any ginners or press can charge what it likes. Everybody is on his own and may purchase at any price he chooses but it is immaterial what price a ginner pays as he has to pay four annas per maund to the pool whether he purchases the *kapas* for Rs. 15 or Rs. 15-8-0. Four annas a maund of *kapas* is equal to Rs. 7-8-0 per *khandi* of *rui*. The object of these pools is to enable the ginners to make something. If one party does not do it, the others must. As it is, by fixing a minimum of four annas to be paid into the pool, we tried out best to cut competition down. The money paid into the pool is supposed to come out of the cultivator's pocket but often it does not. Usually the pool accounts are settled every year but they have not been settled for the last two years as some of the parties did not pay up and did not come to the meetings.

4355. I have suggested in my written evidence that it would be much better if in each cotton growing district some plots of lands were given for a certain period to some enterprising young men who would undertake to grow cotton and other crops under the direction of the Director of Agriculture. It is true that we have a Government experimental farm in Hansi. But when people come to know that it is a Government farm and that so much money has been spent upon it, they think that it is out of the power of an ordinary cultivator to do things on that scale. If there were such farms as I have suggested, which were being run on a business basis and cotton was grown on them, that would give a better idea to the farmer. He would see that while his cotton was being sold at Rs. 10, the cotton from the farm was being sold at Rs. 12 or Rs. 13, i.e., at Rs. 2 or Rs. 3 premium and he would naturally try to follow the farm methods and sow that cotton. As long as the work is done by Government, the people think that an enormous amount of money has been spent and it is immaterial to them whether the Government cotton fetches Rs. 15, Rs. 20 or Rs. 30. What is wanted is demonstration farms run by independent farmers under the Director of Agriculture. The experimental farms should be in touch with the demonstration farms and demonstration farms should always be in touch with the people. The demonstration farms should receive instructions from the experimental farms and try to do things in the same way. The man in charge of the experimental farms would visit the demonstration farms three or four times a year and see how things were and give personal advice on the spot.

4356. I think it is suggested in my written evidence that a kind of model factory should be established either by Government or factory owners which would specialize in ginning particular cotton instead of mixing it up with other cottons. That is, it would be ginned separately and kept separately. We should be willing to purchase cotton from the farms I have suggested and we would guarantee that we would not mix it. I have already stated in my written evidence that more factories should not be allowed in one place than are necessary for the crop. The difficulty comes in when there are already more factories in existence. There may be some other places where there are not enough factories. I think if the factory owners were asked to remove to such places and some assistance in the shape of land and so forth were given to them by Government they would be willing to do it. Their factories are mostly lying idle and most of them are dependent on these pools because the pools were formed chiefly for the purpose of keeping their factories shut. Otherwise thousands of gins would be working in the Hissar District. Now we have only three to four hundred working in Bhawani, Oklam, Narnaul and Hissar. Most of the factories are simply satisfied with the little that they get out of the pool. If all of them were to start work, the work would only be enough for two factories. Every one of the ginning factories has had tremendous losses. If they are given a few facilities, they would be willing to remove to some other district. It is a question of removing their machinery. In a new place, Government should not allow more factories than are necessary for the work. If new factories have to be put up, sanction should be obtained from the officer in charge of the Department of Industries or of Agriculture.

4357. I am in favour of legislation to prevent more factories being put up than are really required. In Hansi there are ten factories. More than fifteen lakhs of rupees has been invested in them. There may be some places where there is no factory at all and yet there is a bumper crop. In Hansi, the money invested is practically wasted. Four factories would have done as much work with an investment of about four lakhs as ten have done with an investment of fifteen to sixteen lakhs. It is the duty of Government to see that public energy and money are not wasted. If legislation is necessary to prevent this, I do not think there is any harm in having recourse to it.

4358. I have already stated in my written evidence that small factories of a few machines working day and night, not being under the Factory Act, and disposing of their goods locally for quilts, etc., often assist in lowering the standard of cotton, as no selection is made in regard to what is to be sold locally. This year the amount turned out by small factories not under the Act has been small. As the small factories require only a small amount of *kapas*, they start working at the beginning of the season when the arrivals of *kapas* are low and make handsome profits by selling locally. When a big factory starts, as it requires a bigger amount of *kapas* to work all its machines, it offers bigger prices and competition starts, each factory trying to purchase enough cotton to keep its machines busy. The big factory has the advantage that its output is big, hence its expenses per maund are lower than those of the small factory. The small factory makes up this difference in expenses by purchasing a lower quality and mixing thereby lowering the standard and by selling its cotton locally rather cheap. This year we sold locally 400 to 500 bales. Some of it has been sent to Marwar for local use. I do not know whether Marwar cotton is better than our own and whether this cotton is bought for mixing. I consider that big factories and small factories should be put on one and the same footing. If there is legislation on for big factories, there is no reason why it should not be for the small factories as well, and *vice versa*. If one factory can only work for ten hours, why should another be allowed to work for 24? The small factories are not under the Factory Act and they can work with women as well for any number of hours. The present buildings of ginning factories are not suitable for the handling of cotton. No platforms are wide enough. Under the present system there is only one passage and there are machines on both sides. When a man brings in *kapas*, some of it falls into the passage and is mixed with ginned cotton from the machine. Then the man carrying *kapas* probably throws it over the gin on the platform and some of it falls and gets mixed with the ginned cotton. There must be some arrangement to prevent this. There should be a separate entrance for *kapas* and a separate exit for cotton, or the cotton should be carried away by conveyers. It must be arranged that seed, lint and *kapas* should all remain separate and not get mixed up. As to whether the present ginning factories should be remodelled on a definite plan, I

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should say that they will remodel themselves when they are ginning a better quality of cotton. Too much money has been invested in the factories for them to remodel themselves for the present crop. The question of entrances is not the only one. There is also the question of passage between the machines. The size of the platforms behind the gins is only 4½ feet. The condition of the factories is very bad. They have been suffering losses, and it would not pay them to remodel.

4359. I have suggested in my written evidence that Government should introduce improved agricultural implements and lend or rent them to the farmers or should assist some local firm to take up the work in each district. What I meant by that was that the farming implements which are now used are of a very crude nature. The farms are not big enough and the farmers are not in a position to purchase better implements by themselves. Take for instance the case of threshing machines. There are not very many farms who have enough work to employ a machine of their own. That is also the case with the Raja plough. Most of the cultivators have not got strong enough oxen to draw them.

4360. (Mr. Hodgkinson.) I have ginned American cotton at Jhang. I used to gin it in the same gin as *deshi*. The American cotton was ginned after the *deshi*. No alteration was necessary in the gin, beyond simply an alteration in the fixing of the knives. Of course, in ginning American cotton, the grids have to be changed to allow the seed to fall through. The grid for *deshi* is about one-eighth of an inch while for American it is about a quarter of an inch. By putting in something between the two we can gin *deshi* as well as American on the same grids. We do not have to change the grids every time. We change from American to *deshi* and *vice versa*. The *mistri* alters the fixing of the knives very easily.

4361. (Mr. Roberts.) I have had a little experience of American cotton in Jhang. I was about four years in Jhang. We started a factory there in 1909-10. We have been buying American cotton since then. There was a fairly large quantity of American cotton available there in 1910 and that was the reason why we put up a factory. The quantity that we are getting is more and more *narma* and is improving. At first we got more *deshi* and less *narma*. Now we get more *narma* and less *deshi*. Even at the present time, we usually find about ten per cent mixture of *deshi* in the American even in the very best cotton. We do not do any intentional mixing because when prices are high the difference between the price of the low grades and high grades is very low. When the prices fall, the difference in price between the high and low grade is tremendous and thus there is always risk in mixing. If the rate for pure cotton falls, it falls only by a few rupees whilst that of a mixture falls tremendously. It is not to the ginners' advantage to make an intentional mixture because if he is sending his goods to Bombay, he is not certain whether prices will rise or fall and if they fall he will get a much better price for pure American than for a mixture. So speaking for ourselves, we try our very best to send the best that we can get. We do not gin any American cotton at Hansi.

4362. I am very strongly in favour of the *zamindars* and the trade being in very close touch with the Agricultural Department. I think that is very important and everything depends on it.

Mr. O. HAEFLIGER, Agent, Messrs. Volkart Bros., Lyallpur.

EXAMINED AT LYALLPUR, JANUARY 12TH AND 13TH, 1918.

Written statement.

II.—COMMERCIAL ASPECT.

4363. *Experience.*—My experience as a cotton purchasing agent in the Punjab covers a period of something over four years. I have bought cotton extensively in the following markets: Ambala, Khanna, Sirhind, Gobindgarh, Nabha, Kaithal, Narwana, Panipat, Sonapat, Karnal and Saharanpur (United Provinces) during the season 1913-14. Since 1914-15, I have been working in the same capacity in the Lower Chenab and Lower Jhelum colonies. In 1906-07, I purchased cotton and *kapas* at Cawnpore and Etawah, and in 1907-08 I was in charge of Volkart Brothers' Agency at Nagpur with ginning factory and press.

4364. *Trade conditions in the Punjab.*—I find that, in matters of trade, the Punjab is in a state little short of anarchy, so much so that, the one element so very important and so highly esteemed in European business life, trust, is entirely out of place here. Forward contracts can only be entered into with a very limited number of dealers and factory owners, and even then there is no certainty as to the quality they would deliver, if the market value on delivery date were considerably above the contract rate. The number of dealers that would, in such a case, try to wriggle out of their obligation is alarming. If they do deliver, they will tender the lowest quality they can make, and the buyer has the option to take it or leave it. If he takes the latter course, he will have to buy against the defaulter in the market and will be left to obtain, after an endless litigation, a verdict for the loss he has suffered.

(2) One remedy that has been tried in this connection is to bind the seller down to deliver a *guaranteed class* on arbitration by the Bombay Cotton Trade Association, or by the buyer's office in Karachi. This system has, however, its drawbacks. Firstly, the seller does not like to give any guarantees, if ever he can avoid it. In order to compel him to do so the chief up-country buyers would have to unite for this purpose. With the advent of Indian speculators and mills as big buyers in up-country markets, this is very unlikely to happen; moreover, if the seller has to guarantee a certain class, he will not guarantee anything superior to the average he can reasonably expect to deliver, while the European firms' selection is known everywhere to be above average. Thus if the crop should turn out superior to the seller's expectations, he would lower the level of quality to the level of his guarantee by buying adulterated or otherwise inferior *kapas* even at rates disproportionate to its intrinsic value. The appreciation of such *kapas* would not favourably influence the cultivator. It is not easy for buyers always to pay full premium for better qualities delivered against contracts for low class since they cannot recover them from their customers under the Liverpool contract, while they could do so when selling on Bremen contract for mutual allowance. In this connexion, it would be interesting for the Committee to enquire from experts in Bombay, how the introduction in Liverpool of the Home Guarantee contract has affected the standard of quality.

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[Continued.]

(3) The best means of ensuring the best value for the best *kapas* would be the elimination of factory owners as dealers. We are, in my opinion, striding towards this goal. The purchase of ginning factories by Indian mills has been a step in the direction of eliminating the factory owner as a dealer. He will in future be more inclined to gin on commission for other mills or for exporters, which most of them now absolutely refuse to undertake. The question of immediate importance is whether Indian mills will co-operate with other buyers to encourage cultivators to raise the quality of their product, and whether they will help to lift the present low standard of commercial morality by themselves living up to clean Western business principles. Unfortunately my experience in this part of the country does not teach me to be sanguine on this score.

(4) If Lancashire has the desire to come into closer business relation with India as a cotton growing country, the establishment of Indian mills' ginneries in the local *kapas* markets is not apt to expedite the realization of their hopes. Indian mills are too well off to allow Lancashire to take a big portion of the American cotton grown here, unless the quality is improved to such an extent as to be too good for Indian consumption. That is to say, the quality ought to be fit to be put to more profitable use at home than out here. This would enable Lancashire to take from India supplies which hitherto had to be drawn from the American cotton belt.

4365. *Desirability of establishing local Chambers of Commerce.*—With a view to improve trade morality in the Punjab, the establishment of local Chambers of Commerce would certainly be a boon. Exporters, Indian merchants and mills should join and the local authorities and agricultural officers should play a prominent part in these Chambers. Deputy Commissioners should accept the chairmanship and the Agricultural Department should be represented by experts only. The Arbitration Act should be extended to apply to the Punjab, or at least to the seats of such Chambers, so that local disputes could be settled by arbitration of members of the local Chambers. At present, the considerable time, energy and money that has to be wasted in obtaining justice, or in trying to, in the courts of law, deter many a firm from taking recourse to litigation. Justice should and could be made more readily available to trade.

4366. *Trade classification of Punjab deshi Cotton.*—Punjab *deshi* cotton, according to the rules and regulations of the Bombay Cotton Trade Association, falls into two descriptions, the produce of the Eastern Punjab being recognised as "Bengal" and of the rest and bulk as "Sind-Punjab." This classification shows the little interest that Bombay cotton trade has in the Punjab, for the Punjab's natural port is Karachi. This classification is, in my opinion, fairly arbitrary, as is the fact that the station of despatch is the criterion for grading the cotton either as "Bengal" or "Sind Punjab." This ought to be done away with, and all cotton ought to be classed on its own merits irrespective of its origin. The feasibility of such an innovation ought to be studied by the Committee while in Bombay. New denominations might, perhaps, be based on the botanical variety of the plants.

III.—STATISTICAL.

4367. (33) *Improvement of Cotton forecast.*—The cotton forecast, with regard to the crop's yield, is generally much too low. The reason seems to be that the figures are collected through the same channels as the land taxes. Cultivators and landholders have an interest in declaring their revenue lower than it actually is. Moreover, the officials compiling the forecast have, as a rule, little knowledge of the matter they are dealing with. Even if very serious blunders occur in the estimates, they are passed on from the lower to the highest organs without being detected. The various defects in the forecasts have been discussed, and suggestions for improvements made at conference held in April 1917 in Lyallpur. No change for the better has, however, been perceptible yet though assurances were given that the matter would receive attention.

(2) I would offer the following suggestions, (a)—The forecasts ought to be in the hands of the Agricultural Department. This change alone would result in an immediate improvement.

(b) But the efficiency of the Agricultural Department should be further enhanced by increasing its expert European and thoroughly educated, reliable Indian staff. If the service is now not attractive enough for expert European Agriculturists, it ought to be rendered more remunerative. The Agricultural Department can, in this country, become the best paying branch of the Administration and expenditure towards increasing its efficiency ought to be not only generous, but lavish. The Punjab, in 1917-18, benefits by the introduction of American cotton to the extent of about 130 lakhs.

(3) The Department of Agriculture ought to be in closer and continual touch with trade, and links should be created to bring the two together. The needs of the one should be better understood by the other. Both would immensely benefit by co-operation. The Department should make immediately available all information having any bearing on the staple trade. Speed is an item of importance. At present such information is given scantily and mostly too late to be of much use. As an instance, I mention the figure of despatches of cotton from the various stations in the Punjab, which is at the disposal of the Director of Land Records. This figure is not so far published neither at a time nor in a form to be of any use to trade. The official cotton crop reports have seriously deteriorated within the last ten years.

4368. (35) *Publication of Liverpool and Bombay prices.*—The publication at up-country markets of Liverpool prices serves no useful purpose. Even the fluctuations of Bombay rates do not at present necessarily affect up-country rates. The information might be misleading. In Bombay, the market can, with the present extremely bad traffic arrangements, rise for the same reason as it should drop up-country. The attempt on the part of Agricultural Department daily to show the cultivator what rates he ought to get for his *kapas* on the basis of certain rates ruling in Bombay, is hopeless, especially so, as long as they have no expert advice at their disposal. The daily publication of Lyallpur *kapas* rate in other *mandis* of the district, strange to say, has not prevented cultivators from selling their American *kapas* in Gojra about Rs. 2 per maund (Rs. 60 per Bombay *khandi*) below Lyallpur rates for some time. This shows that the rates ruling for *kapas* in all the markets of the district should be published in every *mandi* and not only the Lyallpur rates, for this would attract to the low markets purchasers from the high *mandis*.

V.—GENERAL.

4369. *General suggestions.*—I may be permitted to put forward another few suggestions to the Committee.

(1) To make their report available to interested parties at an early date.

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[Continued.]

(2) Not to confine their work to India but to continue their investigation at Home, where one of the points to be very deeply studied should be the advisability of adopting the Bremen system of arbitration and the Bremen contracts (clause I and clause II), improvements on which should be considered in consultation with spinners and shippers. The fact should not be lost sight of that the bulk of the Indian cotton was sold in Europe on Bremen arbitration before the war, and if Liverpool has to gain a position of importance and influence as a trading centre for Indian cotton, Liverpool will have to consider the wishes of the majority of buyers.

(3) Not to pass away without leaving a living testimony of their labour, in the form of a standing cotton bureau in India, the personnel of which should be recruited from agriculturists and cotton experts. Some such branch of the Department of Agriculture would have wide scope, considering that, after the war, India will be called upon to satisfy a great portion of the world's increased requirements of cotton.

Mr. O. HAEFLIGER, called and examined.

4370. (Mr. Wadia.) I am the agent of Messrs. Volkart Brothers, at Lyallpur. There are European agents at Lahore and at Ambala at present. The Multan agency is under my supervision but I do not much interfere in the management of the business there. I exercise some control over it but I am directly in charge of the agencies at Sargodha and Lyallpur. I purchase both *deshi* and American cotton, both *kapas* and ginned cotton. We have our own ginning factories on lease, one at Sangla and the other at Sargodha. We have no ginning factory at Lyallpur. I do not buy *kapas* at Lyallpur. If I do buy any *kapas* at Lyallpur, I have to get it ginned at Sangla. The ginner here gin cotton only for members of the ginning and pressing pool, with the exception of one factory which is outside the pool. This has been taken on lease by the Japan Cotton Trading Company. This is the only factory which is not a member of the pool and will therefore gin for outsiders. This factory has been taken over by the Japan Trading Company for the last two years. They have taken the factory on lease and they buy *kapas* in Lyallpur and at out-stations. They won't gin for us though they are not members of the pool. They will not gin for us as they are competitors. The lessees of a factory are not as a rule members of the pool but the owners are. The cotton that we buy is despatched to Bombay and Karachi. So long as the freight arrangements were not as bad as they are at present, all cotton used to go to Karachi from here. Since last year it has practically all been sent straight to Bombay because the sea freight from Karachi to Bombay has been raised to such an extent that it is cheaper to send cotton direct to Bombay from here than to send it *via* Karachi. We send most of the cotton that we buy to Bombay but what happens to it after that, I do not know. Probably it goes to Europe and to Japan. Part of it may be sold to the mills in Bombay.

4371. I have bought small lots of cotton at auctions in Sangla and Sargodha, but most of our purchases are made in the *mandis* in Sangla and Sargodha. I find the *kapas* is in a much purer state than I expected. The admixture on the whole is a very small one. The admixture was heavier at the beginning of the season than it was last month or at present. I do not pay any commission to the *arattas*. It is the *zamindar* who pays the commission. The *arattas* act only for the *zamindar* and not for the purchaser.

4372. I buy only *deshi* cotton for forward delivery and not American. The *bantias* do not deliver according to types in a rising market, not even *deshi*. Matters seem to be improving in this respect. Only a few years ago, it was sometimes impossible to obtain, in a rising market, delivery against a low-priced contract and, as a matter of fact, I know of cases in which no delivery was given against a contract and the sellers tried to get out of the contract and quietly managed to do so even in court. During the last few years, people have been a little more reliable. It is impossible, or at least not advisable, to put any trust in a forward contract except that, if the rate ruling at the time of delivery is higher than the contract rate, you generally get cotton mixed or otherwise adulterated or inferior.

4373. From what I have seen, *deshi kapas* does not arrive in damped condition here. The American *kapas* that I have seen at Lyallpur of late, is however very damp. It is damper than anywhere else. I am referring to *kapas*. I can scarcely believe that it is not damped to a certain extent artificially. I do not know whether it is due to the cultivator picking his cotton early in the morning or by the *arattas* purposely damping, but it is done before it is sold in the market.

4374. When I buy *deshi*, I get it ginned at Sangla or Sargodha in the ginning factories which we have leased. I have experience of other ginning factories in the district. There is not so much artificial damping done by them as there used to be. I have never noticed anything except that godowns have been sprinkled with water before cotton was stored in them but this is now-a-days rather the exception than the rule. Matters have improved in this respect. The ginning factories mix various quantities of *kapas* to a certain extent. Those which buy an average quality of *kapas* in the market mix American with a heavy admixture with the American which has a slighter mixture. A slight mixture is one up to three per cent. of *deshi* in American. A heavy mixture is one up to twenty or 25 per cent. of *deshi*. The average of admixture is higher, of course, than it really ought to be. One reason for this is lack of accommodation in the ginneries. Many lots cannot be kept apart and ginned separately. It used to be done in the case of *deshi*, before the American crop was of any importance. This means additional work and the ginner in the case of American run the risk of not getting the proper price for a purer, *i.e.*, better quality. They get too good a price for the mixed, *i.e.*, lower quality. Mixed cotton commands a proportionately better price than it ought to do.* I think mixing will disappear by itself. As I have already said, I never expected it to be so small as it is this year. I thought that it would not be possible to get from any factory, cotton with less than fifteen per cent admixture of *deshi* cotton but you can get cotton from factories that contains even less than ten per cent of *deshi*. I believe that wilful mixing by the factory owners has not happened this year in Lyallpur to any great extent, with exceptions of course.

4375. Most of the ginning factories send their cotton directly to Bombay. The reason why they do not like to sell to us may be because we are competitors in the *kapas* market. They fare better if they sell up-country in many ways. Firstly, because they get money as the cotton is delivered. If they sell in Bombay, they have to have recourse to loans and have to wait probably two or three months to get the cotton away from the railway station. Secondly, they have a chance of tendering a lower quality if the market rises, which they have not in Bombay. There is no arbitration here. One or two mills have bought factories here. This will tend to eliminate the ginning factory owner as dealer. The only suggestion that

* This refers to American.

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[Continued.]

I can make to bring business principles more on lines with Western principles is the establishment of local Chambers of Commerce. If a buyer of importance does not mind being cheated by the factory owners, it means either that he is not fit for his job or that he is corrupt himself. As long as this is so there is no hope of improving matters. I should like a local Chamber of Commerce arbitrating on such matters as in Karachi. Probably everybody even those who have so far bought on forward contracts, and were without any guarantee whatsoever, would like to have a sort of guarantee on local arbitration. If local arbitration became more general, it would tend to improve matters a great deal. As to the bringing of ginning factories under control by means of licensing, I should say it ought to be done where it is possible.

4376. There is no pool either in Sangla or in Sargodha. There are four factories in Sangla and about six in Sargodha but I do not know the exact number at present working. I know that there is one which has been lying idle for years. In other places there are pools. There is a uniform charge for ginning and pressing. It varies in each district but not very much. There is only one pool at Lyallpur which comprises Gojra and Toba Tek Singh. There is one pool in Multan in which the pressing rate is lower than it is in Lyallpur. I have not got the figures here. Here they charge Rs. 9-8-6 for pressing per bale of 392 lbs. and for ginning there is no fixed pool rate. The rate is left to the factory owners to decide. He has only to pay a pool contribution on the cotton he gins and not on *kapas*. I do not know what contribution pressers pay to the pool. I do not think that the pool profits necessarily come out of the pockets of the cultivator. The pool at Khanna is one of the strongest pools that I know of. When I was at Ambala, I used to buy cotton at Khanna. The cotton rate used to be no cheaper in any place than at Khanna and the *kapas* rate was not higher than at Khanna anywhere. So it cannot be the cultivator who pays the pool profits. The factory owners were all business men who fairly knew what they were doing and they raised the price of *kapas* out of the savings of their pool to attract arrivals into the market. And although the crop round about Khanna was poor, the prices at Khanna attracted cotton from Ludhiana. These pools at Khanna could not have paid higher rates than Ludhiana, if they had not utilized their pool profits for the purpose of purchasing the *kapas*. There can be a good pool as well as a bad pool. I do not approve of pools being formed which affect the quality of the product or interfere with trade. As long as the pool is purely an industrial one, I think it is not a bad thing because the sharers in it can, with the profits which they make on one side, pay the railway freight on *kapas* brought into that place from outside. They become by this competitors with the outside market and prevent outside markets from being too low as is, for instance, the case in Multan. The Multan pool pays a contribution to the railway freight on *kapas* brought to Multan from this line, Lyallpur, Shorekot, Chichoki Malian or from the Montgomery line. They pay a certain contribution per maund of *kapas* to encourage the bringing in or *kapas* into Multan by which, of course, the *zamindar* actually profits. Such action tends to level the prices round about the place where there is a reasonable pool. There are 43 factories in Multan of which about a dozen are working. Two-thirds of the factories have stopped working and yet they share in the pool. The share of those factories that are idle does not amount to anything that they really ought to get. I think pools are to a certain extent, where the building of factories is not otherwise restricted, good things because, as you know, the tendency of the Indian merchant or *bania* or whoever it is that puts up a factory at a certain place is to make a profit. Next year another man comes along and builds another factory in the same place and so on. Within three or four years, there may be three times the number of factories that are required. The sooner a reasonable pool is formed the sooner it is likely that the rates for ginning and pressing will be kept at a low level. Such a pool is an asset because it prevents by co-operation an excessive number of factories being erected on the same spot. Whenever a new factory is going to be erected, the remaining factories stand together and compete with the new comer or at least threaten to compete with him in a way that will prevent his making any profit out of his venture. This tends to restrict the number of factories. Such a pool is better than no pool. Even if outsiders were to pay Rs. 20 for ginning and pressing, it would not affect the profits of the *zamindars* because what we actually pay to the factory owners, in the shape of excessive ginning or pressing rates, goes towards the cost of purchasing *kapas*. In Sangla where there is no pool, the pressing rate is Rs. 9-8-6 for outsiders but this only means that the factory owner who can charge Rs. 9-8-6 for pressing can sell his cotton comparatively cheaper than if he were only charging Rs. 4 or buy his *kapas* at a relatively higher price than if he had only charged Rs. 4 for pressing. In my opinion, factories do not really pay very well with certain exceptions, of which Gojra is one. I do not agree with the pool in Lyallpur but on the whole I do not think that the factories here are paying too well. They are not very accurate in their calculations. A factory owner starts a factory and deals in cotton at the same time. If he makes a profit in the first year, he thinks he has paid for his factory. In the second year and subsequently, his calculations have nothing to do with the real cost of his factory. He does not take into account his capital outlay, interest-charges, depreciation or anything of that kind. They calculate what they please. As to whether, if factory owners were not buyers but ginned and pressed on commission only and the charges for the pool were kept high, the factory owners would make a good profit, in the long run I should say no. Apparently they would be able to do so but nobody would take their factories at least at unreasonable rates. As long as there is the least competition they cannot enforce anything. Too high rates would attract competition in the next year. Another factory owner would come in and share in the profits and cut their throats. This is what is happening. The interests of the factory owners lie in attracting *kapas* and not in ruining the market. The pool rates can be changed at any time. They have a claim that their concern should be paid for to a reasonable extent. If the crop is small, the pool contribution remains the same. I do not think that they change their agreement according to the condition of the crop. If they have to handle a crop of 50,000 bales and if there is no new competition coming in, they are likely to keep to the same contribution if the crop were a hundred thousand bales.

4377. Punjab cotton (*deshi*) is known in Bombay under two recognised trade descriptions "Bengal" and "Sind-Punjab." I cannot say whether Hansi and Hissar would be classed under "Bengals." I am not certain about those two stations. It can be ascertained from the Cotton Trade Association, Bombay. Multan cotton comes under "Sind-Punjab." Multan is such a small crop that it very rarely goes to Bombay. When it does, it is sold ready for, in Bombay, there is no quotation for Multan. I have already stated in my written evidence, that cotton ought to be classed on its own merits irrespective of its origin. This ought to be done. Sind and Punjab *deshi* are not of the same class or quality. In "Sind-Punjab", the qualities that are bought here are so widely different, that they really should not be sold as the same thing. They should not be thrown together as one. I would not sell forward Multan or Amritsar under the same classification. There ought to be other names for these which would not betray the origin, the origin of which may

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however be known all the same. It should not be made a condition in the delivery that the cotton comes from such and such a station or from any number of stations. As to whether if you wanted to buy a certain quantity, say a thousand bales of "Sind-Punjab" cotton, you would know that you were getting a certain quality of cotton, that is exactly what you don't know. "Sind-Punjab" is a misnomer; it means nothing there is such a variety of cotton in "Sind-Punjab" that you really do not know what you get. A large field is covered by that expression and you cannot really know what you would get. You may get the cheapest and most inferior cotton. I will give you an idea of what I mean. Suppose Lyallpur cotton is $\frac{1}{16}$ th of an inch longer than Khanna. You buy "Sind-Punjab" on a certain class and because Lyallpur is better in staple, this will be picked out by the experts and will be bought by experts and the man who has sold you "Sind-Punjab" will buy Khanna and you will get Khanna and will never see any Lyallpur. There is a great difference in quality between the cotton from Sargodha, Gojra, Lyallpur and Amritsar, so much so that I cannot understand why experts throw these all into one heap and say that it is "Sind-Punjab." The difference in quality in "Westerns" cotton from Raichur, Guntakal, Bellary or Bijapur is not so great as between the cotton from Amritsar and Lyallpur. I would not restrict a certain quality to certain stations arbitrarily and absolutely as in the case with "Bengal" and "Sind-Punjab." It is a good field for experts. There is no doubt about it. I have no interest nor has our firm in the matter but it can scarcely be perceived why it should be as it is. I sell cotton from here on types. I would not replace it by names of railway stations. Why should not the business be run on safer lines; why should it be rendered more of a gambling nature? It can be put on a safe basis. For instance, there are two big firms in the Punjab, Rallis and Volkarts, who will guarantee you not only the class but an actual type. Why should a man buy "Sind-Punjab"? This is not an article in demand in Bombay and it is quite reasonable it should not be. "Sind-Punjab" ought to go to Karachi as it used to do in normal years. Why should you not buy something which you know what it is? Though the types may vary from year to year, yet if you buy on a specific type you know what you get. "Sind-Punjab" generally is a lower class than "Bengals." This year the opposite is the case, many tracts in "Sind-Punjab" yielding better quality than the United Provinces, i.e., "Bengals".

4378. The system of arbitration in Bombay in regard to Punjab-American cotton is not reliable yet. There is really no reliance to be placed on arbitration because the cotton is new and it is not known how the arbitrators in Bombay are going to class it. I have no suggestion to make in regard to the feasibility of extending a classification to the whole of India. I should like to see the point investigated in Bombay. It ought to be enquired into at Bombay from the members of the Cotton Trade Association. I think, of course, that the narrower the margin of rejection, the better for the cotton expert. It would exclude to a certain extent people from the cotton trade who are not conversant with it. As to what the narrower margin should be, I have not formed any opinion. I consider, under pre-war circumstances, Rs. 5 for Punjab American in Bombay to be a narrow enough margin. I cannot accept the classification entered in the rules of the Cotton Trade Association. Instead of classifying cotton according to the name of the railway station from which it comes, I want it classified according to quality irrespective of the railway station. If there is to be a limit, then let it be a limit on a wider basis. For instance cotton from Nabha, Rohtak and other places in the eastern Punjab is only accepted as "Sind-Punjab." As you know, "Sind-Punjab" is in ordinary times lower than "Bengals" in Bombay. The result is that cotton from those stations used to go to Ambala to be rebooked from there as "Bengals." Nobody seemed to notice that in Bombay. There is not that difference of quality between those stations which would really justify accepting one as "Bengals" and not the other. The quality varies a good deal according to the season. Stations like Jhind, Kaithal, Narwana, Panipat and Sonapat sometimes furnish splendid cotton and sometimes very bad cotton. It depends entirely on the monsoon. I do not see why Punjab cotton which came from any station in the Punjab should not be accepted as "Bengals", if it is as good as Bengal. Why should the factory owner have to book it to another station and then rebook it to Bombay to get Rs. 10 more? As a rule, the price of "Sind-Punjab" cotton is considerably lower than "Bengals." This year is an exception. There are different descriptions for a handful of stations quite close together in the Central Provinces. The difference between the cotton from these stations is not to be compared with the difference in quality between certain stations which are accepted as Sind-Punjab and certain which are not. Cotton from Dera Ghazi Khan is accepted as "Sind-Punjab" and so is cotton from Amritsar. If you buy the two cottons and put one beside the other, the only thing that they have in common is that they are going to be spun. As to whether there should be a sub-classification for "Sind-Punjab," it is not likely that Bombay will undertake anything of the kind because the position of Bombay as a customer for "Sind-Punjab" is only an important one just now. In ordinary times and after the war when Karachi will become more important than it was before the war, Bombay will have no interest, I fancy, in looking to the trade of the Punjab while all the cotton will go to Karachi. It is unnatural that it should go to Bombay. In ordinary times, I should say fully 90 to 95 per cent. of the "Sind-Punjab" cotton goes to Karachi. Some of it is sent to Bombay from Karachi, it is true, but the reason for this is that Karachi has no exchange. If there were a cotton exchange in Karachi, Bombay would have little to do with the Punjab cottons. The reason why "Sind-Punjab" is going to Bombay at present and not to Karachi is that the sea freight from Karachi to Bombay is prohibitive. It is cheaper to send it to Bombay by rail and as no sea freight for Europe or Japan is available at Karachi at present, the cotton has to go to Bombay in any case. The circumstances are exceptional. My suggestions in regard to classification are meant to be applied only to the Punjab. I would not generalize for the whole of India. As long as the gamblers, people who are not experts in cotton, are kept out of the trade, the trade remains on a sounder basis. I do not think it would be feasible to divide "Sind-Punjab" into classes such as Lyallpur, Amritsar, etc., classes, because these would be too small in ordinary times for the Bombay Cotton Trade Association to admit. If Karachi becomes a cotton exchange, there is no doubt that the various kinds of Punjab cotton would fall under several classifications. The chief point is that the railway station from which cotton is despatched should not serve as a criterion. The difference in value between the cotton from the various stations is often imaginary.

4379. I am not in favour of the publication of Bombay and Liverpool prices in up-country markets, at the present time. In normal times, I have no objection to the publication of Bombay prices. As regards Liverpool prices, I should say that there are very few people in India who can judge, on the basis of the price in Liverpool, what the rate here ought to be. There is not one *zamindar* who can do it. Normal conditions in regard to trade between Liverpool and India are not likely to be established for another quarter of a century or for another ten years at least, and there will be great fluctuations in freight. I think that

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the publication of *kapas* rates of all the *mandis* in a district in every *mandi* in that district is the thing that ought to be done, i.e., in the *mandis* in the Lyallpur district, the prices at Lyallpur, Tandianwala, Gogra, Jaranwala, etc., would be published. So far only the Lyallpur rates have been published at the other *mandis* in the district whereas all the rates in all the *mandis* should be published. I do not think that the Bombay rates are any guide to the cultivator at the present time.

4380. I have no copy of the Bremen arbitration rules to which I have referred. The difference is that the Bremen arbitrators are cotton experts paid by the Exchange and being unaware of the seller and the buyer in every case, they simply arbitrate on sample and do not act for the buyer or the seller as is the case in Bombay at present and in Liverpool. They are absolutely innocent of any partisanship in the transaction. They are neither paid by the one or by the other. Arbitration should be on the Bremen system. I would advocate that the Bremen system should be adopted in Liverpool and Bombay. There are two clauses.

Clause I.—Includes payment to a certain extent of a premium for better quality by the buyer to the seller, i.e., spinner to the shipper.

Clause II.—Contract stipulates that an allowance should only be paid on inferior quality and nothing for superior quality (which is the same as the present Liverpool contract).

These are the two contracts. There is no "Sind-Punjab" in Bremen or in Liverpool as far as I know. There is only Bengal and Sind. Sind and Bengal were chiefly, as far as my experience goes, sold under clause I. I do not, however, like to generalize and prefer to stick to the Punjab in my evidence.

4381. (Mr. Hodgkinson.) A copy of the Bremen rules can be obtained in Bombay. Liverpool would get a larger share of Indian cotton if the Bremen rules were adopted. With the introduction of the Bremen rules, Bremen attracted the bulk of the business from Liverpool. No one who is particular about getting a certain quality of cotton is satisfied with the Liverpool contract. I am of opinion that Home guarantee contract tends to lower the quality of the cotton rather than the opposite.

4382. As to the admixture of *deshi* cotton with American, I could not tell you in a case of admixture of ginned cotton whether it was five per cent. I could perhaps say that the cotton contained *deshi* but not the percentage. It is possible to tell the accurate percentage of mixture in *kapas* but not in ginned cotton. I would detect ten per cent but not less. I might be able to detect less than ten per cent *deshi* in American but could not be certain about it. This is why I decline to buy American cotton ready unless I have seen the *kapas* in the process of ginning. That is the only reliable test. In that case, I could detect any percentage.

4383. (Mr. Roberts.) I have advocated the establishment of local Chambers of Commerce. Here we would have to make a start at Lyallpur and the question would be whether outsiders in Sargodha district and stations in the Lower Bari Doab Canal Colony would agree to join the Chamber and sell on its arbitration. My idea is to save litigation, to render business safer and to put it on a sounder basis. At present, you have to reckon with a great deal of inconvenience, trouble and even loss on account of litigation. It is unsound to make forward contracts. I should like to have such Chambers not only for cotton but for all produce. At Lyallpur, we have experts who could act as arbitrators for all the produce. If such an organisation were found feasible, I would not have fixed arbitrators. In case of disputes, the procedure laid down in the Arbitration Act should be followed. Each party would appoint an arbitrator. If one party failed to do so within a week, the other party would also appoint the opponent's arbitrator. If the arbitrators failed to come to terms, they would appoint an umpire. Cotton contracts at Karachi are generally arbitrated on by two European merchants. Up here, Indian merchants of standing should be given a fair chance but, in that case, it might be difficult to find an umpire and therefore the Chairman of the Chamber should in case of need appoint the umpire. To make this effective, no law would be required as the present Arbitration Act could be made applicable to the Punjab in general or to the seats of these Chambers. At present it only applies to Bombay, Karachi and Calcutta. I do not know about Cawnpore.

4384. I advocate a standing cotton bureau or something of the kind which would be a branch of the Agricultural Department and a link between the trade and the Agricultural Department. At present they are not as much in touch as they should be. Such touch as there is is individual at present. I would have a standing bureau consisting of Agricultural Department experts and of merchants. The business of the agricultural experts would be to keep the trade informed of everything in which it took an interest such as changes in the character of the crop. On the other hand, the trade would keep the Agricultural Department informed of the changes in trade and the character of the demand. The trade knows fairly well what crop is going to be in demand for some time. There can be no doubt that there will be a very heavy demand for cotton for many years to come and therefore in order to ensure for Indian cotton that position which it ought to have in the market of the world, it ought to be properly organised on the most modern principles. We want a complete organization to give Indian cotton its proper position.

4385. I have already stated that the Punjab will get Rs. 130 lakhs through American cotton this year. I will now explain how this is arrived at. The yield of American this year is considerably better than *deshi*. My estimate for *deshi* is four maunds per acre and the average for American six maunds. I am strengthened in this estimate by the fact that up to the 3rd January much more American came in than *deshi*, both in Lyallpur and at other stations. The price of American in Lyallpur was about thirty per cent higher than that of *deshi*. From the 3rd of January the arrivals will be chiefly American. There will practically be no *deshi* left. So that with an acreage of sixty per cent American and forty per cent *deshi*, we shall get considerably more American than we could expect on the basis of an equal outturn. There are 267,000 acres of American. It would fetch Rs. 5 to Rs. 4 per maund less if it were *deshi*. I have however taken an average difference in value between *deshi* and American *kapas* of Rs. 4 per maund and the average selling rate of American *kapas* at Rs. 19 per maund. If *deshi* yielded four maunds per acre, these four maunds would be worth Rs. 16 more if they were American. This makes, on 267,000 acres, Rs. 42,72,000. In addition to this comes the better yield of *kapas* per unit of land, which may be two maunds per acre. Let us however put it down at only $1\frac{1}{2}$ maunds per acre which the American this year yields more than *deshi*; $1\frac{1}{2}$ maund at Rs. 19 per maund equals Rs. 33-4 per acre, on 267,000 acres roughly Rs. 88,78,000. This makes a total extra revenue for the cultivator of Rs. 1,31,50,000. I consider Rs. 130 lakhs a conservative estimate. The actual gain may be anything between 130 and 150 lakhs.

4386. There should be a considerable increase in the staff of the Agricultural Department. By staff, I mean the experts attached to the Department. It is not a question of doubling the staff but it is a question of trebling it or even more.

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4387. As to artificial damping, I may say that I have never seen it done by *zamindars* but I have seen very damped *kapas* in the *mandis*, which I cannot believe has not been wilfully damped. The estimated loss of American *kapas* in the ginopener as compared to *deshi kapas* is double at least if it is not excessively damped. American *kapas* is always damper than *deshi* even if not artificially damped. If dampness were merely due to the seed being bigger, it ought to be uniform which it is not. Sometimes the *kapas* is actually dripping wet. I did not examine the carts at the recent auctions. I only saw the samples from which the moisture had perhaps evaporated. From those I have seen—I have not seen many—I find that this cotton is not as damped as that which comes into the *mandi*.

4388. (Mr. Hodgkinson.) I have already stated that the Home guarantee contract tends to lower the quality of the Indian cotton. This is a matter of fact. The Home guarantee contracts are such the lowest quality is exported against them. The lowest "Bengal" quality is exported. The reason is that the penalty is very low. I personally watched it years ago. I watched the arbitration against Home guarantee contracts and found that the penalties imposed were insufficient in most cases. Anybody who buys on Home guarantee contract ought to know by now that he cannot expect anything but the lowest quality.

4389. (Mr. Henderson.) The present situation is that "Sind-Punjab" is a very large area and all the cotton from this area is put under the same trade name "Sind-Punjab" though there may be very wide differences indeed between the cottons in this tract. I do not want to talk about all India. The actual effect is that the Punjab cotton in many cases does not fetch its proper price because against a forward contract for "Sind-Punjab," a man as a seller can tender anything from any of those stations accepted as "Sind-Punjab." He will therefore tender the cheapest cotton against such contracts, that cotton which is the least in demand and therefore inferior. There is no resemblance between cotton from Nawabshah in Sind and the *deshi* cotton from Lyallpur. They are not the same. You could not in Karachi tender one against the other but you could in Bombay. I do not know what the idea in Bombay is. As to whether the result is that a man growing a good quality of cotton does not benefit by it, I think it does not turn out as bad as that because the very fact that the station of despatch is taken as final for the classification enables people to transfer "Sind-Punjab" cotton to a station classified as a "Bengal" station and despatch it from there and then to get the "Bengal" rates. As to whether, if Sind cotton was sold on its own merits and not under classification, it would get a better price it may be so in certain cases. As a matter of fact at the beginning of the season "Sind-Punjab" in Bombay was about Rs. 8 to Rs. 10 below Bengal and now it is a rupee higher. If cotton from here were accepted in Bombay against "Bengals" as it is entitled to be, this difference would never have existed from the beginning but Bombay required to see the arrivals to form an opinion of the present crop of the "Sind-Punjab" and it was only after having seen them that they raised the price to the level of "Bengals." The whole system of classification should be overhauled. That is a most important matter. It is possible that this cumbersome classification results in the bad reputation of Indian cotton. It strikes me that spinners who have a chance of buying on Bremen arbitrations do much more business in Indian cotton than others. Certain shippers have a reputation for not shipping inferior cotton. There is competition enough to ensure good quality though not as good as could be shipped profitably under the Bremen contract clause I.

4390. As regards Japanese buyers, I should say that they are not yet experienced in up-country business. I do not consider it necessary that other countries should send out buyers in order to meet competition, particularly if the Liverpool arbitration rules are changed.

4391. As to the argument that any endeavour to encourage the growth of long-staple cotton in India would practically mean exploiting the country for the benefit of England, I should say that it might as well be said that America was being exploited on behalf of Lancashire. From the point of view of internal economy, it must be considered a good thing if the exports from the country increase in value and volume. The long staple cotton grown in India would be taken up largely by Indian mills but Europe would also have a chance of buying.

4392. (Mr. Roberts.) I am not altogether in favour of the publication of the Bombay prices in the *mandis*. At the time when the notice boards were put up and the rates for the Sind-Punjab were given, the Sind-Punjab rate in Bombay was considerably lower than the local rate here. The prices here do not follow the prices in Bombay now because of the disorganized railway traffic. In ordinary times they do fairly well but you can not take the Bombay rates for "Bengals" as a basis for Lyallpur nor are the Sind-Punjab rates reliable. This is mainly because of the classification question. I am not against the principle of publishing prices in *mandis*, but I am against the publication of information which is misleading. Lately, the prices in Bombay have risen to about double. Prices here are, in my opinion, too high compared with those of Bombay, with the present booking and traffic arrangements. I expect a slump in prices here, i.e., a widening of the margin between Punjab and Bombay rates, because at present rates the market requires heaps of capital which is not at the disposal of factory owners.

4393. In connexion with the classification of railway stations, I would not advocate the prohibition of the movement of *kapas* even if the classification were altered. It would interfere with trade, and would strengthened the pools especially unreasonable ones.

4394. (President.) As a remedy for such practices as mixing, unjust weights and in the general interests of commerce and trade, I would rely on the creation of Chambers of Commerce. That would have a strong educative influence without legislative interference. I think they would be a great help. I am not in favour of pools but I say that in certain places they are good within reasonable limits.

4395. As regards the statistical side of cotton, the areas shown in the forecasts, I think, are accurate but the figures of outturn could be improved if the work were taken over by the Agricultural Department which would have to be strengthened both on the European and the Indian side. As to ginning and pressing returns, I think that they should be made compulsory. At present they are useless and even harmful because they are not complete.

4396. I am in favour of bringing the Agricultural Department and the trade much closer together by the establishment of a central Bureau consisting of agricultural experts and traders so that the question can be looked at from the proper point of view and the question of Indian cotton put in its proper place in the world's market.

4397. I think that the publication of the evidence before the Committee would be useful to us and also to other men in the trade.

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Mr. H. M. VAJIFDAR.

Mr. H. M. VAJIFDAR, Cotton Selector and Commission Agent, Karachi.

EXAMINED AT LYALLPUR, JANUARY 14TH, 1918.

Written statement.

I.—AGRICULTURAL EXPERIENCE.

(b) "Deshi" long staple cotton.

4398. (10) **Experience.**—I have experience of Karanja, Akola, Hinganghat, Amraoti, Barsi, Karachi and Lyallpur. I was at Karanja two seasons, Akola, Hinganghat, Amraoti and Barsi each one season, Karachi five years and Lyallpur six seasons.

4399. (11) **Varieties.**—The varieties of *deshi* long staple cotton grown on the districts with which I am acquainted are *bani* at Karanja and Akola and *bani* at Chanda and *jari* and *Telanga* at Hinganghat. At Barsi long-stapled *deshi* cotton was arriving from surrounding villages or stations and was distinguished by such names as Kirklee Bhensa, Latur, Bid, Mukhed, etc. In the same manner at Karanja and Akola also, such as Digris, Mangrule, Mangrule Pir, etc., at Karanja and Hingoli, Bassim, etc., at Akola. I am talking of about fifteen years ago.

4400. (13) **Yields and profits and comparative returns.**—As to the difference in prices between long stapled *deshi* and short-stapled *deshi*, the average was Rs. 5 to Rs. 6 per maund higher for long-stapled and Rs. 9 to Rs. 10 per maund (82 lbs.) in the case of American over that of *deshi* short-stapled in the Punjab.

4401. (15) **Conditions affecting increase in area.**—As day by day there is going to be good demand for long-stapled cotton and the prices paid for it are very much higher than those of *deshi* short-stapled at present, I do not think *deshi* long-stapled cotton crop will decrease but on the contrary, the areas of such cotton will increase in the long run in the place of short-stapled cotton. Climatic conditions, irrigation, competition with food crops and labour supply will affect the increase.

4402. (16) **Suitability of existing varieties.**—In the Lyallpur, Montgomery and Sargodha districts, superior types of *deshi* long-stapled can be introduced but as American has now already been successful, I doubt whether the cultivators would now take up the foreign unknown variety of *deshi* long-stapled seed.

4403. (17) **Prevention of mixing of different varieties.**—I would like to recommend to the cultivators to follow the system of Risalawalas Nos. 15 and 17, particularly to get *deshi* short-stapled cotton plant rooted out in its infancy when detected in the field, from the long-stapled *deshi* or any long-stapled exotic cotton; and they should be informed fully of the advantage of selecting the pure seed of long-stapled *deshi* or exotic cotton in order to get the better prices and improve the quality.

(2) As to the mixing in the factories, if very long-experienced cotton selectors are engaged, it will be avoided entirely. By their tact, skill and continuous watch no mixing of short-stapled with that of long-stapled can be practised in the factories. This I am writing with my personal experience of six seasons in the Lyallpur district.

4404. (18) **Uses of seed and seed selection.**—The seed is used generally for fodder purposes and a small portion at the end of the season for sowing. It can be recommended for extracting oil as well. The selection is practised very well by the Lyallpur Agricultural College, which is worth copying in all other districts as well, where such arrangements are possible. Sometimes the ginners are also keeping the pure seed of American separate for sowing purposes. Specially hand-ginned seed is not selected.

4405. (19) **General economic conditions.**—I would like to recommend to spread the knowledge of carefully handling the *kapas* when picked from the fields as the present practice is quite objectionable. It should be picked in dry weather and no yellow *kapas* should be mixed with the good one and no leaf should be taken along with the *kapas*. The *kapas* should not be allowed to fall on the ground and thus get mixed with dirt and leaves. These remarks are applicable in all the districts of India, generally, where careful picking is not made. Thus a good deal of labour, time and extra expenses will be saved in the factories and the cultivators will get a good premium in prices over lower qualities of the same description. The loss percentage also will be less. Before I came to Lyallpur, the *kapas* and cotton were handled in the operation very carelessly and with my persuasion and tact the practice has been improved to a certain extent and there are still more chances of improving the cotton in the factories, while ginning and pressing, if the ginners and buyers would care to do it jointly. In my oral evidence, I can describe them fully.

(c) Exotic cotton.

4406. (21) **Varieties.**—At Lyallpur American cotton is grown.

4407. (25) **Conditions affecting increase in area.**—Insufficient supply of canal water at times, climatic conditions, competition with food crops, limitation of rotations, labour supply and absence of careful selection of seed would affect the increase.

4408. (26) **Suitability of existing varieties.**—The right variety of exotic (American) is pushed on but African and Cambodia, which are longer in staple than American, can also be recommended as a trial.

4409. (17) **Prevention of mixing of different varieties.**—I would like to recommend strongly, as stated before, to the mill owners and exporters to engage only well and long experienced cotton selectors and purchasers, who know the long-stapled variety perfectly well in all respects and who can also by their experience and tact persuade the ginners to gin simply the pure qualities separate and thus encourage this industry in the right direction, not minding even if a slight premium is paid to the ginners.

(2) If the *deshi* long-stapled cotton is also silky and similar in staple to that of exotic cotton, I do not think it objectionable for its mixing in small quantities.

4410. (28) **Importation of seed.**—To my knowledge once the late Mr. Jamsetji Tata imported the Egyptian seed into India but it was not successful and I personally saw some fields of Egyptian at Nagpur attacked by black insects and thus it failed.

4411. (29) **General economic conditions.**—As to the improvement of the plant the cultivation of cotton should be entrusted with the right men and at the right places. The ginners should be also well experienced and they should engage good, clever and well paid fitters in order to set the gins for long-stapled cotton.

(2) Establishment of seed farms is recommended. District staff is necessary so as to guide the cultivators in the right direction. Men in the buying agencies should be well experienced of long-stapled

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cotton of that district. Quite new and raw selectors and purchasers are liable to be defrauded easily. So regulation in the buying agencies is necessary. The ginners also are to be explained fully in the beginning as to the advantage of ginning pure cotton separately. It is no use complaining of the mixing of the *deshi* short-staple cotton in the long-staple American unless the mills and exporters care to engage well and long experienced cotton selectors and then there will be no need of cotton regulation in ginning factories.

II.—COMMERCIAL ASPECT.

4412. (30) **Local trade customs.**—The loose machine ginned cotton is not brought into the Punjab markets as in Berar, where there are regular cotton markets with a large compound in which the *kapas* carts, machine ginned and hand ginned cotton in *boras* arrive early in the morning for sale. The local machine ginned cotton is not brought into the market compound but only from surrounding villages, where there are ginning factories but no presses. The local machine ginned cotton *boras* are taken to the buyers' compounds in the press factories, where the samples are approved of and the prices are settled. In the Punjab, the buyers have to go to the ginners' cotton godowns to select the cotton in different lights which makes the selection difficult. There is no system of advancing money to the cotton sellers, but there is one in the case of forward *kapas* sellers in the Punjab. There is the system of forward buying of cotton on contracts, but when the prices advance even eight annas per maund, there is sure to be a dispute about the inferior quality and trouble and annoyance to both the parties in the absence of any cotton association.

(2) I would like to suggest the establishment of cotton associations founded by the ginners and cotton buyers jointly in all the important districts of India where, in the case of any dispute, the buyers or the sellers can go on arbitration. There is not a single such association in the Indian districts where there are many cotton mills. In that case, future buying on contracts can be safely and largely practised by the cotton mills and traders.

4413. (31) **Standardization of commercial names.**—The commercial names of the various grades presently given may be continued. But this is to be noticed that inferior cotton of one station (in loose form or pressed bales) is now despatched by bullock carts to the next station say ten or twelve miles where a better grade is available for pressing or despatch to the Bombay and Karachi markets. The commercial names of cotton are given from the names of the districts or stations where the cotton is produced or pressed. It is difficult to standardize the commercial names for the cotton of the same locality but it is left to the buyers' selectors to find out and judge whether the particular cotton, which is to be delivered, is of the same locality named.

4414. (32) **Buying agencies.**—The best form of buying agency, in my opinion, is not to be practised unless some sort of cotton association is established in all the large important cotton centres.

III.—STATISTICAL.

4415. (34) **Improvement of statistical information.**—I think the cotton presses return and the loose cotton quantity sold without pressing could be made of good use, if correctly noted, for statistical purposes.

4416. (35) **Publication of Liverpool and Bombay prices.**—The daily publication of Liverpool and Bombay cotton prices at up-country markets will be useful to all the cotton and *kapas* traders but now-a-days these prices are already received by private firms daily from Bombay or Karachi.

Mr. H. M. VAJIFDAR called and examined.

4417. (Mr. Wadia.) I am a cotton selector in Karachi as well as Lyallpur and other districts where I get orders. I am not working for any firm; I am doing my own business. I used to work for Messrs. Gaddum & Co. in Lyallpur. My headquarters were in Lyallpur but I used to move about in the neighbourhood. I have two years experience of Karanja, Akola, Hinganghat, Amraoti and Barsi and know the cotton grown in the various districts. Marketing in the Punjab is not satisfactory, as compared with the Berar districts. The system of buying and marketing here is quite different from that in Berar. Berar has municipal markets, especially near the factories. All the factories are situated round the markets. The carts of *kapas* and loose cotton in *boras* used to collect in the Berar markets in the morning and the sellers, and purchasers, brokers as well as cultivators, used to come there and settle the bargains. When the bargains were settled, the carts used to go to the compounds of the respective buyers. The *kapas* and cotton carts bought by the ginners and cotton merchants used to go to the compound of the ginning factories and presses where they were weighed by the municipal men and not by the buyer's men. The buyers' clerks used to take down the figures, as the carts were weighed by the municipal men. The buyer was not able to interfere with the weighing and there were no disputes as regards weighing. Here buyers have to go to the compounds of the ginning and pressing factories. In Berar, the sellers have to go to the buyer's compound. I would like the same system, as in Berar, introduced here and the weighing and everything else managed by the Municipal Committee. In Berar, a tax is levied on each cart which comes into the market compound. The Committee used to give a ticket to the cartman and charged one anna per cart. The number of carts that actually came in was noted down and, in the evening, reports used to be issued showing that so many carts had arrived and that so many purchases had been made by the buyers. A list was printed of the different buyers.

4418. Cotton varies much in quality in different districts. Certain stations have got certain names. If a forward contract is made in Karachi, the name of the station is not mentioned in the contract but only "Sind" is written. The Punjab is not mentioned, as it has got a very bad name regarding quality and grade. There is mixing of cotton: and sometimes cotton of an inferior quality is put forward against forward contracts. Buyers do not like to make forward contracts for Punjab cotton in Karachi. They always prefer Sind cotton for such contracts. There is much mixing of different kinds of *kapas* in the ginneries. When inferior *kapas* arrives, it is never ginned separately but is mixed with superior *kapas*. The two qualities are only ginned separately if a premium is paid for the superior quality.

4419. I have not seen much damping in the ginneries. I have seen *deshi* cotton dry and American cotton damped. I attribute the damping to picking in the very early morning. I cannot say whether there is any artificial damping or not in the cultivators' godowns.

4420. I had experience of this American cotton first in Lyallpur when I had to purchase it for Messrs. Gaddum & Co. Before I came, there was no American. In the first season, there was none, in the second

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season there was a very little and in the third season I begun to purchase it. I never used to purchase *kapas*; I used to purchase cotton from the ginning factories. I used to prepare the samples myself in the ginning factories and purchase according to my orders. I cannot get much American pure here because I arrived late this season. I was not here last season as I was doing business in Karachi.

4421. Buyer's ought to get good men to select their cotton. Many buyers are not competent enough to do the work. I would like to have associations like the Bombay Cotton Trade Association in all the important districts of India. I have some experience of the Bombay Cotton Trade Association and their rules, which work satisfactorily as well as those of the Cotton Exchange. I am selling cotton in Bombay under the rules of the Bombay Cotton Trade Association and the Bombay Cotton Exchange. There is one defect in the rules. When I wanted to sell cotton from Karachi on dock delivery terms (*i.e.*, when I wanted to give delivery in dock in Bombay), they both refused although all the cotton from Karachi goes *via* sea. I did business with private firms on those terms. The Bombay Cotton Trade Association wrote saying that they were going to put the matter before the Directors. After a week they replied that they could not allow it and that the cotton could only be sold on rail delivery terms. When I told them that some firms were buying from me on dock delivery terms, they said that it was a private matter. That checks business for when selling on dock delivery terms both buyer and the seller save some expense. My suggestion is that the dock delivery terms should be similar to the railway delivery terms. That is the only alteration I desire to be made in the Bombay rules.

4422. In regard to "Sind-Punjab" qualities and grades and prices, "Bengal" prices used to be higher than "Sind-Punjab" prices before the delivery of the crop commenced—say twelve months before. When I argued with the Cotton Trade Association about it, they said they could do nothing. Although I wrote to them when the cotton arrived in Karachi, that the Sind quality was better than Bengal this season, they could not do anything to get it a better price. Now the price of "Sind-Punjab" is higher than that of "Bengals" but there is very little difference—only Rs. 5. There is no regularity in this difference. Speculation is going in "Bengals" but not so largely in "Sind-Punjab." Sometimes the staple of "Sind-Punjab" is better than that of "Bengals."

4423. (Mr. Hodgkinson.) I have no special experience of 4F American cotton but I have some experience of American cotton generally. I do not know if it was shipped to Europe. The American cotton can spin up to 20s to 30s counts. I cannot say whether that is warp or weft as I am not a spinner. The staple of Hinganghat *deshi* was as long as that of American. Very little *deshi* long staple cotton is grown in the Punjab.

4424. American cotton contains a larger percentage of moisture than *deshi* cotton but I could not say to what extent. My experience was that when dry American *kapas* was stored in the godowns, and taken out after a fortnight or so for ginning, it was damp. When I used to advise drying before ginning, the ginners did not pay any heed, and so I found crushed seed in it after it had been ginned. After drying, the staple was shorter than before because it was dried too much. So I advised drying for one or two hours and when they did that, I found that it was quite all right. Drying too much affects the staple.

4425. (Mr. Henderson.) As a general rule in Karachi, Sind cotton gets from twelve annas to Re. 1-4 a maund higher price than Punjab according to the quality. Sind is always considered a better cotton than that of the Punjab; sometimes Multan is equal or superior to it. This year Lyallpur is better than Sind. On an average Multan is equal to Sind in price as well as in quality. Multan cotton is sometimes short staple and sometimes good staple.

4426. (Mr. Roberts.) I favour the establishment of local Chambers of Commerce. Cases of disputes could be settled on the arbitration of the Chamber. The decision of the Chamber should be binding on both parties. The parties should not be able to go to litigation after the decision of the Chamber. Such Chambers would be a great help.

4427. I have a good deal of experience of American cotton from 1910. I was one of the first buyers of the cotton. In 1910-11, I paid a certain amount of premium for it. I purchased it in Lyallpur, also Risalwala American cotton in Lyallpur and at Jaranwala.

Mr. BANSI DHAR, Agent, Messrs. TATA, SONS and Company, Lyallpur.

EXAMINED AT LYALLPUR ON THE 14TH JANUARY, 1918.

No written statement was submitted by this witness.

(Translation.)

4428. (Mr. Hodgkinson.) I am the agent of Messrs. Tata, Sons and Company at Lyallpur. I have been buying American cotton at the Government auctions on behalf of my firm for the last three years. I have attended fourteen Government auction sales this year. One was stopped on account of rain. Nine auction sales were held here the year before last and eleven last year.

4429. I consider the staple of the American cotton irregular. It varies from .85 inch to 1.35 inch. I buy cotton on behalf of my firm and send it to the Empress Mills, Nagpur. All the cotton I buy is used by my firm. They do not sell any. The Empress Mills use it for 24s warp and 32s weft.

4430. I do not think that the cultivators intentionally damp cotton but they expose it to the night dew to get it damp.

4431. I think that the ginning percentage of the first arrivals of cotton in the market at Lyallpur is 33. It is less in the case of later arrivals and the average would be 32½ per cent.

4432. (Mr. Wadia.) In addition to sending cotton to the Empress Mills, I also send it to the Swadeshi Mills, Bombay, to the Standard Mills, Bombay, and Tata Mills, Bombay. I bought *kapas* at the auction sales yesterday equal to 700 bales of lint. I bought "A," "B," "C" and "D" classes. I do not find any mixture of *deshi* cotton in "A" class. The "B" class contains a mixture up to two per cent. In the "C" class the average is four per cent. The "D" class is not pure 4F but all other Americans. It may contain some unripe cotton. If you examine the seed of "D" class, you will find four different colours—one green, one black, one nearly white and one yellow or rather *khaki*. The yellow seed means that it is unripe cotton. The *kapas* of the yellow seeded cotton is very weak in staple. Last year the best

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cotton came from Lyallpur and Jaranwala. This year the Montgomery crop is better in regard to length, strength and quality than last year. Altogether, the total sales of American cotton so far have been 60,000 bales. I estimate that there are 25,000 bales yet to come. I calculated these figures on the 10th of this month. I buy on limits received from my firm in Bombay. In former years Punjab American cotton was sold at less than Broach in Bombay but this year it is Rs. 20 per *khandi* higher than Broach. For two years, the Bombay Mills were not able to appreciate the quality of this cotton. Even now, most of the merchants in Bombay and Ahmedabad do not appreciate the quality of cotton. I should say that five-eighths of the merchants do not know about the better quality of this American cotton. In Ahmedabad there are altogether sixty mills, of which there are only five or six mills who buy here.

4433. I find great difficulty when I buy cotton at the Government auction sales. I think that the quantity handled is increasing so rapidly that there is considerable difficulty in dealing with it. At yesterday's auction, 16,000 maunds of cotton was brought for sale. The weighing it and taking it to the ginning factories takes a considerable amount of time. I think to avoid difficulties, all the carts should not be brought to the auction sales. The sales might be on samples from each cart of the A, B, C and D classes. After the auctions were over, the *zamindars'* carts might be ordered to go direct to the ginners who had bought the cotton. If this system were adopted, even better prices would be realised at the auctions and the difficulties of the buyers would be removed. An auction was held at Okara on the 6th of December 1917 where both ready and forward cotton were sold. "Ready" *kapas* fetched Rs. 19-8 per maund and "forward" fetched Rs. 20-1 on condition of delivery within one month. All the cotton I bought at Okara is still lying at that station. I cannot remove it to the ginning factories owing to railway facilities having been stopped. The ginners at Okara have already had the cotton they purchased, ginned and pressed. The cotton I buy at Okara is ginned at Raewind at Rs. 13-2 per bale. What I have purchased here will be ginned in the factory which we have recently purchased here. In former years as none of the ginning factories here gave us any facilities, I used to get my *kapas* ginned at Chak Jhumra. The rate for ginning at Chak Jhumra two years ago was Rs. 11-6. Last year it was Rs. 13-8. This year before we bought the factory, the charges were Rs. 17-8. In my own factory the expenses will work out at Rs. 10-8 per bale.

4434. My firm would not allow me to join the pool at Lyallpur. Their action has broken the pool here four or five days ago. Since the pool broke up, the other factories will not give out their rates as they are only ginning and pressing the cotton they purchase for themselves.

4435. On the Montgomery line, all the cotton buyers including Messrs. Ralli's and Volkart's and the Japanese have agreed that they will pay Re. 1 to Re. 1-8 premium for American cotton over *deshi* cotton. The premium this year ought to be Rs. 4-8 according to the Bombay rate. In Lyallpur also, the buyers pay a premium of Rs. 3-8 for American cotton. According to the Bombay rate, the premium at Lyallpur should be Rs. 4-8 as there are very few gineries in the district. I am talking about the American cotton sold outside the auctions.

Rai Bahadur GANGA RAM, C.I.E., M.V.O., of Gangapur.

EXAMINED AT LYALLPUR, JANUARY 15TH, 1918.

Written statement.

4436. Preamble.—My business is in charge of my sons Rai Sahib Sewak Ram and Lala Balak Ram; the agricultural section is in charge of the former and the industrial and commercial part in charge of the latter. I enclose their notes* and confine my own remarks to general observations and suggestions tending to meet the objects of the Cotton Committee.

4437. General suggestions.—The first and foremost point to which I should draw the attention of the Cotton Committee is the desirability of extending *kharij* cultivation by bringing as much water in the canals during *kharij* as the Department can possibly do. I was surprised to hear in the wheat conference held in Simla in the last season, from the two Chief Engineers of the Punjab, that even with the present sectioning of canals they could bring more water, but there was no demand. I have something to say in regard to this demand.

(i) Let water rates on all fodder crops, grown as *kharij* crops, be remitted, such as *juar*, *gwara*, etc., the loss being made up by raising rates of more profitable crops. This is very important from the *zamindar's* point of view, as the absence of good fodder greatly handicaps the breed of good cattle on which all the agricultural operations depend.

(ii) No charge should be made, if *kharij* water is used for ploughing lands, whether followed by *rabi* or not.

(iii) Some system as I have described on page 49 of my pamphlet should be considered, as no extension of cotton cultivation on inundation canals is possible unless one watering (in March—April) is given by pumping.

(iv) The machinery for ginning and pressing may be made available by the Government on the hire purchase system.

(v) As already mentioned in my evidence before the Industrial Commission, the number of ginning and pressing factories should be brought under State control, so that mushroom factories should not multiply and the present pool system should be made illegal.

(vi) Long staple cotton such as *roseum* in Central Provinces should be acclimatised and experimented upon by the Agricultural Department so that it can be profitably introduced in *barani* lands.

(vii) Suitable cotton seeds should be discovered for hills and *zamindars* should be encouraged to sow suitable varieties of cotton in hills. Arrangements, however, will be necessary through co-operative societies to supply them good seed and to buy their products.

(viii) More favourable rules as to grazing and more extended use of forest leaves as manure may be given by the Forest Department against whose sluggishness, obstruction and oppression, I have made serious complaints in my evidence before the Industrial Commission.

(ix) For the more successful and economical working of ginning and pressing factories, more liberal treatment should be given by Banks for working capital. The strict rules of *hundis* in Presidency Banks should be modified so as to provide working capital for a period not exceeding six months on security of landed property with ample margin.

* Vide page 190, Volume I, and page 94, Volume IV.

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[Continued.]

and the following delta for each crop which is found to give the best results is as follows : this is assuming that there is absolutely no rainfall.—

	inches.
Wheat	18
Toria	15
Cotton	30
Chari	24
Makki	24
Sugarcane	40
Senji	12
Masur	12

The following disposition of crops is found in practice to be the best :—

	Acres.
Wheat	40
Toria	15
Cotton	20
Chari	6
Makki	6
Sugarcane	1
Senji	6
Masur	6
TOTAL	100

Senji to come in place of chari and masur in place of makki.

Therefore product of delta and acreage works as follows :—

Wheat	$40 \times 1\frac{1}{2} = 60$
Toria	$15 \times 1\frac{1}{2} = 18.75$
Cotton	$20 \times 2\frac{1}{2} = 50$
Chari	$6 \times 2 = 12$
Makki	$6 \times 2 = 12$
Sugarcane	$1 \times 1\frac{1}{2} = 1.25$
Senji	$6 \times 1\frac{1}{2} = 7.5$
Masur	$6 \times 1\frac{1}{2} = 7.5$
TOTAL	169

Now my experience is that, if a liberal supply of water was given for six months in the year, the delta required in the above disposition of crops can be obtained with a little margin, and I propose that half a cusec should be given for 180 days per 100 acres. The calculations will therefore stand as follows :—

$$\frac{\frac{1}{2} \times 60 \times 60 \times 24 \times 180}{43560 \times 100 \times d} \therefore d = 1.78$$

Thus if the turns are so arranged that no one gets water more than 180 days in the year subject to such fluctuations as the state of rainfall warrants, one cusec can easily do 400 acres. The arguments in favour of this proposal are that double the quantity of water as now supplied given in half the time will ensure better command, less loss in absorption and evaporation, and hence better crops.

ANNEXURE II.

Statement showing irrigation of Gangapur from 1915 to 1917

1		2		3	
YEAR 1915.		YEAR 1916.		YEAR 1917.	
Month.	Total days.	Month.	Total days.	Month.	Total days.
January—		January—		January —	
From 1 to 4 and from 22 to 31.	14	From 1 to 5 and from 15 to 26.	16	From 2 to 15 .	14
February—		February—		February—	
From 16 to 28	13	From 7 to 17 and 29	12	From 5 to 15 and from 19 to 21	11

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[Continued.]

Statement showing irrigation of Gangapur from 1915 to 1917—contd.

1		2		3	
YEAR 1915.		YEAR 1916.		YEAR 1917.	
Month.	Total days.	Month.	Total days.	Month.	Total days.
March—		March—		March—	
From 1 to 8 and from 30 to 31.	10	From 1 to 8 and from 21 to 31.	19	From 8 to 15 .	8
April—		April—		April—	
From 1 to 3 and from 26 to 30.	8	From 1 to 12 . . .	12	From 2 and from 6 to 13 and from 24 to 30.	16
May—		May—		May—	
From 1 to 10 and from 23 to 31.	20	From 3 to 8 and from 27 to 31.	11	From 28 to 31 . . .	4
June—		June—		June—	
From 1 to 3 and from 6 to 11 from 18 to 28.	20	From 1 to 10 and from 14 to 20 and 31.	18	From 1 to 2 and from 8 to 18 and from 24 to 27.	17
July—		July—		July—	
From 1 to 14 and from 21 to 22 and from 27 to 31.	21	From 1 to 2 and from 7 to 8.	4	From 4 to 11 and from 19 to 23.	13
August—		August—		August—	
From 1 to 2 and from 5 to 26.	24	From 30 to 31 . . .	2	Nil.	
September—		September—		September—	
From 5 to 7 and from 11 to 30.	23	From 3 to 4 and from 9 to 31.	24	From 3 to 8 . . .	6
October—		October—		October—	
From 1 to 7 and from 15 to 31.	24	From 1 to 10 and from 19 to 21 and from 27 to 31.	18	From 12 to 14 and from 19 to 29	14
November—		November—		November—	
From 1 to 11 and from 17 to 25.	20	From 1 to 9 and from 23 to 30.	17	From 1 to 4 and from 6 to 10.	9
December—		December—		December—	
From 6 to 16 and from 26 to 31.	16	From 1 to 5 and from 15 to 21.	12	From 1 to 6 and from 30 to 31.	8
TOTAL .	213		165		123
7 Months 3 days.		5 Months 15 days.		4 Months 3 days.	

Mr. MOHAN LALL, Ginner and Presser, Multan.

EXAMINED AT LYALLPUR, JANUARY 16TH, 1918.

No written statement was submitted by the witness.

4455. (Mr. Wadia.) I am a ginner and presser. I have several gins and presses in the Punjab. I have a ginnery and a press at Gojra, two ginneries and one press at Tobatek Singh, one ginnery at Makhdumpur near Khanewal, one ginnery at Rashida near Multan, one gin and two presses at Multan, one press at Dera Ghazi Khan and two ginneries at Hansi. I have above 350 gins and eight presses in all. The gins are all single roller gins. I have some saw gins at Multan but they are not working as it does not pay to work them. The lint turned out is not so good : the outturn is less and there is no staple at all. The first year we used them for *deshi* cotton, we sold the lint to exporters at Rs. 1-6 premium over the ordinary roller ginned cotton but after that they refused to buy as they considered that there was no staple at all in saw ginned cotton. It was bad for the outturn as it cleaned too much. From the saw gins we only got 27½ per cent. of lint whereas from the roller gins we got about 33 per cent. So that practically there was a loss of six to seven per cent. in wastage. I have not tried American cotton in them. In Multan district, the cotton is all *deshi* and there is no American.

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Lala BALAK RAM

4456. The cotton grown in Multan is superior to that grown in the rest of the Punjab. It comes next to Dera Ghazi Khan. It is for this reason that it has got a better name in the Bombay market. I sometimes send bales to Bombay. I generally sell locally but sometimes send cotton to Bombay to Bruel and Co. and the Bombay Cotton Co. The cotton is sold under the name of "Sind-Punjab." We send both pure and *deshi*. We mix separate kinds of type samples. We sell on type samples.

4457. In all the places where we have factories, there is a pool. The charge for pressing in Lyallpur is Rs. 9-8-6. In Lyallpur, we gin for our selves and not for outsiders. At Gojra, the charge for pressing is Rs. 9-9, at Tobatek Singh Rs. 9-10 and at Multan Rs. 7-6. We press for others but we only gin for ourselves. None of the ginning factories work for outsiders at all. We pay to the pool at Lyallpur Rs. 3-8-6 so we actually keep Rs. 6. At Multan we pay Rs. 2-6 to the pool and retain Rs. 5. The rate of Rs. 5 or Rs. 6 leaves some profit after expenses. Now-a-days the actual cost is about Rs. 4-8 on account of the dearness of stores. Before the war, the pressing rate was Rs. 3-8. Then Rs. 1-8 to Rs. 2 went to the pool. We are not making a big profit. We have to divide with the closed presses. Here in Lyallpur, there are seven presses amongst which we are dividing. We divide in equal shares. I have no factory here now as I have sold it to Messrs. Tata. Messrs. Tata are bound to join the pressing pool according to the terms of my agreement. That is the condition in which the factory was sold. If they do not join the pool, they will have to pay the penalty, or else go to court. I have no concern with the pool at Lyallpur now. The reason for the heavy charges is that we have to keep a margin for fluctuations. We are taking only Rs. 6 for pressing charges and we are spending Rs. 4-8. Rs. 1-8 is kept for fluctuations. The price of hoops had gone high and is going higher every day. We have spent Rs. 70,000 on presses and the interest on the capital outlay has to be taken into account and also an allowance for wear and tear. These are not covered by Rs. 6. That covers only bare expenses and depreciation but not interest on capital. I think the pools are to the advantage of the cultivator. In this colony we are paying higher prices to the cultivator than at other stations. We do not pay less to the cultivators on account of the pools. The buyers take pressing charges into consideration in buying cotton. The *zamindar* gets a fair price but for our own benefit we must have pools. There are more than 48 factories in the Multan district, but only ten or twelve are working and the rest are all closed. So there are pools. The production is not according to the demand if all the factories are working. If Government gave land to the new colonies, I would certainly remove my factories to other places. People would be quite ready to remove their factories to the new canal colonies in that case. Some have moved already; one has moved from Sekandrabad near Shujabad and another from Mailsi to Mainchannu. One factory has moved from Hansi to Makhdumpur, another from Lahore to Chichawatni. It would be easy to remove factories if Government gave facilities. We pay annas 5-3 per maund to the pool at Multan and four annas to the pool at Lyallpur, Gojra and Tobatek Singh. We have to pay that to the pool because the number of factories is much greater than the supply. If all the factories were working as in a bumper season, then there would be no need to make a pool. If the number of factories is equal to the demand and to the supply of *kapas* there is no need for a pool. Six years ago there was no pool in Lyallpur. In 1904, there were forty thousand bales pressed in Lyallpur only; now there are only twenty to thirty thousand. In 1905-06, not a single bale was pressed in Lyallpur owing to the bollworm spoiling the whole crop. In the following year, there were only 16,000 bales. In that year, only two factories worked for only two months. This year only three lakhs of maunds of *kapas* have arrived until now, including auctioned *kapas*.

4458. I do not work my factories at night. I applied to the factory inspector for permission for nightwork at Gojra but have not yet received any reply. We have electric light everywhere in our factories. We have a lot of stock. All the factories at Gojra are working. We have got 20,000 maunds of *kapas* lying in our factory at Gojra. At Gojra, there are not sufficient gins for the work this year but for an average year they are sufficient. I have not applied for night work at Multan as there is only work for one factory there. I employ women. They work twelve hours a day. They get a rest for one hour at midday; so that the regular work is for eleven hours. It is altogether twelve hours. I do not employ any children.

4459. (Mr. Hodgkinson.) We are selling American as "Sind Punjab American" in Bombay. It is quoted in the Bombay market. It is sold there as "Sind Punjab American." We sell it on type samples. There is no regular market for it and no daily quotations. We generally get Broach quotations.

4460. *Kapas* comes in very damped to my factories. We never get pure dry *kapas*. The *zamindars* do not store their *kapas* properly and so the colour becomes bad in many cases. They store it in very small houses and sometimes the middlemen mix water with it. There is no damping done in the factories in the Punjab; that practice is in existence in Akola in the Central Provinces.

4461. We keep the American class "A" separate but we do not get a proper price for pure American from buyers. We did not buy at the auction sales this year though I bought at the sales two or three years ago. When we buy pure American, we do not mix. We do not mix ourselves but buyers want us to mix up to a certain percentage and we mix accordingly. The merchants ask us to mix. We could show you the contracts. The European buyers and the mills ask us to mix to a certain extent and we do so. They generally ask us to mix up to ten per cent.

4462. The depreciation that we allow on gins and machinery is five per cent. yearly and not more. As to the life of a gin, when the small parts become rusty, you have to replace them. A gin can work up for twenty to twenty-five years but we have to replace some small parts yearly.

Lala BALAK RAM, of Gangapur.

THIS WITNESS WAS NOT ORALLY EXAMINED.

Written Statement.

IV.—MANUFACTURE.

(a) Ginning and Pressing.

4463. (36) Type and number of ginned presses.—I use ordinary Platt single roller gins and Nasmyth Wilson Press. I have four factories containing 184 gins in all with two Nasmyth Wilson and one Cummins Press.

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4464. (37) Size of bale.—The size of the bale turned out of the Nasmyth Wilson Press is 49' x 17" x 18" and out of Cummins Press is 39' x 19" x 19".

4465. (38) Saw gins versus roller gins.—Roller gins are best suited to our quality *kapas*. Saw gins are not suited to either the *deshi* or American quality that we grow here, as it breaks the staple into pieces though turning out much better cotton, as far as whiteness of the colour is concerned. I think there is some prejudice too among the buyers of saw-ginned cotton. The advantages such as less consumption of coal, less labour required, etc., do not make up for the loss in weight, which we lose through saw openers as the buyers do not pay an extra premium for the improvement in the colour. I had a few saw gins in one of my factories which I had to sell at half price after four years and Ralli Brothers have bought them.

4466. (40) Factory labour.—For the last three or four years, local labour is getting very scarce, specially for the ginning part, for press we can import labour from Agra, but that too with some difficulty.

4467. (41) Condition of cotton.—Most of the cotton which comes into the factory is brought by middlemen in the *mandi* (market) and not by the *zamindars* direct, hence one can never expect the middleman to bring in pure stuff and it always pays him to mix bad and good. I must say a lot of mixing is being done in the factories too, the chief reasons being that local buyers of cotton, i.e., firms, have to rely on their sub-agents in judging quality of cotton and thus they pay the same price whether it is pure or mixed, with the result that it pays the factory owner to mix up *deshi* and American to make up that standard for which they are quoted rates by these sub-agents and when the middlemen see this being done in the factories, they also want to take advantage of the same. It is only when factory owners send their cotton to Bombay they find the difference. But owing to difficulty of booking and finances, they have to sell locally to these firms. If some standards be established in big local centres for qualities of cotton and rates given accordingly, I am sure, the quality of cotton will be much improved. Then again the different customs in *mandis* should be regulated in such a way as one *mandi* not to have advantage over the other.

4468. (42) Effect of replacement of short-staple cotton by long-staple.—No substantial alteration in machinery is required when long-staple cotton is to be ginned. The only alteration required is to fit the gins accordingly and this is the work of the fitters.

4469. Necessity for a standard for long staple cotton.—For long staple cotton, I would suggest that some standard of such cotton should be established in Bombay and Karachi markets as there are for *deshi* and Broach, according to which rates be quoted to local *aratyas*. At present American cotton fetches twenty or thirty rupees per *khandi* above Broach and sometimes below. It all depends upon the quality and demand when the goods reach Bombay.

4470. Discouragement of pools.—I would also suggest that some restrictions ought to be imposed on such factory owners who have put up the factories merely to join the pool, those who cannot work their factories for any reason should not be allowed to join the pool whenever such system is prevalent. If this is done, it would discourage the present system of pools, both to the advantage of *zamindars* and the factory owners who mean to work.

4471. Improvement in railway facilities.—To enable the factory owners to give full rates to *zamindars*, facilities of railway booking should be given by the Government, if not much, at least cotton should be considered on the same basis as other export commodities. Owing to these railway difficulties, when they can not despatch their own cotton from their factories for months, they have to speculate in the Bombay and Karachi markets to hedge their gains and losses, which speculation, I understand, Government is trying to discourage as much as possible.

V.—Sind.

Mr. A. J. PANAS of Messrs. Ralli Bros., Karachi.

EXAMINED AT KARACHI, JANUARY 22ND, 1918.

Written statement.

I.—AGRICULTURAL EXPERIENCE.

(a) "Deshi" short staple cotton.

4472. (1) Experience.—With the exception of a few months in the Cawnpore District, I have not actually worked in any part of India producing *deshi* short staple cotton. From working, however, about three years in Calcutta and about a year and a half in Karachi, as well as from personal inspection of the districts working under these headquarters, I had an opportunity of becoming acquainted with conditions prevailing in Eastern Bengal and Assam, Sind and the Punjab. I have not come into touch with the cultivator anywhere.

4473. (2) Varieties.—Bengals, Assams, Comillas and Tipperas and Sind-Punjab are the varieties grown in the districts with which I am acquainted.

4474. (4) Yields and profits.—The yield naturally varies with the district and the variety of cotton grown. Rough varieties yield more cotton lint per acre than soft ones. Under average soil and climatic conditions, the yield per acre fluctuates between 150 and 250 lbs. or, say, five to nine Bengal maunds of *kapas* per acre.

(2) Profits depend upon a great number of circumstances, the chief being the rate for cotton ruling in the world market, but given a fair average price and good marketing conditions, the profits on cotton to the cultivator must be big. I am not speaking of the very big profits earned by him during the last two years owing to the abnormal rise in prices, but have in view normal pre-war conditions.

4475. (5) Rotations and manures.—I have heard of crops being raised in rotation, but cannot give any definite information on the subject. More often than not, cotton lands are left fallow for a season or two. In the Assam and Tippera hills, the semi-wild inhabitants plant together at the same time and place rice, *til* seed and cotton. I have never heard of any artificial manures being applied, and only very rarely are natural ones used.

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4476. (6) **Comparative returns.**—I consider that cotton generally is a most attractive crop to the cultivator, not only as regards the actual cash returns, but also in respect of all other circumstances attaching to its cultivation. The evidence of this is the continually increasing size of the cotton crop. This, of course, may be due to more fresh land being put under cultivation, but it is more likely that this increase takes place at the expense of other economic crops.

(2) The profits to the cultivator on *deshi* short staple cotton are inferior to those he makes on the exotic staple cotton. The phenomenal rapidity in the growth of the Punjab-American crop must be considered as conclusive evidence.

4477. (7) **Conditions affecting increase in area.**—The area under short staple cotton in the United Provinces, the Punjab and Sind is not subject to large fluctuations. The size of succeeding yearly crops would indicate a steady increase, with occasional set backs due to (a) unfavourable climatic conditions and (b) unfavourable results obtained during the previous season owing to low prices. The advent of the Punjab-American variety or the introduction into any of these provinces of a better paying exotic long stapled variety will naturally be reflected in the area put under short staple cotton. Generally speaking, the steady increase of the area put under cotton can only be limited by the unsuitability of the available lands, by some other more paying economic crop being introduced, by some cotton substitute being discovered, and finally by the necessity under which all cultivators are to grow a certain quantity of crops required for the upkeep of themselves and their cattle. Of these reasons only the first and the last are of any importance, because it is hardly possible for any cotton substitute being turned out as cheaply as cotton in India is, and it is equally unlikely for an altogether new economic crop being introduced to take the place of cotton. The demand for this stapled cotton was very good in normal days. From the highest to the lowest class, there were ready buyers for this cotton in India, Japan and on the Continent.

4478. (8) **Uses of seed and seed selection.**—The seed is largely used in India as a cattle food. It is also to a very small extent converted locally into oil. A fair proportion is in normal years exported to the United Kingdom and the Continent. The cultivator does not, to my knowledge, of his own accord select his seed on any scientific principle. He is anxious to get seed yielding a big crop, but he does not care whether this seed is mixed, or otherwise not the best for sowing. In former years, preference was given to hand *churkha* seed for sowing purposes, but with the dying out of this form of ginning the cultivator buys seed ginned by machinery.

(b) "*Deshi*" long staple cotton.

4479. (10) **Experience.**—I was in the Coconada growing districts of Guntur, Kistna and Godavari for over a year and a half and in the Berars on and off for over a year. I have also been in the Central Provinces for about three months. I have also worked for a short period in the Broach District and have also visited the Hubli-Dharwar, Raichur, Adoni, and Nandyal Districts, but have no special knowledge of these varieties or the conditions prevailing in the districts where they are grown. I have not come into touch with the cultivators.

4480. (11) **Varieties.**—Coconadas (*churkha* and machine ginned), Oomras (Khamgaon-Akola, Amraoti, Dhamangam-Pulgaon, Yeotmal, Nagpur, Hinganghat, Wardha), Broach, Kumptas, Saw-ginned Dharwar, Westerns and Northern are the varieties grown in the tracts mentioned in the preceding paragraph.

4481. (13) **Yields and profits and comparative returns.**—The following refers to the Berars:—

Of the staple cottons grown there, those with the shorter staple are evidently better paying to the cultivator than those with longer staple. I know from personal experience that the cultivators from the hilly districts of the Berars bordering on the Nizam's territory, where the highly appreciated *bani* is cultivated, came miles with their bullock carts to procure seed from districts where the cotton, although short in staple, was reputed to be a high yielder. This is, no doubt, the chief cause of the deterioration noticeable in recent years in the staple of the Deccan stapled varieties.

(2) The fact that the cultivation of cotton in the Berars has practically ousted that of linseed and wheat would indicate that here, too, cotton is very paying to the cultivator.

4482. (14) **Relations and manures.**—Natural manures only and that to a very limited extent are used.

4483. (15) **Conditions affecting increase in area.**—The conditions which affect the area under cotton are the profits made by the cultivators during the immediately preceding season, climatic conditions at the time of sowing and the necessity to reserve a certain area put under cotton each year. Here, too, a steady increase of this crop is noticeable.

4484. (16) **Suitability of existing varieties.**—There can be no doubt that in most of the districts where *deshi* long stapled varieties are grown, far better results could be obtained by improving the methods of cultivation. I cannot say whether the indigenous varieties or the varieties now acclimatized, such as Saw-ginned Dharwar and *mungari* could be exchanged for still better cottons, but I am convinced that, given proper cultivation, the results obtained with the existing varieties could be immensely improved. Selection of seed, deep ploughing, manuring, planting in rows, careful weeding will do wonders. I know of a Government farm in the Nandyal District where the plants grown out of selected indigenous seed were bushes, while in the surrounding fields on the identical and under the same climatic conditions the plants were not a quarter the size.

4485. (17) **Prevention of mixing of different varieties.**—As long as mixing is the result of the desire on the part of the agriculturist to grow a better paying cotton variety, I do not see how he can be prevented from doing so, unless it be that he is shown conclusively that the poor yielding *deshi* long staple variety, if properly cultivated, can give him just as easily an equally big return as the better yielding short staple variety. If this is not done, he will continue getting the seed that is reputed to give the better return to the detriment of the purity of the *deshi* long staple crop he raises.

(2) Very little mixing takes place in the field once the crop is sown. The several pickings are as a rule marketed separately, and as regards keeping different qualities of one and the same picking of one field or estate separately, I do not think it can be done.

(3) The worst offenders as regards mixing are the village petty dealers and the ginners. It is rather difficult to suggest an efficient remedy for the first of the two evils. The advances, which the cultivator receives while his crop is maturing, he is actually in need of. They will consequently always have to be made to him, and in this respect the hold of the village *bani* may be termed beneficent. It is, after all, the trade itself which by paying lower rates for mixed stuff has the best remedy in its hands, as the moment cultivator and village dealer find that it does not pay to mix, they will very soon stop this practice. It would also, I believe, be a good thing if official markets of easy access to the cultivator were provided so that he should come into actual touch with the buyer. In the Berars and the Central Provinces, where the cultivator himself brings

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his *kapas* to the market and sells it there with the assistance of his broker *aratya*, it is possible to select cart by cart both for class and staple, and separate bargains are struck at different prices for each quality. There is no bringing of *kapas* direct into the ginner's premises by the village petty dealer after it has undergone a preliminary mixing to undergo a further one.

(4) Once the production and marketing of each style in a fairly pure state is secured, gins owners would also have no longer the current excuse that they cannot keep the various styles separate as they arrive in the markets in a mixed state. The better prices obtained for pure ginnings would quickly make all ginners strive to produce as pure an article as possible. There will always be a few ginners who will try to earn an additional profit by mixing lower with higher qualities, but I do not see very well how this can effectively be prevented. The idea of treating this mixing as a punishable offence must be abandoned as it is utterly impossible. Who is the expert who can definitely state that the cotton sample he has before him and which presents a certain unevenness of staple is the result of the fraudulent mixing of different varieties of the same style, say long stapled and short staple *Oomras*, and not the outcome of the ginning of a poor and originally uneven lot of pure long staple *kapas*? Factories could be supervised and inspected but this scheme is sure to prove both costly and inefficient.

(c) *Exotic cotton.*

4486. (20) **Experience.**—From working in Karachi over a year and a half and from personal inspection, I had an opportunity of being acquainted with the conditions prevailing as regards Punjab-American. I have not come into touch with the cultivator.

4487. (21) **Varieties.**—Punjab-American is the exotic variety of which I have experience.

4488. (23) **Comparative returns.**—As the rapid expansion of the cultivation of Punjab-American conclusively proves, the profits its cultivation leaves to the cultivator must be considerably bigger than those left by other *deshi* crops, either cotton or any other kind of economic crop.

4489. (25) **Conditions affecting increase in area.**—As long as Punjab-American pays the cultivator better than any other crop, its cultivation will continue to spread.

4490. (27) **Prevention of mixing of different varieties.**—The premia paid by ginners for the purer qualities of Punjab-American *kapas* ought to be sufficient inducement for the cultivator to try to produce as pure a quality as possible. As this, however, is not an easy matter to succeed in, he must be assisted year in and year out in achieving this. The quantities of pure seed specially selected for sowing purposes ought to be sufficient for the whole area. This seed should be passed before it is sold to the cultivator by experts who should reject any doubtful lots. The seed for sowing should be actually issued to the cultivator just before the sowing season just to give him as little opportunity as possible of feeding it to his cattle. It should be sold by the agricultural authorities and by reliable ginners specially authorized to do so who should be known to have ginned it out of selected *kapas*. It should be sold at a fixed rate, higher than the rate ruling for ordinary cotton seed. A field said to have been sown with pure seed should be inspected as soon as the plants are big enough easily to show the difference between the *deshi* and the exotic variety.

(2) As regards the ginning factories, the intentional mixing that now takes place cannot be entirely prevented I am afraid. It can, however, be controlled by obliging any ginner who mixes the two varieties to sell the cotton as such instead of as pure. Factories ought to keep separate stock registers for the two varieties, so that if any one of them bought, say, 500 bales American and 100 bales *deshi*, in *kapas*, it could not export 600 bales of American but would have to show exports corresponding to its purchases. Naturally a body of reliable inspectors would have to see that the above measures are actually carried out.

(3) It ought, however, not to be forgotten that all the above measures are more or less an interference with trade and are bound to cause friction, dissatisfaction and endless complications without perhaps the object in view being fully secured. Here again the best would be to take the evil by the root and try to reduce the cultivation of *deshi* in areas where mostly American is cultivated so that there should be no temptation to mix.

4491. **General suggestions.** (a) **Increase in Agricultural Colleges and Farms.**—There cannot be the least doubt as regards the immense good done by the Agricultural Colleges and Farms, the number of which can never be too big. Each important cotton producing area growing a distinct style ought to possess its own agricultural research institute, where experts should continually try to get the best results out of the soil available in the district. These research institutes ought not to have under their jurisdiction too big an area, as otherwise the work is bound to suffer. Seed farms ought to be numerous. I would like to see as many of them as possible for the following reasons. In the first place, the cultivator would be able to get there the pure seed he requires, and, what is more important, the seed farm would be a permanent object lesson as regards the success which attaches to the improved methods of cultivation advocated by the central research institute. The use of manure ought to be introduced as soon as the methods of cultivation have been sufficiently improved. Manures are not used because the cultivator considers it a waste of good money and because he perhaps has no spare money to spend on them. But it must not be forgotten that the Indian cotton cultivator is getting richer and that, if it is shown to him what artificial manures can do, he will promptly use them. But care must be taken that the manures, the use of which is advocated, do not go against the religious feelings of the people. It would, of course, be quite useless to try and make an orthodox Hindu cultivator use bonemeal, whereas the Muhammadans would have no objection whatsoever in using it.

(2) (b) **Establishment of public markets and discouragement of pools.**—Public markets of the type in existence in Berar I consider as the best. There all the daily arrivals have to go to the market. Each buyer can select what suits him best as regards price and quantity, each seller knows what each buyer pays. Licensed weighmen do the weighing. Pools and combinations of ginning and pressing factories ought to be discouraged as it is the cultivator who has to pay out of what he gets for his *kapas* the extra and, in some cases, very considerable profits of the factory owners. This is very easy to prove; take two districts each producing the same style of cotton or near it. Each of these districts has its ginning centre, the one with a combination, the other without. The consumer of cotton naturally buys the cotton of both districts at the same price, in the one this price allows the ginner to pay a higher equivalent to the cultivator than in the other, where the charges for ginning and pressing are heavier. Owing to the distance between the two centres and other circumstances the cultivator cannot take his *kapas* to the cheaper ginning centre, and is, therefore, himself to pay the extra profit to the factory owner. More often than not several of these factories are silent, and what is worse are unable to work. I have known years ago, a wooden half press received for a considerable length of time a royalty of Rs. 6,000 per annum out of the local pressing pool on the threat of its owners putting up a steam press if the royalty were not paid. The moment the accu-

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mulated profit was big enough the owners asked for a bigger royalty, and its being refused to them they actually put up the steam press. The cultivators of that district had made a free gift of this press to its owners.

(3) (c) *Licensing of factories.*—Factories and specially ginning factories ought to be licensed as otherwise very little can be achieved. They ought to be licensed, not so much to prevent mixing, which, as I have said above, might both prove ineffective and cause needless trouble, but, in order to insure the production of the best cotton it is possible to produce out of the *kapas* available. Mixing may after all be necessary, and as long as the mixed quality is sold as such and the seed is not for sowing purposes, no harm can arise. But the cotton produced ought to be ginned under the best conditions possible, otherwise it will fetch a lower price only and the cultivator through the fault of the ginner gets eventually less. Factories, therefore, both existing ones and new ones to be built ought to be licensed. They ought to be built according to certain plans and ought to be run according to certain rules. Just as the agricultural research institutes train every year scores of your cultivators to do their work more efficiently, just so ought there to be an institute for training ginning factory managers. The conditions prevailing in most of the Punjab factories I have seen, and I have seen a good few of them, are such as that good cotton can with difficulty be produced. They are all too small and hopeless confusion prevails. How it is possible to keep anything separate in these factories is a mystery. It is, therefore, necessary that conditions prevailing in ginning factories should without delay be improved.

II.—COMMERCIAL ASPECT.

4492. (30 and 32) *Local trade customs and buying agencies.*—The systems of selling differ widely all over India. The simplest is when the cultivator sells his crop to the ginner direct after he has gathered it. He may or may not have taken an advance from the village *bania*, but he sells his crop only when it is ready for the market and gets, therefore, the full advantage of the prices then ruling. These prices may be lower sometimes than the prices that prevailed earlier, but on the other hand the cultivator does not run any risks. If he has sold ahead and prices go up, he is very sorely tempted to deliver as little of his *kapas* as possible to the original buyer and sell the balance at the ruling high rates. This way of proceeding may give him a temporary profit but creates a state of affairs which can hardly be termed satisfactory. If prices go down, the village *bania* is sure to try and squeeze out of his seller as much as possible in order to make an additional profit or reduce his loss.

(2) I therefore consider as the most suitable for the sale of *kapas* the one mentioned here above. The cultivator, I am here referring to the ordinary run of Indian ryot not the big *zamindar*, should sell his *kapas* when it is ready for the market direct to the ginner, whether the latter be the owner of a factory or only a merchant who gins at any factory and sells the cotton as such. The advances of which the cultivator is in need while his crop is maturing ought to be made without the price of his produce being fixed at the time.

4493 (31) *Standardization of commercial names.*—The commercial names are standardised already as a reference to the rules of the Bombay Cotton Trade Association will show. There it is definitely laid down what can be tendered as "Broach" and what as "Bengals," etc.

III.—STATISTICAL.

4494. (33 and 34) *Improvement of cotton forecast and other statistical information.*—Generally speaking, there is much scope for improvement in the accuracy of the figures published by Government. How this can be effected I cannot say, but the figures of actual arrivals at interior markets carefully compiled day by day and checked by arrivals at the ports and the consumption of mills more often than not show big differences from the official figures. The matter will be simplified the moment all ginning factories are licensed and have to send in promptly accurate figures of their ginnings. The pressing returns, as at present published, are both inaccurate and of academic interest only, even if they were accurate, as they are very much behind time. I think that the figures of the yield, as published by Government, would be more accurate if district authorities consulted also leading trade representatives before sending in their figures.

4495. (35) *Publication of Liverpool and Bombay prices.*—Practically all the cotton markets are in touch with Bombay whence the dealers are quickly informed by wire of the ruling rates. Besides the prices at which bargains are concluded and which become known very soon give a sure indication of how the market stands. I do not, therefore, see what advantage the official posting of the daily Bombay rates could be. As regards the Liverpool rates, I am decidedly of opinion that they would do no good whatsoever and are more likely to cause harm by encouraging speculations.

IV.—MANUFACTURE.

(a) *Ginning and pressing.*

4496. (36) *Type and number of gins and presses.*—Messrs. Ralli Brothers have at Mirpurkhas one Leeds Press, 62 single roller and 24 double roller Platt's gins. They have also there one small saw gin for experimental purposes. At Tando Adam, they have one Fawcett Preston Cyclone Type Press. At Nawabshah they have 65 single roller Platt's gins, part of which have temporarily been dismantled to make place for an experimental system of saw gins.

4497. (37) *Size of bale.*—The Mirpurkhas bale measures on an average $22\frac{1}{2} \times 22\frac{3}{4} \times 28$ inches. The Tando Adam bale $31\frac{1}{2} \times 27\frac{1}{2} \times 17\frac{3}{4}$ inches.

4498. (38) *Saw gins versus roller gins.*—It is difficult to express an opinion in respect of the relative merits of saw and roller gins. Saw gins are universally used in America, roller gins being used only for the very longstapled Sea Island cotton. In Egypt, roller gins are used. In India, with the exception of the Dharwar District, roller gins are used, and there, too, the use of the latter type of gin is spreading as I am given to understand. In the Punjab, two attempts to introduce saw gins failed. The one system has been sold, the other is silent at Multan. As regards my personal experience of Messrs. Ralli Brother's saw gins at Nawabshah, I can hardly speak about it, as only four or five bales have been hitherto ginned.

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4499. (40) *Factory labour.*—In Sind, where the ginning labour is obtained chiefly from Marwar, Rajputana, it may be said that, with the exception of famine years in those districts, there is always more or less difficulty in getting it. It is also difficult to secure the proper type of coolies to work the presses efficiently.

4500. (42) *Effect of replacement of short staple cotton by long staple.*—It has up-to-date been possible to gin with Platt's roller gins all varieties of Indian and exotic cotton, so that, even if in Sind instead of the short stapled *deshi* cotton long stapled exotic cotton were produced, it would not be necessary for our Platt's gins to be changed.

V.—GENERAL.

4501. (46) *Attitude of buyers to improved cottons.*—Buyers in my experience always pay better prices for better qualities. This may not be apparent the very first time a new and better quality is put on the market. A buyer must naturally first make sure that what he intends to buy at a higher rate is worth paying more for. Once, however, he makes certain of this he naturally pays more for the better quality or the better variety.

Mr. A. J. PANAS called and examined.

4502. (Mr. Wadia.) I have had a good deal of experience of Calcutta and of this province. During my stay in India I have chiefly confined myself to cotton. I have had experience of Bengals, Assams, Comillas and Tippera cottons. Tippera, Comilla and Assam cottons are not tenderable against any Bengal contract but they are of the same style though very short staple cotton and very rough. They are chiefly utilized in Germany and America for mixture with wool for blankets and so on. I was in the Berars for about a year and I have toured all through them. In the Punjab I have had experience both of the *deshi* and American cotton that is grown there.

4503. In Sind, the accepted figure for yield is about six to seven maunds of *deshi kapas* per acre. I have never seen any exotic cotton grown in Sind. There was a very little last year but it was more or less in the experimental stage. The yield of *deshi* cotton in the Punjab is less than it is here but is close to it, about five to six maunds on average. The difference may be due to a different style of cotton. The cottons here are much rougher and the rougher varieties are much better yielders than the silkier ones. $3\frac{1}{2}$ maunds is a very poor yield. I have not heard of twenty maunds of *phuttis (kapas)* on ordinary cultivators' fields though such yields may be got on Government farms. The maximum yield of which the trade speaks is ten maunds per acre.

4504. Sind *deshi* cotton is a short staple cotton. We never measure it in inches. In India, cotton is never sold according to the length of staple as expressed in inches. The trade merely says that such and such a cotton is a short staple cotton or a good staple cotton.

4505. I do not say that cotton is a more profitable crop than wheat in this country but I do say that from the way its cultivation is increasing, it must necessarily be more attractive to the cultivator. In former years in Berar there were large crops of linseed and wheat and there was a balance for export after meeting local consumption but now there are no linseed and wheat to be bought. Our agencies now do no business except in cotton and cotton seed. That does not apply to Sind. In Sind, there is a balance of wheat for export.

4506. I was not here in pre-war days and I do not know whether cotton seed was then exported from Karachi but there is a big demand for seed in this part of India for the feeding of cattle as there are arid tracts in Rajputana and Malwa which adjoin this province and which do not produce any cattle food. A large amount of seed goes to Rajputana and Malwa in consequence.

4507. I would advocate the establishment of seed farms on the lines of those which I have seen in the Punjab. For the cultivator to improve his cotton, it must be proved to him up to the hilt that the improved cotton will pay him and the only way to do this is by demonstration, i.e., by showing him the results which can be obtained on the seed farms by selection and by better ways of cultivation. Otherwise he will not do anything.

4508. I have had some experience of Berar and I consider the Berar market system the best way of marketing cotton. It is impossible to sell the whole crop of a district by auction for it would be too big a job but where all the arrivals of cotton are bound to come into the market where there are licensed weighmen and where every buyer has an opportunity of seeing things for himself, the cultivator gets into touch with the people who do the buying and hears all about prices. Sind may perhaps not be ready for this system because there are very few ginning centres. It is no use opening markets where there are no ginning factories but the Punjab is certainly ready for it.

4509. Cotton in Karachi is sold baled either forward or ready at so much per maund of lint. The custom prevailing here is that one can buy either full selection or one's own selection. The latter is the system which is most in vogue. There is no system of arbitration in Karachi as in Bombay. The system is that everyone buys his own selection. The dealers sell amongst themselves Ralli's selection or Volkart's selection and so on. When a man tenders and his tender is not passed, he has a right to re-tender again and again until the lot is passed. The system has worked very smoothly here. It is worked on the "give and take" principle. This year, for example, we are accepting lots which would never have been passed in other years. We take the difficulties in which the traders are into consideration and we allow accordingly. If a seller has sold on a certain type at a good price and the market has dropped and the buyer continues to reject his selection from time to time, then he has the remedy in his own hands. That buyer would not find any man to sell to him again on his own selection. He could not play tricks like that. No respectable firm would do it. If any one tried to do it, he would find the whole market against him. If he wishes to secure cotton later, the dealers will only sell him cotton, the passing of which is subject to selection of another European firm, so it is far from being the case that the sellers are absolutely in the hands of the buyers. We have no rules and regulations as the Bombay Cotton Trade Association has. There is no arbitration clause in regard to the quality of the goods tendered, but the contract is subject to arbitration under the Arbitration Act. Now everything goes to Bombay and is there sold under the rules of the Bombay Cotton Trade Association. I have not had enough experience of the Bombay market to be able to say how the rules work but the system here works very smoothly. Nobody can take advantage of anyone else as there is the dread of being punished for it by the market. There is no big market here as there is in Bombay. The market is a very much smaller market and deals practically with one style only and for that the much simpler system works better. There are four or five European firms with cotton experts who do the arbitration work. We have to refer to the rules of the Bombay Cotton Trade Association continually as we sell to Bombay. In Bombay, there is no such thing as "fine ginned Sind": the official designation is "fine ginned Sind-Punjab." You can tender any cotton grown from Mirpurkhas to Amritsar. Whether

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there should be a separate classification for Sind and for the Punjab is a question for Bombay to decide. As long as buyers find tenders against their contracts suitable, I do not see why matters should not be left as they are. Here in Karachi we either buy "Sind" or "Punjab", there is no "Sind-Punjab."

4510. As regards the position of the cultivator, the first evil is the system of advances given him whilst the crop is maturing. The presence of the village *bania* who buys small lots is necessary; he must exist because it is he who starts the financing of the cotton crop. I cannot say what the village *bania* does as regards buying the standing crop. The factory owners who buy from the cultivator himself or from the village trader buy so many maunds of *kapas* at so many rupees per maund. They do not pay a lump sum for whatever the field produces.

4511. The trade does pay lower rates for a mixture. Wherever we have got ginning factories, we do not buy inferior cotton at the same rate as the superior. In Sind, almost all the factories gin on their own account. They are ginners and merchants. Unintentional mixing in the ginneries is undoubtedly due to the cramped condition of the factories. They cannot possibly keep things separate and prevent the coolies from taking from the nearest heap what should have been taken from the heap further away. The factories should have more room to keep things separate. In some of the factories this is impossible as there is no space for extension but there are many factories which could be extended as they could buy land and spread out.

4512. A mixture cannot be called fraudulent so long as the mixture is sold as a mixture. If a man mixes a certain percentage of cheaper stuff with dearer stuff and sells it as his stuff, I hardly think you can call that fraudulent. There is quite a lot of that going on, especially in the Punjab. If a dealer mixes American and *deshi* and does not say that his stuff is pure but that you can look at it and leaves it to you to find out what the mixture is, there is no fraud. The moment he guarantees that his cotton is pure and sells a mixture as such then fraud comes in.

4513. Practically no cotton from the Punjab has come down to Karachi for sale this year but there is pure American to be had in considerable quantities this year in the Punjab. There has been a tremendous improvement in the cotton crop of the Punjab this year over that of last year. Last year I dealt with it personally; this year I am following it from the samples that we are getting. We are getting a large number of even lots which last year we did not get.

4514. As long as the ginner has an opportunity to make an extra profit by getting a cheaper quality and by mixing it with a higher quality he will do so. The radical way to do away with this is to purify the district. The moment he has not got two qualities to mix he will stop mixing. It will not be worth his while to bring inferior qualities from elsewhere for mixing. To begin with, it will be known. I honestly believe that nobody can tell the exact percentage of mixture of *deshi* with Punjab American once it is ginned. No cotton expert can do so unless he puts the cotton through the spinning machinery. With *kapas* you can definitely say whether it contains a mixture of one or two per cent: as soon as it is ginned, all one can do is to come to the conclusion that it contains more or less of *deshi* mixture, but one cannot say whether the percentage is three, five or eight percent. I certainly cannot and I do think that no cotton expert could do so merely by pulling the staple as the unevenness may be due to the presence of undeveloped and immature American *kapas* which is mistaken for *deshi*. As to whether if American cotton were put on the Bombay market as a separate class under the rules of the Bombay Cotton Trade Association and there were type samples in the Cotton Trade rooms, the arbitrators would be able to judge the percentage of *deshi*, it is immaterial to the purchaser whether the short staple is due to immature bolls or to a mixture of *deshi*. Even in the case of *Oomras*, nobody bothers to see whether it is due to fraudulent mixing or to immature bolls that the particular lot is only classified as "fair," "good" and so on. It can only be said that the cotton answers to types X, Y, or Z. Khandesh cotton might be mixed with the lower classes of Khamgaon Akola but it could not be mixed with fine Khamgaon, as it is exceedingly leafy.

4515. As regards the prevention of mixing, control over ginning factories would mean continual inspection and a huge staff of inspectors. There would be endless trouble. It is difficult enough to enforce the Factory Act. Why should not a man mix cotton if the mixture suits him? The moment there is no fraud, how can you prevent him from mixing? Millowners are able to mix themselves. Why should not ginning factories mix and make a profit, provided there is no fraud. As long as a man sells to you according to this contract, there is no fraud. If the licensing of factories is simply as regards proper working, i.e., if it simply means that they are properly organized, that they have not got rotten gins which turn out ruined cotton and that the gins are stopped until they are put in order, I approve of it. The best remedy for mixing is in the hands of the buyer; of that there can be no doubt. In 1904, when I went to Guntur I used to buy machine ginned and *churka* (hand ginned) cotton. This *churka* cotton was considerably adulterated with seed and *kapas*. It was sold at Rs. 5 or Rs. 8 below the rate for machine ginned cotton. Reports came from home that the cotton was no good. After that if the *churka* cotton was bought, it was cleaned on the sellers' account. This was done for two or three years and now the *churka* cotton in Guntur is just as clean as machine ginned.

4516. I would suggest that ginning factories should be built according to a standard plan in order to get out of the *kapas* available the best class of cotton. I have suggested in my written evidence that technical schools for training men for ginning factories just as agricultural students are trained should be established. Such schools should train the men who will see to the further handling of this agricultural product. I am not prepared to give an opinion as to how such schools should be organized as I am not familiar with Government methods of working but the necessity for them is indicated.

4517. I am afraid the complaint that false weights are used is correct. As an instance of this, I may mention that in one place down south we tried many times to buy *kapas* and to gin it ourselves. Although we offered a higher rate for the *kapas*, we always failed. We could always buy ginned cotton cheaper than *kapas*. I do not think that it is necessary to make it a condition when granting a license for a ginning factory that standard weights should be used as the existing laws provide for the use of correct weights. Anybody using wrong weights can be run in now. Official markets would do away with the evil to a very great extent though licensed weighmen are not above suspicion. It might be a good thing to put in as a condition of a license that no ginneries should keep any other weights but the standard weights.

4518. I have had no personal experience of the pools in the Punjab but I know how they act and re-act on general trade conditions. I am of opinion that they do cause loss to the cultivator; there can be no doubt about that. The pool naturally charges considerably more than the actual working charges in order to make extra profits and such profits come out of the pocket of the cultivator. When there are two districts producing

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the same style of cotton in one of which a pool exists and the pressing or ginning rate in that district is higher than it is in the other, it follows that the profit made by the pool must come out of the pockets of the cultivator. Besides ginning and pressing pools encourage rotten machinery as it is not necessary to have efficient ginning and pressing machinery to take part in the pool. In Khamgaon and Amraoti, one of the conditions for admission of a press to the pool is that it should press 200 bales to show that it is in working order. Here in Sind, the ginners are ginners and merchants. No cotton is pressed in Karachi, only wool and there are no ginning factories so no unpressed cotton comes in. In certain districts there are more gins and presses than there is work for. In Multan, for example, there are three times as many ginning factories as there is work for. They all share in the pool. The charges are very high because all the factories cannot work and make a profit out of the ordinary rates. It is very difficult in present war conditions to say anything about the cost of running a factory. The price of hoops is now almost treble what it used to be. Fixing maximum rates for ginning and pressing would mean an interference with private individuals in the exercise of their ordinary trade action. In my opinion, the less interference there is with trade the better.

4510. (Mr. Hodgkinson.) Given enough water, Sind would do very well for American cotton, but the water should be given when it is wanted and not when the Canal Department wants to give it. This year we got water in Sind at the last moment when cotton could possibly be sown and the result was that it was very late and owing to cold has suffered a lot. The cultivation of American cotton is a question of irrigation entirely. The little of it I have seen in Sind was quite all right.

4520. We have started four saw gins at Nawabshah this year and this is our first experience of them. I have seen them working and I have seen them stop. We have not had time since we put them up to attend to them properly and to see what they are capable of producing. It is not a question of our being obliged to introduce these gins in order to gin Punjab American cotton. That can be done by the roller gins but it is a question of doing it in a better way and of getting rid of some of the needless fluff, dust and dirt which is left in the cotton and is carried home where the cotton has to be cleaned. American cotton is ginned by saw gins in America, and we wanted to see whether we could do it here. I do not think that saw gins damage the staple. I have seen some of the saw ginned cotton and I cannot find any damage. As far as pulling the staple goes, I can see no difference. We have not had any tests made as we have not had the opportunity so far. We have instruction to ship small samples home.

4521. (Mr. Henderson.) We have *kapas* waiting in the various places in the Montgomery Colony and as soon as we get it down, we shall be able to start these tests.

4522. The last year's crop of Sind American was 100 to 150 bales. I found the staple less silky than it is in the Punjab but just as long. It pulled fairly evenly, but was slightly rough and had not the glossiness of Punjab American. A mixture of *deshi* would make it rough but it would also make it very uneven. It was not uneven so there was no *deshi* in it.

4523. There is no resemblance between the cotton of Tando Adam and that of Amritsar but there is a certain resemblance between cotton from Kasur, Chumian and Kot Radha Kishen and that from Tando Adam in Sind. Those places produce a style of cotton which sometimes look like Sind cotton. There is a considerable difference between Punjab cotton and Sind cotton. I do not know what is the object of classifying them together. It may suit the trade in Bombay as the trade pays the price of the poorest quality of the cotton. The prices here are not regulated only by the prices ruling for the "Sind Punjab" in Bombay. In Bombay "Sind Punjab" only gets the price of the poorest quality. Here you can only buy Sind and Punjab separately. In the ordinary course of affairs a lot of Sind cotton goes to Europe and consequently there is hardly any of it to be seen in the Bombay mills whereas practically all the Punjab cotton goes to Bombay. Hence when they buy their "Sind Punjab" they get only Punjab. In ordinary years in Bombay, one does not get Sind cotton for tenders against "Sind Punjab" cotton. Sind cotton will only be tendered when the producer of a higher quality has to send his higher quality to Bombay owing to there being no local market for it. But to-day Bombay quotations re-act on the price in Sind. This is not to the disadvantage of the Sind cultivator, because now the prices of the cotton of the "Sind Punjab" tract in Bombay are dictated by the prices of the Sind cotton here and there is none. The result is that the prices have gone up. As regards the alteration of the classification, we are not concerned here with what the Bombay people do. The producing districts, Punjab and Sind, do not suffer from it.

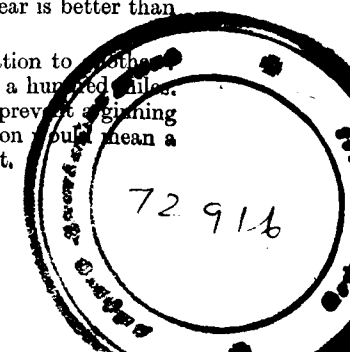
4524. I do not think that as a general rule ginning conditions in Sind are better than they are in the Punjab. They are about the same. The result of the ginning factory conditions in Sind are not so noticeable as they have to deal with an intrinsically better crop. Sind cotton has better colour, less strain, less leaf, and a much higher ginning percentage than Punjab cotton.

4525. (Mr. Roberts.) There are two classifications for "Bengals" and "Sind Punjab" because they are different cottons. Punjab cotton cannot be tendered against "Bengals." "Bengals" generally fetch Rs. 2 or Rs. 3 more in Bombay than "Sind Punjab." This year that has changed because the prices of "Sind Punjab" are dictated by the Sind cotton. It would be a mistake to put "Bengals" under the same classification as "Punjab" and it would serve no practical purpose; "Bengals" are free from leaf and from stain; even high class "Punjab" contains leaf. "Sind" is rough whereas the other two are silky. The quality of the *deshi* cotton in the canal colonies in the Punjab is different from the quality at Kasur. Kasur cotton is still a fairly good class. If a line is drawn from Sargodha to Okara, the part to the south and south west of that line grows an infinitely superior class of cotton to that to the east and south east. The *deshi* cotton of Dera Ghazi Khan, Multan and Tobatek Singh is much superior to the *deshi* cotton of other places. The characteristic of Sind cotton is its great roughness. Nobody tenders Tobatek Singh cotton against "Sind Punjab." It is sold on types. The trader who speculates knows "Sind Punjab" as a class but the spinner knows exactly what he is buying as he buys on types. If the transport of cotton from one place to another except Bombay were prohibited, then classification according to railway stations might be helpful but as long as people are railing cotton from Amraoti to Phulgaon and Dhamangaon to be sold in Bombay under the name of the latter station no object would be served by such a classification. Punjab American cotton this year is better than the last year or rather there is more good cotton available than there was last year.

4526. (Mr. Wadia.) Who would prevent the transport of cotton by rail from one station to another? It might be done but the cotton would be transported in carts, though not for more than a hundred miles. You can legislate but who is to look after the carrying out of the laws? Why should you prevent a ginning factory from working in a bad year by stopping the transport of *kapas* to it? Legislation would mean a tremendous number of inspectors and preventive officers to see that the laws were carried out.

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4527. (*President.*) I think the submission of ginning and pressing returns ought to be made compulsory. They are issued now too late and are not of much value. The total figures for Sind are often only a little above our figures for Mirpurkhas alone. The returns should be more on the lines of the United States reports and should be more punctually published.

Mr. J. G. BROOKER, Chief Engineer to Messrs. Ralli Bros., Mirpurkhas.

EXAMINED AT KARACHI ON THE JANUARY 22ND, 1918.

No written statement was submitted by this witness.

4528. (*Mr. Wadia.*) I am the Chief Engineer for the whole of the area controlled by the Karachi branch of Messrs. Ralli Brothers. My headquarters are at Mirpurkhas. I have, at present, in my charge two ginning factories at Nawabshah, two at Mirpurkhas, a press at Mirpurkhas and a press at Tando Adam and also a large quantity of machinery unconnected with cotton. I am concerned with all the purchasing of machinery, with the buildings and with insurance—in fact with every thing that concerns machinery and the working of the factories. I have had six years' experience of ginning factories and presses. I have seen other factories besides ours. The class of fitters generally employed in the ginning factories in Sind is very poor. I am referring to the fitters both of single and double roller gins. Ours are I think the only double roller gins in Sind. We have our own fitters. One or two were originally imported by us from Southern India from our factories there and they have trained others. So, on account of double roller fitters being absolutely unobtainable except in this way, we pay more attention to their training and the result is that they are more efficient than the single roller fitters. They are a better class entirely. We require a more intelligent man to understand the double roller than the single roller; and the ordinary single roller gin fitter would not do at all without training. The double roller gin fitter has to be practically a mechanic as well as a gin fitter. Single roller gin fitting is almost an hereditary profession here. The fitter has sons and relatives who seem instinctively to know a little about it. They begin as oil men and then go on as fitters. They are useless for any other engineering work but do that fairly well. None of them are Sindhis. I have no Sindhi labour under me of any description. The fitters are very often men from Kutch, some of them are Muhammadans from Agra and we have several from Southern India from our factories there who have settled down here. I would certainly advocate the training of better fitters. I would give them a little theoretical knowledge as well as practical training but the light man must be picked. It is no good taking ordinary fitters. You must get men associated with ginning factories. I would certainly advocate training under proper supervision.

4529. The double roller gin is a much more economical machine than the single roller gin for the same class of cotton. The action mechanically is entirely different though in principle the same. In the single roller gin, the grid of the gin through which the seed drops is stationary; in the double roller gin it is moving. It moves with a beating action and owing to this beating action the *kapas* is partially cleaned, the dust falling through the grid into the seed. That is the first way in which you get a cleaner cotton in a double roller gin as compared with a single roller. The second way in which you get a cleaner cotton is also due to the grid. In the single roller grid, there is an arrangement which breaks up all the husks which come into the gin with the *kapas*. Whilst almost all the broken husks go into the seed, a certain amount must go through the roller with the lint. The double roller gin does not break up the husk at all and it has to be removed by hand. This is the second reason the double roller gin gives cleaner cotton than the single roller gin. If there is a lot of husk, the gin has to be stopped for fifteen or twenty minutes and the husks removed by hand. Practically speaking, the single roller gins mix the rubbish chiefly with the seed but partly with the lint, whereas the double roller takes away all the rubbish from the *kapas*. There are other minor reasons why the double roller gin gives better cotton than the single roller gin. It revolves slower and therefore the cotton is less subject to being torn and worn and to having pieces pulled out of it and so one gets better cotton that way. As to doing any harm to the staple, I may say that the Sindhi cotton has no staple to consider and that I have had very little experience of ginning stapled cotton. My experience is that American cotton can be ginned equally well in the single roller or the double roller gin provided certain alterations are made in the grid of the gin. I have never heard of the staple being damaged in any way. I think the makers (Messrs. Platt Brothers) claim that special advantages are given by the double roller gins, but a single roller gin can be adjusted for American cotton as well as for *deshi*. Ten years ago the price of a single roller gin was Rs. 250 and that of a double roller gin Rs. 550. I give you the figures shown in Platt's catalogue. Speaking very roughly, the output of the double roller gin is double that of the single roller gin, but it does not require double the horse power. It is therefore the more economical machine and less costly in power. If you gin the same *kapas* in either gin, you will get the same weight of cotton but the seed from the double roller gin will be lighter than from the single roller because the pods that are broken in the single roller go through and mix with the seed while the pods are removed by hand from the double roller gin. The slight extra weight you get in the seed is therefore not seed but adulteration.

4530. I erected and have worked the saw gins at Nawabshah and at Mirpurkhas. I am not prepared to make any definite statements regarding them because we have not concluded our experiments yet. Naturally as the saw gins clean the cotton better than the roller gins, one expects to get a smaller ginning percentage. It is practically the same as taking roller ginned cotton and passing it through openers. I cannot say whether saw gins cut the staple as I am no judge of cotton or staple. I fancy that saw gins in the hands of people who do not understand them could be pretty dangerous machines as regards damage to staple and so on. A man with a certain amount of mechanical knowledge is required for them.

4531. As to *kapas* platforms behind gins, I am not prepared to say that an eight feet *kapas* platform is wide enough. That should be the minimum. The wider it is the better. Our No. 1 factory in Nawabshah is a most convenient factory in every way and might be taken as a model as regard size. During the rains the factories ought to be able to store sufficient *kapas* to be able to continue ginning for twenty four hours, whether it rains or not, without the *kapas* being in danger of getting damped. Either they have to do that or the factory has to be stopped on account of rain. If no consideration is paid to the quality of the cotton, you can continue ginning damp *kapas* but leaf adheres to it owing to its being ginned in a wet state and the rollers will be spoilt by doing so and other damage will be caused. By making a big platform, the factory is not only made convenient for normal conditions but expense is saved in the long run because the factory can

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be worked during rainy days. The size of our Nawabshah factory is 33 feet between inside walls, and the platforms for piling the *kapas* are eleven feet wide. The gins are single roller gins. That is of course, a liberal size. For a double roller ginning factory, I should say that a minimum of thirty feet between the inside walls is necessary and I should myself make it not less than 36 ft. Then you can divide your *kapas* and lint platform according to your personal inclinations. In the Nawabshah factory, the actual space for lint and *kapas* is thirty feet whereas the width of the factory, between walls is 33 ft.; that is to say there is 1½ ft. of gin on each side not reckoned as platform space.

4532. I have had experience of three kinds of presses, the Cummins' press, the Watsons' press and the Leeds' press. I have also seen the Nasmyth Wilson press. The Nasmyth Wilson press is the ordinary one used by native merchants. The shape of the Leeds' bale is practically a cube. The Cummins' press, according to my recollection, turns out a long bale in depth and about square in section. The Watsons' press turns out a bale much like the Nasmyth Wilson bale, a very long bale lashed with eleven hoops. I am inclined to think that in the Watsons' type of press the bale can be pressed to better measurement than in the Leeds' or the "Cummins." Given equal pressing power in each case, the shape of the bale makes it slightly easier to press and it is certainly easier to sample on account of its length as the middle hoop and the end hoop can be removed without any trouble. I can give you the actual measurement of the Leeds' pressed bale. The bale turned out by the Leeds' press is 22½ by 22½ inches in section. The depth varies, of course, according to the shipping measurement required. The best shipping measurement that one reckons to get out of an ordinary Leeds' press is twenty tons per hundred bales. With American cotton, one usually only presses up to a measurement of 25 tons. We used sometimes to press *deshi* cotton to nineteen tons which involves tremendous pressure. I never risk that now-a-days because one cannot replace the machinery.

4533. (*Mr. Hodgkinson.*) I erected a set of Platts' automatic feeders at Mirpurkhas and experimented with them assisted by a man that Platts sent out. These automatic feeders can be applied to ordinary single roller gins. We tried them for three weeks. The automatic arrangement was as perfect as one could expect provided the class of *kapas* was suitable for the feeder. Our *kapas* was rough and dirty and so it damaged the feeder. Owing to the shortage of skilled labour locally, I came to the conclusion that it would be impossible to keep these feeders in as perfect a condition as they should be kept, but given favourable conditions of *kapas* and labour, I should say that they are an excellent idea. One coolie can feed from six to eight gins. The only other automatic feeding arrangements I have had anything to do are the pneumatic elevators on the saw gins now at Nawabshah. These raise the *kapas* to the top distributors by suction and then distribute it to the gins by the belt distributor. I am perfectly certain that, in a model factory, provided one got skilled labour to keep the machinery in good order with the rates for coolie labour as high as they are at present, it would be a good investment to instal these elevators. It could very easily be done. It would do away with a lot of carrying, and would stop mixing on the *kapas* platforms outside the factory. It would also prevent mixing at the entrance doors of the factory. Ginned cotton and *kapas* would never be mixed because the *kapas* would be delivered direct to the *kapas* platforms and by quite a separate route to the cotton. The seed would be taken away automatically from the factory. The automatic feeder made by Platt is only applicable to single roller gins. Platt's machines are the only ones in this part of the world. I have heard that in Tuticorin, there is a gin with seven rollers which is very extraordinary. It is difficult to apply automatic feeders to double roller gins on account of the space available and on account of the beating action of the gin. We have automatic feeders both for double and single roller gins which were made by our own engineers. I do not think they are a very great improvement on ordinary conditions. They have defects and have never been followed up.

4534. (*Mr. Henderson.*) There is a big difference between the size of *deshi* cotton seed and American cotton seed judging by the grids we use. We use a grid five-sixteenths inch wide for ordinary *deshi* cotton and that, I should say, allows roughly one-sixteenth of an inch on each side of the seed to drop through. That is to say, the seed is three-sixteenths of an inch in diameter. The ordinary American seed is another one-sixteenth bigger, say, one-fourth inch. If we were going to gin American cotton in any considerable quantity, say 1,000 bales, we should undoubtedly have to fit larger grids to our gins to get a better output per hour. We do occasionally keep two sets of grids: five-sixteenths and one-fourth inch in size. The latter we use for *deshi* cotton when we get exceptionally bad *kapas* with small seeds; then we have to fit up a number of gins with small grids in order to save the *kapas* from falling through the grid, and getting mixed with the seed. Some trials have been made with ginning *deshi* cotton in the standard American saw gins. The standard saw gin is fitted with a grid suitable for large seed. My experience was that the class of *deshi* cotton that we required did not warrant alteration in the gins, as the few odd seeds going through the grids and mixing with the lint did not make much difference, the class of cotton we required being very low. There is an appliance under the saw gin to remove the seed which accidentally falls through the grid. It must be remembered that in roller gins the seeds should fall through the grid and the *kapas* and lint should not, while in the saw gin the lint goes through the grid and the seed does not. It is possible to gin *deshi* cotton in the standard saw gins without altering the grid. The seeds which do escape the grid are removed from the lint by the arrangement already described and the amount of seed in the lint of *deshi* cotton is not enough to worry about. It is not more than in the case of the ordinary roller gin where occasionally seed is carried through into lint at the end of the roller. It might be worth while experimenting with a smaller grid for the saw gin to get absolutely seedless lint.

4535. If saw gins were generally adopted eventually, I do not think that there would be any difficulty in training labour to deal with them. The fitting of the saw gins and their supervision is infinitely less laborious than that of the roller gins but if a person who has no experience whatever with a saw gin tries to work it, he will make a mess of it. Mechanically it is very much simpler.

4536. (*Mr. Roberts.*) The standard grid for *deshi* cotton is five-sixteenths inch wide. We get so little American that no alteration in the size of grids has ever been made in the roller gins we use for it. We simply gin the few bales of American that we have in the roller gins uneconomically as regards output per hour. Really speaking, the grid should be increased in order to increase the output per hour.

4537. I have already suggested that a board should be placed in front of the single roller gins to save the feeding coolie throwing *kapas* over into the ginned cotton. It must be easily removeable because there is so frequently occasion to look into the front of the gins. There is no trouble at all about arranging it. It is merely a matter of a couple of clips. It should be made of wood. As a matter of fact we have not had any trouble so far with *kapas* falling over the front of the gins into the lint so that boards are not necessary in our case. That is due to the training of the staff which pays particular attention to this matter. Supervision is an important point.

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[Continued.]

4538. I do not think that there is any necessity for different elevations for the entry and exit of *kapas* and cotton if the factory is designed in such a way that the two cannot cross. It is just as easy to go up two or three steps and to throw *kapas* into the gin as to walk in front of the gin and lean over and throw it into the *kapas* platform. It occasionally happens that one side of the factory finishes its *kapas* whilst the other side has still a lot left and then the men who carry *kapas* have to remove it from one side of the factory to the other and walk down the stairs and go round in preference to throwing it over the gins.

ANNEXURE I.

Letter from J. G. Brooker, Esq. Chief Engineer, Messrs. Ralli Bros., Mirpurkhas, Sind, to the Secretary, Indian Cotton Committee, dated 25th January 1918.

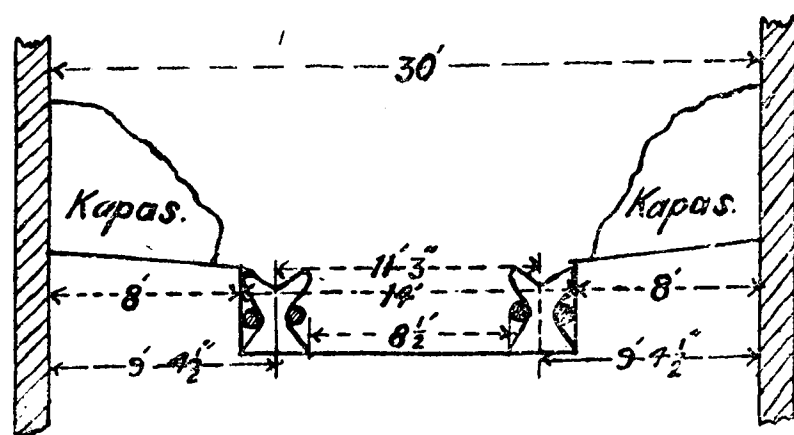
I have the honour to forward you sketches showing—

- The minimum sizes recommended for ginning factory *kapas* platforms, both for single and double roller gins.
- The sizes for ginning factory *kapas* platforms which are large enough for ordinary working under normal conditions.

I have shown on the sketches the number of hours for which the factories can work after the *kapas* platforms are filled up.

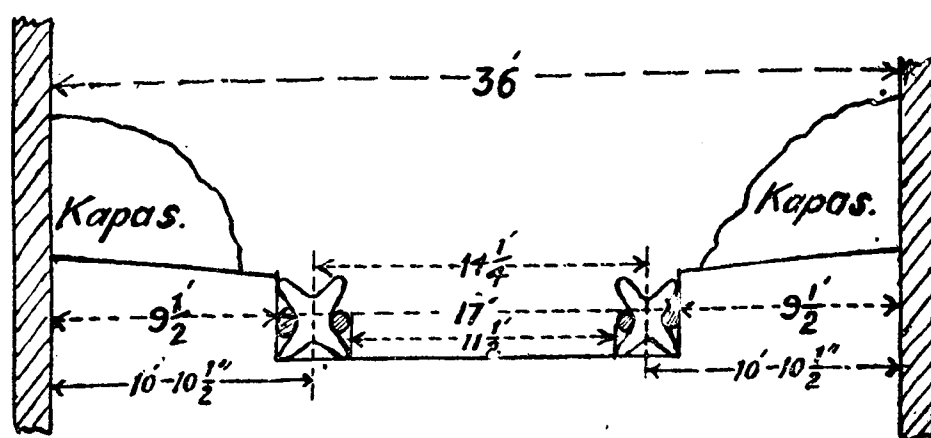
I should add that in districts, where *kapas* is opened before being ginned, it is very advisable to provide ample covered-in accommodation behind the openers. This should accommodate *kapas* sufficient for five to ten hours' working of the factory. The total accommodation therefore both behind the gins and behind the openers is sufficient to keep the factory at work for at least a day without re-filling, so that there is no excuse for filling up with damp *kapas* in the early morning if the platforms have been filled the evening before. In rainy weather also it is very desirable to have the platforms kept filled up so that there is always a day's ginning of dry *kapas* in hand.

SKETCH A.



Showing minimum dimensions recommended for double roller gin factory. Giving 8 feet platforms for *kapas*, and 8 1/2 feet for cotton. If gins are spaced at intervals of 7 feet and 8 1/2 inches and *kapas* is piled on the platforms in the manner shown above, the platforms are sufficiently wide to keep the factory working for eight hours at one filling.

SKETCH B.

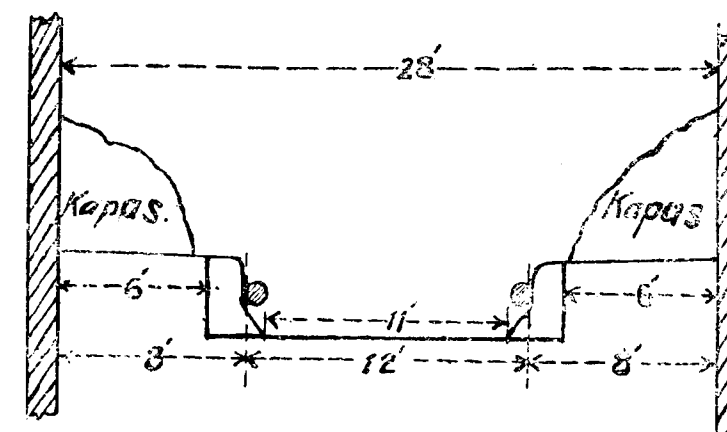


This sketch shows the dimensions for a conveniently sized double roller gin factory, big enough for normal working conditions. The *kapas* platforms are big enough to keep the gins going for nine to ten hours after one filling, if the gins are spaced, and *kapas* piled as in sketch A.

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Mr. J. R. AFFELTRANGER.

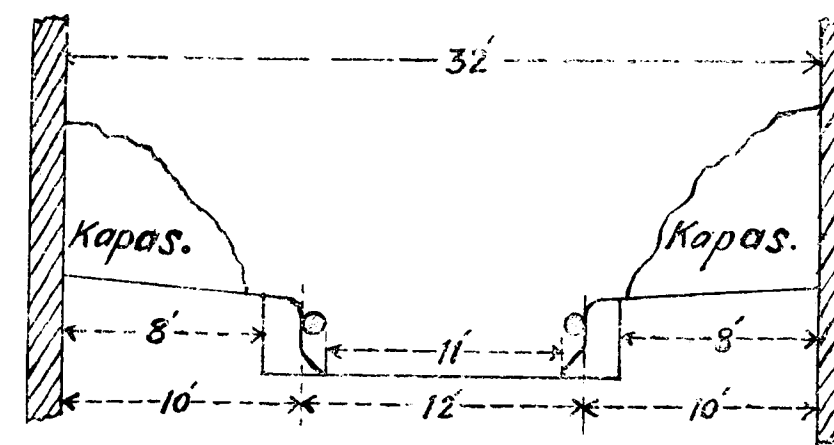
SKETCH C.



Showing minimum dimensions recommended for single roller gin factory giving six feet platforms for *kapas* and eleven feet for cotton, the distances from wall to gin shaft centre being eight feet and between the shaft centres of the two lines of gins twelve feet.

If the gins are spaced 5 feet 9 inches apart, and the *kapas* piled as shown, the factory can work for eight hours at one filling.

SKETCH D.



This sketch shows the dimensions recommended for a conveniently sized factory for single roller gins. It is big enough for normal working under normal conditions. The *kapas* platforms if piled as shown and if the gins are spaced as in Sketch C will keep the factory working for about 10 1/2 hours.

Mr. J. R. AFFELTRANGER, of Messrs. Volkart Bros., Karachi.

EXAMINED AT KARACHI, JANUARY 22ND, 1918.

Written statement.

I.—AGRICULTURAL EXPERIENCE.

(a) "Deshi" short staple cotton.

4539. (1) **Experience.**—I had about nine years' experience of cotton business in the Punjab, mostly on the Ambala side. I have also been for two cotton seasons in the Coimbatore district of the Madras Presidency, and, since autumn 1912, I have been stationed in Karachi. I have had several occasions to get into touch with cotton cultivators.

4540. (2) **Varieties.**—In the Punjab and Sind, the varieties known as "Sind-Punjab" and "Bengals" are grown; while in the Coimbatore district, ryots used to grow the varieties called "Uppam," "Nadam" and "Bourbon." These latter, I understand, have now been practically supplanted by Cambodia.

4541. (3) **Size of holdings.**—Information regarding the size of holdings and the production under cotton can best be obtained from the Land Record offices. As far as my information goes, about one-fifth of the holdings are usually reserved for cotton cultivation in the Punjab. In the Punjab canal colonies, five to ten squares of about 25 acres may be considered an average holding.

4542. (4) **Yields and profits.**—The average yields and profits per acre vary considerably. In the Punjab, the yield per acre varies from four to eight maunds, while, in Sind, the average yield of cotton per acre is reported to be about nine maunds of *kapas* under normal conditions. The profit depends, of course, mainly on the prices of cotton and on the outturn. Owing to high prices realized, the profits on cotton cultivation per acre have been considerably higher ones than of other crops grown in the Punjab and Sind during the past five to seven years.

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[Continued.]

4543. (5) **Rotations and manures.**—In the Punjab, the principal crop rotations are wheat, *toria*, cotton, maize, sugar-cane, *juar* and *bajra*; in Sind the fields are, as a rule, alternately sown with cotton, *bajra* and *juar*. In the Punjab, very little manure is used for cotton cultivation. Fields near villages are sometimes manured with cowdung and village refuse. Some well-to-do *zamindars* also use saltpetre. In Sind, manuring is resorted to very freely by ryots and the manure applied is a mixture of cowdung, ashes, refuse, etc.

4544. (6) **Comparative returns.**—Excepting in the North-West Frontier Province (Peshawar), there is no long staple *deshi* cotton grown in either the Punjab or Sind.

(2) As pointed out in paragraph 4542, cotton has been paying cultivators very handsomely in recent years and better than any other crop, owing to high prices realized.

(3) In the Punjab, the cultivation of the so-called American varieties has been more profitable to cultivators than of ordinary *deshi* cotton. The grower of American cotton must have earned Rs. 5 to Rs. 10 more per acre during the past few seasons, while this year the difference is even more striking. *Kapas* of the American varieties in the Punjab now fetches from Rs. 19 to Rs. 21 per maund as against *deshi kapas* rates varying from Rs. 14-8 to Rs. 17. Besides, the outturn per acre of American cotton is higher than of *deshi* this year, the *deshi* crop having suffered considerably more by the exceptionally heavy September and October rains than the American crop. In Sind, the cultivation of exotic cotton has on the whole not been successful owing to unsatisfactory irrigation conditions, and the outturn has been so poor that it pays the *zamindar* better to grow *deshi* cotton.

4545. (7) **Conditions affecting increase in area.**—Cultivators judge their sowings according to prices ruling and irrigation and weather conditions existing at the time of sowings. If good prices have prevailed during the season, and especially at the time of sowings, cotton is always given the preference in cultivation to other crops. Areas under cultivation fluctuate from 25 to sometimes 100 per cent. Any increases of the area of short staple cotton would mean smaller areas for other crops; but, in the Punjab as well as in Sind, the cultivable area can still be very largely increased by the opening out of new irrigation colonies.

4546. (8) **Uses of seed and seed selection.**—In the Punjab, seed is used principally for feeding cattle. A small quantity is manufactured into oil for local consumption. In Sind, most of the seed used to be exported to Europe before the war and only a small quantity was consumed locally. At present practically the whole yield of seed is disposed of for consumption in Rajputana and the Punjab and in Cutch. For sowing purposes ordinary seed, preferably small sized seed, produced by ginning factories is freely used. Some of the ginning factories select and gin separately the best qualities of *kapas* available and sell the seed at a premium to cultivators. Hand-ginned seeds are preferred to all others, but there is very little of it to be had now-a-days.

4547. (9) **General economic conditions.**—Scientific ploughing and the use of fertilizing manures should go a long way towards increasing the yield of cotton. It is known, for instance, that the Punjabi settlers along the Jamrao canal in Sind obtain by good and careful ploughing a far better yield of wheat and cotton than their Sindhi brethren. Government ought to encourage the manufacture of fertilizing manures as much as possible and induce *zamindars* to buy modern agricultural implements. Much can be done yet in the way of improving the quality of *deshi* cotton. Very little care is bestowed upon the picking by *zamindars*. In many cases, *zamindars* allow the *kapas* to drop on the ground with the leaves, thus causing a deterioration of the colour and mixing of leaves with the *kapas*.

(b) "*Deshi*" long-staple cotton.

4548. **General.**—As already answered under Section (a), there is no such cotton growing in the Punjab or Sind. The two fairly good indigenous cotton qualities called Hansi and Multan are not of long-staple, the length of the fibre being not even five-eighths of an inch. It has by now been sufficiently established that exotic cotton especially of the American varieties can be very successfully grown, especially in the Punjab colonies; and, as exotic cotton fetches a far better price than *deshi* long-staple cotton, preference must naturally be given to the cultivation of exotic cotton, the more so as Lancashire is badly in need of such cotton.

(c) *Exotic cotton.*

4549. (20) **Experience.**—As already stated in paragraph 4539, I have spent two seasons in the Coimbatore district where Cambodia cotton is grown to a large extent. But my activity was chiefly confined to the purchases of *deshi* varieties as the cultivation of Cambodia was at that time in its initial stage. I have never been stationed in any of the Punjab centres where American cotton is now produced, but I have always remained in close touch with our Lyallpur Agency and I have followed the development of the American cotton cultivation in the Punjab and Sind very closely ever since I have been stationed in Karachi. I also visit the Punjab cotton centres once every year at the beginning of the cotton season.

4550. (21) **Varieties.**—In the Punjab, the so called 4F. American cotton is chiefly grown, this being the produce of seed originally imported from America and acclimatized in Dharwar. In Sind, experiments were made with Triumph cotton and other varieties, but the experiments not having been successful, the cultivation of exotic cotton has practically been abandoned this year.

4551. (23) **Comparative returns.**—4F. cotton is about as good a yielder as *deshi*, but the outturn of lint is slightly less than that of *deshi kapas*.

4552. (25) **Conditions affecting increase in area.**—It has been established that the successful growth of exotic cotton such as of the 4F. type and other similar varieties is subject to certain conditions which seem to restrict its cultivation to irrigated areas. A further large development of the cultivation of the American cotton can, therefore, be attained only by the extension of irrigation. The climatic conditions of the Punjab and Sind appear to be very conducive for the growing of the American cotton. As a matter of fact, the American varieties have stood the adverse climate of the last summer far better than the *deshi* cotton. It has also been proved that the American cotton sown in the Punjab suffers much less from insect pests than *deshi*. The only disadvantage in planting American cotton is that the crop takes a much longer time to mature than *deshi*. It has to be sown in March or April and picking usually commences from the 15th of November only. This seems to interfere with other crops, especially food-stuffs, but to what extent, I am unable to say. Frost sometimes comes early in December and the American cotton is, therefore, liable to suffer much more from frost than *deshi* cotton. The ginning seasons generally last from October to the end of March but owing to the lateness of the American crop, it may sometimes have to be prolonged till end of May. If good manure is applied to the soil, there ought not to be any great necessity to observe rotations of crop. The problem of labour is difficult to solve as the supply is getting shorter every year. The sale of agricultural machines and wooden implements should, therefore, be encouraged by Government as much as possible.

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[Continued.]

4553. (26) **Suitability of existing varieties.**—I think the right varieties of exotic cotton are being pushed as far as the Punjab is concerned. The growing of the exotic cotton should be pushed vigorously in Sind as soon as irrigation conditions have improved. It is generally admitted that both the soil and the climatic conditions in Sind are better suited for the cultivation of long-staple cotton than in the Punjab.

4554. (27) **Prevention of mixing of different varieties.**—The practice of mixing exotic cotton with *deshi* in the fields is now slowly being dropped by *zamindars* and ryots. The farmer has by now fully realized that mixing does not pay and if, in spite of this, he occasionally grows mixed qualities, he does so simply because he has not enough pure cotton seed of the American variety. This year more 4F. American seed has been sold by the Agricultural Department than in previous seasons and consequently more pure cotton is being obtained in the Chenab, Jhelum and Montgomery colonies than in any other year. The whole remedy appears to me to lie in the fact that farmers must have easy access to pure American cotton seed and, for this purpose, Government, i.e., the Agricultural Department should establish seed farms or seed depôts in all the various cotton centres and, if possible, also in the *tehsils* of each district. No fancy prices should be asked for these seeds as very often the price demanded for the article frightens the cultivator away and he is forced to buy indifferent seed elsewhere at a cheaper rate.

(2) The question of preventing mixing in the ginning factories is a more difficult problem to solve, chiefly owing to the unscrupulousness of some of the factory owners. Generally speaking, I am of opinion that the proper agency for dealing with complaints as regards mixing and adulteration of produce is the trade itself; but in the present case I think some interference on the part of Government is advisable for the following reasons. It is a well known fact that the number of ginning factories in the Punjab is far in excess of actual requirements. This causes very strong competition amongst the factory owners and consequently all attention of ginners is diverted to outturn rather than to quality and careful ginning. Very few of the now-existing factories in the Punjab have enough godown and compound accommodation to keep the different qualities of *kapas* strictly separate, and consequently good and bad qualities and *kapas* of different growths such as American and *deshi* are freely mixed. Of late three years has also been a tendency in the Punjab to bring into the cotton trade and engage men as factory managers who have had no experience whatsoever in the cotton business and in the cotton selection. These men are usually well educated but, being without experience in the business and selection of cotton, they are more often than not detrimental to the cotton trade. I think some improvement could be brought about if the existing factories were put under license, and licenses should be stopped where it is proved that the ginners have deliberately mixed or otherwise deteriorated the cotton. In new colonies such as the Lower Bari Doab, and colonies still to be opened, Government ought to restrict the number of ginning factories to the absolute necessity, and care should be taken to issue licenses only to well known firms with many years' experience in the cotton trade. The Punjab Government are now stipulating for certain conditions as regards construction of ginning rooms when selling factory sites in the Lower Bari Doab Colony. I would go one step further and insist on spacious and well ventilated godowns, large drying platforms, etc., being erected in order to keep the different qualities strictly separate and dry.

(3) There can be no doubt that factory owners have of late years received considerable encouragement from Indian mills to mix American and *deshi* cotton. I do not mean to say that these mills have had their eyes set purposely on mixed qualities, although they have probably not done badly with their purchases of mixed cotton considering the fat margins with which Indian mills are working since the outbreak of the war, but the fault lies probably more with the mills' purchasing agents who, with quite insufficient training in the selection of exotic cotton, are sometimes quite incapable of judging whether the cotton is mixed or not. It is no exaggeration to say that, of the purchasing agents now acting on behalf of Indian mills in the Punjab, there is scarcely a man who knows how to pull the fibre of the cotton properly. Indian mills are now by far the chief buyers of American cotton in the Punjab and they will continue to be so even after the war. Therefore, the problem of raising the standard of quality, mixing, etc., is one to be solved in the first instance by Indian mills. It will pay them in the long run to exercise a very strict control over the selection and avoid or heavily penalize mixed qualities. Without the co-operation of Indian mills and particularly so of their purchasing agents with exporters in the latter's endeavours to improve the quality, Punjab American cotton is not likely to reach a high enough standard to attract many buyers from Lancashire.

(4) I believe the introduction of one or two standards of Punjab American, which should be established and deposited in Liverpool, Bombay and Karachi, would result into some improvement of the buying system and ensure a raising of the standard of quality; although I do not feel very sanguine on this score simply because several of the large Indian mills have their own buying arrangements in the Punjab.

4555. (28) **Importation of seed.**—As far as I know, experiments carried out with fresh imported seed from America did not prove to be a success.

4556. (29) **General Economic Conditions.**—To my knowledge, manure is only very scantily used for cotton growing in the Punjab and, as fertilizers are not likely to be available in large quantities in the near future, the greatest care should be taken in the selection of seed. In order to prevent deterioration of quality, the seed for American cotton cultivation should only be supplied by the Agricultural Department who should prosecute the selection of seed systematically. I would also lay stress again on the necessity of deep ploughing and careful weeding. *Zamindars* should also be able to rely strictly upon the Irrigation Department to obtain water when required for cotton. During my tour in the Lower Bari Doab colony last November, I have heard some complaints on this score.

II.—COMMERCIAL ASPECT.

4557. (30) **Local trade customs.**—Cultivators bring their cotton into recognized commercial centres for sale where it is sold to the highest bidder. Ginning factory proprietors frequently buy *kapas* in the interior from *zamindars* or *kapas* dealers and have to pay certain advances to the cultivators as earnest money. In several instances litigation has ensued over these bargains owing to the cultivators failing to deliver the *kapas* against their forward contracts. The risky nature of such forward business with cultivators has prevented large commercial firms from buying from cultivators directly. If agricultural banks could safeguard the interests of buyers, exporters could also participate in the forward business with *zamindars* and the cultivator would then get more for his cotton, as exporters would be able to outbid the middlemen. At present, exporters buy mostly ginned cotton from factory owners, but the tendency of exporters inclines more and more towards the *kapas* purchases from *mandi* arrivals thus eliminating the factory owners as sellers. The reason for this is that factory owners can rarely be relied upon to tender satisfactory quality in rising markets, whilst it often happens that contracts are repudiated altogether by factory owners involving the buyers in endless litigation. I believe the protracted proceedings of commercial cases in the

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[Continued.]

Punjab and other Indian Law Courts have much to do with the indifference which some of the Indian merchants display towards their contract obligations and, as a remedy, I would suggest a much freer use of the Arbitration Act in all cases of a commercial nature. This, however, necessitates the creation of local Chambers of Commerce, which should be constituted not only of exporters, factory and millowners, but should also include the local Government Authorities, as for instance, Deputy Commissioners or Collectors and the local officers in charge of the Agricultural Department. Disputes about quality, I think, it would be better to have referred to arbitration in Bombay or Karachi, as it will often not be possible to find impartial cotton experts locally. Awards given by Bombay or Karachi arbitrators should be made enforceable also in the Punjab Law Courts. So far Indian merchants in the Punjab have preferred to avoid arbitration in Bombay or Karachi, probably because they think that they will not get justice in these arbitrations. It is true that the present systems of classification in Bombay and Karachi are not very reliable and if arbitration and classification could be conducted in Bombay and Liverpool on the Bremen system, it would, to my thinking, not only strengthen the confidence of the Indian merchants in these arbitrations, but also help considerably to improve the conditions in the Indian cotton trade.

4558. (31) **Standardization of commercial names.**—Sind and the bulk of the Punjab *deshi* descriptions are sold in Bombay under the commercial name of "Sind Punjab." A few stations on the Ambala side are allowed to pass as "Bengals" which in normal seasons are quoted Rs. 5 to Rs. 10 higher than "Sind Punjab" in the Bombay market. I do not think this differentiation is justified at all, since the intrinsic value of most of the Punjab styles is as high as the produce of the United Provinces. Both Punjabs and cotton from the United Provinces should be classed under one and the same name, say "Punjab-Bengals," while Sind which is of a much shorter fibre might be given the name "Sind."

III.—STATISTICAL.

4559. (33) **Improvement of cotton forecast.**—The cotton forecasts are very meagre and distinctly restricted in the information they publish. Their chief fault is that they are generally too low with regard to the yield and the estimates compiled by our own agents in the Punjab and Sind have invariably proved to be more reliable than the Government forecasts. Besides, the Government forecasts are generally published much too late to be of much use to the trade. In America, the Agricultural Bureau reports on the condition of the crop at the end of every month. I do not think it necessary to have monthly reports published, but the four estimates which it is now customary to give out should be made available to the trade much quicker than hitherto.

4560. (34) **Improvement of other statistical information.**—I certainly advocate pressing and ginning returns being published by the Government every fortnight. There will be no difficulty in getting the information from all the factories and presses if a strict control is kept. I may also point out that opinion as regards the quantity of cotton consumed in the villages *i.e.*, by the farmers themselves and other village inhabitants is very much divided and estimates for the whole of India's home consumption at present vary between 400,000 to 1,000,000 bales. It would be of the greatest interest to the trade to have reliable figures for this "home consumption" in villages, as without them it is impossible to estimate the yield of the crop accurately.

(2) No reliable data is available in regard to despatches of cotton from upcountry stations at present. I would recommend the formation of a special department or bureau which would have to deal with statistical matter and which would have to remain in close and continual touch with trade.

4561. (35) **Publication of Liverpool and Bombay prices.**—I do not think the publication of Liverpool and Bombay cotton prices at upcountry markets would be of much use, because the average *zamindar* will scarcely be able to calculate from these quotations how much he should get for his *kapas*.

IV.—MANUFACTURE.

(a) Ginning and pressing.

4562. (36) **Type and number of gins and presses.**—In Multan, we have a ginning factory containing 28 single roller Platt Bros. gins and one Hodgart half press with a D. Stewart finisher. In Mir Hussan, about 2½ miles from Tando Adam, we possess a factory, the building of which collapsed last October owing to floods caused by canal breaches. The 43 gins, Platt Bros. roller gins, and engine are now being removed to some other place.

4563. (37) **Size of bale.**—Our Multan press produces the ordinary oblong standard bales of about 10-20 c. ft.

4564. (38) **Saw gins versus roller gins.**—Saw-gins are no doubt great labour-saving machines and capable of turning out much more ginned cotton than roller gins. They are, however, ruinous to *deshi* short staple cotton, as the staple is cut to pieces by saw-gins. I cannot express an opinion as to whether saw-gins could be more successfully employed in the case of Punjab American cotton, as I have not yet seen any such cotton ginned by saw-gins. My firm is trying to gin, as an experiment, some Punjab American cotton in the Dharwar district where saw-gins are used, but owing to the closing of railway bookings for cotton we have not so far been able to despatch the *kapas* to Dharwar.

4565. (40) **Factory labour.**—We have much difficulty in obtaining factory labour now-a-days.

4566. (41) **Condition of cotton.**—Damp *kapas* and cotton as well as cotton mixed with *kapas* and crushed seed are often to be found in the lots we gin and press. As regards remedies, I refer to my suggestions in paragraphs 4554 and 4556. As far as I know, deliberate damping of *kapas* or ginned cotton is not being practised very much now-a-days, but *kapas* often arrives in a damp condition because it has been picked by farmer in the early mornings when dew is falling. Instead of having it thoroughly dried before stacking, factory owners generally store such *kapas* in badly ventilated godowns, as a consequence of which the *kapas* becomes heated and discoloured.

(b) Spinning and weaving.

4567. (45) **Effect on cotton market of replacement of short staple cotton by long staple.**—If it is a question of replacing whole crops, such as for instance the Bengal and Punjab crops by long staple cotton, this would undoubtedly cause considerable dislocation in the cotton trade and in the textile industry.

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[Continued]

V.—GENERAL.

4568. (46) **Attitude of buyers to improved cottons.**—Long stapled cotton always commands a better price than short stapled varieties and premiums are always paid for improved growths.

Mr. J. R. AFFELTRANGER called and examined.

4569. (Mr. Henderson.) I have some experience of *deshi* Sind cotton. It is brought chiefly at Tando Adam, Shadampur and Mirpurkhas. Sind *deshi* cotton is rougher than Punjab *deshi*. It is used for quite different purposes, chiefly for mixing with wool. It is not so silky as the Punjab and is shorter staple. It is a different cotton altogether from the Punjab cotton, and it is not difficult to distinguish the two. One can distinguish them by the feel and by pulling the fibre. The ordinary trade name for both is "Sind Punjab" cotton and they are both included in the same classification. I can not understand why two such different cottons have been classified under the same name, and I think that there should be a difference between Punjab and Sind cotton. The Punjab cotton should be included in "Bengals" whilst Sind should have a separate class of its own. The intrinsic value of Punjab is as good as "Bengals." The cotton from the Calcutta side, *i.e.* Comillas, corresponds to Sind, but is even harsher. As far as I know, it ranks in about the same class as Sind cotton. If the classification were changed as suggested above, it would be an improvement as regards Punjab cotton because it would be sold as "Bengals" whilst Sind cotton would continue to be sold as "Sind." If sold on sample, Sind cotton certainly gets a higher price than Punjab. As a rule, it gets a higher price in Europe but not always in Bombay. The present system seems very cumbersome. It can only be explained by the convenience of the trade in Bombay. In my opinion, Punjab cotton, *i.e.*, *deshi* cotton and "Bengals" should come under one name. I have not sufficient experience of other parts of India to express an opinion as to the classification. I have some experience of the Coimbatore tract. Coimbatore cotton simply comes under the name "Cambodia." No classes have been fixed for that cotton. I merely want the classification of "Sind Punjab" altered and am not prepared to express any opinion in regard to other parts of India.

4570. I saw samples of Sind American cotton two years ago. The samples were very good as regards fibre; they were also of a fairly good class. The cotton was grown in the neighbourhood of Mirpurkhas. At first it got a premium over *deshi*, but afterwards there was no demand for it owing to the collapse of the cotton market. In my opinion, it was superior to Punjab American, better in fibre and of better class. I do not think that it ever had a fair chance so far as the premium went. If there were a proper organisation and if it got the price and premium that American cotton is getting in the Punjab, I think there would be ample scope for expansion. Sind is an ideal place for American cotton, especially round Mirpurkhas and towards Nawabshah. The *deshi* cotton there immediately south of Nawabshah, *i.e.*, in Shadampur is very superior: and it is better than the cotton further south.

4571. (Mr. Roberts.) I am in favour of local chambers of commerce upcountry. I would have stipulations made in the contract that any disputes except perhaps in regard to quality should be settled by the arbitration of the local chamber of commerce. I should prefer to have disputes in regard to quality settled in Bombay or Karachi, because there would not be local experts available. The local chambers would charge the usual fees for each arbitration. I would include the Deputy Commissioner, some agricultural officers and all the merchants. A meeting once a fortnight, would be quite sufficient; in case of emergency, there might be an extra meeting. By avoiding litigation, business upcountry would be made easier and the settlement of disputes would be facilitated. I am against the Bombay and Liverpool methods of arbitration. I am of opinion that these should be paid official arbitrators who would not know who were the parties to the transaction. There is a good deal of suspicion at present amongst Indians and others in regard to Bombay arbitration, especially in the Punjab but not so much on the Bombay side. Punjab sellers have often refused to sell on Bombay arbitration. If there were official types or official standards in Bombay for Punjab American, I think it would be an improvement, but most of the buyers would have to buy on the basis of that standard; otherwise it would not be of much use. Buyers who are not established in the Punjab would prefer to buy on the basis of standard. They would have something to go upon. At present there is no fixed standard for American cotton. There is nothing fixed about the length of the staple and about the class. There ought to be at least one standard and the value of the standard must be fixed in comparison with other qualities. For the present, I would have two classes; one of superior class and staple and one of ordinary class and staple. The standards would have to be prepared by the Cotton Trade Association in Bombay. Some arrangements would be made by the Cotton Trade Association with the Cotton Exchange.

4572. (President.) The outturn in the present cotton forecasts is never shown accurately. The estimates that we make ourselves are more reliable. I think that the forecasts should be prepared by some other Department. The Agricultural Department would be the best. We do not require a greater number of forecasts but we want them more accurate and more punctual. The pressing and ginning returns should be made compulsory. There should be a check on cotton in transit. No data in regard to that are at present available. I would recommend a special Statistical Department, which might bring out a monthly statistical report, showing the figures of cotton in transit from one station to another and from stations to ports. My experience is that when I have applied to the railway authorities for such figures, they have refused to give them.

4573. I certainly think that it would be a great improvement from the trade point of view to have a standing committee sitting, say, in Bombay and composed of members of the cotton trade, both exporters and shippers, mill owners and members of the Agricultural Department, meeting at regular intervals to discuss all such matters, and to make information available for Europe and other countries. It would help to link up the trade all over the world. There ought to be more co-operation between the Agricultural Department and the trade.

4574. (Mr. Wadia.) My opinion is that all ginning and pressing factories should be licensed to distinguish which mix and which do not. All bales should be marked with the name of the factory (both ginning and pressing) and also with the name of the station from which they are despatched. Good and bad qualities of cotton are very often purposely mixed together in the factories but it is sometimes the fault of the labourers. It may be said that mixing is mostly done purposely. I have had a number of complaints about Punjab American and *deshi* cotton being mixed. If a ginning factory were habitually mixing and complaints were brought against it, the license of such a factory ought to be temporarily suspended. There is not so much fraudulent damping going on now as there used to be. Cotton arrives in a damped condition from the

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villages. Early picking in the morning has a lot to do with that. I do not think that the *banias* damp now as much as they used to do. The ginning factories used to damp their cottons in the godowns by sprinkling water on the walls and on the floor of godowns but I think there is an improvement in that respect. Some of the ginneries are badly built and that tends to mixing of *kapas* and lint. In the first place, a lot of *kapas* gets mixed with ginned cotton in the ginning room. Secondly, there is not sufficient accommodation in the godowns to enable the good and bad classes to be kept separately. If licenses are issued, bad ginners should be required to remodel their factories on better lines with wider *kapas* platforms and improvements in ginning.

4575. In my opinion, ginning and pressing factory owners are encouraged to mix cotton as they get too high prices comparatively for the mixed cotton from the mill owners. In the beginning, buyers had not enough experience to find out that American cotton contained a lot of *deshi* mixture. If a bale were shown to me containing a mixture, I could not say whether it was mixed, if the mixture were only five per cent, but I could tell the difference between a five per cent and a twenty per cent mixture, though I could not between five and ten per cent. The mills are very often cheated owing to this difficulty of detection. Their purchasing agents have not enough experience. They have not got the same knowledge as exporters have because they are not specially trained men. They could be trained in Bombay where there are plenty of opportunities to learn the work of selection. We have always got standards of cotton here, not for American but for *deshi*. We have got home and Bombay standards not local standards. There is no local standard. Each export house buys on its own selection and it is generally known to every seller what quality he has to tender. If I buy a thousand bales of Sind cotton in the Karachi market, I buy according to my own standard. There is no local standard here. There is no judging by standard samples, as in Bombay. There is an arbitration clause in the contracts here, under which any dispute arising out of a contract must be referred to the arbitration of European merchants. The Bombay rules do not apply to the Karachi market. There are no fixed rules as regards purchases. In the case of sales by exporters, the buyer can have tenders surveyed by any other export firm but the seller is not bound to accept the survey report and he has the option to tender another lot if, in his opinion, the survey-report is not justified. There are no fixed rules as regards purchases. I am certainly of opinion that there should be at least one standard. I do not think that the present system is satisfactory and it should be improved. If we had our own Cotton Trade Association, we could have our own rules on somewhat similar lines of those in Bombay. If there were a combined body here, there would be no necessity for local chambers of commerce for disputes concerning quality.

4576. Pools are formed because there are more factories than there is work for. That is why they keep the pressing and ginning charges so high, and the natural result is that the cultivator gets a lower price for his cotton. The pool question is a very difficult one. I do not think that it can easily be stopped. Without pools in some of the big places, it would be impossible for the factories to exist. The only thing is that there should be a limit to the pressing and ginning rates. I do not think a ginning rate of Rs. 9 and a pressing rate of Rs. 11-8 reasonable. Rates might be regulated according to circumstances. If labour is more expensive, then higher rates should be allowed. The licensing body should look to the local conditions of labour, coal and other charges, cost of hoops, etc., and should regulate prices to give a fair margin for profit and depreciation. Where there are more factories than are necessary, the removal of some to another place where there is room for them would be the best thing but would be very difficult to work. If Government approved the idea, it would be a good thing if facilities for land and other concessions were given.

4577. (Mr. Hodgkinson.) I have not had much experience of Cambodia. I was in Coimbatore the first season that Cambodia was grown there. The staple of Cambodia is longer than that of Punjab American. It is fully one inch in the length whereas Punjab American on an average is only seven-eighths inch. I am talking of 4F cotton as that is the best known Punjab American. We have sent several consignments of Punjab American to Lancashire and we had to sell them at a heavy loss, as nobody wanted to buy it, owing to the staple being very irregular: and to the mixture of *deshi* cotton. The chief complaint was on account of the irregularity of the staple. It contained a lot of *deshi* of very short staple and so could not be used for the purpose for which it was wanted. We also had a bad experience with Italy. That was two or three years ago. Since then we have not exported any more Punjab American. If it is to be exported to Lancashire it must be more regular in staple and the *deshi* must be kept out. It must be kept as pure as possible.

Mr. F. G. TRAVERS, representative of Messrs. Gill and Company, Karachi.

EXAMINED AT KARACHI, JANUARY 23RD, 1918.

No written statement was submitted by the witness.

4578. (Mr. Wadia.) I represent Messrs. Gill and Company. Before that I represented Messrs. Gaddum and Company. I knew nothing about cotton before I came to this country. The first place I went to Broach. I then went to Berar and Tinnevely. I have been in Karachi for the last seven years, and so I know all the cottons dealt in here, Punjab *deshi*, Punjab American and Sind cotton. Sind cotton as a rule is rough and some people will not take it. The Punjab cotton is mostly somewhat silky and soft. Rough cotton was sometimes stipulated for in the contracts. I am referring to European buyers. In the past before the war we used to ship cotton to Bombay. It is all called Sind Punjab in Bombay and either Sind or Punjab cotton can be tendered against a Sind Punjab contract. Most of the leading cottons were sold on samples taken from the bales or on type. We sent a type down and we sold on that type.

4579. I have had something to do with Punjab American. We used to value it in the pre-war days as about a penny a pound about *deshi* cotton. Now I think it is two pence a pound above *deshi* if not more. I have not bought any Punjab American this year as we cannot get it down. I merely bought a few sample bales to see what the quality was like. It is nothing like as good as it was last year. We cannot sell Punjab cotton this season owing to the difficulties of getting it brought to Karachi or Bombay. It looks as if I shall have to bring what we have bought down in carts. Judging from samples of four or five types from sample bales at Lyallpur, the class is not as good as it was last year. The staple varies very much and the chief complaint against the cotton is this irregularity of staple. Practically anybody who uses it will tell you the

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same thing. Sample bales showed that the staple varies from $\frac{1}{2}$ inch to $1\frac{1}{4}$ inch. It is difficult to say what the cause of this is. I have had American cotton which has been guaranteed unmixed with *deshi* cotton and even in that I have found irregular staple. I think ginning has a good deal to do with it and possibly the picking of immature bolls.

4580. The ginneries mix but they do so considerably less than they used to do. I am only judging from the cotton I see. I cannot suggest any method by which mixing in ginneries can be prevented. As long as you allow a man to buy cotton at all, for example, say a man buys a thousand maunds of American *kapas* and the same quantity of *deshi kapas*, you cannot stop his taking them to his own factory and mixing them, unless you make a law to that effect, especially when there are people who ask for the mixture. I have sent pure American cotton to Bombay; I have also sent mixed stuff, in which there was roughly an average of thirty per cent of *deshi*. I could sell the mixed stuff at a profitable price but I could not sell the other as they would not pay for it. The price at which the mixed cotton can be purchased makes it relatively cheaper than the pure cotton, the price of which is too dear for its value as against the other. One has to cater for the mills. If one sells mixed cotton at Rs. 500 and charges Rs. 550 for unmixed cotton, they say that it will not do. One does not understand the Bombay cotton buyers. I have sometimes not been able to sell American cotton as fast as I could get it to Bombay. The next month all I could do with it was to give it away. I did not sell very much of this cotton in Bombay unless there was no export demand. We used to export most of it but we had two or three buyers in Bombay, people who were always willing to take it. We sent some better stuff from here after very careful selection from cotton bought up-country for which we wanted rather a fancy price. But it could not compete against the native's stuff which was very badly mixed and we had to sell it at Rs. 30 or 40 a *khandi* below what it was worth. I could not say from my experience what the percentage of mixture is. It is a difficult matter. If one takes a sample of six pounds from a bale, one may get a sample of beautiful cotton; one may take another sample from the other side and find that it is very badly mixed. That is the art of mixing. I was talking to a very prominent mill-owner in Bombay two or three months ago. I showed him samples of this, i.e., Punjab American cotton and he told me that it was not of much use to him. He may not be spinning this kind of cotton but the great complaint in Bombay has always been the irregularity of the staple. If the staple were more regular, it would command a higher price. I was the first person to introduce this cotton to Lancashire. In 1913, I sold as much of it to Lancashire as I could get. If it had been a half penny more in price, it would not have been taken. It was not valued against American cotton. It was sold on type and there were no complaints. They continued to take it the next year. The next year we thought that they were going to buy again and we bought a considerable amount in anticipation of the demand for it but they would not take a bale. It was lying in Bombay for some months and we had to sell it there. I cannot remember the exact figures but we used to get a penny a pound more than for ordinary fine "Bengals" or fine "Sind Punjab." I fancy that the price used to be a half penny to a penny below Middling American. I have no doubt that I could sell it in Lancashire now, if I could get freight but the price of cotton is so high that conditions are all changed. Relative values have been upset by the war. The price of Punjab American is now roughly a shilling a pound. I have sold superfine Sind cotton in Germany and Austria at the same price as Middling American. I forget which year that was. Nothing but Sind cotton was any use to them. I fancy it was in that year that I sent home four or five bales of Egyptian cotton from Mirpurkhas. I sent it to Manchester, where it was sold practically at the same price as Middling American which was the same price as ordinary *deshi* Sind of that particular year. In an ordinary year, it would have sold at two pence a pound more.

4581. I think damping ought to be made a criminal offence. I have myself seen hundreds and thousands of bales of cotton damped because, in some parts of India, it is practically impossible to press cotton if it is not damped. In some places, the practice is to cover the cotton with wet gunnies. By the next morning, the cotton has absorbed that amount of damp. In certain parts of India that is done every day. I have seen half a dozen hose pipes playing on a few hundred bales of cotton. I think it would be a good thing to make damping to any extent penal. Damping in the Punjab has been considerably reduced during the last two years. Some stations were so bad that buyers refused to look at the cotton from them.

4582. I think myself that the Berar system of Municipal cotton markets is the best in India. You know what you are buying and any mixing that is done is done afterwards in the factories where it could be stopped, if necessary. The ginneries deliberately mix. I do not see how it can be stopped except by legislating against it. In the mills mixing is done to get certain counts. Cotton is mixed because pure cotton does not get its proper value. Take the case of Broach. Train loads of Khandesh *kapas* come in there to be mixed with Broach cotton. It is quite openly done. That, I think, could be stopped. I have not been in Broach for the last six years. But the staple of Broach cotton has deteriorated considerably since I was there. I mean the bulk of the crop which is tendered as fine Broach. I think the deterioration is due more to the spread of *goghari* than to the Khandesh cotton coming in. *Goghari* was increasing eight years ago and I reasoned with the dealers. The cultivators will tell you that they get a better outturn from *goghari* than they did from staple cotton. I would accept the suggestion that the transport of unpressed cotton from one district to another should be prohibited. I think that would prevent mixture. Anything that is carried on the railways can be controlled. I ran a factory in Broach for Messrs. Gaddums which was known as a "bunded" factory. We did not allow a single cart of *kapas* in, that was not pure and was not the best quality of cotton. We used to get about 4,000 bales a year. I said it did not pay and we opened the factory to other cotton. The system there is rotten because a man comes in who is supposed to be your client—a cultivator or dealer—and brings in two or three carts of *kapas* a day. One day he brings two carts of good cotton, the next day he brings two or three carts of rubbish and the next day again two good carts and so it goes on. If there were a municipal cotton market where the man that brings the *kapas* does not gin it before he sells it, as is the case at Amraoti where there is a large cotton market, then the buyers could go to the market, look at the cotton that is available there, buy any *kapas* that they want and take it away. I know of no way of stopping mixing.

4583. We, i.e., Messrs. Gaddum and Company had ginning factories at Broach, in Berar and in Tinnevely. In some districts, the pool charges are reasonable and in some districts they are pretty high. I know that, in some of the districts, one third of the factories are not working and so they can keep the ginning and pressing charges especially high. These high charges must tend to lower the ultimate profits of the cultivator. The money that goes into the pool must come out of the pockets of the man who grows cotton. Nobody else pays it. The ginning and pressing charges are not high enough to make factories pay and that is the origin of the pools. I have run factories in several parts of India and I know that it is the most difficult thing to make them pay. If there are no pools, it means a tremendous amount of competition. There are

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people who do not care whether the factories pay or not. They want cotton and are prepared to gin and press it for nothing. I think it would be a very good thing if these pools were regulated in some way.

4584. (Mr. Hodgkinson.) The staple even of pure Punjab-American is irregular. It may be due to bad ginning or to the presence of immature cotton. As to the ginning of cotton and the fixing of grids, one complaint in Broach is that the staple cotton loses so much of its outturn by bad ginning. In many of the factories, the roller is covered with lint and it won't gin properly. I think many of the gins in the Punjab are run in a very bad way. They have a man there on Rs. 30 a month as an engineer or fitter. He sets the grids and knives and the cotton is spoilt. I have seen seed myself with half the lint still on it after ginning.

4585. I have not attended any auction sales in the Punjab. I cannot compete with the millowners. Variation in staple means that cotton is absolutely no use to Lancashire. I had very few complaints from Manchester about the cotton I sent there. It was very carefully selected. The people who took it were very pleased with it. We paid practically very little allowance on it. We sold it on type. I think that a certain amount of the rough Sind *deshi* cotton is used for mixing for hosiery yarn on the continent. The ordinary machine ginned Sind cotton is very white.

4586. There are no saw gins in Sind. Saw gins were tried in the Punjab some time ago. These gins were a special patent. The cotton turned out looked beautiful but it was reported useless. It was like wool. It could not be given away. I think saw gins might suit American cotton better than ordinary gins (Platt's). They are more suitable for long staple cotton than for short staple. I understand that Dharwar saw ginned cotton is quite satisfactory. Messrs. Gaddum and Company tried saw gins in Broach but they were not satisfactory. I do not know why.

4587. Last year I got about seven thousand bales of Punjab American cotton. It was most beautiful cotton, clean, white and of good staple. It was roller ginned. But this year the stuff is full of leaf and dirt. If you have high priced cotton in India, it means bad cotton. It is due to careless ginning and pressing. We used to pick out all the yellow *kapas* very carefully before ginning and then spread it out and dry it out in the sun. That is one of the chief things to be done with Punjab and Sind American in order to get the best cotton. We used to do this but it all went to increase the cost of the cotton. Very few Indian ginners bother about it. The Bombay mills do not pay extra for pure cotton. They say that the mixed stuff suits them better and is cheaper in comparison.

4588. (Mr. Henderson.) I think I shipped home four bales of Egyptian cotton about seven years ago. The rest was wholly American. The stuff I sent home from Mirpurkhas was ginned at Tando Adam. It was sent home to be shown to the mills at Lancashire. It was considerably better than Punjab American. The Sind cotton in general is quite a different type of cotton. If you give Sind the water, you could grow anything but I do not know much about that. My point of view as an exporter is that it is much better to sell cheap cotton at four pence a pound and make a small profit out of it than to sell expensive cotton at a shilling a pound and make the same profit out of it. That is the exporter's point of view altogether. I know that American cotton when roller ginned can be kept clean because I bought some cotton and had it carefully ginned and got beautiful cotton.

4589. Ordinary Sind *deshi* cotton is a different thing from Punjab *deshi*. You can tender Sind against any "Sind Punjab" cotton contract. The buyer at home who wants Punjab American is quite willing to accept Sind American as a legal tender but they don't buy "Sind Punjab" at all. All I ever sold was sold on type. They will buy Sind (this refers to *deshi*) and nothing else. Bombay alone knows why it is called Sind Punjab; at home there is no quotation for it. If you are not selling on type, you always sell on class such as "fine," "superfine," and "fully good" Sind. There is no such thing as "Sind Punjab" to European buyers. So far as Sind is concerned, there is no classification in Bombay. I do not think things can be simplified. I do not think a separate class for Sind as apart from the Punjab would do much good. It is only in the last two years that Bombay has taken much notice of Sind cotton. They said it was short staple and rough and that they could not use it. For the last two years, it has not been going to Germany and they have begun to find out that it was more valuable than they thought it was. I do not think that it would be advisable to have a separate class. The Sind crop is only about 125,000 bales. When export to the Continent starts again, there will be nothing left for Bombay. If the outturn increased, it would be a different matter.

4590. The number of Japanese buyers is on the increase. Since they have been in the country, no other cotton buyers can compete with them; what they do is that they go, say to Multan, open an office, have a look at the cotton and buy it. If they get bad cotton, they shut the office and move off to places where they can get better cotton. They can always afford to pay more than anybody else.

4591. I do not think that it is necessary to send out a man from Manchester to buy cotton in India. Exporters can sell Manchester as much as they want. I know of one season in which we sold 50,000 bales of Broach cotton in Manchester. Messrs. Gaddums had an office in Manchester and used to cater for the Manchester trade but mills had little use for Indian cotton except the highest types. If they could get cotton equal to American, they would take it but they could not send out buyers to compete in the Broach market. Whatever staple cotton you introduce in India seems to deteriorate in time. I do not think that Manchester would take very much Cambodia, Hinganghat or *bani*. It has not got the machinery to deal with such cotton. They go in for using higher class cotton. Hardly any Indian cotton can be compared with American cotton, not even Navsari. The Navsari crop is not more than 25,000 bales. If you could produce half a million of bales in Navsari, then Lancashire would become interested in it. If there were a regular supply and the same quality with a regular staple could be assured, it would be then worth the while of Manchester to be interested in it. I do not know whether anybody in India is selling American cotton to Lancashire this year or not. I think they would buy it in present conditions and be glad to get it.

4592. (Mr. Roberts.) It would be useful to have an official standard for cotton, but the question is who is going to make it. It would be a good thing to have two main classes, but even if there were classes, you would still have people who would not bother about them. I would far sooner sell on type than on class. Bombay does not really know what pure cotton is like. The great complaint is that there is mixed staple. One man can use it, but other people say that they do not want it. Having a standard might help. Practically no Punjab American cotton is sold on contract. It is sold on type. You can very seldom sell it unless you can show it. Practically the whole of contracts for Sind *deshi* cotton were sold on Bremen arbitration in the old days. The Bremen mutual allowance clause is the most satisfactory arbitration clause you can sell under. I am not exporting now but from the point of view of an exporter it is by far the most satisfactory clause you can sell under. I think the Liverpool system of arbitration is all right

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Mr. M. DE P. WEBB, C.I.E., C.B.E.

Mr. M. de P. WEBB, C.I.E., C.B.E.

EXAMINED AT KARACHI, JANUARY 23RD, 1918.

Written statement.

4593. *Preamble.*—I understand that the main object of the Indian Cotton Committee's investigations is to determine whether it is possible to increase the cultivation of cotton—in particular long staple cotton—in India, and, if so, what steps should be taken to expedite and encourage such increase.

4594. *Necessity for the Sukkur Barrage.*—In no part of India is it possible to bring about so great an extension of cotton cultivation as in Sind. All that is required is water, the rest will follow. A scheme for bringing a perennial supply of water to a huge tract of land, nearly six thousand square miles, between Rohri and Hyderabad has been talked about for the last fifty years. This scheme is still on the *tapis*. Technical problems and details have at last, I believe, all been settled and completed. Unfortunately there is still one difficulty to be overcome and that is the problem of making the scheme in accordance with the artificial requirements of the Public Works Code and the out-of-date yet currently accepted practices and beliefs as to the necessity of Government making use of private capital to build up remunerative State businesses. The difficulty is entirely an imaginary one of our own making. The application of a little common sense and courage will, I venture to believe, quickly and certainly remove the supposed financial obstacles in the way of the construction of the Sukkur Barrage and Rohri-Hyderabad High Level Canal.

4595. *Consideration of present methods of financing remunerative public works.*—The Karachi Chamber of Commerce have spoken strongly in favour of the early construction of this canal and have alluded to the requirements—ordinary but very unsatisfactory in this case—of the Public Works Code in the concluding lines of the penultimate paragraph of their letter of the 2nd March 1915 to the Commissioner in Sind, a copy of which I attach hereto (Annexure I). I propose therefore, to confine my remarks solely to a consideration of the financial problem, i.e., to the supposed necessity of Government appealing to the public for the loan of money (which, be it remembered, Government itself manufactures), to enable it to commence work on this great cotton-producing project. Such a loan would saddle the scheme from the first with a huge weight of interest. This out-of-date method of financing a State-owned reproductive public works is, I submit, wasteful and unnecessary.

(2) The appalling magnitude of the national debts of the British Empire (and its Allies), resulting from the present world-war, will involve a crushing burden of interest on the great masses of the peoples of the Empire (and its Allies) that will be almost insupportable. In view of the unprecedented magnitude and pressure of this burden, it will be the first duty of Government to lighten taxation in every possible way. And no Government with a clear conception of its duty, in this connection, will lightly embark upon a policy of incurring further national debt—even to bring about so promising a project as the increased cultivation of long staple cotton (and other produce) in the plains of Sind. It will be incumbent upon Government and upon every patriotic, far-seeing subject of the Empire, to devise ways whereby remunerative public works of an urgent and wholly advantageous character (such as this great cotton-producing scheme) can be constructed without the unnecessary weight of perpetual payments of interest to private capitalists.

(3) Let us consider, briefly the Government of India's present and, I submit, out-of-date method of financing the building of highly remunerative public works such as a State canal or a State railway. Government appeals to the public of India to lend it some of the money (paper and coins) which Government itself has previously manufactured and issued. The public does so, and Government issues in return "Government Paper" that is not repayable at any fixed date in the future, but which carries interest at 3 or 3½ or perhaps some higher rate of interest per annum. This practically irredeemable Government Paper is considered a good "reserve" against which to issue currency notes; whilst the notes themselves are legal tender for the payment of Government liabilities for the land, goods and services employed in the construction of the railway, the canal or whatever the remunerative public work may be. The immediate outcome of this method of financing a remunerative public work is that (1) the capital cost of the work is increased by the interest payable to the public on the "Government Paper" during construction, and (2) the cost of the service which the work affords the public is for ever weighted by the interest annually payable to private capitalists on the total capital employed.

4596. *Proposals regarding financing such works.*—Why should not Government in the case of remunerative public works avoid these interest charges altogether by borrowing in effect, free of interest direct from the masses of the public instead of from intermediate capitalists? In other words, why should not Government regard the time, labour and skill spent upon a remunerative public work (i.e., the actual cost of the public work itself) as good security or reserve against a special currency note issue? Such an issue would be directly secured by a remunerative State railway or State canal, and indirectly guaranteed by the whole resources of the Government of India. To guard against currency inflation, a certain small percentage of the special currency note issue would be called in and cancelled every year. In this way, not only would no interest charges be incurred (to be added to capital cost or included in annual charges for services performed), but at the end of thirty or forty or fifty years the whole of the special note issue would have been called in and cancelled, and the State would possess a valuable, remunerative public work on which no liability whatever for interest on capital was attached. This would be a very great advantage both to Government and to the people.

4597. *Application of proposals to Sukkur Barrage project.*—We may take the Sukkur Barrage and Rohri Canal as a concrete example. Let us assume this project would cost ten crores of rupees to construct. As far as one can see at present, Government will not be able to raise this money from the public at less than five per cent. per annum. Assuming expenditure at the rate of one crore per annum for ten years, interest during construction (to be added to the capital cost of the scheme) would amount to roughly Rs. 2,75,00,000 (2¾ crores of rupees), bringing the capital cost of the scheme up to 12¾ crores. In deciding what charges the public would have to pay for water supplied, some Rs. 64,00,000 per annum, at least, would have to be included for interest alone exclusive of sinking fund charges, etc., which might easily amount to an additional Rs. 25,00,000 per annum. Now compare this out-of-date burdensome method with a system of rational, interest-free State finance. The Government of India having notified that the Sukkur Barrage Rohri Canal project was a remunerative scheme of imperial importance that must be taken in hand forthwith, the Currency Department would be instructed to make and issue the necessary money. Further a Government Notification would explain that a Government Canal (or Railway) being of just as much value in a national

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financial crisis as irredeemable Government Paper, the Government of India's Certificates of Expenditure on the Sukkur Barrage and Rohri Canal would be legalised as proper securities or reserves against a special issue of Sukkur Barrage and Canal notes. At the present time, the total paper currency in circulation is over Rs. 100 crores. Assuming that it will take at least ten years to complete the Sukkur Barrage and Rohri Canal, the Currency Department would be instructed to produce and put at the disposal of the Public Works Department of the Local Government one crore of rupees per annum, gradually adding to this figure till the total special issue raised the whole of the paper currency in circulation in India to Rs. 110 crores. All these notes, including the ten crores issued on account of the Sukkur Barrage and Rohri Canal, would be encashable in silver if the public required, just as at present. And it would be the business of the Currency Department to keep sufficient silver coins in reserve for this purpose. During the period of construction of the Barrage and Canal, no interest whatever would be payable, and a saving of 2½ crores of rupees in the capital cost of the scheme would therefore be made. Moreover, in fixing the rates payable by the public for water, it would not be necessary to include Rs. 80,00,000 or Rs. 90,00,000 per annum on account of interest and sinking fund, but simply, say, Rs. 20,00,000 per annum for the amortisation of the special issue of paper currency.

(2) I am quite confident that the saving of this old-fashioned tribute to private capitalists would convert the Sukkur Barrage and Rohri Canal Project into a highly profitable undertaking, wherein not only the people and Government of India would benefit enormously in a great variety of ways, but also the peoples of England and of the Empire from the production and use of vast quantities of raw cotton and other valuable produce.

4598. *Objections considered.*—I am well aware of the old stock objections to issues of paper and metallic money tools other than those which at present receive popular sanction. "Although there is little or no resemblance between the special issue of paper currency advocated above and the 'assignats' of the old French Republic of 1789-94, or the currency ventures of John Law in Paris of a century ago, I am quite prepared to hear from professors of political economy and from bankers and financiers (whose businesses by the way are largely based on the unbroken confidence of the public in bank forms of money and credit) that the above proposal is on a par with the old discredited monetary methods—that it is radically unsound, wholly impractical, and dangerous in the extreme. Nevertheless I am ready to defend my proposal and prove its soundness and practicability. Moreover, I venture to predict that the present world-war will force upon the peoples of the Empire and the rest of the world a recognition of the absurdity of burdening remunerative State enterprises with a perpetual toll of interest to private capitalists and financiers."

(2) In modern civilised States all forms of money are, in essence, simply certificates of service performed or goods supplied. If one reads with eye of reason, one can see clearly inscribed on every coin, cheque, bill or note **PAY BEARER AS MUCH AS BEARER HAS DONE OR SUPPLIED, CERTIFIED HEREBY TO THE EXTENT OF (say) TEN RUPEES.** Whether the certificate is written on metal, or on paper, whether Government certifies to the amount (as in the cases of coins and currency notes) or private individuals certify to the amount (as in the cases of cheques, bills, etc.), the real meaning of the money is the same. Moreover as soon as its general acceptance is guaranteed by custom or legislation, a money certificate becomes a *purchasing tool* that will serve efficiently wherever confidence in the honesty and stability of the Government exist. With the destruction of Prussian militarism, all danger to the leading governments as well as the minor governments of the world will disappear for several generations, and the necessity for the use of gold and silver on which to inscribe current money certificates will be very greatly reduced. The precious metals will be largely relegated for use as national reserves and the currency of the future will be paper rather than metal certificates.

4599. *Conclusion.*—I contemplate the production of a comprehensive and exhaustive explanation of the monetary principles foreshadowed above as soon as the present world-danger has been overcome. In the meantime as cotton and other raw products will be very urgently needed directly the war ends, as Sind can produce these products in vast volumes for the benefit of all, provided adequate water supplies be assured, as a scheme has been prepared for bringing on to Sind's waste lands the necessary water-supply, as that scheme has not yet been carried out owing to financial uncertainties, and as those financial uncertainties are the outcome of adherence to an out-of-date and wasteful method of supplying the necessary monetary tools and monetary certificates for the work, I have now put forward this definite monetary proposal that will, I am confident, meet the case, in order that a beginning may be made as soon as possible in clearing up and throwing aside the mass of monetary ignorance and prejudice that everywhere exists and that at present blocks the way to the conversion of eastern Sind into one of the richest tracts of agricultural land in the world.

ANNEXURE I.

Copy of a letter dated 2nd March 1915, from the Chairman, Karachi Chamber of Commerce, to the Commissioner in Sind regarding the Sukkur Barrage and Rohri Hyderabad High Level Project.

I beg to acknowledge receipt of your letter No. 1001 of the 13th November 1914, forwarding a copy of the Report of the Committee appointed by the Secretary of State for India to consider the Sukkur Barrage and Rohri Canals Projects. My Committee desire to express their thanks to Government for kindly giving them an opportunity of studying this most important Report which may greatly affect the irrigational development of Sind in the immediate future. My Committee are very glad to learn that Government, as at present advised, do not consider that there is any immediate cause to fear that withdrawals of water in the Punjab for the great Punjab irrigation projects will seriously affect the levels of the Indus in Sind, or the supplies of water available for the canals of Sind. My Committee note, however, that this matter is being thoroughly investigated and that no final pronouncement, therefore can yet be made. This Chamber will look forward with the keenest interest to the results of the further investigations now being made.

2. My Committee have very closely and anxiously studied the Report of the Special Committee appointed by the India Office and they venture to make the following comments which they beg may be transmitted to the Secretary of State for India through the proper channels.

3. My Committee are very disappointed with the Report of the Sukkur Barrage and Rohri Canal Committee for the reason that, firstly, the Committee's findings are all of a negative character, and, secondly, the Committee appear to hold the view that the improvement of Sind's present inundation canal system in the direction of perennial irrigation is a matter of no particular urgency or importance.

4. The Committee appear to have rejected all the schemes considered by them on the grounds that they involved more financial risks than the Committee considered it expedient for the Government of India to undertake.

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[Continued.]

5. The Government of India's project for a combined Barrage and High Level Canal System appears to show an estimated return of 4.28, 3.47 or 4.17 per cent. per annum according to the period of construction adopted, namely, thirteen, fifteen or sixteen years. These figures would be even higher if enhanced land revenue were included. But the Committee point out that the fifteen year scheme is "unproductive," and that the margin of "profit" on the thirteen and sixteen year projects is so small that "only if the estimate is extraordinarily accurate can the scheme be regarded as a productive public work." And so the Committee assuming that the estimates under consideration will probably be considerably exceeded, dismiss the whole project on the specific and definite grounds that "it will not prove to be a productive work" (section 29).

6. In their consideration of the proposed High Level Rohri Canal project without any Barrage at Sukkur, the Committee take the ground that the silting at the head of the canal "might be such that the canal could not be regarded as a safe perennial source of supply." This possibility decides the Committee to regard the proposed canal as an inundation canal, and brings the Committee to the conclusion that, as an inundation canal it "would probably not be productive" (section 26).

7. Moreover, the Committee, whilst considering the construction of a test channel for the purpose of discovering whether silt would be deposited in great quantities or not, recommend that even this tentative outlay should not be incurred, because, in the opinion of the Committee, such a test channel "would probably silt" and "if used as a supply channel for the Rohri and Khairpur Canals, would certainly silt." The test channel "might be successful for a time, but if any conclusion were based on that success, it might be attended with disastrous results."

8. The Committee considered a suggestion of Dr. Summers that the first and second sections only of the Rohri Canal (without a Barrage) should first be constructed and the effects watched and studied, etc. But whilst admitting that there was "something to be said for this idea" (Section 32), the Committee point out that "it would be attended with some risks," and in the absence of "very carefully prepared forecasts of revenue and expenditure accepted by the authorities in India, the Committee were unable to give (this scheme) the necessary critical examination."

9. Thus the impression created by a study of the Committee's Report is that the Committee were not prepared to take any risks of any kind whatever. The fact that Sind is an "inundation-irrigation country" is repeatedly referred to (sections 9, 10, 13, 38, etc.), and this backward state of affairs is accepted by the Committee as being quite good enough for Sind (section 38). The advance of Sind from a condition of inundation-irrigation similar to that of the time of Alexander the Great to the status of a land well watered by first-class perennial canals is regarded by the Committee as "only" an improvement "on conditions which appear to be fairly well suited to the special circumstances of the country," and the Committee accordingly recommend a policy of further waiting accompanied by the preparation of another Sukkur Barrage and Rohri Canal project and estimate in case the heavy withdrawals of water for the Punjab Canals should necessitate a scheme of perennial irrigation for Sind (section 33).

10. My Committee deplore this attitude towards the irrigation of Sind and the risks inseparable from this great work. In the opinion of my Committee, the conversion of Sind's inundation canals to perennial canals wherever possible, and the extension of flow-irrigation to lands formerly prosperous, but at present neglected owing to want of water, should be the guiding principle of Sind's irrigation policy. That the construction of a great work, such as the Rohri High Level Canal with (or without) the Sukkur Barrage must involve risks, my Committee can fully realise; but no great works can be undertaken without risk. The Suez Canal, to mention one pertinent example, would certainly never have been constructed to this day, had its promoters taken the same views of financial risks as those which have influenced the India Office Sukkur Barrage and Rohri Canal Committee. The margin of risk expressed in a percentage of interest per annum is a very small one. It admittedly discards estimates, which include enhanced land revenue (section 15), and my Committee understand that it omits altogether consideration of the vastly increased population and wealth, which perennial canals in Sind would create, with greatly increased revenue to Government from indirect sources, such as income-tax, customs dues railway revenue, etc.

In these circumstances, my Committee would strongly urge upon Government the immediate and active carrying out of the scheme referred to in section 32 of the India Office Committee's Report. That it is to say, my Committee urge the immediate preparation of the necessary estimates so as to permit of an early commencement being made on the first and second sections of the Rohri Canal. The experience thus gained would no doubt go far to decide the problem of the possible silting up of the head of the Rohri Canal.

Mr. M. DE P. WEBB, C.I.E., C.B.E., called and examined.

4600. (President.) I understand that all the experts are now in favour of the Sukkur Barrage but whether it would be better to start with the canal and construct the barrage later, I cannot say. What I want to do is to "get a move on." I do not mind what school of canal engineers does the work.

4601. As to the method of financing that I have suggested in my written evidence, it would mean the creation of another ten crores of money which would be used in ten years on the work done on the barrage. Instead of floating loans, Government should increase its currency, i.e., its paper currency. This is rather a question of high finance than of cotton. I have long been preparing notes with a view to putting forward this scheme of finance for any remunerative State works after the war. For the reasons explained in my note, I think that the load of national debt will be so appalling after the war that it will be absolutely necessary to devise some way of carrying out remunerative public works without burdening them with interest payments to private capitalists, which seems to me now-a-days quite unnecessary.

4602. My firm has done a good deal in the way of providing light railways in Sind. We have completed two light railways in eastern Sind, north and south from Mirpurkhas. They are serving cotton districts; the other ones are not so much for cotton. We have another scheme under contemplation for eastern Sind and if the canal project matured, we should, I think, simultaneously have several railway projects to put before Government that would facilitate the building of the canal as well as the transport of the cotton afterwards. We are quite prepared to put as many light railways in the tract as there would be need for. I am a strong believer in light railways for this tract. The start we have made, justifies such a belief in every way.

4603. I have no personal experience of the Sindhi as a cultivator. I have heard that he is rather a lazy fellow, but that may be due to the climate. In Sind, in the middle of the hot weather, any body's energy would disappear. The stimulus of assured irrigation might act as an incentive to increased cultivating effort.

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4604. The only theoretical objection to special issues of currency of the kind I propose, is the risk of inflating the currency and producing a noxious rise in prices; but I think that this possibility would be guarded against partly by the relative slowness of the issue of the new money and partly by the additional work which would be brought about and which would tend to absorb the additional currency. Any inflation would eventually be corrected by the special currency being withdrawn over a series of years by the sinking fund which I have suggested for this purpose.

4605. (Mr. Henderson.) If currency were inflated, it would affect all India. Some people like currency to be inflated. One of the Economists of an important Indian University has recently advocated that in order to stimulate industrial activities throughout the country, the currency should be deliberately inflated. My system of financing remunerative public works once admitted, there would be many applications from other provinces which would want their remunerative public works constructed in the same way. Sind ought to be allowed to have the advantage of trying the experiment first.

4606. (Mr. Roberts.) I think if attractive conditions were created by a perennial supply of water, such conditions would be, in themselves, an inducement for cultivators from other parts of the country to come in and help the scheme along. If they were assured of a perennial supply and were not frightened by the occasional break-downs from which we suffer now, there would be every chance of successful colonization. Colonists might be attracted if cultivation were more intensive than it is now. I am not quite sure how the Sind cultivator looks at it.

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THE BOMBAY COTTON TRADE ASSOCIATION.

EXAMINED AT BOMBAY, JANUARY 28TH, 1918.

Written statement.

4607. Preamble.—In considering the evidence to be given on behalf of this Association before the Indian Cotton Committee, we have observed that a large majority of the questions asked by the Committee are intended almost exclusively for those witnesses who are actively engaged in, or closely connected with, the cultivation of cotton; and in view of the fact that we, as cotton merchants, can lay no claim to expert technical knowledge of cotton cultivation and that few, if any of us have had any recent experience in the cotton districts, we propose to leave these technical questions to those who are better qualified to deal with them. We note moreover from the instructions given to witnesses that it is not intended that individuals or bodies invited to give evidence should attempt to answer all the questions and that witnesses need not restrict themselves to a series of answers to the question on which they desire to give evidence. We feel, therefore, that we shall be quite in order if we disregard the sequence of the questions asked and submit our evidence in the form of a more or less connected statement, with only passing reference to the Committee's questions. The following then are the points with which we propose to deal in our evidence, viz. :—

- (i) Increased production of cotton in India.
- (ii) Comparative merits of long and short staple cottons (Question 45).
- (iii) Deterioration of long staple crops.
- (iv) Introduction of exotic cottons (Question 28).
- (v) Marketing (Question 30).
- (vi) Classification of trade descriptions (Question 31).
- (vii) Statistical information (Questions 33 and 34).
- (viii) Licensing of ginning and pressing factories.
- (ix) Daily quotations for up-country markets. (Question 35).

4608. Increased production of cotton in India.—It is a well-known fact that the world's demand for raw cotton is continually increasing and we think it is generally agreed that the world must look for its increased supply, especially in the near future, to India. In the first place, therefore, we consider it of vital importance that every effort should be made to increase the production of raw cotton in this country and in the British Empire generally, in order to ensure an adequate supply for the world's demands, and, looking at the matter from the Imperial point of view to render British manufacturers, be they in England, in India, or in any other part of the British Empire, more independent of imports of the raw material from foreign countries.

4609. Comparative merits of long and short staple cotton.—From our consideration of the necessity for endeavouring to increase the production of cotton in India arises the question whether the cultivation of long staple cotton in India should receive special attention, or whether efforts should merely be directed towards the increase of the total quantity produced irrespective of quality. In this connexion, we fully realize that in any measure which may be taken in the direction of improving the Indian cotton crop, the interests of the cultivator must be the foremost consideration. The needs of the manufacturers lie undoubtedly in the direction of an increased quantity of long staple cotton. It is a well-known fact that Great Britain has so far been a very small buyer of Indian cotton, the exports of cotton from India to the U. K. having reached only about three per cent. of the total crop before the war, whereas England used to take about forty per cent. of the total American exports. The reason for this is that most Indian cottons are not long enough in staple or good enough in class to satisfy the needs of manufacturers at home. We see no reason, however, why with careful selection and cultivation the Indian crop should not find its way more readily to the mills of Lancashire. But more important still perhaps is the fact that the interests of manufacturers in India also lie in the direction of an increased supply of Indian long staple cotton. Enormous quantities of cloth are yearly imported into India to meet a demand which the Indian mills cannot supply, because they are unable to obtain sufficient quantities of long staple cotton to manufacture yarns of equal fineness. Since the war, owing to reduced supplies from elsewhere, Indian mills have found markets for the sale of their goods (in Africa for example) which were closed to them before. It is true, however, that these markets have had to be content with somewhat coarser fabrics than they were accustomed to, owing to the curtailment of the usual supplies and it may be equally true that after the war these markets will resort to their former sources of supply and will be closed

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again to Indian manufacturers if the necessary quantity of long staple cotton is not available to maintain or improve the quality of their products.

(2) While pressing, however, for the increased production of long staple cotton in India, we wish it to be understood that we are not advocating an increase in long staple varieties at the expense of the present total production of short-staple cotton, the latter being required for the spinning of coarser yarns such as are manufactured in great quantity by the mills in India as well as in Japan and on the Continent of Europe. To sum up our views on this question of staple, we suggest that any increase that it may be found desirable to make in the quantity of the Indian cotton crop shall be represented by long staple cotton in the sense, however, that districts which used to produce long staple cotton in former years and have now gone over to the cultivation of short staple varieties should be restored to the cultivation of long staple cotton, since they are evidently suitable for this purpose, while an approximately equivalent quantity of short staple cotton might be grown on new land acquired for the cultivation of this commodity. The necessary quantity of short staple cotton will then be assured, and a larger proportion of long staple cotton will enable our mills to produce finer cloth and thereby compete more successfully with other manufacturers.

4610. Deterioration of long staple cotton crops in India.—We have just mentioned the regrettable fact that some districts which formerly used to produce long staple cotton are now producing short staple cotton, in some cases exclusively and in other cases to a very large extent; and in most cases it is no doubt true that the cultivation of the short staple cotton is more remunerative to the ryot and offers greater advantages than the cultivation of the long staple variety, owing to the former giving a better ratio of lint to seed, a better yield generally speaking of seed cotton per acre, and a quicker return of money to the cultivator owing to earlier maturity. In addition, the short staple varieties are as a rule less susceptible to the vicissitudes of climatic conditions. In order to render the cultivation of long staple cotton sufficiently attractive to the ryot, it will therefore be necessary to find a long staple plant which will offer the cultivator approximately the same advantages as the short staple variety. This problem, however, is one for the agricultural experts to solve.

(2) As regards the cultivation of short staple varieties taking the place of long staple cotton, we would here refer to correspondence which this Association had with the Director of Agriculture, Bombay, (Annexure I), in respect of *goghari* cotton gradually ousting the long staple cotton in the Broach district. *Goghari* cotton is admittedly short in staple and rough, but on the other hand, like other short staple cotton, possesses the advantage of a higher yield of lint. We have it, however, on the authority of the Agricultural Department, Bombay Presidency, that *goghari* cotton does not give a better yield of seed cotton per acre than *deshi* Broach. On page 27 of the Annual Report of the Department of Agriculture, Bombay Presidency, for the year 1914-15, figures are adduced to show that the substitution of pure *goghari* in place of *deshi* Broach would add materially to the export of cleaned cotton from the districts and it is stated that "these figures show that the production of clean cotton would be increased by 15½ per cent., if we assume that the yield of seed cotton remains the same. There is some evidence that, on the very heavy black soils, *goghari* does not yield quite so well as Broach, but the difference does not appear to be very great." On page 26 of the Annual Report of the same Department for the year 1915-16, we find that Broach *deshi* was valued by prominent millowners at Rs. 280 per *khandi* and *goghari* at Rs. 225. Since the Department of Agriculture states that *goghari* does not yield more seed cotton per acre than *deshi* Broach, it would appear from the figures quoted by the Department of Agriculture that the cultivator by growing *goghari* in preference to Broach *deshi* gains 15½ per cent. in yield of lint, but loses 19½ per cent. in value and that he therefore sustains a net loss of four per cent. With this evidence before us, we are very strongly of opinion that the cultivation of *goghari* in the Broach districts should be discouraged in the interests of the ryot as well as in the interests of the trade at large. The deterioration of the Broach staples has been noticed by the trade for some years past, but it has only been during the last two seasons that the production of *goghari* has assumed such proportions as to affect the value of Broach cotton in comparison with other Indian descriptions. The following brief table of parities is, we think, instructive :—

Comparison of Bombay market values of Fine M. G. Broach, Good M. G. Westerns and Good M. G. *Kumplas* in the months of March 1913 to 1917.

	1913	1914	1915	1916	1917
Fine Broach	339	276	212	278	403
Good Westerns	307(—32)	260(—16)	197(—15)	293(+18)	403
Good <i>Kumpla</i>	316(—23)	273(—3)	207(—5)	309(+31)	415(+12)

The above figures go to show that Broach cotton has lost in value in comparison with other staple varieties since the advent of *goghari*. In 1917 the difference in favour of Westerns and *kumplas* would have undoubtedly been larger if Broach had not been "cornered" by speculators, and it may be mentioned that the success of speculation in this case was due in a large measure to the very considerable proportion of *goghari* mixed with the Broach, which resulted in the rejection in survey of a large number of the Broach tenders.

(3) We are of opinion that the substitution of short staple cotton for long staple varieties is, in a large measure, due to the fact that long staple cottons have in the past not commanded a price corresponding with their intrinsic value whilst, on the other hand, short staple varieties grown in districts otherwise known for the production of long staple cotton have for a reason which we will presently explain commanded prices considerably above their intrinsic value. As long as short staple cotton is grown in these districts to such an extent only that it can be marketed mixed with the long staple variety of the same district, the short staple cotton passes off at approximately the same price as the long staple cotton. With the increase of the production of short staple cotton, the admixture deteriorates in quality, particularly in staple, and the market value of the admixture then gradually depreciates. Once short staple cotton has entirely ousted the long staple variety in a certain district and must therefore be pressed separately and pure, its market price comes down to a par with its intrinsic value in comparison with other descriptions. This has been the case with *Muttia** and we think it will be the case with *goghari* Broach and with all other varieties that may follow this course.

(4) Efforts should be made to secure for the ryot the full intrinsic value of stapled varieties and some measures which we suggest should be taken in this direction are dealt with by us in paragraph 4612 below but we may here mention that, with the further development of the weaving industry in this country and the consequent steadily increasing demand for long staple cotton by Indian mills, this problem

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is likely, as time goes on, to solve itself automatically to a considerable extent. A relative appreciation in the value of long staple cotton has already been noticeable for a few years past.

(5) A very serious obstacle to more rapid progress in the automatic appreciation of the value of long staple cotton is the largely prevalent practice of indiscriminately mixing good and bad cotton up-country, a practice which at the same time is largely responsible for the general deterioration of the quality of Indian cotton. We may say, without exaggeration, that, with the exception of a few districts in India, stapled cotton very rarely finds its way to the chief markets, especially to Bombay, in an unmixed state. Many districts which used to be renowned for a supply of long staple cotton have thus acquired a bad name with exporters and Indian consumers alike, and as it is almost impossible to detect a slight admixture of inferior quality before such cotton actually passes through the spinning machinery, even pure cotton from such districts is approached by buyers with distrust and the price offered is reduced accordingly. It is not only a question of short staple cotton being mixed with long staple cotton, but many cultivators and merchants up-country seem to consider it advantageous to mix inferior qualities, such as rain-damaged cotton, with good lots thus hoping to pass off the damaged article as the price of the sound commodity. A largely prevalent practice also in many districts is to mix seed or to adjust the ginning machinery in such a way that seed is cut by the gin knives and allowed to pass into the ginned cotton (Westerns, *kumpla*, Khandesh, Khandwa) and there is no doubt that this practice of mixing seed with cotton reduces the export value of cotton materially, because many mills at home, being accustomed to consume clean cotton only, have not got the machinery to render such parcels sufficiently clean. We are unable to suggest any measure to put a stop to the adulteration of cotton up-country since the Cotton Frauds Act introduced by Government many years ago did not prove a success and had to be repealed. As regards mixing short staple with long staple cotton, however, we would suggest that Government be requested to prohibit the transport of short staple cotton, be it in the shape of seed cotton or ginned cotton, into districts where long staple varieties are grown, except under special licenses which should only be issued to people who require such transport for the purpose of consumption, or for the purpose of obtaining *bona fide* facilities, such as more efficient pressing; but where such special licenses are granted their purpose should be clearly defined. We have heard of instances where inferior cotton and in some cases even mill waste have been brought to up-country places in the shape of full-pressed bales for the purpose of illegitimate mixing and we therefore think that even the transport of full-pressed bales from one district to another should be prohibited except under special licenses. It would, in our opinion, be a comparatively easy matter for Government to prohibit such transport by rail, but a large quantity of cotton is transported for mixing purposes by road, and we realize that any general restrictions placed by Government on road transport would be difficult to enforce. We think, however, that the mere fact of Government's taking power by legislation to impose such restrictions of transport would have a salutary effect, and if Government should find that transport for the purpose of illegitimate mixing was taking place between certain districts, the restrictions might be put into operation in respect of such particular areas. Another measure to check illegitimate mixing would, in our opinion, be for Government to license all ginning and pressing factories and to make it a condition of the license that each factory should place a distinguishing mark on every *bora* and on every bale of cotton turned out. We would like to make it clear that we do not consider it at all feasible that a factory should be held responsible for any mixing that might take place within its precincts, but we submit that the mere fact of it being possible by means of the distinguishing marks on the *boras* or bales to trace the factory where cotton has been mixed and thus to identify the dealer for whom it was originally ginned or pressed, would bring about satisfactory results. Exporters and consumers would very soon mark down the factories notable for mixing and instruct their buying agents up-country not to buy any cotton turned out by such factories.

(6) Before concluding this paragraph, we would also suggest that the watering of cotton be prohibited by Government. Dampening cotton slightly has, in our opinion, no ill effects on the quality, whilst on the other hand it reduces the strain on the pressing machinery. There is, however, no doubt that watering is practised indiscriminately in many places and as it is impossible to say where legitimate watering ends and fraudulent watering begins, we suggest that watering be prohibited entirely.

4611. *Introduction of exotic cotton.*—From our experience it would appear that the introduction of exotic cottons has only so far proved a success in the case of Cambodia cotton and possibly also of Punjab-American. Cambodia cotton from the point of view both of staple and yield has proved eminently satisfactory and it is the only variety of long staple cotton of which we are aware which has ousted a shorter stapled variety, namely Tinnevely, on account of its yielding a larger amount of seed cotton as well as a larger outturn of lint per acre, thereby proving more profitable in every way to the cultivator. We therefore think it would be very advisable to introduce Cambodia cotton into other parts of India should this be found possible from an agricultural point of view. As regards Punjab-American, however, we are rather inclined to think that this cotton will deteriorate unless fresh supplies of seed are constantly imported.

(2) While we fully appreciate the efforts which are being made by the agricultural authorities in the Punjab and various parts of India to introduce into their respective districts long staple exotic cotton, we would suggest as a general principle that more importance should be attached to the promotion and development of indigenous long staple growths than to the introduction of foreign seed. In this connection we would draw attention to the laudable efforts which are being made by the Director of Agriculture in His Highness the Nizam's Dominions to reintroduce into the Hyderabad districts the indigenous long staple cotton or Hyderabad *gorani* as this variety is now termed. This is a tendency which we consider should be imitated in all the cotton districts of India where long staple cotton used to be grown, and we would suggest that an ever-increasing number of Government experimental farms should be inaugurated with a view to selecting seed and furnishing the ryots therewith.

4612. *Marketing.*—The question of marketing will doubtless be dealt with exhaustively by up-country witnesses and we therefore propose to state our views on this point very briefly.

(2) It is a well-known fact that the existing system of marketing cotton is very unsatisfactory in a large number of districts and we may add that generally speaking the cultivator is the chief sufferer from the irregularities which obtain. The best method of obviating these evils is, we think, to organise and regulate all up-country markets, in somewhat the same way as has already been done in the Berars, and for the information of the Committee we are attaching a copy of the Berar Cotton Market Rules,* which might well be taken as a model by other districts which have no properly organised markets.

* Vide Appendix VI to Report.

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(3) One of the principal advantages of a well-regulated market is that the cultivator can generally be sure of obtaining a fair price for his wares. In many districts, the ryots have to bring their cotton direct into the factories and sell it there instead of in a central and general market where all buyers assemble, and they consequently fail to obtain good prices owing to the fact that free competition is not possible under these circumstances.

(4) The point, however, to which we attach the most importance is that the cultivator should be put in a position to sell his produce when he likes and to whom he likes, and that he should come into direct contact with the *bona fide* buyers of cotton. At present cultivators with few exceptions sell their cotton through middlemen, from whom they generally take advances of money on their crops before the harvest, and such a system naturally exposes the former to numerous disadvantages. Efforts should therefore be made to render the ryot independent and we strongly advocate the further development of the co-operative banking system, a general extension of which would undoubtedly place the cultivator on an altogether sounder financial footing and would enable him to insist on receiving the actual intrinsic value for his cotton.

4613. *Classification of trade descriptions.*—We do not consider the present system of classification of Indian cotton to be satisfactory as, for one reason, it fosters the "fetish of names" instead of bringing the character of the staple and thus the actual intrinsic value of particular descriptions of cotton into prominence. Another reason is that the present method of classification facilitates speculative handling of the market inasmuch as it divides the total range of descriptions of cotton into too many small groups and circumscribes too closely the districts from which material may be drawn for tenders against certain recognised trade descriptions.

(2) With regard to what we have called the "fetish of names," we would refer to our remarks in paragraph 4610 where we stated that mixed cotton coming from a district with a good reputation generally commands a better price than superior parcels emanating from districts less renowned. Buyers as a class allow themselves to be very strongly influenced by the "name" of the station a certain parcel of cotton may be coming from instead of looking to the intrinsic value of the cotton only. Many good lots of cotton have had to be sold below their actual value simply because they happened to hail from a district not particularly favoured by buyers and it is the experience of all of us that it is most difficult to sell cotton in Indian markets without disclosing the name of the station where it was pressed. We are afraid the present system of classification rather helps this tendency of buying "names." In the export trade, cotton is usually sold on types representing a certain grade of cleanliness and colour and a certain length and fineness of staple. The buyer overseas buys the quality represented by the type and he does not question the origin of deliveries against such purchases so long as they correspond in class and staple with the type on which he has bought. An exporter, therefore, is not rigidly confined to any particular district for the purchase of cotton sold on types.

(3) The only possible remedy we can see would be to do away with the system of selling cotton on the basis of station names. General names of descriptions such as *Oomra*, Khandesh, Muttia, Bengal, Westerns, *kumpla*, Dharwar, Coconada, Tinnevely, Punjab-American, etc., might be retained, but beyond this the class, staple and character of the cotton should be the only consideration. This system is practised in America where cotton is sold on class and on a certain length of staple such as "Middling 22-24 millimetres" or "Middling 28-30 millimetres." We are unable, however, to recommend the introduction of a similar practice in India as we are fully alive to the difficulties attendant upon any alteration of the present system, and we can therefore only urge the desirability of co-operation on the part of the buyers and the consumers who should endeavour to purchase their cotton on the basis of intrinsic value and quality and not on the basis of the station name which the cotton may happen to bear. This desirable end might be achieved by the institution of a vigorous propaganda by the various agricultural departments in the shape of newspaper articles and suitable pamphlets. Since the advantages of Punjab-American cotton have been prominently brought before the consumers in India, the Bombay mills certainly show more interest in this description than heretofore and the propaganda set on foot by the Director of Agriculture, Hyderabad, in favour of Hyderabad *gorani* cotton should also, in our opinion, show good results.

4614. *Statistical information.*—We consider that the figures showing area in the cotton forecasts are reliable but that less reliance can be placed on the outturn forecasts. To improve the latter, we would suggest that estimates should be drawn to a much greater extent than is the case at present from non-official agencies such as local merchants, mills, gins, presses, etc., and that too much reliance should not be placed on the official reporting agency which is at present a revenue agency rather than an agricultural reporting agency. A further check on the forecasts would be obtained by instituting careful enquiries from the ginners, after the ginning of the cotton is commenced, as to how the crop is turning out in view of the ginning percentage shown.

(2) With the exception of our remarks as to the outturn forecasts, the only criticism we have to offer with regard to the statistical information published by Government is in connection with the fortnightly cotton press returns which are at present so incomplete as to be almost valueless. We fully realize that the various Directors of Agriculture concerned are doing their utmost to obtain accurate figures. But the figures are incomplete and the whole returns are moreover stultified by the unreliability of the information obtained from the Native States which have, in many cases, we understand, refused to submit returns at all. We would suggest from that all the returns, including those from the Native States at present collected by the Bombay Chamber of Commerce should be taken over by the Department of Statistics. With regard to the returns from the British Provinces, we would further suggest that a system of licensing all ginning and pressing factories should be instituted and it would then be an easy matter to obtain correct figures. If this system were introduced and proved successful in British territory, the Native States might then be induced to follow the example of the British Provinces.

(3) We would also suggest that the Department of Statistics should employ a staff of travelling auditors to collect figures from presses, mills, railways, etc., and that the figures so collected might be published quarterly thus affording a valuable check on the fortnightly returns, which latter would be extremely useful if reliable, but which could be dispensed with in favour of, say, quarterly returns if the difficulties experienced in collecting accurate figures proved to be insuperable.

4615. *Proposed licensing of ginning and pressing factories.*—In paragraph 4610 and in our discussion of the question of statistical information we have proposed that a system of licensing all ginning and pressing factories should be instituted, and we think it would be advantageous briefly to define the scope of the system proposed. We would suggest then that a Licensing Board should be instituted in Bombay, consisting of one or two Government representatives, who should be in close touch with the Agricultural Departments, and of, say, four non-official members representative of the interests of the ginning and pressing industries and of the

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consumers. All licenses should be granted by Government on the recommendation of this body and should be issued with the following objects only :—

- (1) To control the erection of new factories.
- (2) To provide for identification of quality of cotton coming from gins and presses by a system of official marks stamped on all *boras* or bales emanating therefrom.
- (3) To ensure the return of reliable statistical information.

4616. *Daily quotations for up-country markets.*—We do not think that the telegraphing of daily quotations up-country would be of any great assistance to the cultivator in view of the fact that rates for ready cotton are often unavailable, no reliable record of ready transactions being under present conditions obtainable in the Bombay market. The majority of the quotations therefore which would be available for wiring up-country would be for forward delivery and such quotations, owing to speculative transactions, being so frequently at variance with the prices at which actual cotton is to be bought, would in many cases prove misleading rather than helpful to the cultivators and merchants in the districts.

4617. *Levy of an export tax on cotton to meet cost of proposals.*—In conclusion, we would urge a further increase in the number of agricultural farms, still more extensive demonstration work and teaching of scientific cultivation, increased efforts to popularise agricultural schools and incidentally an increase in the number of the latter. This and the carrying out of other recommendations contained in this report will necessitate a considerable augmentation of the staff of the Agricultural Department and of expenditure, and the question may arise as to how the latter is to be met. In this connexion we may refer to a letter, a copy of which is given in Annexure II, which this Association addressed to the Bombay Chamber of Commerce when the question of an export tax on cotton was raised on a recent occasion by the latter body. While we are still strongly opposed to such a tax for the reasons adduced in the said letter, we think that it would not be wrong in principle, and if the necessity arose, to levy a small tax on cotton for the purpose of meeting increased expenditure in connection with the improvement of the Indian cotton crop. We submitted in our above-mentioned letter that, in the case of an export tax being levied on cotton, the cultivator would not benefit, but would suffer to a much larger extent than Government would increase their revenue. If, however, a tax were levied and the revenue thus raised were allocated to the specific purpose of improving the cotton crop in India, the cultivator would ultimately reap the benefit of such a tax. It is with this presumption only and on the understanding that the tax would be levied on the whole cotton crop of the districts in India which are under British Administration, and not on a specific part of the crop only, that we would consider such a levy justified in principle.

ANNEXURE I.

Correspondence re Goghari Cotton.

(i) *Copy of a letter No. 355-32, dated 28th May, 1917, from the Secretary, Bombay Cotton Trade Association Limited, Bombay, to the Director of Agriculture, Bombay, Poona.*

I have the honour to inform you that the attention of my Directors has recently been drawn to certain passages in your Reports for the years 1914-15 and 1915-16, with regard to the cotton crops in the Broach districts. My Directors have consequently carefully gone into the matter and have observed that while your Department has apparently been encouraging the sowing of *goghari* seed in these districts, no mention can be found in your Report of any efforts being made to distribute and encourage the sowing of *deshi* seed.

It is a well-known fact that the quality of Broach cotton as a whole has during the last ten years been steadily deteriorating in point of staple, and my Directors have no hesitation in affirming that this deterioration is principally due to the increasing sowing of *goghari* seed. My Directors are aware of the fact that the ryots are disposed to prefer the latter seed to *deshi* as it yields a larger outturn of lint; moreover when the quantity of *goghari* cotton is comparatively small it is not unlikely to sell approximately on a level with the *deshi kapas*. My Directors would in this connection invite your attention to the somewhat parallel case of the introduction of *Muttia** seed into the Kathiawar districts and the depreciation in the prices of the *Muttia kapas* which resulted when little of the stapled growth was left for the dealers to mix with the *Muttia* cotton. My Directors consider it highly undesirable that the above process, the history of which is doubtless well known to you, should be repeated in the Broach districts.

I am therefore to draw your attention to the grave risk that the Broach cotton ryots are incurring in sowing *goghari* seed, and to request the assistance of your Department in the matter. It is felt that, in the first place, the Agricultural Department should refuse to sell or distribute any seed but *deshi*. My Directors further consider that steps should be taken to bring it forcibly home to the Broach cultivators that in lowering the staple of Broach cotton they are exposing their produce to the gravest risk and themselves ultimately to serious monetary losses. I am to add that my Directors are prepared to co-operate with your Department in every possible way in devising measures with a view to discouraging *goghari* growths and the mixture of *deshi* and *goghari kapas*.

Whilst costly experiments are being made in India to grow long staple cotton, my Directors are convinced that you will feel with them that the most strenuous efforts should be made by all Agricultural Departments not only to encourage the growth of the indigenous long staple cotton, but also strongly to discourage the sowing of short staple seed in the long staple districts, even though the production of short staple cotton may appear more attractive to short-sighted cultivators, who are not aware of the ultimate reaction which is bound to take place.

(ii) *Copy of a letter No. 6251, dated 18th July, 1917, from the Director of Agriculture, Bombay, Poona, to the Secretary, Bombay Cotton Trade Association, Bombay.*

1. I have the honour to acknowledge receipt of your No. 355-32 of 28-5-1917 and to state that I have deferred replying to it pending disposal of some other correspondence on the same subject.

2. You observe—

- (a) that your Directors attribute the deterioration of Broach cotton to the sowing of *goghari* cotton in the Broach district;
- (b) that while this Department is encouraging the sowing of *goghari* cotton in the Broach district it is doing nothing to encourage the sowing of *deshi* seed there.

* Mathio.

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3. I believe that the staple of *goghari* cotton is five-eighths inch, as against a staple of six-eighths of Broach *deshi* as grown in the Broach District, and the colour is also very white. In some of the valuations which we have had made, the clean cotton of *goghari* has been valued almost as high as Broach *deshi* and in others considerably less. The value to the cultivator, however, depends on what he can get for the *kapas*. *Goghari* yields well, and the buyers of seed cotton will always pay a higher price for *goghari*, because it gins five per cent higher which means that it gives fifteen per cent more lint. We did formerly distribute selected *deshi* seed from our Surat Farm amongst Broach cultivators and the seed gave a superior quality of cotton; but since the ginning percentage was much lower than that of *goghari*, the dealers paid a smaller price for the *kapas*, and the cultivators refused to sow it any more.

4. Since it was clear that high ginning percentage is what the cultivators want and what the buyers will pay for in Broach we are now working at isolating the most valuable strains of *goghari* cotton, and have found a number of different types in *goghari*, which appears to be an unfixed hybrid. We are not at present distributing seed, at least not on a large scale, and shall do so only when we have something to distribute, for the produce of which the buyers will pay high. It is the buyers of *kapas* who govern the market, and nothing that we can do will make cultivators grow crops which bring them in a smaller return than at present. If *deshi* is to be substituted for *goghari* it can be done, but only by the dealers paying more for it instead of less. The same difficulty has met us every time that we have tried to introduce a cotton with a longer staple, and so long as the local markets are insensible to differences of staple but recognise differences in ginning percentage, the same difficulty must occur. It does not take long for the cultivators to find out what pays them best, and Mr. Clouston has estimated that in Berar the substitution of a short staple cotton for a longer one has been worth an additional profit of Rs. one crore per annum to the Berar cultivators. We have good strains of *deshi* cotton with good staple which we can readily multiply and distribute in the Broach district when it can be shown that they will pay the cultivator better.

5. As regards the deterioration of Broach cotton in recent years, to which you refer, I would point out that the mixing of short staple cottons from outside has probably something to do with it. About 100,000 bales of short stapled cotton are annually imported by rail into Gujrat and Kathiawar, and a large proportion of this must be used for mixing with Broach cotton. An enquiry made in 1908 showed that in March to May of that year 4,000 bales of short stapled cotton were taken by rail to Broach Railway Station alone, and large quantities to Syan, Kim, Ankleshwar, Palej and Miyagaum, where there are no mills. *Muttia* cotton is also brought by sea from Bhavanagar to Broach in considerable quantities, and is mixed with locally grown cotton at many gins and presses. I believe that if the unrestricted import of this short staple cotton into a tract growing long stapled cotton be regulated it would be a first step in the direction of securing for the locally-grown long stapled cotton its true value.

6. In conclusion, I may state that I quite realised the value to the mills of long stapled cotton, and that we have tried for years to introduce strains of longer stapled cotton; but experience has shown that in the local markets it is quantity and not quality that tells, and since we cannot control market prices the only course left for us is to adopt our work to the views of the markets as expressed by the prices that they pay.

(iii) *Copy of a letter No. 601-32, dated the 17th August, 1917, from the Secretary, Bombay Cotton Trade Association, Ltd., to the Director of Agriculture, Bombay, Poona.*

I have the honour to acknowledge receipt of your letter No. 6251, dated the 18th ultimo and to inform you in reply that my Directors are unable to agree entirely with the conclusions you have arrived at with regard to the sowing of *goghari* seed or with the policy pursued by your Department in respect of the Broach cotton crop.

In the first place, my Directors observe from your letter under reply that the Broach cultivators prefer the *goghari* variety on the grounds that it shows a higher ginning percentage and that a better price is consequently obtained from the dealers for the *kapas*. My Directors would respectfully contend that this state of affairs would only obtain so long as there existed a considerable quantity of the long staple cotton with which to mix the *goghari* cotton, and that, as soon as the proportion of the longer staple cotton should fall below a certain figure, the *goghari* cotton would then sell only at its true value as cotton and not as cotton for mixing, and this would lead to a decrease of relative values throughout the whole district. This process is clearly demonstrated by the history of the *Muttia* crop in Kathiawar to which reference was made in my last letter to you.

In the fourth paragraph of your letter, you mention that it has been estimated that in Berar the substitution of a short staple cotton for a longer one has resulted in an additional profit of Rs. one crore per annum to the Berar cultivators. My Directors have no information as to the basis upon which this calculation has been made but they would call your attention to the fact that in Berar the longer staple crops have entirely disappeared and having regard to the high premia paid for such growths they doubt whether it can be reasonably contended that the longer staple cotton would not prove even more remunerative to the cultivator. In support of their belief in the value of the longer staple cotton, my Directors would call your attention to the efforts made by the Director of Agriculture in H. H. the Nizam's Dominion to eliminate entirely, if possible, the shorter staple varieties.

In the fifth paragraph of your letter under reply, you call attention to the fact that about one hundred thousand bales of short staple cotton are annually imported by rail into Gujarat and Kathiawar and that a large proportion of this must be used for mixing with Broach cotton. In this connexion, my Directors would point out that the bulk of such cotton is imported for the use of mills at Surat, Broach, Baroda, Ahmedabad and Viramgam, though it is admitted on the other hand that a considerable quantity is imported for the purpose of mixing with longer staple cotton. My Directors would be very pleased to co-operate with your Department in its endeavours to put an end to the latter practice and would in the first instance suggest a restriction of imports of *kapas* by sea or rail into the Broach or Surat districts.

In conclusion, I am to state that while my Directors admit the sowing of *goghari* cotton may give an immediate advantage to the cultivators, it threatens on the other hand ultimately to impair the reputation and reduce the value of the entire crop of the Broach district and my Directors are therefore anxious to bring to your notice what they would respectfully submit are the incorrect lines on which your Department is working in this matter.

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ANNEXURE II.

Copy of a letter from the Chairman, Bombay Cotton Trade Association, Ltd., to the Secretary, Bombay Chamber of Commerce, dated the 21st, February, 1917.

I am directed to acknowledge receipt of your letter No. 202 of the 7th instant, enquiring what, in the opinion of the Board of Directors of this Association, would be the effect of an export duty on cotton and generally who would be the gainers and who the sufferers if such tax be imposed.

In reply, I am to state that the matter has received the very careful consideration of my Board who, with one dissentient, are strongly opposed to the principle of an export tax on cotton. My Directors feel that in the case of any article of which India has the monopoly, the incidence of taxation in the event of an export tax being levied would fall on the consumer, but that this would not be the case in regard to cotton. India holds second place among the world's cotton producers and even then her crop is only equal to about thirty per cent. of the American crop. The prices ruling for American cotton practically control except under exceptional circumstances, the cotton prices of the world. As foreign consumers of Indian cotton buy on a parity with American cotton, it follows that an export tax would fall on the exporter and ultimately on the producer. The hardship on the producer would not, however, end here. India exports about 45 per cent. of its growth and the price, not only of the cotton sold for export, but of that consumed locally, being largely controlled by the price of American cotton, the producer would actually be taxed on the whole crop. Government receiving the tax on the percentage exported while the balance would go into the pockets of the consumers or the manufacturers, in other words, an export tax of, say, Rs. 5 per bale would realise to Government about one crore of rupees but would cost the producer about 2½ crores.

At a time when endeavours are being made to increase the cotton production of the Empire and India is being looked to as the most promising field for immediate increased cultivation of cotton, the bare suggestion of levying an export tax would, in the opinion of my Directors, have an adverse effect on the cultivation of cotton.

My Directors feel that the benefit of the tax to the mill industry would be small while its effect on the balance of trade and on the production of cotton would be far-reaching. In the first place, India cannot at present consume in her mills and otherwise more than about 55 per cent. of the crop, and the effect of an export tax would be to curtail production and thereby to reduce the amount available for export, thus tending to disturb the balance of trade. In the second place, China is becoming less dependent on India for her yarn and Indian mills are therefore looking and very wisely so, more to the development of the internal trade of this country. In this they have the benefit of two freights plus not inconsiderable other charges, i.e., the freight and charges on the cotton exported and those on the goods imported. My Directors are therefore strongly of opinion that to give Indian mills a further benefit at the expense of the cultivator is gravely undesirable.

MESSRS. T. D. MOORE ((Chairman), O. MARSHALL (Vice-Chairman), G. BOYAGIS, AND N. WILKINSON (Secretary). Representatives of the Bombay Cotton Trade Association, called and examined. THE HON'BLE MR. G. F. KEATINGE, C.I.E. I.C.S., Director of Agriculture, Bombay, was also present.

4618. (President.) Mr. Moore. We have in paragraph 4615 of our written evidence suggested a Central Cotton Committee but have not gone into details fully.

4619. Mr. Marshall. Our written evidence was prepared by a Sub-Committee, submitted to the Directors and carried by the Directors by a large majority. Some of the Directors were prepared to go further but our written evidence represents the point up to which all the Directors are in agreement. There are some points which we have not dealt with but have left to be dealt with by men who are more expert than a Sub-Committee such as ours. There are certain points which are absolutely experts points.

4620. Mr. Boyagis. The work of official surveys, etc., should come under the Cotton Association.

4621. Mr. Marshall. A board such as is suggested consisting of agriculturists, botanists and so on, would not, I am afraid, be able to deal with classification. I think that to assign such duties to it would be to overweight it with responsibilities. At the same time I am prepared to support some sort of central body in Bombay. The three of us hold divergent views to a certain extent on the question of the formation of this Committee on which you are asking us to give our opinion on behalf of our Directors. It is a pretty big question. Our memorandum shows to what extent we can speak for the Association.

4622. Mr. Boyagis. As regards samples for valuation, it may be said that the cotton can be best certified if the samples are pressed. Samples of *kapas* or of loose cotton are usually sent and it is very difficult to classify them. The best way is to take a sample of twenty pounds from a fully pressed bale which has been pressed in a Nasmyth Wilson press. The sample should be drawn carefully from the bale. It should be packed as tightly as possible so as not to expand and then sent down to Bombay by express train. A twenty pounds sample is quite sufficient.

4623. Mr. Marshall. The Cotton Trade Association has for years taken very great pains in regard to the classification of samples. All the Directors are called to the meeting and they sometimes spend hours on the classification.

4624. Mr. Moore. We would like the evidence taken by the Cotton Committee published.

4625. As to the cotton forecasts these are issued rather too late. August is early enough for the first one. October is suitable for the second one as the September rains are very important. There ought to be one in November as the crop in several parts is well on by then. The December and February forecasts should be retained so that I would suggest one additional forecast in November. As to their accuracy, we might mention that our own forecasts are very much more accurate. We have discussed this question with Mr. Findlay Shirras and we have suggested to him, as we have suggested in our written evidence, that he should go outside the ordinary official agencies for more accurate information, i.e., should go to traders. There should be co-operation between Government officials and the trade in regard to the forecasts.

4626. Mr. Boyagis. If the Agricultural Department were much larger than it is, then it would be a better agency to deal with the forecasts than the revenue officials.

4627. Mr. Marshall. Provided of course, it consulted the trade. The Agricultural Officer has first hand knowledge. Might I suggest that in the event of weather conditions changing between the publication of one report and the next it might be possible to issue a supplementary note? A storm such as that last October may make a material difference to the crop. The publication of a supplementary note between the

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forecasts in the event of any unforeseen catastrophe happening would be of great assistance to us. Mr. Shirras has suggested the formation of a crop reporting board which could issue supplementary forecasts of this kind.

4628. The cotton pressing and ginning returns are misleading and are practically of no value. Their submission should be made compulsory by legislation. The question of Native States is a somewhat complicated one but the statistics from Native States are becoming more reliable.

4629. (Mr. Wadia.) Mr. Moore.—The Indian mills are scrambling for long staple cotton. It would be of as much advantage to them as to Lancashire if larger quantities of longer staple cotton were grown in India. In fact the position is so bad that they have to send their own representatives to the areas in which long staple cotton is grown to buy the best qualities for them direct.

4630. Mr. Marshall.—Short staple cotton under the present marketing conditions pays the cultivator best owing to the larger yield per acre and the higher ginning percentage. The prices of long staple cotton and the premium obtained for it are not proportionately so great as to compensate for the loss in yield and ginning percentage. There is no doubt that this is because the long staple cotton comes on the market in such a mixed condition. That is why it does not command its proper price.

4631. Mr. Boyagis.—I find from experience that there is a fear on the part of the buyer that he is not getting a pure article. Where there are long and short staple cotton in the same tract, the expert knowledge of the buyer up-country is not so great that he can trust himself that he is going to get the long staple cotton in the end. In other words, eliminate the mixing of long and the short staple cotton and you will reach the solution. I do not think that many people up-country consider themselves expert enough to detect a mixture in long staple cotton below a certain amount. A mixture of five per cent. of short staple in long staple could not be detected even by a classifier of cotton; where there is such a mixture, it could be detected only in the machinery, i.e., in the mill. In my opinion, the remedy lies in getting cotton in a pure state. *Bani* and *buri* are mixed with *roseum* and therefore they do not get their proper price. *Bani* is the cotton which we get from the Nizam's Dominions and *buri* that which is grown in the Hinganghat tract. There is also the *bani* which is grown in Chanda and is a very small crop; that comes in pure and gets its relative value. It is bought by the mills up-country and does not come into Bombay. It is one of the best cottons in India. *Bani* Hinganghat at Rs. 655 is not pure *bani*; it is mixed. The price of *bani* Hinganghat would be over Rs. 700 if it came in here in a pure state. The price of Khambhat Akola is inflated to-day owing to the fact that rains have caused such a scarcity of satisfactory quality that practically nothing is tenderable.

4632. Mr. Marshall.—I think that the Directors of our Association would be quite prepared to make a separate class for Punjab American but it has never been sold on class; it has always been sold on type hitherto. It has not been sold as "Fine" and "Fully Good." Just now, owing to the fact that a good deal of it comes mixed, it is difficult to sell it to the mills. I do not think that the mills would buy Punjab American on class unless there were an official guarantee that it would not come in a mixed state. The Cotton Trade Association would be pleased to prepare a standard for the classification of Punjab American, but the question of staple would arise. If we prepared a standard showing class we would also require large types showing the staple and the tender would have to be compared with the standard for class and with the type for staple and I doubt very much whether that would lead to an increased trade in Punjab American. I made a suggestion last year to Mr. Roberts that the Agricultural Department should send down a certain number of bales to Bombay guaranteed as pure Punjab American and I offered to take these round and distribute them among the mills who have been rather prejudiced against Punjab American and to get them to test it in a pure state as officially guaranteed. I think that if that were done by the Agricultural Department, it would improve the position enormously. Meantime we do not see Punjab American here in its pure condition.

4633. Mr. Boyagis.—Pure good quality of Punjab American has a length of staple about 23-27 millimetres. I have found from experience that the only way in which to get good Punjab American is to buy it on type. We also sell it on type. The mills buy Westerns because they find the staple is usually good and it comes to them pure. They have bought Westerns for many years past; it is a well-known cotton, everybody knows it. Punjab American is more or less a new crop. There is some prejudice against it as in some parts of the country it is mixed because *deshi* cotton is grown in the same area. People know that as a result the cotton is mixed whereas in the Westerns district, nothing is grown except the Westerns crop itself and if the staple is short, it is due to deterioration on account of weather or something else which cannot be helped. It would be difficult to give a separate quotation for Punjab American now. We are prepared to give a separate quotation for it but I do not think anybody would buy it unless it could be made reliable.

4634. I am not in entire agreement with the statement in paragraph 4610 of our written evidence. It is hardly fair to make these comparisons when the war is on. I understand that the Indian mills have secured markets now in East Africa and other places and that the demand for their goods is very great at present. So I think it is a false comparison as after the war they may not have this demand. On the whole, it can be said that the demand for cloth produced by Indian mills is greater than it was before the war and therefore there is a bigger demand for long staple cotton. I have some doubts whether this will continue after the war for the foreign markets may go back to the sources from which they purchased cotton previous to the war. We are all agreed that there is no doubt that the *goghari* mixture in Broach is doing actual harm to the Broach crop. Broach has already lost its reputation. *Goghari* is doing the same harm as *pulichai* did in the Tinnevely district. That has been eradicated by a combination of the buyers. We are strongly and unanimously of opinion that the *goghari* mixture is depreciating the value of Broach.

4635. Mr. Keatinge.—The use of the term *goghari* is misleading. There is no such thing as a pure *goghari* type. It has been found in the Broach district, especially in the north of the district, that there are a large number of different types which are not even fixed types and which the people call *goghari*. These types split up every year and are distinguished by their high ginning percentage and short staple. In the north of Broach, seventy to eighty per cent. of the crop is of the *goghari* type. There is no such thing as pure *deshi* crop. In the south of the district, the percentages are more like thirty per cent. of *goghari* and seventy per cent. of *deshi*. In the Broach district, Broach *deshi* has ceased to exist and certainly more than fifty per cent. of it is of the *goghari* type. The percentage must go on increasing as *goghari* has such a high ginning percentage. The buyers of seed want seed with a high ginning percentage and the ginners give out such seed. The ginners are therefore automatically and steadily increasing the amount of *goghari* cotton. I imagine that the crop will be almost pure *goghari* in a few years time and that the old *deshi* long staple cotton with a smaller ginning percentage will cease to exist. Surat strains have been tried in the Broach tract. The people took to them and the cotton grew well but when it was taken to the dealers, they did not pay a better price for it, because the ginning percentage was low.

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4636. *Mr. Marshall.*—There is a certain percentage of long staple cotton mixed with *goghari* at present. An increase in the amount of *goghari* is bound to cause a relative reduction in price at the present moment. Broach is priced higher than its market value on account of the old name. Broach is a cotton which we formerly regarded as of good staple; now-a-days it is regarded as of mixed staple. The moment the real Broach is gone and *goghari* is substituted, the value of the whole cotton of the tract is lowered. That is why we are so opposed to *goghari*. So long as it is mixed with the better staple, there is an enhanced value for it but the moment the long staple disappears it will drop to the value of the short staple.

4637. *Mr. Keatinge.*—It is not the Agricultural Department which is responsible. We have distributed no *goghari* seed. All we have done is to study it. We have now a selected strain which will give a ginning percentage which is ten per cent higher than that of the ordinary *deshi*. That is to say it will give 25 per cent. more lint. At present Broach cotton is not Broach *deshi* but *goghari* with a considerable mixture of Khandesh and Rajputana cotton. There is no such thing as Broach cotton in the district. Broach cotton no longer exists in the old sense. At present prices, nothing the Agricultural Department can do will make the people in the Broach district sow seed which has a smaller ginning percentage and a longer staple.

4638. *Mr. Marshall.*—I should like to give my personal experience of one or two mills. They used to use Broach very largely indeed but during the last two or three years owing to the deterioration in the staple, they have eliminated Broach altogether from their mills. I have been told by our Japanese friends that the same complaint has been coming from Japan for the last two or three years. In time, if the deterioration continues, Broach cotton will drop to about the same price as Khandesh class for class. The staple of some *goghari* is not as good or as even as that of Khandesh.

4639. *Mr. Keatinge.*—It is a question whether one cannot get a *goghari* with a very fair staple. We had some now but we are not putting it out. What we are now trying to do is to select a type with a good staple and a high ginning percentage. The cultivators won't take anything which has not a high ginning percentage. I think your Association already knows that we are not responsible for *goghari*; we have not put out any seed; we are merely studying it.

4640. *Mr. Marshall.*—Our Association deprecate very much samples being sent for valuation to private individuals instead of to us. On our Association we have shippers, mill buyers, Indian dealers and so on. All classes are represented. Samples are sometimes sent to private individuals whose valuations may be largely influenced by whether they are using that particular style or not.

4641. *Mr. Keatinge.*—It would be an advantage to us to have valuations which we could absolutely depend upon. I have been sending samples to two or three different firms.

4642. *Mr. Marshall.*—If the samples had been sent for valuation to the Association, of which there are fifteen Directors, including shippers and mill-owners, you would have had an opinion arrived at by a combination of people which, I think, would be more valuable than any other.

4643. We know that Khandesh cotton is being taken to Broach and that Ruttim and *mathio* cotton are also taken to Broach. We have it also on record in our office that Khandesh cotton is being taken to Akola and Khamgaon to be mixed there. We have already suggested the prohibition of the transport of *kapas* and unbaled cotton from one district to another by rail and road.

4644. *Mr. Boyagis.*—It is the transport by road which is the problem. I have known *kapas* carried by road up to one hundred miles. It is for the Government officials to find out how transport by road could be stopped. We could not come to any decision in regard to that. I would suggest certain zones from which cotton could not be transferred but that would require a tremendous organization to carry out properly. Our point is that we consider prohibition of transport by road advisable, if Government think it feasible. We cannot put forward any practical suggestion.

4645. *Mr. Marshall.*—We have already referred to the efforts of the Director of Agriculture of Hyderabad to stop the watering of cotton and the prohibition of the transport of cotton from one district to another, but we have no information as to how it is working.

4646. As to whether it is difficult to mix cotton that has not been damped, I have no experience. Damping short staple cotton may make it easier to mix with long staple. I have heard the argument that bales cannot be pressed to the desired weight unless the cotton is damped. But I consider that is a myth. If a press cannot press cotton dry, then the press should be put in order and not the cotton.

4647. *Mr. Boyagis.*—We can press 400lbs of dry cotton in our presses and I think we could press even more. It is entirely a fallacy to hold that cotton must be damped to be pressed.

4648. As a condition of granting a license to a factory, I would suggest that standard weights should be used. I would like to go further and to suggest that, as has been done in the Central Provinces and Berars, the weights should be on the basis of the English hundredweight. It would be a great help to have standard weights. They manage it in Berar and the Central Provinces under the market rules. I think the Commissioner enforced it. If cotton markets on the Berar principle were established right through all over India, then the system of standardized weights could be brought into force. In some cases up-country the local weights it is equal to 1,000 lbs. In order to arrive at that twelve operations have to take place, as a maund of *kapas* has to be weighed at a time. When cotton is weighed in many operations there is more chance of the seller, who is an ignorant man, being defrauded than if it were weighed in one operation. I would suggest therefore that all factories should fix a weigh-bridge scale. It is not only that the weighing would be more trustworthy but it would be a quicker operation. If there were weigh-bridges, 500 carts could be weighed in a single day. We have got a weigh-bridge at Nagpur and at three other factories. They work very well indeed and much better than scales. We find our Nagpur agency the best in India in that respect. It works easily and smoothly and turns out better work. A weigh-bridge could, of course, be tampered with and some check would be necessary but I do not think that it would be so easy to tamper with them as it is with weights and scales now.

4649. *Mr. Moore.*—The cultivator usually has a good idea what is inside his cart and how much it weighs.

4650. As to licensing, I want to do away with a body of inspectors as under the old Bombay Cotton Frauds Act and would give power to the bureau or central committee to withdraw all licenses. I would not withdraw the license for the first offence but would give a warning to the factory owner in the first instance and would tell him that his license would be endorsed but for persistent watering or fraudulent mixing I would withdraw the license.

4651. *Mr. Marshall.*—Personally I consider that the central board should have plenary powers; if it is only to be an advisory board, its recommendations would have to be sent up to Government and our own experience is that Government takes a long time to reply. If Government is represented on the board, then the latter should have plenary powers. The board should have Government nominees on it and the

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other members should be elected by the various bodies whom they represent. I think it would be a very cumbersome thing if the board had no powers. I think the board should have power to deal with questions regarding the issue and withdrawal of licenses. The Government could easily delegate this power. This is my personal opinion.

4652. *Mr. Moore.*—We have proposed in our memorandum that all licenses should be granted by Government on the recommendation of the central body but I agree that it is desirable that the central board should have powers of withdrawing licenses or of issuing a warning.

4653. *Mr. Boyagis.*—In regard to offences in ginneries, it is true that knives are badly set, machines are not properly looked after and that crushed seed and inferior *kapas* are mixed with lint. Merchants sometimes bribe the gin fitters to allow the cotton seed to pass through into the lint. There is a marked increase in the amount of seed and *kapas* in ginned cotton just now. Formerly there used only to be a few cases such as hand ginned *kumpla* and Westerns. The Central Board would be useful in regard to such cases. I would not go so far as one of our agents at Mirpurkhas has done in suggesting that regulations should be made in regard to size of the *kapas* platform, etc., in ginning factories because, I think, that a lot of the mixing is done deliberately and is not a matter of defects in the gins or factories as they stand now. Personally, I think it is deliberately done and that that is the reason for the adulteration with cleaned cotton of cut or chopped seed and so on. I think ginning factories when kept in proper order can turn out very clean cotton as is shown by the case of our own factories. It is not the case that the ginning machinery wants improvement but that the adulteration is done wilfully I think that if all these regulations which have been suggested were imposed on ginning factories, it would be too harassing and vexatious. I understand that in America the farmers have ginning factories of their own. In India ginning factory owners except the big firms have not really any inducement to gin clean cotton. It pays them better to gin dirty cotton because the outturn is greater and they are paid on the outturn. Many of the ginning factory owners I know, especially in the Punjab, are speculators in ginned cotton; so that if they buy *kapas* and the market goes against them, they will turn out dirty cotton with a lot of seed slipped in. The buyer has either to accept or to refuse the cotton. If the buyer cannot replace it elsewhere, he has to take it. I could not buy *kapas* at Khandwa a short time ago. It is a notorious market. The *kapas* was kept only for the local dealers. I could not buy *kapas* but I could only buy ready ginned cotton from the very man who was buying *kapas* in the market at the same time. He sold to me for delivery in four or five days; and if the market went up he delivered the cotton dirty with *kapas* and crushed seed in it. Of course I had to take it or to reject it. There is no system of allowances there. If the market went down, we always got our cotton clean as he had the fear of rejection before him. The erection of model factories on standard plants as is now under the consideration of the Government of the Punjab will not overcome the difficulties. If a man wants to mix deliberately, he will do so. Our contention is that mixing and adulteration are deliberate and that no regulations which the Government will make will overcome the human element.

4654. As regards the suggestion that local Chambers of Commerce should be established in the principal cotton centres and that the same system of arbitration should be adopted as in Bombay, I understand that would mean the establishment of Cotton Associations on similar lines to that in Bombay, but this would mean that standards would have to be kept at such centres and arbitrations held there. I think that it would be very difficult to organize and work such bodies up-country. I understand, however, that this system is carried out very largely in America. A man buys ready cotton there and knows what he buys. I think that, in the case of classification, it would not be possible to have such a system. If one sees ready cotton and buys it as "fine" and it turns out to be "fully good", then it is one's own fault and nobody else's. It would be an excellent thing to have an allowance for adulterated cotton but one could not have an allowance for classification. It would not be possible to legislate for class. We usually buy on the basis of arbitration in Bombay. If I buy forward, I buy on the basis of the rules of the Bombay Cotton Trade Association. I think that is much the safer and the best way.

4655. *Mr. Marshall.*—We might point out that our forward contracts are subject to survey. In the case of ready cotton, say a lot of 500 bales, we open and approve a certain number of bales which are stamped. If the buyer finds that the other cotton is inferior to the samples taken from the first bales, his remedy is to have it surveyed against the stamped bales. If an allowance is awarded, the buyer has the right of taking the cotton with the allowance or of rejecting it. He may not buy on account.

4656. *Mr. Boyagis.*—I think that if the districts knew that all contracts were to be made on the basis of the Bombay Cotton Trade Association rules, then it would be all right. I am not in favour of any district committees for arbitration purposes.

4657. As regards licensing, I think it would be very unfair to hold the owner of the factory responsible for adulteration. We do not consider that a license should be withdrawn in the case of the first offence.

4658. *Mr. Marshall.*—If a press owner has clients who are persistently indulging in malpractices, he must be held responsible. It is difficult to understand how damping can go on a pressing factory without the cognisance of the press owner or his agent. The owner must, therefore be held responsible for damping.

4659. *Mr. Moore.*—We hold divergent opinion in regard to pools. Mr. Marshall is against pools altogether.

4660. *Mr. Marshall.*—I am personally against pools. I think they are detrimental to the interests of cultivators but at the same time I realise that in certain districts it is very difficult to overcome them; otherwise there are apt to be underhand dealings. I think that all pools should come under this central board which has been suggested and that the maximum to be charged should be fixed by it. If this were done, the pools would not do any harm because the rates would not be excessive. There can be no objection whatever to the maximum being fixed by the central board who will, it is presumed, deal with things fairly and squarely.

4661. *Mr. Moore.*—My view is that a lot of money has been sunk in pressing and ginning factories and that a certain return is naturally expected on that. If these were no pools, these ginning and pressing factories, as far as I have seen, would make no money at all. In no case has any pool been charging excessive rates. If a return could be assured to the ginners and press owners without pools, well and good, but they must be allowed a moderate return. I consider that the pressing charges are reasonable. There is no doubt that the high price charged for pressing and ginning come out of the price of the *kapas*. I should have no objection whatever to the fixing of a maximum price provided a fair return is given on the capital invested, i.e., if a fair allowance were made for depreciation and for working cost and a return of eight to ten per cent were permitted. The central board should be given power to fix the maximum limit.

4662. *Mr. Boyagis.*—I presume that there would be no objection to rates below the maximum rate being charged.

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4663. *Mr. Moore.*—I think it would be a very good thing if Government were to give facilities for moving factories which are not required to places where they could be utilized to better purpose. There is a case in point at Jalgaon this year where two pressing factories are being removed. There are seven presses of which two are being removed. As soon as people begin to find that they cannot make money at a place, they begin to look round for other suitable places so that removal goes on automatically.

4664. *Mr. Marshall.*—As regards the suggestion that more ginning factories should not be allowed to be erected than are necessary for actual requirements, I should say that licenses should be granted on a distinctly liberal scale because the size of the crop varies materially. If five or six factories were enough for an ordinary season, I would give licenses for eight.

4665. As regards the levy of a tax the proceeds of which would be devoted to the improvement of cotton cultivation, such a tax could be collected on cotton at the pressing factories or on the cotton transported by rail. That would leave out of account the cotton taken by the mills loose and also the hand-ginned cotton. As a body we are opposed to an export tax on cotton because we contend that an export tax would fall on the producer as the price of cotton is largely controlled by circumstances outside India and not by India's own requirements. My personal feeling is one of strong opposition to an export tax. I consider that if any tax is imposed it should be on the whole crop. If, however, Government finds that it is absolutely impossible to impose the tax on the whole of the crop, I would then say that perhaps an export tax might be levied provided that the whole amount realized by such a tax were allocated for the improvement of cotton production and for that purpose only. Jute is a monopoly of India and so the consumer pays the tax and not the producer. Cotton is not a monopoly of India and the price of cotton is largely affected by the price of American cotton and by Japanese buying. It is the price which the outside buyer can afford to pay which largely fixes the price of cotton in this country. If he has got to pay a two per cent export tax, he will offer two per cent less. We realize the difficulty of levying a tax on the whole crop. We are opposed to an export tax as a body. We should be strongly opposed to an export tax for the purpose of revenue. Our objections would be diminished to a great extent if the proceeds were earmarked for cotton purposes.

4666. *Mr. Hodgkinson.*—It is our opinion that the tendency is to pay a higher price for long staple cotton if pure stuff is obtainable. I would always add the proviso that this may not be held to be an answer for normal times.

4667. *Mr. Boyagis.*—If you ask me whether this tendency has only been visible since the outbreak of the war, then I come back to the original point and say that the demand for Indian cloth has been greater since the outbreak of the war. I should not like to say how things will turn out after the war.

4668. Bombay cannot guarantee that Punjab American is pure. If the Bombay mills could obtain an absolute guarantee that only pure Punjab American would be sent, then it would be found that the premium of Punjab American over the mixed stuff would be very materially increased. I find that the demand from Japan for Punjab American has increased this year. I suppose that is due to the efforts of the Agricultural Department to keep it pure. I personally have never seen Punjab American pure; all that comes down is mixed with *deshi*. Though Punjab American classified as pure is sold at auction sales, yet it apparently has not been seen pure in Bombay and that is the reason why they cannot get the proper prices for it. I do not think that any mill has ever tested it properly.

4669. *Mr. Marshall.*—This year so far it has not been coming to Bombay at all owing to difficulties in getting it down. I was trying to find a lot of Punjab American but I found that it did not exist. One man offered me three bales which consisted of three different types.

4670. *Mr. Boyagis.*—The mills only go on their past experience. Nobody will believe any export whatever, until the cotton has actually passed through the machinery and until he thinks that he can get a sufficient quantity to go on with it. If a man wants to go on with a particular cotton, it is no good for him to get only a hundred bales. There must be a constant supply. I know particularly large mill-owners in Bombay who will not test in their mills any of the Punjab American which is in Bombay. But they are willing to take 50, 80 or 100 bales if it is guaranteed pure by the Punjab Agricultural Department and to pay whatever reasonable price they ask for it. Undoubtedly the mills would take it readily if they could get it pure. There is certainly a future for it.

4671. (*President*).—I think the mills would take it easily as they have done in the case of Cambodia but it would be of no use to them unless they are able to follow it up. Cambodia commands the highest price in the market of any long staple cotton here. Cambodia went off very badly in quality for a year or two. I think that was due to weather conditions. I do not think that there was any real deterioration. We have found very little deterioration; it still more than maintains the relative price it used to get. Its relative value has increased as compared with other styles. The mills have come to believe in it as a crop that can be maintained over a number of years.

4672. *Mr. Hodgkinson.*—We tried saw gins in Khandesh and although we found that the class was raised to a very great extent, as much as two grades, the staple, to the experts' eyes, seemed to be cut. The mills would not have anything to do with it.

4673. *Mr. Marshall.*—I have bought on mill account roller-ginned and saw-ginned Dharwar. The saw-ginned cotton is much more attractive; it comes out much cleaner. There is no doubt whatever about the staple being badly cut. Some people say that this is due to the saws not being properly set. The same *kapas* when ginned in the roller gin gave better results in the mills.

4674. *Mr. Boyagis.*—Personally I do not think that sufficient trial has been given to saw gins in India. The mills could not be got to take up saw-ginned cotton. That is why we are trying saw gins now with the Punjab American. Our experiments with Khandesh cotton were on a very small scale. My firm is prepared to go on with experiments in saw ginning. In my opinion, it has not been finally settled whether the saw gin is detrimental to the staple of cotton. I do not think that enough trials have been made or that those trials have gone far enough.

4675. I think that the mutual allowance clause in the Bremen contract has a good effect on the quality and the grade of the cotton. I should like to see it introduced in Bombay arbitration. It exists in Liverpool.

4676. *Mr. Marshall.*—That would be all very well for a big firm like Messrs. Ralli Brothers. If they get something better, they can use it; but in the case of the smaller buyers it would be a great handicap. The smaller buyer wants a particular thing. If he gets something much better than he really wants, he does not know how to appropriate it.

4677. *Mr. Boyagis.*—I am looking at it from the point of view of the seller. We have not discussed it officially.

4678. *Mr. Moore.*—We will consider the point officially.

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4679. *Mr. Roberts.*—*Mr. Boyagis.*—I would favour official arbitrations as well, both in Bombay and Liverpool in the same way as there are in Bremen.

4680. *Mr. Marshall.*—I am entirely in favour of this. I have advocated it several times.

4681. *Mr. Boyagis.*—The effect of the home guarantee contract on the quality of Indian cotton has been that it has tended to encourage dealings in the lower styles of cotton. It has had a distinct tendency to bring about substitutions.

4682. *Mr. Marshall.*—In regard to the possibilities of having official types made here by the Cotton Trade Association for Punjab American, I think if we had a sample set aside by which staple and class could be decided, we could make up a standard type. Cambodia is sold on type; we have no classification for Cambodia at all. I do not think that is a point which stands in the way of the cotton, if the cotton is once known. Cambodia is a very apt illustration of that. I know the difficulties in regard to Punjab American as it has to be grown side by side with a short staple crop. We should be quite prepared to give you a type if you wished it. I cannot say whether it would have a good effect. We know that as regards the Punjab *deshi* cotton, there are at least two or three distinct classes as one goes from the Eastern Punjab to Sind. In the Bombay cotton trade there is only one class for them all and that is "Sind Punjab." As to whether it would not be possible to have an alteration of names to indicate more exactly what the classes are, I am afraid our answer must be "no." We have already sub-divided to a great extent and the Directors have come to the conclusion that it is difficult to sub-divide any more. It would be difficult to decide how to sub-divide "Sind Punjab." Punjab American is now separate. We have discussed the matter and we are prepared to give a separate classification for Punjab American. That has not been done yet, but we have discussed it.

4683. No comparison is really correct as between Broach and Westerns or *kumpla*. The value of Broach as a speculative contract is very much higher than its intrinsic merits warrant.

4684. *Mr. Boyagis.*—That goes against the improvement of the Broach crop as short staple cotton can be mixed with it. Personally I do not regard Broach as a staple cotton on the whole. I am not expressing the view of the Directors. I do not class it among the staple cottons. It takes a lot of size and owing to that it seems to me it becomes valuable because it turns out more weight of cloth.

4685. *Mr. Marshall.*—The majority of the Directors regard Broach as a staple cotton but are gradually ceasing to do so owing to deterioration. Four years ago we should certainly have rejected lots which to-day we are passing. It is a much simpler business to retain existing good qualities than to establish them again once they have been extinguished. That is our whole point right through. If you allow a staple crop to slip away, you will probably never be able to recover it. Every effort should therefore be made to preserve it. No further encroachment of short staple cotton on long staple should be allowed. Saw-ginned Dharwar American has deteriorated a great deal because there has not been any supply of fresh seed so far as we understand.

4686. We have already explained that our written note expressed the view in which all the Directors were in total agreement but that there are some of us who would go further than that and would include damping in paragraph 4615. As a matter of fact, damping is a thing which the trade itself, if it gets the power, can control together with other fraudulent practice. The trade, if it is given plenary powers, can control such things itself. It cannot increase the supply of long staple cotton nor can it stop the substitution of short staple for long staple but if it gets powers of control, it can stop damping and fraudulent mixing. Our idea is that it is better that that should be done by the trade than by Government because Government control would be irritating and vexatious. The trade will tolerate restrictions that are imposed by itself to a much greater extent than those imposed by Government.

4687. *Mr. Boyagis.*—We are against Government control. That is why we were opposed to a standard form of ginnery because it would lead to irritating and vexatious interference by minor officials.

4688. (*Mr. Wadia.*) *Mr. Marshall.*—No night work should be allowed in ginneries or presses when any other factories in the pool are closed. That would only apply to factories in the pool.

4689. *Mr. Boyagis.*—There is usually a clause in the pool agreement that a factory remaining silent has to be in such a condition that it can be called upon to work within 24 hours, but it is very seldom acted on. I know of cases in which factors have refused to gin for anybody else or have compelled buyers to buy ginned cotton. These cases should be dealt with by the Board of Control.

4690. (*President*). As to classification by railway stations, I think that that is a thing which will gradually right itself. It is very difficult to recommend anything. We have been endeavouring to broaden contracts. There are now six stations included in the Khamgaon Akola contract.

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EXAMINED AT BOMBAY, JANUARY 29TH, 1918.

Written statement.

4691. *Preamble.*—My Committee observe from the instructions which accompany the questions that they need not attempt to answer all the questions nor need they confine themselves to direct answers to the questions put. Most of the members of this Chamber who are interested in the cotton trade are also members of the Bombay Cotton Trade Association or the Bombay Millowners' Association, both of which bodies will, no doubt, be giving evidence before your Committee. It is felt therefore that the most useful form to take for my Committee's evidence will be a general report on certain aspects of the Committee's enquiry, with specific remarks on a few particular questions.

4692. *Division of subject.*—My Committee understand that the objects of the Cotton Committee's enquiry fall roughly under two main heads—(a) what measures can be devised to increase the growth of long staple cotton in India; (b) what measures can be devised to prevent the mixing of short and long staple cotton and the watering of cotton.

(a) Measures to increase the growth of long staple cotton.

4693. *Necessity for increase in cultivation of long staple cotton in India.*—In dealing with the first of these two heads, my Committee understand that the intention is not necessarily to supplant the cultivation of short stapled cotton in India by long stapled cotton but (a) to increase the total cultivation, the increase to be in

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long-stapled cotton and (b) to prevent the deterioration of long-stapled cotton or its displacement by short-stapled cotton in those districts which have shown themselves to be suitable for the growth of the longer stapled varieties. My Committee wish to emphasise the fact that it is absolutely necessary in the interests of the country as a whole that adequate steps should be taken to insure the cultivation of a sufficient quantity of long stapled cotton. There is no reason why this should ever conflict with the interests of the cultivator, whereas if the cotton that is really wanted is not grown in sufficient quantity the cultivator will suffer in his turn.

(2) From the point of view of India, it is essential that the Indian mills should be able to secure an adequate amount of long-stapled cotton so as to be independent of America. The gradual improvement in the quality of local manufactures which may be expected to be stimulated by war conditions renders it probable that there will be a steadily increasing demand for long-stapled cotton for consumption in this country. From the point of view of the British Empire, it is highly important to stimulate the growing of long stapled cotton within the Empire. In this connexion, it may be noticed that the Royal Commission reporting recently on the resources of some of the Dominions consider that every effort should be made in this direction, even recommending that cotton of the American variety should be cultivated in Australia so as to render Liverpool less dependent on supplies of cotton grown outside the Empire.

4694. *Conservation and improvement of indigenous long-stapled cottons.*—The first thing to be done is to conserve and improve the indigenous long staple cottons in this country. The introduction of exotics must of necessity be largely experimental and care should be taken that their introduction should not be at the expense of indigenous long stapled cotton in areas where the latter have been proved to thrive. India has a good market for short stapled cotton both in this country and in Japan and the Continent of Europe. Whatever efforts are made towards the cultivation of long stapled cotton, we think ample supplies of short stapled cotton are certain to be cultivated, but without special care being taken the supplies of good stapled cotton are likely to be always in defect.

4695. *Problems connected with cultivation of long-stapled cotton.*—It would be both futile and wrong in principle for Government to use their influence to try and force the cultivator to grow long staple cotton in place of short staple cotton, unless the former was going to pay him better than the latter. My Committee would, however, make this qualification. It will very probably be the case that long staple cotton grown in a district from which such cotton has not previously come, will not immediately realise its true market value. In such circumstances, it would, it is felt, be necessary and permissible for Government to employ some artificial stimulus to the growth of long staple cotton, if they were convinced that its growth was in the ultimate interests of the cultivator. It appears to my Committee then, that the first problem to be solved is to find a long stapled cotton plant, which will vie with the shorter stapled varieties in its combination of the following qualities, namely, hardiness, rapidity of germination, yield per acre, ginning percentage and market value. This problem is one for the agricultural expert and my Committee do not propose to offer any remarks on it beyond saying that, until it is solved, no lasting extension of the growth of long stapled cotton can, in their opinion, be looked for. In this connexion, it might be mentioned that, as far as my Committee's experience goes, the only exotic cottons which can be said to be a proved success in this country (by which my Committee mean that they have shown their ability to oust the shorter stapled cotton on their own economic merits without Government assistance) are Cambodia and perhaps Punjab-American. When this problem has been solved, the next problem is to ensure that the cultivator receives the full benefit of the increased market value of his produce. That he does not always do so at present is, my Committee think, a generally admitted fact, for which various causes are responsible. One of the principal causes is the system by which money lenders advance money to cultivators on the security of their growing crops. My Committee believe that this system is not so widespread in India as it was twenty years ago; the general economic conditions of the cultivator is no doubt slowly improving and he is gradually becoming less dependent on the money lender and the high prices which have been realised for cotton during the last few years should do something to accelerate his independence. At the same time, the practice is still prevalent in many districts and the result of it is that the cultivator frequently does not receive the full market value of his produce. The remedy appears to my Committee to be the extension of co-operative credit societies or the establishment of agricultural banks. The former seems to be the method most suited to the present conditions of India.

4696. *Methods of buying cotton.*—Another cause which in some cases militates against the receipt by the cultivator of the full value for his cotton is the method of buying adopted by many users in this country. My Committee consider that buyers as a class are far too much influenced by the name of the station or district from which the cotton comes to the exclusion, in many cases, of the intrinsic merits of particular lots. Cotton in India is usually sold to the consumer by the name of its station or district of origin. Particular stations and districts get good or bad names on the market or are known as producing a particular class of cotton. Consequently, if a district which produces principally or a short-stapled cotton produces also a limited quantity of better cotton, it is almost impossible to sell this limited quantity in India at its intrinsic value. This fact is within the experience of all large merchants who cater for both the export trade and the local mills. The export trade is conducted principally on the type basis. That is to say, the exporting merchants supply ranges of types to their selling agents in different countries; these types though they may sometimes be grouped into large territorial groups such as Bengals, Oomras, etc. are really known to the buyers by numbers or names. The buyers know nothing and care less about the particular district from which the original type or any tenders made against it come; they buy cotton equal to a particular type and all they want is cotton equal to that type. An exporter can ship cotton from any district against that type so long as the cotton shipped corresponds to the type. In India, on the other hand, the mill-owner or his cotton selector nearly always insists on knowing exactly where any cotton offered to him comes from and allows the name of the district to influence him very largely in his estimate of the value of the cotton. He is not as a rule willing to judge and buy cotton solely on its merits, but allows himself to be greatly influenced by his preconceived ideas about the usual cotton obtainable from the particular station or district. The theoretical remedy for this would be to do away to a great extent with the territorial method of selling cotton. Broad classifications such as "Oomras," "Bengals," "Kumplas," "Westerns," etc., might be retained, but, subject to these large groupings, cotton should be sold solely by grades based on (a) its cleanliness and colour, that is, what is usually known in the trade as its "class" and (b) its average length of staple. This is the basis on which American cotton is marketed and my Committee know of no fundamental reason why Indian cotton should not be sold in the same way except that it would probably be necessary to provide in the grading system for the differences in the character of the staple of Indian cottons. The

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change would, however, entail such a complete reversal of all the methods hitherto adopted by the cotton trade in India and would present such very great practical difficulties that my Committee do not regard it as feasible at the present time or for some time to come.

4697. *Methods of picking cotton.*—Before leaving this part of the Cotton Committee's enquiry, my Committee would mention that their experience is that the method of picking of *kapas* in India leaves much to be desired. Unripe bolls are picked indiscriminately with the ripe bolls owing to the desire of the cultivator to get the whole of one field picked while he can secure the labour. If it could be arranged for *Mamlatdars* to organise the labour in the villages and pick each man's fields in turn, picking only the ripe bolls and returning at a later date for the remainder it is believed that a great improvement in the cleanliness and staple of the cotton would be effected and that the cultivator would be more than compensated by the price obtained for his cotton for any increase in the cost of picking. In this connection, my Committee have heard of an interesting experiment which was recently made in the *kumpla* districts. A prominent landowner was induced by a mill to make the experiment of picking a few of his fields systematically and the five bales of cotton thus picked were sent to the mill for testing. The result was that these five bales lost only five per cent. in the blow room against a normal loss of twelve to fourteen per cent. for cotton from the same district picked in the ordinary manner.

(b) *Measures to prevent the mixing and watering of cotton.*

4698. *Restrictions on transport of kapas and unginned cotton by rail.*—I am now to refer to the question of the prevention of the mixing and watering of cotton and my Committee propose to refer to the various suggestions which have been brought to their notice. The first suggestion is that the transport of *kapas* and unginned cotton by rail should be prohibited except from the district of growth to a port or from the district of growth to a *bona-fide* consumer. Such a prohibition would do much to prevent the taking of *kapas* and cotton from a short stapled district to a long stapled district, e. g., from Khandesh to Broach, for the purpose of mixing and my Committee see no reason why it should injure any legitimate interests. Incidentally, it would also protect the long stapled district to some extent from the danger of deterioration in its own cotton through the mixing of seed. In order to render this protection complete, it should be pointed out that it would be necessary for Government to exercise some control over the sale of seed for growing purposes, as it is known that in many cases cotton seed has been imported from one district to another for purposes of sowing. It would be necessary to grant licenses not only to *bona-fide* consumers but in some cases to respectable merchants who showed good cause for taking unpressed cotton from one station to another; for merchants, whose cotton was intended for export, might have good reason for taking cotton for pressing from one station to another neighbouring station, where they had or could secure a more efficient press. In such cases, it would probably be advisable to grant not a general license, but a license confined to the particular stations in question. My Committee understand that instances have occurred of inferior cotton and even cotton waste being deliberately railed in full-pressed bales from Bombay to certain districts for the purpose of mixing, and it is therefore worth considering whether the prohibition should not be extended to cover cotton in full-pressed bales as well. While the prohibition of transport by rail would check many of the worst cases of mixing it would not prevent the mixing of cotton from neighbouring markets, where the cotton of one market is superior to that of its neighbour, e. g., Khamgaon and Malkapur, for in such cases the *kapas* or cotton can be transported by road.

4699. *Restrictions on transport of cotton by road.*—The second suggestion, therefore, which has been made is that restrictions might be placed on transport by road. This is a much more difficult problem for two reasons; firstly because there is much legitimate transport by road which must not be harassed or interfered with, secondly because any restrictions made would be difficult to enforce. The only way in which my Committee think it might be done would be by legislation empowering Government to apply restrictions to particular areas or between particular stations. When transport of cotton or *kapas* was taking place from a particular station or district to another station with the obvious intention of mixing the inferior cotton of the one with the superior cotton of the other, Government might, on having their attention called to it by their local officers, notify by executive order that the provisions of the restricting clause or clauses were in force in respect of the transport of *kapas* or cotton from a particular area to another particular area, both of which would have to be clearly defined. My Committee do not see why such legislation should not be enacted, but it would have to be reserved for occasional use and only in cases where the traffic was considerable and its fraudulent intent unmistakable.

4700. *Licensing of ginning and pressing factories.*—The third suggestion which has been made is that all ginning and pressing factories should be licensed and that each should be given a distinct mark, which it should be required to stamp on every package of loose cotton in the case of a ginnery and on every bale in the case of a press, which left its premises. With this suggestion my Committee entirely agree and they think this system would be very useful in tracing where the mixing or watering of cotton has taken place. But there are a number of important points which arise in connection with this question of licensing:—

- (a) What agency should control the issue of licenses? My Committee are of opinion that the issue of licenses must be official, that is to say, the licenses should emanate from Government and not from any entirely unofficial body. Probably the best arrangement for control would be to have a committee in each district, presided over by the Collector and consisting partly of Government nominees, officials (e. g., of the Agricultural Department) and non-officials, and partly of elected members. Such committees might be very similar to the Smoke Nuisances Commission in Bombay and would control the issue of and the suspension or removal of licenses.
- (b) What agency should be employed to carry out inspection? My Committee understand that one of the principal objections to the old Cotton Frauds Act was the large number of Inspectors on low pay employed under it, and the consequent bribery which took place. They see no necessity for a large staff of Inspectors nor indeed do they think it would be necessary to harass well-conducted factories with inspections. Factories should only be inspected when a complaint has been made against them and then the inspection would be more of the nature of an investigation and should be carried out by a Deputy Director of Agriculture or an officer of similar standing. It might be advisable for the same officers to pay occasional subsequent visits of inspection to factories which have been complained of and found to be at fault or lax. But my Committee believe that the system of licenses would by its existence do much to check the evil and that no large inspecting staff would be found necessary.

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(c) What degree of responsibility is to attach to licensed factories? In the opinion of my Committee, great care will have to be taken not to ask impossibilities of factories. In many of the cotton districts, the majority of factory owners are not themselves cotton merchants; many factories are owned by firms or joint stock companies whose head-quarters are in Bombay or elsewhere and these factories are frequently in charge of an engineer or other non-expert in cotton on a very moderate salary. Such men have neither the time, the opportunity nor the knowledge to say whether mixed *kapas* is being ginned or mixed cotton pressed in their factories. It would therefore be extremely oppressive to hold factories responsible for mixing or watering, unless it was proved that the factory owner or manager was responsible for or connived at the occurrence. The object of the licensing system would be to trace the mixed or watered cotton first to the factory and thence to the owner, who brought it for ginning or pressing. It might be possible to institute a system of black lists of owners, who have been found guilty, factories being forbidden to gin *kapas* or press cotton for those owners during the next ensuing season.

(d) Should the licensing system be used in any way to prevent combination of pressing or ginning factories for joint working, usually known as pools? My Committee are emphatically of opinion that it should not. Licenses should be granted freely to all existing factories and should only be removed or their renewal refused for the reasons mentioned above.

4701. *The pool system.*—The license system is intended primarily for the suppression of mixing or watering and should have nothing whatever to do with the rates charged by factories to their customers. As a matter of fact, my Committee consider that the effect of the "pool" system on the cotton trade has been much misrepresented and its evils exaggerated. It is argued that, because at certain stations there are more factories than are required and a pool is formed under which some work and others remain silent and the silent ones share in the profits of those working, therefore, a plethora of factories is a crushing burden on the cultivator. It seems to be over-looked by the supporters of this view that such stations are few in number and that in many more the excess of factories results in cut-throat competition and in ginning and pressing work being done at cost price or often at a dead loss to the factory. The cultivator gains a great deal more than he loses by the excess of factories which exists in many stations. Moreover, there is, as far as my Committee's experience goes, no justification for the theory that unduly large profits are made by capital invested in ginning and pressing factories.

4702. *Necessity for the co-operation of buyers.*—Before leaving the question of the mixing of cotton my Committee desire to refer to one other point and that is to the necessity of the co-operation of buyers. It is, of course, true that a small admixture of shorter stapled cotton, say up to ten per cent., is almost impossible to detect except in the process of manufacture. But larger admixture can and should be detected by the buyer and if buyers as a class declined to purchase obviously mixed cotton, no measures such as have been discussed above would be required to stop the practice, which would die a natural death; moreover, so long as buyers continue to purchase mixed cotton at prices which leave a large profit on the process of mixing, strenuous efforts will be made to evade whatever restrictive measures are imposed.

(e) *Answers to Cotton Committee's questions.*

4703. (33) *Improvement of cotton forecast.*—My Committee consider that the cotton acreage forecast, as at present published, is sufficiently accurate, but that there is considerable room for improvement in the accuracy of the cotton outturn forecast. It is believed that improvement might be effected by relying more on enquiries from cultivators, cotton merchants, local agents of large buyers and other similar sources and less on the reports of the subordinate revenue officers of Government, who have a great deal of other work to do.

4704. (34) *Improvement of other statistical information.*—The proposed system of licenses for ginning and pressing factories should do much to increase the accuracy of the cotton press returns. The work in connection with collection of these returns from certain Native States is undertaken by this Chamber, but should, in my Committee's opinion, be taken over by Government, and there would be no hardship in insisting upon the proper supply of information by presses as a condition of license. If, in the future, it should prove possible to secure the extension of the license system into Native States, the problem of the cotton press returns would be solved.

4705. (35) *Publication of Liverpool and Bombay prices.*—My Committee are not in favour of the publication of either Liverpool or Bombay cotton prices at up-country markets. As a matter of fact these prices are very well known in most markets, but their official publication would given them an importance in the eyes of cultivators which would often prove very misleading to them and would lead to constant dispute without any compensating advantage that my Committee are aware of. Prices fluctuate so rapidly in the Liverpool and Bombay markets and their fluctuations are governed by so many complex influences that they are a very unreliable guide to up-country prices.

4706. (38) *Saw-gins versus roller gins.*—The saw-gin is principally used in India for ginning the product of "Dharwar-American" seed in the Dharwar district. My Committee are very doubtful whether its use for this *kapas* is necessary or beneficial. They have been informed that this *kapas* can quite well be ginned by roller gins and that such gins do not give any less percentage of lint. The process of ginning Dharwar-American *kapas* by roller gins is considerably slower and therefore more expensive than ginning by saw-gins, but, on the other hand, my Committee understand that a substantial improvement in staple is gained. Their information is that, if the Dharwar-American *kapas* were all ginned by roller gins, this cotton, which has lost a great deal of its reputation in recent years, would probably rise considerably in the estimation of buyers.

4707. *Levy of tax on cotton to meet expenditure involved in recommendations.*—In conclusion, I am to mention that some of these recommendations will involve a considerably increased expenditure by the Agricultural Department and it might be asked where the additional funds are to come from. My Committee are of opinion that in view of the fact that this increased expenditure by the Agricultural Department would be for the direct benefit of the cotton cultivator, there would be nothing wrong in principle if a small tax on cotton were imposed; but they wish to point out that any such tax should be levied on the whole trade and not merely on a particular portion thereof.

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THE HON'BLE Mr. M. HOGG, (Chairman), Mr. J. MULLER, Mr. H. F. HEARSON, AND Mr. R. E. GREGOR PEARSE (Secretary), Representatives of the Bombay Chamber of Commerce, called and examined.

4708. (Mr. Wadia). Mr. Hogg.—There is undoubtedly a shortage of long staple cotton. It would be quite fair to say that there is a scramble for it. The mills and large merchants usually send their men up-country to buy their cotton. The Chamber considers that any steps to increase the outturn of long staple cotton that may be recommended as a result of the deliberations of the Cotton Committee will be as much to the advantage to the Indian mill owners as of those in Lancashire or other countries.

4709. I should say that there are a good many reasons why long staple cotton has not been able to get the proper premium over the *deshi* varieties. In certain districts, as we have pointed out in our written evidence, long staple cotton does not apparently get its proper premium because the district has a reputation for either medium or short staple cotton. It is the hypnotism of the name of the district that prevents the cotton being sold on its merits. In long staple districts, long staple does get a fair premium provided the quality is good. Take for instance Cambodia. That gets its intrinsic value in the market: I have not heard any complaints to the contrary. On the other hand, take Broach; the value of that has gone down in recent years in comparison with other staple cotton because the quality has been deteriorating owing to the mixing. As to the statement of the Director of Agriculture in the Central Provinces that, on the basis of outturn and ginning percentage, *buri* would have to fetch above thirteen annas six pies and *bani* twelve annas a pound against eight annas for *roseum* in order to make it worth the cultivators' while to grow them, that is a very big difference. It would mean that, if the price of *roseum* were Rs. 500 per *khandi*, the price of *bani* would have to be about Rs. 750 and that of *buri* about Rs. 850. It is certainly the case that the difference is not quite as large as that at present. I do not think that it will be possible to get such differences. I do not think the intrinsic value of *bani* and *buri* to the manufacturer would enable him to pay as much as that for them. The fact that long staple cotton is not marketed pure, may certainly have something to do with a proper premium not being paid to the cultivator, but on the basis of the figures just mentioned, *bani* and *buri*, even if marketed pure, would not command such high prices as Rs. 750 or Rs. 850. If those figures are correct, I should say that we come back to the fact that those particular varieties of long staple cotton are not a paying proposition. You have got to find a long staple cotton which will compete with the short staple variety and its combination of qualities, ginning percentage, outturn, etc. I certainly think that it is a fact that the value of long staple cotton is affected unfavourably by its not being marketed in a pure condition.

4710. Mr. Muller.—The question is, of course, whether the trade can pay those prices for long staple cotton and I doubt whether it can. Personally I think the ryot is not in a position to command a proper price for his cotton because he is not independent. If he was an independent seller and not dependent on the money lender, than he could sell his cotton when he liked. If he did not get his price, he could take it back and store it somewhere. The ryot does not dictate the price, it is the buyer who dictates the price. As soon as the ryot is really independent, he can command the price his cotton is really worth. My idea is that the difficulty should be overcome by the establishment of more co-operative societies. That is the crux of the whole thing. Make the ryot independent then he can sell his cotton to whom he likes and store it if he cannot get a sufficiently high price for it.

4711. Mr. Hogg.—As we have stated in our written evidence, it seems probable that as co-operative credit societies have already made a fair amount of progress in the country, their extension would be a more rapid solution of the difficulty than the establishment of agricultural banks which is almost a new proposition.

4712. Mr. Muller.—I have not seen the working of co-operative seed unions and co-operative marketing. But I think that the open market system is the better one. I know that in Nagpur there is a kind of auction arrangement. All the buyers collect in the market and offer their rates and the highest rate offered is the rate of the day. I do not think that is a very good system. Although we might be offering the highest price, and there are 400 bales, we cannot be sure of getting all of them; we might only get fifty bales and some other man might walk away with 150 bales simply because he happens to be friend of the brokers. The system in Khamgaon is a much better one. If you outbid everybody else, you can take as much as you want.

4713. Mr. Hogg.—There is a somewhat similar system to that which Mr. Muller has described prevailing in the Hubli market. You can say that you will buy a certain lot of cotton but you cannot fix the rate for it until the market opens. The rate at which you are to buy is not fixed till the afternoon.

4714. Mr. Muller.—The Nagpur system does not tend to the highest price being offered.

4715. Mr. Hogg.—I do not know much about the Punjab districts. But I understand that conditions there are different from those anywhere else. The factories there belong to cotton merchants. I do not think that is the case to any great extent in other parts of India. As far as I know, there are a certain number of cotton merchants who have ginning factories but the majority of the ginning factories do not belong to them.

4716. Mr. Muller.—It would certainly be better for the ryots if there were open markets. In the Punjab, the merchants never get into direct communication with the ryots. All the cotton is brought by the factory owners.

4717. Mr. Hogg.—My personal opinion is that there is no reason why fraudulent damping should not be prohibited entirely.

4718. Mr. Muller.—I quite agree. A little damping is sometimes a good thing, especially for the press machinery but I do not know where the line should be drawn. At certain times, if you want to press a 400 lbs. bale, the machinery would be smashed if the cotton were not damped. That is an absolute fact. But it is so very difficult to draw the line that I think it is necessary to prohibit watering altogether.

4719. All railways should be prohibited from carrying any cotton except in full pressed bales out of the cotton tracts. If licenses were given for carrying cotton from one station to another except in full pressed bales, the reasons for granting them should be stated. That would be run by the central board or central committee which would be instituted.

4720. Mr. Hogg.—As to the idea of controlling ginneries and pressing factories by licenses, I do not see any particular reason why movement of cotton by rail should not be controlled by the same authority. As regards transport by road, the only solution of the difficulty that we can see would be to have legislation with a permissive clause enabling Government to apply the restrictions on transport by rail to transport by road between any two particular districts. Such a clause would have to be very sparingly used and only when the local authorities considered that the transport by road which was going on was obviously for more or less fraudulent purposes. An instance we have quoted is that of Malkapur and Khamgaon. There is no doubt

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that the cotton grown round Malkapur is somewhat inferior to the cotton grown round Khamgaon. There is also no doubt that Malkapur cotton goes to the Khamgaon market for sale there as Khamgaon cotton. I do not see why it should be impossible to prohibit that. I admit it is a very difficult question but I do not see any other possible way of improving matters except in the way we have suggested.

4721. *Mr. Muller.*—Prohibition by rail would practically stop three quarters of the illegitimate traffic. But I should say that such a prohibition would increase the traffic by road tremendously. Carts frequently travel fifteen miles a day for three days and go up to fifty or sixty miles. I know that *kapas* is taken by cart from Khandesh both to the Malkapur and Khamgaon markets. That is a distance of nearly 200 miles. *Kapas* comes into the Hubli market from the Western districts.

4722. *Mr. Hogg.*—Cotton comes right across from Raichur to Hubli by cart. That is a surprisingly long distance. It would be rather a complicated thing to have boundary zones but something of that sort would be required.

4723. In regard to the licensing of ginning and pressing factories by a central board, I think from what I have heard, that opinions are rather diverse. My own personal objection to a central body would be largely removed if it worked through sub-committees. My own feeling about a central controlling body is if it is going to control the licensing of ginning and pressing factories all over the country, its work would be so heavy that nobody actively engaged in business would be willing to serve upon it. A central body would not have the requisite knowledge. Unless there were local sub-committees, there is a danger that the central body would have to get complaints investigated or inspections carried out by the very type of men who, I understand, made the Cotton Frauds' Act a failure. Inspectors on low pay mean opportunities for corruption. If the central body were to appoint sub-committees that would go a long way to meet my personal views on the subject. I am not opposed to the idea of a central body but if it tries to do everything itself, it will break down.

4724. *Mr. Muller.*—That is exactly my opinion. I think that a central body is desirable to secure uniformity of procedure but that there must be local sub-committees as well.

4725. *Mr. Hearson.*—A combination of the two would be preferable.

4726. *Mr. Hogg.*—I would only penalise a ginning or pressing factory. If the ginning and pressing factory were proved to have deliberately connived at fraudulent mixing I certainly would not throw the responsibility on the ginning and pressing factory of being made the agent to detect fraudulent mixing. I do not think it would be possible to carry that out. The onus of proof should lie on the prosecution to prove that the ginning and pressing factory had been deliberately guilty of mixing. Otherwise the man who brings in mixed cotton, i.e., the merchant, should be dropped on; in cases in which, as in the Punjab, ginners and press owners are merchants themselves, there would be no difficulty, for in that case the merchant would be dropped on. If the merchant and the presser are the same, there is no difficulty. As to the publication of black lists, where the press and gin owners are not cotton merchants and have not deliberately connived at fraudulent mixing you should not drop on the factories at all. The merchant should be dropped on and the only way we can suggest would be to publish a black list of merchants who brought mixed *kapas* or mixed cotton and forbid any factory in that station accepting *kapas* for ginning or cotton for pressing from that particular merchant for the following year or for a certain period. It might be got round by the man trading under another name but it would have a very healthy effect. Most laws can be evaded to a certain extent. I do not see any objection to a condition of the license being that only standard weights should be used in the ginning factories. I know at present that there are many cases where false weights are deliberately used. I would certainly insist on standard weights and also that weights should be inspected.

4727. In the present state of the pressing and ginning industry owing to the number of factories, if there were no pools, factories would be bound to work practically at a loss. I think in the particular station where the pool is, the extra profit would probably come out of the pockets of the cultivators. Unless the pools were conducted on a reasonable basis with a reasonable margin of profit, they would in particular cases be detrimental to the cultivator. But my point is that while present conditions in some cases produce a pool, in others the same conditions produce cut throat competition so that the matter is as broad as it is long. If you remove the conditions which produce pools, you also remove the conditions which, in other cases, enable the cultivators to get their cotton ginned and pressed at a price below cost. Theoretically, the high prices which the Committee have found are being charged for ginning and pressing in some cases are not right but, in practice, if you get a place where high rates are prevailing what happens? All that happens is that the next year new factories are started. If you get a station where large profits are made, other factories are immediately put up and generally after the erection of the new factory, there is no pool for two or three seasons, while the factories are fighting things out amongst themselves.

4728. *Mr. Muller.*—Our experience is that what may be called the retaining rate i.e., the rate retained by the members of the pool is generally fixed at cost. The difference between the retaining rate and the pool rate represents the contribution to the pool. The retaining rate is generally fixed at cost for the simple reason that if it is not fixed at cost, you at once get people paying rebates. These pools are generally for two or three seasons with the option of termination at six months' notice. The ambition of some of the smaller people who have a share in the pool is, if possible, to increase their turnover and to claim a higher share in the next pool. As soon as the retaining rate is fixed above the actual cost, they can give a rebate to get constituents. The total pool rate is usually fixed as low as possible. Suppose we are working in a place where there are three presses. We are doing the largest share of the business. The other two are just managing to carry on but they want to have the rates increased from Rs. 6 to Rs. 6-8. We naturally object. My experience is that the pool rates are not excessive as a rule, for the simple reason that the larger workers always try to keep them down; they never get a share of the pool based on their actual work. In Guntur, we used to pay in fifty per cent. of the total pool takings but we only got twenty-two per cent. out of the pool. So that we lost 28 per cent. of our contributions. In regard to the high pressing charges at Multan, it must be remembered that we are now dealing with war times. The cost of hoops and gunnies have gone up to about four times their value before the war. Where pressing cost about one rupee, it now costs nearly four rupees. The increase in the cost of ginning is not so high. Ginning Companies usually pay about six, seven or eight per cent.; some companies pay more but if you scrutinised their accounts, you would find that it is trading which brings in the money and not ordinary ginning and pressing.

4729. *Mr. Hogg.*—I should say that, as a general rule, the only way I know of making money in the ginning and pressing industry is for a company to have a number of factories. What it may lose in one place, it may make up in another. A good many small companies have gone into liquidation within the last few years.

4730. *Mr. Muller.*—As to the suggestion that the pool charges for ginning and pressing should be fixed at a reasonable rate so as to allow for cost of ginning and pressing plus depreciation plus a margin of profit

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say ten per cent, has any body thought about fixing a minimum? If a maximum only were fixed, there would no longer be a pool, and the cut-throat competition would begin.

4731. *Mr. Hogg.*—I do not think that a maximum charge would work at all. It would merely lead to the same conditions of cut-throat competition. It seems to me that if a maximum charge were fixed in a place where there are pools, then there would be the same conditions of cut-throat competition as there are in places where there are no pools. You would not have any opportunity of recouping yourself in one place for losses in other places.

4732. *Mr. Muller.*—I think the maximum rates would have to be considerably higher than the pool rates are at present. It is absolutely unnecessary to stop pools because, generally speaking, the rates are not high. Isolated instances of high charges have been quoted but one cannot get away from the fact that the capital invested in ginning and pressing factories does not pay a high rate of interest.

4733. *Mr. Hogg.*—I do not think that there is any necessity to make it a condition of a license that the factory should work at least for a couple of months during the season. I consider that licensing should be introduced for one purpose and one purpose only, and that is to prevent the adulteration and watering of cotton and *kapas*. I do not think that licensing should be used for any other purpose except that it might also be used for ensuring the submission of correct statistical returns.

4734. *Mr. Muller.*—Multan is a notorious place and is absolutely the worst place that I know but it is an isolated instance.

4735. *Mr. Hogg.*—You cannot have prevention of new factories unless the industry is regulated by State control. If State regulation is applied to ginning and pressing factories, why not regulate other kinds of factories as well? As to the suggestion that factories should only be put up in places where the State considers them necessary and beneficial, I object altogether to putting restrictions on the investment of capital in that way. It is not proposed that spinning and weaving mills should be forbidden to be erected. Why should there be any interference with any other industry? I think that the thing is wrong in principle although I quite admit that there are advantages to be gained by it and it would suit me personally.

4736. *Mr. Muller.*—I quite agree. I would also welcome it from the personal point of view. It would suit me very well but I think it is absolutely wrong in principle to lay down that no licenses should be given for the erection of more ginning factories than are actually required to deal with a bumper crop. I would waive the personal aspect which is comparatively small, but I do not think it is right in principle.

4737. *Mr. Hogg.*—I think it would be reasonable enough to refuse permission for night work if there are other factories in the place which are not working.

4738. (*Mr. Hodgkinson.*) In India, the export trade is conducted principally on the basis of types and the cotton shipped has to correspond to the type sold. As far as the export trade is concerned, cotton is sold on type but here in India it is sold to a great extent by the name of the station. Buyers won't buy merely on sample; they want to know the name of the place or station the cotton comes from. Most of the merchants would be delighted to sell to local mills on type in the same way as they sell cotton to Lancashire and to the mills on the Continent. As a general rule, the local mill owner does not care to buy on type; he wants to know exactly where the cotton comes from. There is a tendency to take the cotton from one district to another, i.e., to take short staple cotton to a station which has a reputation for long staple cotton. That arises directly out of the habit of buying on station names and of attaching great importance to a cotton coming from a particular place. That naturally gives an opening to merchants to bring cotton from other places to a particular market. The problem is an extremely difficult one. Of course, the theoretical remedy would be to alter the whole basis of marketing in the Bombay market and to sell cotton entirely on the basis of class, length of staple and character of staple. That presents very great practical difficulties. I do not see how it would be possible unless we had a staff of expert surveyors doing practically nothing else. Whether that is feasible, is rather doubtful.

4739. *Mr. Muller.*—It is desirable to have it if it could be done but I am doubtful if it could be done at present.

4740. *Mr. Hogg.*—I should like to see the system under which American cotton is marketed in America introduced here if it is practicable, but it would mean a radical change in the whole system. Matters are much more complicated in the case of Indian cotton. The differences between the various grades of Indian cotton are much greater and more marked than they are between the various grades of American cotton. I do not think that the difficulties should be insuperable really. So long as the sample is suitable and cotton is sent up to that sample, as far as the export trade is concerned or as far as the buyers in Lancashire are concerned, the system of selling on type works very well but there are exceptions. As a general rule, one does not sell "Fine Bengals" but simply type No. 7 for the Continent. The general rule is that one sells on type for the Continent. There is considerable trade in cotton to Italy which is not sold on type but is sold on grade. The buyer likes to buy the cotton on grade and to receive large allowances. This system which is known as the Home guarantee system is a peculiar trade of its own.

4741. *Mr. Muller.*—As regards mixing, I think one can detect it over ten per cent. I had a sample the other day of Punjab American. I was told that it contained five per cent. I noticed that it was mixed but I could not have said exactly how much per cent. As a general rule it is safe to say that it is difficult to detect a mixture up to ten per cent unless it is tested by the manufacturer. It would be a most excellent thing if consumers declined to buy all mixed cotton. There are great many consumers in this market who do seem to find mixed cotton to their liking. The remedy lies in the hands of the trade to a certain extent. I do not see any real objection to the mutual allowance clause of the Bremen contract being introduced by the Bombay Cotton Trade Association and also in Liverpool. But there would have to be a limit, i.e., it should not be possible to tender Broach against "Fine Bengals." There would have to be the same limit "on" as on "off."

4742. *Mr. Hearson.*—It would be hardly fair to allow a man to tender cotton half a grade, i.e., Rs. 20 "on." I am generally in favour of the Bremen Clause being inserted in contracts.

4743. *Mr. Hogg.*—In Bremen they have paid and independent arbitrators. Here and in Liverpool the system is the same, the Directors of the Cotton Association are the arbitrators. Personally, I am in favour of having whole time arbitrators. One difficulty is in getting the men. The question of salaries would present no difficulties as that could be paid out of the fees. It would be very difficult to get a man with sufficient experience of Indian cotton except one who has already got some employment out here. It would probably not suit him to throw up his job. If the post could be made sufficiently attractive, one could get the men.

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THE BOMBAY CHAMBER OF COMMERCE.

[Continued.]

4744. As to saw gins *versus* roller gins, the only experience that I have is in the Hubli district with Dharwar American cotton. There certainly our experience has been that roller gins give the better staple.

4745. *Mr. Hearson.*—We had some Cambodia sent to us from the south. It had been ginned in saw gins. The report on it was that the staple was not as good as that of similar cotton ginned in roller gins, but that the grade was higher.

4746. *Mr. Muller.*—The grade is certainly improved by saw ginning but the staple is much reduced. The staple is cut to bits.

4747. *Mr. Hogg.*—That corresponds with our experience at Hubli. Formerly we used to put Dharwar American through the saw gins but now we are putting it through double roller gins. We find that we can spin considerably higher counts in the case of the roller gin than in the case of saw gins.

4748. (*Mr. Roberts.*) *Mr. Hearson.*—In paragraph 4695 of our written evidence, we have used the word "perhaps," because we have had not much experience of Punjab American. We have several years' experience with Cambodia.

4749. *Mr. Hogg.*—We do not know enough about Punjab American and nobody on the Sub-Committee was prepared to express a definite opinion in regard to it. So we thought it better to use the word "perhaps." Very limited quantities have so far come down this season owing to railway difficulties and only a few bales of samples have been received.

4750. *Mr. Muller.*—It is difficult to compare the Broach rate with the Punjab American rate or with other rates as the Broach rate is a paper rate; it is artificially low at present. Any cotton sells better than Broach just now. The Broach rate is purely a speculative rate. People are prepared to pay a better price for Punjab American this year than last. They are taking much more interest in it this year.

4751. *Mr. Hogg.*—As regards the difficulty of classification, the principal difficulty is the difficulty of survey. If cotton were sold on the basis of length of staple, the survey would take a great deal longer time than under the present system. The second difficulty is whether such a system would be acceptable to the consumers here. After all, we as merchants cannot very well dictate to the consumer where he shall buy his cotton. If he prefers to buy on the name of the station, we can not prevent him from doing so. If the station names were sub-divided and there were say three, four or five different grades for each station according to the length of the staple, and character of the staple and class, there would be such an infinity of grades that things would become too cumbersome altogether. If you are going to introduce length of staple, character of staple and class, you would practically have to do away with the present system. Keep broad territorial classifications if you like, such as Bengals, *Oomras* and *kumplas* and do away with your Khamgaon Akolas and various other station names. Only have the broad district names and sub-divide according to length of staple, fineness and roughness of staple or class. Even then you would have a sufficient number of grades. One of the great difficulties with regard to the introduction of improved staple in India is that if the cotton is grown in a new place it takes years to get a fair price for it. If it were possible to have classification on staple, it would be simpler. In the case of ready cotton, it is absolutely left to the buyer whether he will pay the price or not. If the system of buying on staple could be introduced, it would help the cultivator to get a proper price for long staple. Gradually as the buyers become accustomed to buying on staple, they would get to lose interest in the name of the station and would get away from the fetish of names.

4752. *Mr. Hearson.*—The prohibition of transport by rail might be a general prohibition. I do not see why a general prohibition of transport of *kapas* or cotton by rail except to ports or under license should interfere with legitimate interests at all. Licenses would have to be granted for moving cotton within the districts. If there were only limited prohibition it would be very cumbersome and it is better to have legislation as simple as possible. If you were to start by prohibiting the movement of cotton by rail from some places only, there would be no end to it. Of course, there are only a very few long staple tracts which one would want to protect. Any up-country mill would have to be given a general license to transport cotton from any rural station to their own station. Even with the law as proposed, there will always be a fair number of buyers who will still be willing to buy mixed cotton. As long as money is to be made by mixing cotton, it will go on. You will never get all the sellers to co-operate. My personal opinion is that the ultimate remedy lies with the trade.

4753. *Mr. Muller.*—I do not think that the Home guarantee contract has tended to lower the quality of Indian cotton. It is more an outlet for undesirable cotton. The rubbishy cotton is sold cheap under this contract. The trade provides an outlet for it in this way and the system apparently suits the buyer. It is comparatively a small trade. I certainly do not think that any cotton districts deliberately grow inferior cotton in order to cater exclusively for this trade.

4754. *Mr. Hearson.*—The rain damaged Bengal and Khandesh cotton all goes to this trade.

4755. *Mr. Muller.*—I do not think there is very much in the idea of establishing local chambers of commerce up-country. I am afraid it would tend to increase litigation. I should not like to have disputes settled up-country. It is better to have them settled by the central body with fixed rules and uniform principles. If there were a number of chambers of commerce up-country, it would bring about diversity of procedure. There is a good deal of suspicion up-country of Bombay arbitration.

4756. *Mr. Hogg.*—My experience is that there is no particular difficulty in settling these matters amicably. We do not find ourselves involved in a series of litigation up-country. Our local agents do not appear to have any great difficulty in settling disputes.

4757. *Mr. Muller.*—That is not my experience for we have had a certain amount of trouble in arriving at a settlement in some cases.

4758. *Mr. Hogg.*—There is very little litigation so far as I know. We hardly ever have anything of that sort except in one or two isolated instances. It depends on the course of the market. There has been trouble in up-country markets this year as the price of Indian cotton is so high.

4759. A senior member of the Agricultural Department, if he could give the time, would be an excellent associate to Chambers of Commerce. There are many ways in which the Chambers are closely connected with produce like cotton and wheat. If a senior member of the Agricultural Department were able to attend meetings to discuss questions about these, it would be a good thing.

4760. (*President.*) The cotton forecast is not satisfactory, so far as the outturn goes. Personally I think the calculation of figures of yield should not be done by the Revenue Department but by a separate staff under the Agricultural Department. The great point I would make is that the figures are now collected according to administrative districts. The trade does not look to these at all. I think that it would be much better to divide the country up according to the trade classifications. In conjunction with the Cotton Trade Association one could easily work out these tracts and then each tract should be placed in charge of an agricultural officer with a staff of reporters. My idea is that an agricultural officer would be in charge of

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each tract, for instance, Berar, and that he would again sub-divide the district into smaller reporting areas and put a man in charge of each such area. The latter would be a native assistant who would do nothing but go about and watch the crops, not only cotton but all crops and report in regard to their progress and estimate the yield as early as possible. The officer in charge of the tract would then compile the figures for the whole tract and hand them over to the trade and to Mr. Shirras who would make the compilation for the whole of India. This system should work well and I do not think that it would be very expensive. The staff would be paid by Government.

4761. The cotton pressing and ginning returns are practically useless. They should be made compulsory, but it is no good making them compulsory unless they are also made compulsory for Native States.

4762. As regards saw-gins, we have some evidence about it. It might be an advantage if the question of saw-gins *versus* roller gins were thoroughly worked out.

4763. *Mr. Muller.*—Personally I should like to see the evidence, which has been taken by the Committee, published but the others are indifferent.

Mr. G. BOYAGIS of Messrs Ralli Brothers, Bombay.

EXAMINED AT BOMBAY, JANUARY 29TH, 1918.

No written statement was submitted by this witness.

4764. (*Mr. Wadia.*) My firm has agencies practically all over India and factories in many places in India from Tando Adam in the north to Tuticorin in the south as well as in the Comilla district. The gins in our ginning factories are all roller gins except for the two or three saw gins we are trying at Nawabshah. I do not think that there is any special reason for the preference for double roller gins in the south and for single roller gins in the north. I think that it is really a matter of fashion. One can get the same number of double roller and of single roller gins in a factory. As far as we can work it out, double roller gins give one and half times the outturn of a single roller and so the installation of double roller gins saves space and labour as they require only the same number of hands as single roller gins. We have found that double roller gins work very well in our factories at Nagpur and Akola.

4765. The Japanese buy a lot of short staple cotton and pay rather a high price for it. They use it for yarn which they export to China. One of the methods by which Japanese firms oust the competition of foreign firms from their markets for import of cotton is as follows. The Japanese importing firms arrange with the mills that if they buy cotton from them they (the importers of cotton) will buy back the yarn from the mills and export it. For example, they tell a mill-owner that they will sell him 500 bales of cotton and they promise to buy the equivalent quantity of his yarn and export it to China. The shipping firm is an importer of cotton into Japan and an exporter of yarn from Japan to China. There is a big demand for short staple cotton from Japan and they require a lot of short staple cotton. The Japanese do not buy very low Bengals. We find that they are always buyers of the highest class of Bengals. They are very keen buyers of Khamgaon-Akolas, and other Berar and Central Provinces cotton. These styles form the bulk of their purchases. They also buy fair quantities of stapled styles particularly Tinnevely. The reason why they are starting firms of their own is that they are trying to get their cotton selected themselves and have established agencies in most of the cotton districts.

4766. We were one of the firms which refused to buy mixed cotton in Tinnevely. Of course, the moving spirit behind the arrangement was Mr. Chadwick. All the firms bound themselves not to accept cotton from any of the dealers there which contained any *pulichai* above a certain percentage which I think was three per cent. Anything in which the percentage was more than that had to pay a penalty and it had a good effect. We ourselves had to pay a penalty in one case. The percentage of *pulichai* was discovered by examining the seed because the seed of Tinnevely and *pulichai* are easily distinguished. As to whether such a policy could be followed in the Punjab American tracts, I am afraid that is a problem which could not be solved anywhere else than in Tuticorin because there is only a limited number of buyers there all of whom are of good repute. They have a name to keep up and when they give promises they keep to them. In other districts, where there are a thousand and one buyers such a policy could not be carried out. Tinnevely is peculiar. If the district opened up and there were any number of buyers there and if the cultivation of *pulichai* were resorted to again, it might be a hard problem to eradicate it again. Had it not been stopped, the short stapled cotton would eventually have spread all over the district which would have lost its name unless the *ryots* found that it was not paying them to continue growing short staple cotton.

4767. Rough cottons are sometimes valuable. Take the case of Comilla from Assam which is the roughest cotton in India. It can be mixed very well with wool. It was taken for that purpose by spinners in Saxony. *Roseum* might find a market for the same purpose if it were very clean. Some *roseum* is fairly rough. Akot produces one of the roughest cotton in Berar. It is very white and very bulky and is sought after a great deal by Japan though it is shorter in staple than Khamgaon. I do not know whether it gives a better outturn in the mills owing to its bulkiness and the loss being less.

4768. As to whether if short staple cotton were marketed separately and not used for mixing, it would fetch the same price as at present, it is a question of supply and demand. But I consider that it would find its own level and that there would probably be a drop in price.

4769. The cotton crop for which Calcutta is the shipping port is Comillas, a crop of about 25,000 bales. It is a very clean cotton of varying grades of roughness; the roughest being Assam, then Chilmari Assam, then Tipperas and then Comillas. We reckon the known Burma crop at about 45,000 bales of which some 15,000 to 20,000 bales goes to Calcutta for consumption by the mills there, the balance being exported direct from Rangoon to Europe. Lancashire takes a good portion of this crop when the quality is good. It is stated that large quantities of Burma cotton go direct to China from the interior. We have no agency in Burma. Calcutta also receives from 80,000 to 100,000 bales of *Oomras* and Bengal cotton from up-country stations, some for consumption by the mills there, and some for export to Japan. Fair quantities of stapled cotton go there also for mill consumption.

4770. (*Mr. Hodgkinson.*) In talking about up-country samples sent for valuation, I told you yesterday that they should be twenty pounds samples pressed and sent by passenger train. For the Liverpool valuation of cotton, I would recommend that a bale should be sent. That is what we always do in our own business. When arbitrators adjudge samples for arbitration, they are always samples newly drawn from the bales. That gives a good idea of the cotton. If you get a bale, you can draw a sample straight away and compare it with the type sample, the standard box or whatever you have to go on.

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THE BOMBAY COTTON EXCHANGE.

4771. Punjab American has a better colour than Cambodia. The loss in the blow room, I should say, from what I know, is more in Punjab American than in Cambodia. The staple of Cambodia is better on an average. I am referring to the Punjab American I have seen up till now. I have not seen this year's crop. I should say that the Cambodia spins the higher counts. Cambodia is stronger than Punjab American; so I understand from people here.

4772. The export of Indian cotton to Japan last year was about thirteen lakhs of bales.

THE BOMBAY COTTON EXCHANGE.

EXAMINED AT BOMBAY, JANUARY 30TH, 1918.

Written statement submitted by the Hon'ble Mr. Purshotamdas Thakurdas, M.B.E., Chairman of the Board of Directors, Bombay Cotton Exchange.

II.—COMMERCIAL ASPECT.

4773 (30) Local trade customs.—For local cotton trade custom in Bombay we enclose a copy of the *Rules and Regulations of the Bombay Cotton Exchange which state the customs and rules governing spot and forward transactions in cotton. Changes in these are made from time to time by the Board of Directors with the general concurrence of the various bodies interested in the cotton trade of Bombay, viz., Mill-owners, *mukkadams*, brokers, Japanese shippers and the Bombay Cotton Trade Association.

(2) Regarding marketing of the cotton crop in the districts, customs vary in each district, and in smaller details, at each market centre of a district. It is presumed the Committee has got the necessary information from each district it has visited and hence it is not considered necessary to repeat this information here.

(3) Regarding the system of the cultivator's agency for marketing of *kapas* in the districts, this also varies in various districts. The intelligent cultivator of the Surat and Broach districts, does not, as a rule, employ an agent to sell or market his *kapas*. If he does not or cannot sell his *kapas* from his residence, he markets it himself and sells it to the highest bidder on that day. He recovers the cash for it immediately. On the other hand the ryot of the United Provinces or Khandesh sends his *kapas* to his *aratya* or commission agents for sale and pays him a commission for the same. These *aratyas*, wherever they are influential and wealthy, are *aratyas* or commission agents for buyers also, and this dual capacity of theirs exposes them to a considerable temptation.

4774. System of advances.—The system of advances to cultivators on their *kapas* divides itself into two chief parts. The first is advances against standing crops before the crops are matured and the other is advances against actual *kapas* when marketed. Regarding the first, this system is generally known as "*jalap*" and means the ryot estimating the outturn from his field and selling the same to the *sahukar* at a rate equivalent to anything from Rs. 30 to Rs. 100 per *khandi* of cotton lower than the rate prevailing in Bombay. Against this sale the *sahukar* advances him 50 to 100 per cent. of the cost of the *kapas* so bought. The risk of such a buyer is twofold. Firstly, the risk of unforeseen ruin of the crop quantitatively and secondly the risk of unforeseen damage to the quality of the crop by untimely rain or frost. This system was very prevalent twenty years back. The Deccan Agriculturists' Relief Act considerably discouraged this practice, but it still prevails to a fair extent. There is a good deal to be said against this practice of *jalap*. But, in recent years, when the prices of cotton may be said to have broken records of anything up to the last fifty years, the ryots themselves have shown great anxiety to avail themselves of rates which appear to them to be very high. All that could be suggested on this score is that co-operative credit societies should undertake what the village *sahukar* does and should retain the margin for themselves in exchange for the risk that *jalap* operations entail on the buyer. As a matter of fact, I have not yet been able to comprehend why the various co-operative credit societies have not done so till now in their districts.

(2) The second mode of advances is the ordinary method of advances against *kapas* brought to the market and I am not aware of any particular disadvantage to the ryot in this.

(3) Regarding the advances made by Bombay commission-houses against consignments booked to them it is presumed that the Commission requires no information as no complaint has been heard about the same.

(4) I would, however, suggest the necessity of starting agricultural banks in districts to enable cultivators to hold their growths, when crops are matured. What happens at present is that, at the time for payment of Government dues which is almost the time when the cotton crop matures, the cultivator must sell his crop at whatever is available to him irrespective of whether the price leaves him a margin or not. This was particularly clear during the latter part of the year 1914 and the first few months of 1915 when the cotton prices were very close to cost price to cultivators. In order to improve the condition of the Indian ryot, it is absolutely necessary to make available to the cultivator means of financing his crop with adequate margin, of course. Private enterprise cannot step in here as the first lien on a ryot's crop is the Government dues. But Government agricultural banks can well be a sure safe method of protecting the cultivator against slumps in prices. It is well known that such agricultural State banks have contributed very materially to the prosperity of the agriculturists (cultivator) in America and it is very necessary that the Government of India devise the same means for the prosperity of the Indian agriculturists. One of the immediate advantages of these agricultural banks will be the popularisation of Government promissory notes in the agricultural districts and perhaps a solution of a great financial question may be forthcoming in this direction.

4775. Future buying of contracts for *kapas*.—Refer to what is said above under "Advances."

4776. Future buying of contracts for cotton.—This is done generally by the middlemen and I am not aware of any particular hardship to him in this.

4777. (31) Standardization of commercial names.—Regarding the commercial names of the various grades of cotton with which the Bombay market is acquainted and the areas from which these grades come, refer to pages 22-25 of the Rules and Regulations of the Bombay Cotton Exchange enclosed herewith. As to whether these names of the various grades are suitable or not, a good deal may be said on both sides. It has, however, been found that for the purposes of a general check, the nomenclature of cotton according to geographical areas is most convenient. Regarding the last question in this paragraph, exporters to Japan

*Not printed.

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[Continued.]

and Europe do, from year to year, sell cotton according to their standards, irrespective of the area from which the cotton may come, the main anxiety of the buyer being to get exactly what he has bought, and of the seller to retain his customer, which necessitates careful selection of the parcels shipped against sales. It may be said that the local mills have not yet taken to this mode of buying and the exporter-buyer will never take to it if he has the necessary facility for buying in up-country markets.

III.—STATISTICAL.

4778. (33) Improvement of cotton forecast.—The cotton forecast as at present published is more accurate than it used to be, say, five years back. I would, however, suggest that if a forecast is to be of any value the system in vogue in the Agricultural Department in America should be followed:—

In America the persons sending returns of the condition of the crop send, not their opinion, but facts, e.g., size of plants, condition of soil, distance between plants in the fields, etc., and this information is filled in cards printed for the purpose. All this information is tabulated by the superior officers and the result is very different from the result of reports by people who report by fits and starts and without having any fixed lines on which to report.

4779. (34) Improvement of other statistical information.—The cotton press returns as at present published are most incomplete and as such constitute a waste of public money. The return for the year ended 31st August shows the total number of bales at less than what was imported in Bombay during that year and it is difficult to understand what purpose the publication of such returns can serve except to prove from week to week that press owners are not sending in their figures. I do not think it necessary to publish any returns unless they include figures from a large majority of factories concerned. On the other hand, the weekly figures of arrivals of *kapas* and cotton as published by the Agricultural Department, Central Provinces, are useful and interesting and may be well kept up. It may be suggested that it would be best to have the Government officers issuing various returns in close touch with the commercial community at each centre, viz., at Bombay for cotton, at Karachi for wheat, and at Calcutta for jute, etc.

4780. (35) Publication of Liverpool and Bombay prices.—The daily publication of Liverpool and Bombay cotton prices at up-country markets seems to have a charm for many people. I am emphatically of the opinion that such a publication of prices will, without a close and continued watch on the same, more often than not, be misleading not only to the middlemen upcountry, but more so to the ryot. Since the outbreak of war, the sympathetic fluctuation between the Liverpool and Bombay prices has completely disappeared owing to various reasons, as for example, rise in freight, war risk insurance rate, etc. Even fluctuations between up-country and Bombay markets are often unconnected owing to the frequent stoppages of railway booking and consequent depletion of stocks in Bombay of particular varieties at the time of settlement or when a few steamers may be loading for, say, Japan.

(2) Even in normal times, I submit that great care will have to be taken in watching the quotations given to the up-country markets. If the Liverpool spot quotation is to be given, it must not be overlooked that there are, at several times in each year, either squeezes or depressions, owing to local conditions of stocks in the Liverpool market. Such fluctuations, therefore, in the spot market would only be of local interest there, and may be quite misleading to a set of people who are not ordinarily acquainted with influences governing broad Western markets. This applies to quotations of forward deliveries in Liverpool too, and I would submit that to give a correct idea of the course of the market from the Liverpool quotations, a good watch will have to be kept continuously to avoid any of the misleading inferences mentioned above.

(3) Regarding the Bombay prices, people in favour of same being published in market centres up-country ordinarily want the "Good Broach" price which at best is a hedge contract most susceptible to unjustified depressions and premiums. It has many a time happened that the difference between April Broach and, Fine Akola or Fine Bengal or Fine Khandesh, January, which, in a month of July, is in favour of Broach vanished by November or December, and frequently Akola for January is at a premium over Broach for April. Thus, therefore, the "Good Broach" quotation too has great possibilities of being misleading.

(4) It may be contended then that we should give in each market the quotation in Bombay for the quality available in that market. It must be remembered that in Bombay the quotations are for "Fine," "Fully Good," or "Good" by class. The quotations also vary according to deliveries, a following month's delivery usually being at a discount over the previous ones. If it be proposed to give quotations for "Fine" class, and if the actual arrivals be for "Superfine" or "Fully Good," the quotation will not be any guidance for the seller at all. It has to be borne in mind that the middleman up-country, shrewd as he is, is not yet on an average able to judge approximately the class of cotton. The ryot to my mind, is hopelessly ignorant of it. The Bombay prices, therefore, if they are at all to be published up-country, will have to be for the quality of the cotton of the district and of the class which the average crop of the season represents or preferably of the class shown by average receipts of *kapas* in the market, and further, for the delivery which can safely be available to the buyer up-country on a particular day. If these precautions are taken, there may not be the same risk of misleading up-country markets with quotations of the Bombay market but without them I am strongly opposed to up-country markets being flooded with Bombay quotations which do not bear on the commodity offered then for sale.

(5) I believe that the keen competition existing at present in every *mofussil* market of importance or of fair size, always procures to the sellers in these markets the very fullest rates justified by demand in not only Bombay but in such an important consuming market as Japan too.

IV.—MANUFACTURE.

(a) Ginning and Pressing.

4781. (36) Type and number of gins and presses.—The class of gins ordinarily used in India is the roller gin, single and double, as suitable to each district. On the Hubli and Dharwar sides, saw-gins are used, but except in these districts saw-gins are never used and carry a certain prejudice with them. As to the presses, the ordinary class used is the steam full press with either a compound or separate finisher. A few of what are known as Cummins presses are also used. The chief advantage of Cummins pressed bales is the saving in space caused by them, and owing to high freight to Europe since the outbreak of the war, Cummins pressed bales fetch a premium of from Rs. 10 to Rs. 12 a *khandi* from buyers exporting to Europe. These Cummins presses would have multiplied very fast, but there is a special prejudice that cotton pressed

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in Cummins presses has its fibre injured in the process of pressing, and even at present Japanese mills seriously object to bales of smaller measurement than the one about giving 27 tons per 100 bales (Bombay Chamber's scale).

4782. (37) **Size of bale.**—The usual size of bales handled in the Bombay market is 50 ins. × 18 ins. × 20 ins.

4783. (38) **Saw-gins versus roller gins.**—I am of the opinion that whilst roller gins are very suitable to the staple in the Indian *deshi* cotton, both short and long stapled, saw-gins, whilst turning out a much cleaner lint, play havoc with the actual body of the lint, presumably owing to the short staple in the lint.

4784. (39) **Effect of saw-gins on Indian cotton.**—Till now saw-gins have not been successful with Indian cottons except in the districts mentioned in paragraph 4781 above. The objection to saw-gins is mentioned in paragraph 4783 above. I am aware of an enterprising exporting firm having bought a factory of saw-gins very cheap, somewhere in the Punjab, but even they are reported to have given up the experiment as their buyers in Europe were not satisfied with the condition in which the lint reached them, even though the lint was much cleaner. It is possible that there may be a conservative prejudice against saw-ginned lint, but to destroy this prejudice many experiments and trials are needed.

4785. (40) **Factory labour.**—Great difficulty in obtaining factory labour has been experienced during the last five years. Wages have gone up by a hundred per cent, in several districts, and even then factory labour is not available to the full extent, especially when crops are good. I fully remember years when cultivators paid for labour to pick *kapas* in fields something more than what was available in ginning factories in addition to one meal. Higher wages for factory labour are responsible for increase in ginning charges and dearth of labour resulting in partial or irregular working of ginning factories also increases the cost of ginning. I do not anticipate any material improvement in this state of affairs and feel that it is necessary to devise some means of automatic feeding of gins as in America. I have made certain inquiries in this direction but I am not yet ready to fit a ginning factory with automatic feeders. I, however, feel that if the dearth of labour experienced in the last five years continues, it is absolutely necessary to devise system of automatic feeding for gins.

4786 (41) **Condition of cotton.**—If the words "raw cotton" in this question mean cotton in any but full pressed bales (*i.e.*, in half-pressed and three-quarter pressed bales) the word "factory" in this question can only refer to a press factory. If, on the other hand, "raw cotton" means *kapas*, the word "factory" stands for "ginning factory." There is no difference of opinion that at times both *kapas* and raw cotton, *i.e.*, unpressed lint, do reach factories in an objectionable manner; as a rule this is particularly so in the case of cotton where the middleman delivers against future contracts made at rates lower than those ruling at the time of delivery. Speaking generally also, the ordinary temptation to mix is always present wherever *kapas* of two qualities is easily available.

(2) Regarding the ryot's objectionable way of marketing *kapas*, the habit of bringing in *kapas* so wet that water can be squeezed out of it is a standing complaint in many a market. At Chaudasi and Etawah, my firm's experience has been that out of one maund of *kapas* paid for, only thirty seers is the actual quantity available within a few hours of drying the *kapas* in the sun. The *kapas*, before it is marketed, is exposed to the night's dews and then loaded in carts. This evil was so bad that several times agents of Bombay firms at Etawah made efforts not to buy such wet *kapas*, but influential *arajyas*, who played the double part of sellers and buyers (*arajyas* referred to in paragraph 4773), frustrated the combination and refused to handicap wet arrivals of *kapas*.

(3) My opinion is that, as a first and most harmless step towards prevention of reckless mixing of *kapas* and cotton of various growths, and of watering of *kapas* and cotton, something on the following lines should be done :—

(1) Carriage by rail or by sea of *kapas* or of lint cotton in any but full pressed bales should be totally prohibited by statute except where the consignee is a mill owner from whom proper guarantees should be taken that he will not sell same in any but full pressed bales. This should cause no hardship to genuine honest trading in cotton and will at once check the reckless inter-district mixing of cotton or *kapas*.

(2) Ginning and pressing factories should be licensed by Government, the license fee being small and the control of the factories being vested in Government, action being taken by Government on the recommendation of a strong select committee of persons interested in the cotton trade and not otherwise. This small committee should organise similar committees of control in market centres up-country from amongst buyers and sellers there. These two measures, though neither thorough-going nor complete in themselves, will go far to divest the cotton trade of some of its most exasperating practices at present prevailing and even the cotton cultivation will benefit materially by it.

(4) The scheme outlined above has the special feature of freeing the trade from the control of inspectors, which was such a grave source of complaint during the operation of the Cotton Frauds Act. At the same time, I believe that it will have more or less the desired effect in as much as that a committee of local merchants in any market centres would not tolerate any serious breach of the rules and regulations, as the same would mean a certain advantage to that person in trade; at the same time the committee would be able to bring defaulters to book without harassing honest traders. I would make the Bombay committee fully representative of persons and firms buying in the districts and this organisation should, to my mind, serve both Government and the trade fairly.

4787. (42) **Effect of replacement of short staple cotton by long staple.**—I do not anticipate any substantial alteration of machinery in gins or presses in India if any large quantity of short staple growth were substituted by long staple growth provided that the same be *deshi*, *i.e.*, provided no exotic seed is introduced.

V.—GENERAL.

4788. (46) **Attitude of buyers to improved cottons.**—Buyers have been prepared to pay a premium for long stapled cotton over short stapled one. It cannot be denied that local mills have always been showing discrimination in this direction but the difficulties have perhaps been that the average run of agents of buyers up-country have not been thorough-going and pains-taking enough in their efforts in the districts to secure the pure staple growth even though the same may have been available at a small extra cost and some personal trouble.

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(2) I may quote here the instance of my firm's handling the Surat Farm *kapas* growth since 1913 immediately after the Bombay Syndicate failed with it. I have been paying for that *kapas* a net premium of five per cent and have never found difficulty in selling the lint simultaneously to a local mill which has never repented the purchase but has always asked for more of the same quality.

4789. (3) **Indigenous long staple versus exotic cottons.**—Regarding the general question of long versus short staple cotton, my own opinion is that, at this stage, the best efforts of the Government should be restricted to preserving the indigenous long staple cotton. I do not claim any authentic knowledge regarding the result of exotic seed in Indian soil but my information is that this is not likely to thrive under the climatic, economic and other conditions of Indian agriculture. Perhaps the exotic seed may be experimented within areas with irrigation, but for the rest of the districts immediate attention is necessary regarding measures to prevent deterioration in existing qualities and to reintroduce, as far as feasible, the old indigenous stapled seed of each district.

(2) Whilst on this subject, I would like to quote from a lecture delivered by Sir George Watt in London in April 1904 :—

"The Government of India, he said in conclusion, tried improvement of cotton by acclimatisation of the triumphs of other countries for nearly a century. The result may be said to be that every known cotton exists to-day in some parts of India. *G. hirsutum* is the saw-ginned Dharwar cotton of the Deccan, Bourbon cotton is to some extent cultivated in South India. Other forms exist as garden curiosities and a few have escaped into the hedgerows and waysides. They have been abandoned because found unsuited to India, and thus have become naturalised. But the practical results of a century of acclimatisation have been remarkably little. On three different occasions, experiments on a large scale were conducted, but if anything the quality of the Indian staple fell back rather than improved.

"On many occasions, I have upheld the opinion that by far the most rational and hopeful course would be to attempt improvement by natural selection in direct adaptation to local climatic and soil conditions. For this purpose the indigenous or long acclimatised plants should preferably be used to freshly imported stock. But, as already explained, the poverty of the Indian cultivators throws on the Government the entire responsibility of the requisite experiments, which to be a success, would have to be simultaneously performed in each important cotton-growing centre and conducted by trained experts.

"One of the foremost contentions that I have endeavoured to press on your attention this afternoon might be said to be the necessity for more accurate study botanically and physiologically, of the cultivated and wild species of the *Gossypium*. We should not only be able to identify every form of cotton but be in a position to say whether or not cottons proposed to be experimented with in this country or that stood a reasonable chance of success. We are at present grossly ignorant of the most ordinary particulars regarding the botany and history of the cottons. And this state of affairs cannot be remedied by herbarium work."

Supplementary written statement submitted by the Hon'ble Mr. Purshotamdas Thakurdas, M.B.E., Chairman of the Board of Directors, Bombay Cotton Exchange.

4790. **Preamble.**—I have already sent through the Bombay Cotton Exchange my views on questions Nos. 30 and following of the questions issued by the Cotton Committee. Hereunder I beg to put before the Committee my views regarding the whole question of improvement in growing and marketing of cotton in India. It is said of Indian cotton that it is sown anyhow, grown anyhow and mixed anyhow. This charge against Indian cotton is a very hackneyed charge, repeated rather frequently.

4791. **Mixing of cotton in the field.**—Regarding the sowing of the crops, it is now conclusively proved that during the last few years, even the Agricultural Departments have been encouraging growth of seeds that yield largest quantities with best outturns quantitatively irrespective of the staple in each case. From letters that passed between the local Cotton Trade Association and the Bombay Agricultural Department in May last, you will see that, in the Broach District, the *goghari* seed has been encouraged by the Agricultural Department in preference to the *deshi* long-stapled seed, on the ground that the former yields a better return to the cultivator. This impression of better return from the shorter stapled seed is a fallacy. This fallacy will continue as long as there is, in the district, longer stapled lint available to the middlemen with which to mix the shorter growth. No sooner the longer stapled growth disappears, it will be found that the shorter stapled lint is not in demand on the same parity. The precedents for this are not absent, the history of the *Muthia* (*mathio*) crop in Kathiawa being a most eloquent example of this. I would therefore very strongly recommend that, in every district, the Government should recommend the Agricultural Departments to encourage the growth and retention of the seed of the long-stapled variety of the district.

(2) It may be of interest to give hereunder the views of the Bombay Agricultural Department regarding the conditions during the last ten years as far as mixing of seed in the fields is concerned. Writing to the Chamber of Commerce in 1906, Mr. Fletcher, Deputy Director of Agriculture, says as under :—

"Ever since I came to India some 2½ years ago, I have had the question of admixture of cotton under constant observation, and I may say that, except to a small extent in the Ahmedabad and Dharwar districts, I have never seen a field of cotton of Surtee-Broach, *kumpla* or saw-ginned Dharwar that contained more varieties of cotton than one. It may be taken for granted that the varieties grown in the Surat and Broach districts at least are grown pure, and that any admixture that is found takes place after the *kapas* has left the cultivator's hands."

In 1917, the Director of Agriculture writes as under :—

"South Gujarat.—The cotton in the Broach-Surat tract is identical except for the fact that the climatic conditions favour a longer staple in the south (Navsari) and a shorter staple in the north (Broach), with Surat intermediate between the two in point of staple. There is one other fact, however, to be considered, *viz.*, that in the Broach district, there is, in the field, a considerable admixture of *goghari* cotton, which has a higher ginning percentage but a considerably shorter staple. In some parts of the Broach district the admixture is about half and half, and since the buyers buy almost exclusively on a consideration of the ginning percentage, this Department is producing for the

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cultivators seed of a pure strain of high-ginning *goghari* cotton, because that fetches the best price. In Surat, the admixture of *goghari* is much less and this Department aims there at producing seed of pure strains of Surat cotton of which the staple is at least as good as Surat but the ginning percentage higher."

(3) There certainly has appeared in recent years a genuine desire on the part of local mills to buy stapled cotton if available at a certain premium over the short and mixed stuff. There is a good deal to be desired in the ways and the systems of the buyers' agencies up-country, but this may safely be expected to adjust itself before very long. What should be done by the Government is—

- (1) encouragement to the cultivator to grow the indigenous long staple of each district,
- (2) prevention of facilities to mix growths of other districts,
- (3) organization of a market system at each important cotton centre on the lines of the market system in the Berars.

(4) Regarding (2) above, I enclose a copy of a Note (Annexure I) prepared by me for the Director of Agriculture, Bombay, in April 1917, which shows my views in detail. I am fully alive to the remark that the remedy suggested by me in my Note enclosed herewith will not check mixing of various growths in each district. I suggest no check on carriage of *kapas* from one district to another by carts. This is because it is not easy to check this without having a big staff of Inspectors and other low paid Government servants to keep a watch, and I am not prepared to expose the trade to this class of Government servants. I would, however, try the easily available remedy and watch the results.

(5) It may be interesting to the Committee to know that a few enterprising Chiefs in Kathiawar penalized exports of raw *kapas* from their limits in any form but of full-pressed bales about 1911-12. The ginning and pressing was done in the States' own limits and in State-owned factories. At the commencement, criticisms were heard regarding the States making money out of ginning and pressing charges on their ryots' *kapas*. But the net result of it all has been that the quality of the growth in these States has improved remarkably and has inspired the buyers with considerably confidence in cotton coming from these States. In one of these Native States, I know that the Muthia (*mathio*) has totally disappeared and long stapled growth has been taken to to the advantage of both the growers and the consumers.

4792. *Exotic growths*.—I am not in favour of exotic seed being tried in India. The following quotation from an article written in 1903 on cotton cultivation may be given here :—

"The crux of Mr. Mollison's argument is that there is every hope of improving the quality of Indian cotton from within. Exotics have proved over and over again a failure. But the experiments with the cross-fertilization of indigenous varieties show that it is best to persevere with that process. Like the practical man that he is, he recommends that 'no attempt be made to extend cultivation beyond small demonstration farms until it is absolutely proved that superior varieties, which can be grown without risk, have been produced.' This is the right way to proceed. But the question is whether he is likely to find those 'practical agriculturists' in every province who will 'conscientiously supervise the work.' However, we wish the experiments on the present lines every success and congratulate both Mr. Mollison and Professor Gammie, and hope they will soon have made sufficient headway to encourage them to establish seed farms in every cotton growing district. But even then the question will still remain whether the economic condition meanwhile of the cultivator will so far undergo betterment as to enable him to buy the seeds which the farms may distribute and whether he will obtain that manure which is so absolutely essential for the purpose of giving the more productive results we wish for. The farms are conducted on scientific principles, with ample manure. But the farms of the mass of cotton cultivators cannot be so cultivated for many years to come. Has the Inspector-General of Agriculture taken into account the ordinary conditions of cultivation by the ryot? That is indeed an important factor in the matter of future improvement. The experimental farms should try to cultivate cotton as the cultivators themselves do, and see how far they succeed with their cross-fertilization and other modes of operation to improve the indigenous varieties."

4793. *Necessity for a Central Committee*.—The extravagant and thoughtless mixing of *deshi* and American *kapas* in Sind is most exasperating and should be stopped without any delay. To do this effectively and without renewing the complaints made at the time of the Cotton Frauds Act, 1875, it is necessary to have control on the trade through merchants, and I see no other channel for it except through committees of sellers and buyers in districts controlled by a Central Committee of responsible men in the cotton trade in Bombay. This Committee will have to work on fixed lines but they will have intimate knowledge and experience of trade requirements and practices and should be able to bring about a healthy check on mixing and watering of *kapas* and cotton and otherwise safeguarding the cultivators' interests too.

4794. *Pools*.—In my evidence, giving replies to several questions of the Committee, I have made clear the manner in which the interests of the cultivator could be safeguarded by co-operative credit societies advancing them money on standing crops instead of middlemen doing the same. I have also indicated that agricultural banks could be started by Government to the benefit of the cultivators, enabling them to hold their crops in case of slumps or any combination amongst merchants to buy at cheap rates. There is an impression, however, that ginning and pressing pools are a source of considerable loss to cultivators. I have several returns supplied to me by agents of a few leading ginning and pressing factory companies which I enclose herewith. I submit that, on the whole, the impression of gin and press owners having made large profits from their operations is erroneous. Two of these leading companies inform me that their earnings during the last ten to twelve years from ginning and pressing have not yielded more than six to seven per cent. Anyway, from practical experience, I am convinced that, on the whole, the gin and press owners have not done badly by the cultivators, and, for the future, if the power of controlling the erection of new factories in cotton districts be vested in the Central Committee, recommended by me above, I do not consider any further steps necessary in this direction.

4795. *Expansion of the Agricultural Department*.—I think it is very necessary that the Agricultural Department should have, on their staff a large number of well trained and educated Inspectors, etc., who could talk to the cultivators in their own language and convince them of what is to their own good. I have experience of how an Indian officer of the Agricultural Department has succeeded in influencing the ryots to their own great benefit and I would strongly recommend that if prompt progress is desired a large number of Indian officers should be added to the higher staff of Agricultural Departments all over India.

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ANNEXURE I.

Note on improvement in staple of Indian cotton prepared for the Director of Agriculture, Bombay [vide paragraph 4791 (4)].

The question of improvement in the staple of Indian cotton has been engaging the attention of the Government of India for some years past and large sums of money have already been spent in experiments in this direction. The Bombay Government have started special farms in the Agricultural Department for the purpose and several very able officers have been experimenting on them.

2. The aim in this Note is not to suggest how these experiments may be improved but to suggest a feasible preventive measure against further deterioration of the natural staple of cotton in each district. It will be conceded that prevention is better than cure.

3. The Kathiawar crop which, years back, was all a stapled crop has had the Muthia (*mathio*) seed introduced there and to-day a large percentage of the Kathiawar crop is Muthia. The difference in price of the two varieties to-day is at least Rs. 75 per khandi (two full-pressed bales).

4. The Jalna, Barsi, Parbhani and Nander crops from His Highness the Nizam's Dominions suffer terribly from mixture of short and long-stapled growths. Reports of Mr. Kenny, Director of Agriculture, Hyderabad, are very telling on this point.

5. The Broach crop has decidedly gone down in staple during the last ten years. Even in years of normal and bountiful rainfall the average staple of the cotton crop does not show the usual length or strength. The price of Broach in Bombay, when not supported by speculative operations, has been close enough to average Berar cotton to justify the above-named remarks.

6. The bane of Indian cotton trade is thoughtless and indiscriminate mixing of cottons of long and short staple. This method of short-sighted merchants has, in the long run, never paid them and has curtailed their turnover in markets like Bombay, as mills and exporters desiring unmixed long staple have resorted to the cotton districts to secure same. This mixing of cotton had attracted notice of the Government in 1873 when the Cotton Frauds Acts was passed. That legal machinery, however, was a complicated one, giving considerable powers to Inspectors and consequently exposing the trade as a whole to real hardships. The Act was withdrawn in 1878.

7. Unfortunately the unscrupulous, short-sighted merchant has lately taken to a worse form of mixing. He mixes *kapas* (seed cotton) instead of cotton. This affords less chance of detection according to his ideas.

8. *Kapas* is brought from shorter stapled districts by rail to the better stapled one in wagon loads and is there ginned and mixed with the better growth. We are not concerned here with what happens to this mixed lint, but this method of mixing introduces the short-stapled seed in the long staple growing areas and the result is what has been described in paragraphs 4 and 5 above.

9. It is suggested that (a) carriage of *kapas* by rail, should be prohibited except for mills that have gins in their mills to gin same and guarantee that lint from the *kapas* would be consumed in their mills and seed therefrom would be sold only for cattle food or crushing and not for sowing purposes, (b) that export and import of *kapas* by country crafts would also be similarly controlled.

10. Powers will have to be reserved to the Governor in Council or the Collector of a District to allow export of *kapas* in the eventuality of new areas coming under cotton not having local ginning facilities.

Personally, I believe that adequate ginning facilities would be available in each district as soon as it is known that the local growth of each district must be ginned locally but an exception may be served by powers named above.

11. Such a restriction as that suggested in paragraph 9 above will prohibit, and effectively too, such bad mixing of *kapas* as of Broach and Muthia or of Parbhani and Khandesh. The less exasperating and less dangerous mixing (though by no means less reproachable) of *kapas* of various staples in one and the same district will continue, e.g., mixing of Sayan and Bardoli or Navsari growths in the Surat district, the mixing of Jambusar and Broach or Palej *kapas* in the Broach districts. The prevention of this is not as simple and devising a method to do this without echoes of the grievances experienced by the trade in the early eighties (Cotton Frauds Act) being heard is difficult.

12. It is a question whether the movement of cotton in half-pressed bales from one district to another too should not be similarly forbidden as a protection to buyers of cotton. There is no reason why Myagaum cotton should be pressed at Surat or Navsari. But the protection afforded by this will be to buyers of cotton and not to growers of the same. More may, however, be said of this later if necessary.

13. However, it is very necessary that the import of waste and fly in cotton districts (where there are no mills requiring these articles) should be prohibited. There is absolutely no excuse for imports of these in the cotton growing districts of *kumpla* and saw-gin Dharwar.

ANNEXURE II.

Statements showing ginning and pressing rates in various centres to illustrate the working of pools.

(i) Ginning rates per *palla* at the undermentioned stations during the ten seasons ending 30th June 1917.

	1907-08.	1908-09.	1909-10.	1910-11.	1911-12.	1912-13.	1913-14.	1914-15.	1915-16.	1916-17.
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Jalna . . .	5 0 0	5 0 0	5 0 0	5 0 0	5 0 0	5 0 0	5 0 0	5 0 0	5 8 0	6 0 0
Parbhani . .	5 0 0	2 8 0	5 0 0	5 0 0	5 0 0	5 0 0	5 0 0	5 0 0	5 6 0	5 6 0
Sailu . . .	5 0 0	3 8 0	5 0 0	5 0 0	2 12 0	2 12 0	5 0 0	5 0 0	5 0 0	3 0 0
Nander . . .	2 12 0	2 12 0	2 12 0	2 12 0	2 12 0	2 12 0	3 0 0	3 4 0	3 8 0	4 0 0
Nagpur . . .	4 8 0	4 8 0	4 8 0	4 8 0	4 0 0	4 0 0	3 8 0	3 8 0	5 3 0	5 12 3
Yeotmal . .	4 1 0	4 6 0	4 6 0	4 6 0	4 7 0	4 7 0	4 7 0	4 7 0	4 13 0	6 12 0
Ellichpur . .	2 12 0	2 12 0	2 12 0	2 12 0	2 8 0	4 4 0	4 2 0	2 12 0	2 14 0	3 0 0
Wardha . . .	3 4 0	3 4 0	3 4 0	3 4 0	4 8 0	4 8 0	4 8 0	5 2 0	5 2 0	5 2 0

Remarks—

- (1) Rates at and below Rs. 3-8-0 show competition and no pool.
- (2) No pool was ever formed at Nander.
- (3) Notwithstanding increase in the number of factories, ginning rates were not increased beyond Rs. 5 although pools were formed. The higher ginning rates during the last three seasons were necessitated by abnormal rise in the price of stores and the labour charges having gone up very high and thus the increase in rates did not go to swell the profits of factory owners.
- (4) Central Provinces Government having adopted 392 lbs. as the weight for a *palla*, the ginning factories had to follow suit, giving up the original 214 lbs., and had to increase their ginning rates in proportion.

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(ii) Pressing rates per bale at the undermentioned stations during the ten seasons ending 30th June 1917.

	1907-08	1908-09	1909-10	1910-11	1911-12	1912-13	1913-14	1914-15	1915-16	1916-17
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Gadag	1 8 0 and 4 0 0	1 8 0	4 0 0	1 12 0 and 4 0 0	4 0 0	4 0 0	4 5 0	4 5 0	4 9 0	5 9 0 and 3 8 0
Barsi	3 4 0	3 4 0	3 4 0	3 4 0	3 4 0	3 4 0	3 4 0	3 8 0	3 12 0	5 0 0
Ahmednagar	3 4 0	3 4 0	3 4 0	3 4 0	3 4 0	3 4 0	3 4 0	3 8 0	3 12 0	5 0 0
Khandwa	3 8 0	3 8 0	3 8 0	3 8 0	3 8 0	3 12 0	4 0 0	4 0 0	4 4 6	5 12 0
Jalna	4 0 0	4 0 0	4 0 0	4 0 0	4 0 0	4 0 0	4 6 0	4 6 0	4 14 0	6 12 0
Nander	1 10 0	1 10 0	1 10 0	1 10 0	1 10 0	1 10 0	1 14 0	2 2 0	2 12 0	3 12 0
Parbhani	4 0 0	1 4 0	4 0 0	4 0 0	4 0 0	4 0 0	4 6 0	4 8 0	4 14 0	7 1 0
Sailu	4 0 0	2 8 0	4 0 0	4 0 0	4 0 0	4 0 0	4 6 0	4 8 0	2 8 0	14 0
Akola	3 11 3	3 11 3	3 11 3	3 11 3	1 11 3	1 11 3	2 1 6	2 8 0	3 4 0	5 12 6
Nagpur	3 8 0	3 8 0	1 4 0	1 14 0	2 10 0	2 0 0	2 2 0	2 6 0	4 0 3	5 12 3
Yeotmal	3 10 0	3 10 0	3 10 0	3 10 0	3 11 0	3 11 0	4 1 0	4 0 0	4 6 0	6 1 0
Wardha	1 10 0	1 10 0	3 14 0	3 14 0	3 14 0	3 14 0	3 14 0	4 2 0	4 8 0	6 4 0
Ellichpur	2 0 0	1 8 0	1 8 0	1 12 0	1 8 0	3 10 0	4 1 0	1 13 0	2 4 0	3 0 0
Auraiya	3 4 0	3 4 0	3 6 0	3 6 0	3 6 0	3 6 0	3 8 0	3 8 0	4 0 0	4 0 0
Warora	..	..	..	..	..	..	2 0 0	4 8 0	4 8 0	6 4 0
Bhusawal	..	..	..	..	..	..	..	3 12 0	4 2 0	6 4 0
Raver	..	..	..	..	..	..	..	3 12 0	4 2 0	6 4 0

Remarks—

- (1) Two rates in one and the same season show competition for a part of the season and pool for the rest.
 (2) All rates below Rs. 3 show competition and no pool.
 (3) No pool was ever formed at Nander.
 (4) No pool existed at Auraiya, but the two factories there worked on their own account on the understanding to charge a uniform rate.
 (5) Notwithstanding increase in the number of factories, pressing rates were not increased beyond Rs. 4 although pools were formed. The higher pressing rates during the last three seasons were necessitated by abnormal rise in the price of hoops, gunnies and other stores and rise in labour charges and the increase in rates did not go to swell the profits of factory owners.

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(iii) Statement showing pressing factories silent and working at undermentioned stations during the ten seasons ending 30th June 1917.

Seasons.	Gadag.			Barsi.			Ahmednagar.			Khandwa.			Jalna.			Nander.			Parbhani.			Sailu.		
	Working.	Silent.	TOTAL.	Working.	Silent.	TOTAL.	Working.	Silent.	TOTAL.	Working.	Silent.	TOTAL.	Working.	Silent.	TOTAL.	Working.	Silent.	TOTAL.	Working.	Silent.	TOTAL.	Working.	Silent.	TOTAL.
1907-08	1744444465	1111111111	2855555576	3333333344	3333333333	6666666677	3333333333	3333333333	9999999999	4444444444	4444444444	8888888888	3333333333	1333333333	4666666666	3333333333	3333333333	6666666666	3333333333	3333333333	6666666666	3333333333	3333333333	6666666666
1908-09	1744444465	1111111111	2855555576	3333333344	3333333333	6666666677	3333333333	3333333333	9999999999	4444444444	4444444444	8888888888	3333333333	1333333333	4666666666	3333333333	3333333333	6666666666	3333333333	3333333333	6666666666	3333333333	3333333333	6666666666
1909-10	1744444465	1111111111	2855555576	3333333344	3333333333	6666666677	3333333333	3333333333	9999999999	4444444444	4444444444	8888888888	3333333333	1333333333	4666666666	3333333333	3333333333	6666666666	3333333333	3333333333	6666666666	3333333333	3333333333	6666666666
1910-11	1744444465	1111111111	2855555576	3333333344	3333333333	6666666677	3333333333	3333333333	9999999999	4444444444	4444444444	8888888888	3333333333	1333333333	4666666666	3333333333	3333333333	6666666666	3333333333	3333333333	6666666666	3333333333	3333333333	6666666666
1911-12	1744444465	1111111111	2855555576	3333333344	3333333333	6666666677	3333333333	3333333333	9999999999	4444444444	4444444444	8888888888	3333333333	1333333333	4666666666	3333333333	3333333333	6666666666	3333333333	3333333333	6666666666	3333333333	3333333333	6666666666
1912-13	1744444465	1111111111	2855555576	3333333344	3333333333	6666666677	3333333333	3333333333	9999999999	4444444444	4444444444	8888888888	3333333333	1333333333	4666666666	3333333333	3333333333	6666666666	3333333333	3333333333	6666666666	3333333333	3333333333	6666666666
1913-14	1744444465	1111111111	2855555576	3333333344	3333333333	6666666677	3333333333	3333333333	9999999999	4444444444	4444444444	8888888888	3333333333	1333333333	4666666666	3333333333	3333333333	6666666666	3333333333	3333333333	6666666666	3333333333	3333333333	6666666666
1914-15	1744444465	1111111111	2855555576	3333333344	3333333333	6666666677	3333333333	3333333333	9999999999	4444444444	4444444444	8888888888	3333333333	1333333333	4666666666	3333333333	3333333333	6666666666	3333333333	3333333333	6666666666	3333333333	3333333333	6666666666
1915-16	1744444465	1111111111	2855555576	3333333344	3333333333	6666666677	3333333333	3333333333	9999999999	4444444444	4444444444	8888888888	3333333333	1333333333	4666666666	3333333333	3333333333	6666666666	3333333333	3333333333	6666666666	3333333333	3333333333	6666666666
1916-17	1744444465	1111111111	2855555576	3333333344	3333333333	6666666677	3333333333	3333333333	9999999999	4444444444	4444444444	8888888888	3333333333	1333333333	4666666666	3333333333	3333333333	6666666666	3333333333	3333333333	6666666666	3333333333	3333333333	6666666666

Bombay.]

THE BOMBAY COTTON EXCHANGE.

[Continued.]

(iv) Statement showing cotton ginning factories, silent and working during the ten seasons ending 30th June 1917 at the undermentioned stations.

Seasons.	Jalga.		Nander.		Parbhani.		Salu.		Nagpur.		Yectmal.		Ellichpur.		Wardha.	
	Working.	Silent.	Working.	Silent.	Working.	Silent.	Working.	Silent.	Working.	Silent.	Working.	Silent.	Working.	Silent.	Working.	Silent.
1907-08	8	1	2	2	4	4	2	2	10	1	4	4	5	1	7	1
1908-09	8	1	2	2	5	5	2	2	10	1	5	5	6	1	7	1
1909-10	8	1	3	3	5	5	2	2	10	1	6	6	6	1	8	1
1910-11	7	2	3	3	5	5	3	3	10	1	7	7	6	1	8	1
1911-12	6	3	3	3	5	5	3	3	10	1	5	5	6	1	8	1
1912-13	6	3	3	3	5	5	3	3	10	1	6	6	6	1	8	1
1913-14	9	1	3	3	5	5	3	3	10	1	6	6	4	1	8	1
1914-15	4	5	3	3	3	3	2	1	10	1	7	7	6	1	4	1
1915-16	8	1	4	4	4	4	3	1	10	1	6	6	6	1	4	1
1916-17	6	3	5	5	2	2	4	1	7	3	6	5	6	1	4	1
TOTAL	66	21	44	44	55	55	44	44	100	21	66	55	66	21	66	21

Bombay.]

THE BOMBAY COTTON EXCHANGE.

[Continued]

(v) Statement showing working of presses at various stations.

Bombay.

Season of	No. of Presses in Bombay.	Pool.	No pool.	Pool rate.	Pressing rate (when no pool.)	How many factories worked.
1907-08	9	Pool	...	Rs. a. p. 1 8 0	Rs. a. p. ...	Nine
1908-09	9	"	...	1 8 0	...	"
1909-10	9	"	No pool	...	1 0 0	"
1910-11	9	"	"	...	0 14 0	"
1911-12	9	"	"	...	0 14 0	"
1912-13	9	"	"	...	1 0 0	"
1913-14	9	"	"	(Part pool)	1 to 1 6 0	"
1914-15	9	"	"	"	1 6 0	"
1915-16	9	"	"	"	1 6 0	"
1916-17	9	Pool	...	2 0 0	...	"

Huddi.

Season of	No. of Presses in Huddi.	Pool.	No pool.	Pool rate.	Pressing rate (when no pool.)	How many factories worked.
1907-08	9	Pool	...	Rs. a. p. 4 0 0	...	Eight.
1908-09	9	"	...	4 0 0	...	"
1909-10	9	"	...	4 0 0	...	"
1910-11	9	"	...	4 0 0	...	Nine.
1911-12	9	"	...	4 0 0	...	"
1912-13	10	"	...	4 0 0	...	Ten.
1913-14	10	"	...	4 0 0	...	Eight.
1914-15	10	"	...	4 5 0	...	Ten.
1915-16	10	"	...	5 9 0	...	Ten.
1916-17	10	"	...	5 9 0	...	Eight.

Barsi.

Season of	No. of Presses in Barsi.	Pool.	No pool.	Pool rate.	Pressing rate (when no pool.)	How many factories worked.
1907-08	6	Pool	...	Rs. a. p. 3 4 0	...	Four.
1908-09	6	"	...	3 4 0	...	"
1909-10	6	"	...	3 4 0	...	"
1910-11	6	"	...	3 4 0	...	"
1911-12	6	"	...	3 4 0	...	"
1912-13	6	"	...	3 1 0	...	Three.
1913-14	6	"	...	3 1 0	...	"
1914-15	6	"	...	3 4 0	...	"
1915-16	6	"	...	3 12 0	...	"
1916-17	6	"	...	5 0 0	...	"

Bijapur.

Season of	No. of Presses in Bijapur.	Pool.	No pool.	Pool rate.	Pressing rate (when no pool.)	How many factories worked.
1907-08	2	Pool	...	Rs. a. p. 3 8 0	...	Two.
1908-09	2	"	...	3 8 0	...	"
1909-10	2	"	...	3 8 0	...	"
1910-11	2	"	...	3 8 0	...	"
1911-12	3	"	...	3 8 0	...	Three.
1912-13	3	"	...	3 8 0	...	"
1913-14	3	"	...	3 8 0	...	"
1914-15	4	"	...	3 8 0	...	Four.
1915-16	4	"	...	4 0 0	...	"
1916-17	4	"	...	5 8 0	...	"

Bombay.]

THE BOMBAY COTTON EXCHANGE.

[Continued.]

Jalgaon.

Season of	No. of Presses in Jalgaon.	Pool.	No pool.	Pool rate.	Press rate (when no pool).	How many factories worked.
				Rs. a. p.	Rs. a. p.	
1907-08	7	Pool	...	3 0 0	...	Three.
1908-09	7	...	No pool	...	1 4 0	...
1909-10	7	Pool	...	3 4 0	...	Three.
1910-11	7	...	...	3 4 0	...	"
1911-12	7	"	...	3 4 0	...	"
1912-13	7	"	...	3 5 0	...	"
1913-14	7	"	...	3 5 0	...	"
1914-15	7	"	...	3 12 0	...	"
1915-16	7	"	...	4 0 0	...	"
1916-17	7	"	...	6 0 0	...	"

Khamgaon .

Season of	No. of Presses in Khamgaon.	Pool.	No pool.	Pool rate.	Press rate (when no pool).	How many factories worked.
				Rs. a. p.		
1907-08	8	Pool	...	3 10 0	...	Six.
1908-09	8	"	...	3 10 0	...	"
1909-10	8	"	...	3 10 0	...	"
1910-11	8	"	...	3 10 0	...	"
1911-12	8	...	No pool	...	...	...
1912-13	8	"	"	...	...	...
1913-14	8	"	"	...	...	...
1914-15	8	"	"	...	...	...
1915-16	8	Pool	...	3 14 0	...	Six.
1916-17	8	"	...	5 8 0	...	"

Dondaicha.

Season of	No. of Presses in Dondaicha.	Pool.	No pool.	Pool rate.	Pressing rate when no Pool.	How many factories worked.
				Rs. a. p.		
1907-08	3	Pool	...	3 0 0	...	Two.
1908-09	3	"	...	3 0 0	...	"
1909-10	3	"	...	3 0 0	...	"
1910-11	3	"	...	3 0 0	...	"
1911-12	3	"	...	1 8 0	(Part pool)	One.
1912-13	3	"	...	3 0 0	...	Two.
1913-14	3	"	...	3 0 0	...	One.
1914-15	3	"	...	3 0 0	...	"
1915-16	3	"	...	3 8 0	...	"
1916-17	3	"	...	5 4 0	...	"

Malkapur.

Season of	No. of presses in Malkapur.	Pool.	No pool.	Pool rate.	Pressing rate when no pool.	How many factories worked.
				Rs. a. p.	Rs. a. p.	
1907-08	5	Pool	...	3 10 0	...	Four.
1908-09	5	"	...	3 10 0	...	Three.
1909-10	5	"	...	3 10 0	...	"
1910-11	5	"	...	3 10 0	...	"
1911-12	6	"	...	3 10 0	...	Four.
1912-13	6	"	...	3 10 0	...	"
1913-14	6	"	...	3 10 0	...	"
1914-15	6	"	No pool	...	...	"
1915-16	6	"	"	...	...	"
1916-17	6	"	"	...	2 8 0	Five.

Bombay.]

THE BOMBAY COTTON EXCHANGE.

[Continued.]

Nandura.

Season of	Number of Presses in Nandura.	Pool.	No pool.	Pool rate.	Press rate when no pool.	How many factories worked.
				Rs. a. p.	Rs. a. p.	
1907-08	...	...	...	...	...	...
1908-09	...	...	...	...	...	...
1909-10	2	...	No pool	...	2 4 0	Two.
1910-11	2	Pool	...	3 0 0	...	"
1911-12	2	"	...	3 0 0	...	"
1912-13	2	"	...	3 0 0	...	"
1913-14	2	"	...	3 0 0	...	"
1915-16	2	"	No pool	...	3 0 0	"
1916-17	Removed to Dhulia.					

The advance in rates during the past three years has been due to the ever-increasing price of pressing materials. To-day the cost of providing hoops for baling alone costs the press owners Rs. 2-8 per bale against annas 13 in pre-war days.

Where the particulars have been omitted in these lists, information is unobtainable, records not having been kept.

(vi) Statement showing working of ginneries at various stations.

Hubli.

Season of	No. of Ginning Factories.	Pool.	No Pool.	Pool rate.	Ginning rate.	How many factories worked.
				Rs. a. p.		
1912-13	13	Pool	...	6 0 0	...	Thirteen.
1913-14	14	"	...	6 0 0	...	"
1914-15	14	"	...	6 0 0	...	"
1915-16	14	"	...	6 8 0	...	"
1916-17	14	"	...	6 8 0	...	"

Bijapur.

Season of	No. of Ginning factories.	Pool.	No pool.	Pool rate.	Ginning rate.	How many factories worked.
				Rs. a. p.	Rs. a. p.	
1907-08	...	...	No pool	...	10 0 0	...
1908-09	...	...	"	...	10 0 0	...
1909-10	...	...	"	...	10 0 0	...
1910-11	...	...	"	...	10 0 0	...
1911-12	...	...	"	...	10 0 0	...
1912-13	...	...	"	...	10 0 0	...
1913-14	...	...	"	...	10 0 0	...
1914-15	8	Pool	...	14 0 0	...	Seven.
1915-16	8	"	...	14 0 0	...	"
1916-17	8	"	...	16 0 0	...	"

Nandura.

Season of	Nandura. No. of Gins.	Pool.	No pool.	Pool rate.	Ginning rate.	How many factories worked.
					Rs. a. p.	
1909-10	4	...	No pool	...	3 2 0	Four.
1910-11	4	...	"	...	3 2 0	"
1911-12	4	...	"	...	3 2 0	"
1912-13	4	...	"	...	3 2 0	"
1913-14	4	...	"	...	3 2 0	"
1914-15	4	...	"	...	2 12 0	"
1915-16	4	...	"	...	3 8 0	"
1916-17	4	...	"	...	3 8 0	"

The advance in rates during the past three years has been due to the ever-increasing price of ginning materials. Where the particulars have been omitted in these lists, information is unobtainable, records not having been kept.

Bombay.]

THE BOMBAY COTTON EXCHANGE.

[Continued.]

(vii) Statement showing working of ginning factories at various stations.

	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.	1914.	1915.	1916.	1917.
Palej	No pool. Rs. a. p. 3 12 0	No pool. Rs. a. p. 3 12 0	No pool. Rs. a. p. 3 12 0	No pool. Rs. a. p. 4 0 0	Pool. Rs. a. p. 5 5 0	Pool. Rs. a. p. 5 8 0	No pool. Rs. a. p. 4 9 0	No pool. Rs. a. p. 4 9 0	No pool. Rs. a. p. 4 4 0	No pool. Rs. a. p. 4 8 0	No pool. Rs. a. p. 5 0 0	No pool. Rs. a. p. 5 4 0	No pool. Rs. a. p. 4 5 0
Sania	Pool. Rs. a. p. 6 0 0	No pool. Rs. a. p. 3 8 0	No pool. Rs. a. p. 6 0 0	Pool. Rs. a. p. 6 0 0	No pool. Rs. a. p. 4 0 0	No pool. Rs. a. p. 3 12 0	Pool. Rs. a. p. 5 0 0	No pool. Rs. a. p. 3 8 0	No pool. Rs. a. p. 3 5 0	No pool. Rs. a. p. 3 5 0	No pool. Rs. a. p. 3 8 0	No pool. Rs. a. p. 3 8 0	No pool. Rs. a. p. 3 8 0
Mahuva	Pool. Rs. a. p. 0 3 0 All working	No pool. Rs. a. p. 0 3 0	Pool. Rs. a. p. 0 3 3 All working	No pool. Rs. a. p. 0 3 3	Pool. Rs. a. p. 0 3 3 Working Silent	Pool. Rs. a. p. 0 3 3 Working Silent	Pool. Rs. a. p. 0 3 3 Working Silent	No pool. Rs. a. p. 0 3 0	No pool. Rs. a. p. 0 3 0	Pool. Rs. a. p. 0 3 3 Working Silent	Pool. Rs. a. p. 0 3 3 Working Silent	Pool. Rs. a. p. 0 3 3 Working Silent	Pool. Rs. a. p. 0 3 3 Working Silent
Daryapur (Banosa)	Rs. a. p. ..	Rs. a. p. ..	Rs. a. p. ..	Rs. a. p. ..	Rs. a. p. ..	Rs. a. p. ..	Rs. a. p. ..	Rs. a. p. ..	Pool. Rs. a. p. 3 8 0 Working Silent	Pool. Rs. a. p. 4 0 0 Working Silent	Pool. Rs. a. p. 4 4 0 Working Silent	Pool. Rs. a. p. 4 4 0 Working Silent	No pool. Rs. a. p. 3 12 0 Working Silent
Agra	Pool. Rs. a. p. 0 6 0 All working	Pool. Rs. a. p. 0 6 0 All working	Pool. Rs. a. p. 0 6 0 All working	No pool. Rs. a. p. 0 3 6	Pool. Rs. a. p. 0 7 0 Working Silent	Pool. Rs. a. p. 0 7 0 Working Silent	Pool. Rs. a. p. 0 7 0 Working Silent	Pool. Rs. a. p. 0 7 0 Working Silent	Pool. Rs. a. p. 0 7 0 Working Silent	Pool. Rs. a. p. 0 7 0 Working Silent	Pool. Rs. a. p. 0 7 0 Working Silent	Pool. Rs. a. p. 0 7 0 Working Silent	No pool. Rs. a. p. 0 7 0 Working Silent
Dabhoi	Rs. a. p. ..	Rs. a. p. ..	Rs. a. p. ..	Rs. a. p. ..	Rs. a. p. ..	Rs. a. p. ..	Rs. a. p. ..	Rs. a. p. ..	Rs. a. p. ..	Rs. a. p. ..	No pool. Rs. a. p. 4 2 0	Pool. Rs. a. p. 7 8 0 Working Silent	No pool. Rs. a. p. 4 5 0

Bombay.]

THE BOMBAY COTTON EXCHANGE.

[Continued.]

(viii) Statement showing working of pressing factories at various stations.

	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.	1914.	1915.	1916.	1917.
Palej	No pool. Rs. a. p. 2 2 0	No pool. Rs. a. p. 2 0 0	No pool. Rs. a. p. 2 2 0	No pool. Rs. a. p. 2 1 0	No pool. Rs. a. p. 1 15 0	No pool. Rs. a. p. 2 1 0	No pool. Rs. a. p. 2 1 0	No pool. Rs. a. p. 2 0 0	No pool. Rs. a. p. 2 1 0	No pool. Rs. a. p. 2 1 0	No pool. Rs. a. p. 2 6 0	No pool. Rs. a. p. 2 14 0	No pool. Rs. a. p. 4 14 0
Surat	No pool. Rs. a. p. 1 14 0	No pool. Rs. a. p. 1 15 0	No pool. Rs. a. p. 1 15 0	No pool. Rs. a. p. 1 14 0	No pool. Rs. a. p. 1 14 0	Pool. Rs. a. p. 1 12 0 All working	Pool. Rs. a. p. 1 12 0 All working	No pool. Rs. a. p. 1 5 0	No pool. Rs. a. p. 1 12 0	No pool. Rs. a. p. 1 14 0	No pool. Rs. a. p. 2 12 0 Working Silent	Pool. Rs. a. p. 3 0 0 Working Silent	Pool. Rs. a. p. 3 0 0 All working
Mahuva	Pool. Rs. a. p. 3 9 0 Working Silent	No pool. Rs. a. p. 2 4 0	Pool. Rs. a. p. 3 2 0 Working Silent	No pool. Rs. a. p. 2 4 0	Pool. Rs. a. p. 3 0 0 Working Silent	Pool. Rs. a. p. 3 0 0 Working Silent	Pool. Rs. a. p. 3 0 0 Working Silent	Pool. Rs. a. p. 3 0 0 Working Silent	Pool. Rs. a. p. 3 0 0 Working Silent	Pool. Rs. a. p. 3 0 0 Working Silent	Pool. Rs. a. p. 3 0 0 Working Silent	Pool. Rs. a. p. 3 0 0 Working Silent	No pool. Rs. a. p. 3 0 0 All working
Junagadh	Pool. Rs. a. p. 3 0 0 All working	Pool. Rs. a. p. 3 0 0 All working	No pool. Rs. a. p. 2 8 0	No pool. Rs. a. p. 2 0 0	No pool. Rs. a. p. 2 2 0	No pool. Rs. a. p. 1 14 0	Pool. Rs. a. p. 2 8 0 Working Silent	Pool. Rs. a. p. 3 3 3 Working Silent	Pool. Rs. a. p. 3 3 3 All working	Pool. Rs. a. p. 3 3 3 All working	Pool. Rs. a. p. 3 3 3 All working	Pool. Rs. a. p. 3 3 3 All working	Pool. Rs. a. p. 3 8 0
Amreli	Pool. Rs. a. p. 2 6 0 All working	Pool. Rs. a. p. 2 10 0 All working	Pool. Rs. a. p. 2 12 0 All working	Pool. Rs. a. p. 2 8 0 All working	Pool. Rs. a. p. 2 12 0 All working	Pool. Rs. a. p. 2 12 0 All working	Pool. Rs. a. p. 3 0 0 All working	Pool. Rs. a. p. 3 0 0 All working	Pool. Rs. a. p. 3 0 0 All working	Pool. Rs. a. p. 3 0 0 All working	Pool. Rs. a. p. 3 0 0 All working	Pool. Rs. a. p. 3 0 0 All working	No pool. Rs. a. p. 3 8 0 All working
Agra	Pool. Rs. a. p. 2 12 0 Six All working	Pool. Rs. a. p. 2 12 0 All working	Pool. Rs. a. p. 2 12 0 All working	Pool. Rs. a. p. 2 12 0 All working	Pool. Rs. a. p. 3 4 0 Working Silent	Pool. Rs. a. p. 3 4 0 All working	Pool. Rs. a. p. 3 4 0 Working Silent	Pool. Rs. a. p. 3 4 0 Working Silent	Pool. Rs. a. p. 3 6 0 Working Silent	Pool. Rs. a. p. 3 6 0 Working Silent	Pool. Rs. a. p. 3 6 0 Working Silent	Pool. Rs. a. p. 3 6 0 Working Silent	Pool. Rs. a. p. 3 6 0 Working Silent
Dabhoi	Rs. a. p. ..	Rs. a. p. ..	Rs. a. p. ..	Rs. a. p. ..	Rs. a. p. ..	Rs. a. p. ..	Rs. a. p. ..	Rs. a. p. ..	Rs. a. p. ..	Rs. a. p. ..	No pool. Rs. a. p. 2 4 0	Pool. Rs. a. p. 3 0 0 Five All working	Pool. Rs. a. p. 3 0 0 Four All working

(viii) *Statement showing working of pressing factories at various stations—continued.*

	1911.	1912.	1913.	1914.	1915.	1916.	1917.
Broach . .	No pool. Rs. a. p. 2 4 0	No pool. Rs. a. p. 2 4 0	No pool. Rs. a. p. 2 0 0	No pool. Rs. a. p. 2 0 0	No pool. Rs. a. p. 2 6 0	No pool. Rs. a. p. 5 0 0	No pool. Rs. a. p. 5 0 0
Bhavnagar . .	No pool. Rs. a. p. 2 0 0	No pool. Rs. a. p. 3 0 0	No pool. Rs. a. p. 2 4 0	No pool. Rs. a. p. 2 8 0	No pool. Rs. a. p. 2 8 0	Pool. Rs. a. p. 5 9 0	Pool. Rs. a. p. 6 0 0
Hubli . .	Pool. Rs. a. p. 4 1 0	Pool. Rs. a. p. 4 1 0	Pool. Rs. a. p. 4 1 0	Pool. Rs. a. p. 4 1 0	Pool. Rs. a. p. 4 1 0	Pool. Rs. a. p. 5 9 0	Pool. Rs. a. p. 6 0 0
Akot . .	.....	Pool. Rs. a. p. 3 1 0	Pool. Rs. a. p. 3 1 0	Pool. Rs. a. p. 3 1 0	Pool. Rs. a. p. 2 5 0	Pool. Rs. a. p. 4 1 0	Pool. Rs. a. p. 5 12 0
Amraoti . .	.....	No pool. Rs. a. p. 3 8 0	No pool. Rs. a. p. 3 8 0	No pool. Rs. a. p. 3 8 0	No pool. Rs. a. p. 2 0 0	No pool. Rs. a. p. 2 8 0	No pool. Rs. a. p. 4 0 0
Khamgaon . .	.....	Pool. Rs. a. p. 2 0 0	No pool. Rs. a. p. 2 0 0	No pool. Rs. a. p. 1 12 0	Pool. Rs. a. p. 2 0 0	Pool. Rs. a. p. 3 14 0	Pool. Rs. a. p. 5 9 0

(ix) *Statement showing working of ginning and pressing factories at various stations.*

	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.	1914.	1915.	1916.	1917.	1918.
Karanja Presses { Pressing Rate. Pool Working Silent	..... ..... ..... .....	..... ..... ..... .....	Rs. 3-1-0 " 1-15-0 " 4 " 1	Rs. 2-10-6 " 1-3-0 " 3 " 2	Rs. 3-4-6 " 1-15-0 " 3 " 2	Rs. 3-5-0 " 1-15-0 " 4 " 1	Rs. 3-5-0 " 1-15-0 " 4 " 1	Rs. 3-5-0 " 1-15-0 " 3 " 2	Rs. 3-15-0 " 1-15-0 " 3 " 2	Rs. 3-1-0 " 1-15-0 " 3 " 2	Rs. 4-9-0 " 1-15-0 " 3 " 2	Rs. 5-5-0 " 1-15-0 " 3 " 2	..... ..... ..... .....	..... ..... ..... .....
Karanja Gins { Ginning Rate Pool Working Silent	..... ..... ..... .....	..... ..... ..... .....	Rs. 2-1-0 " 1-10-0 " 6 " 0	Rs. 4-0-6 " 1-10-0 " 5 " 1	Rs. 4-0-6 " 1-10-0 " 6 " 0	Rs. 4-1-0 " 1-10-0 " 5 " 1	Rs. 4-1-0 " 1-10-0 " 5 " 1	Rs. 4-1-0 " 1-10-0 " 5 " 1	Rs. 4-1-0 " 1-10-0 " 5 " 1	Rs. 4-1-0 " 1-10-0 " 5 " 1	Rs. 4-9-0 " 1-10-0 " 6 " 0	Rs. 4-9-0 " 1-10-0 " 6 " 0	..... ..... ..... .....	..... ..... ..... .....
Murtizapur Presses { Pressing Rate. Pool Working Silent	Rs. 1-8-0 " 0-4-0 " 2 " 2	Rs. 1-8-0 " 0-4-0 " 4 " 0	Rs. 2-8-0 " 2-0-0 " 4 " 0	Rs. 3-8-0 " 2-0-0 " 3 " 1	Rs. 3-8-0 " 2-0-0 " 3 " 1	Rs. 3-8-0 " 2-0-0 " 3 " 1	Rs. 3-8-0 " 2-0-0 " 3 " 1	Rs. 3-8-0 " 2-0-0 " 3 " 1	Rs. 3-8-0 " 2-0-0 " 3 " 1	Rs. 3-12-0 " 2-0-0 " 2 " 2	Rs. 4-8-0 " 2-0-0 " 2 " 2	Rs. 4-8-0 " 2-0-0 " 2 " 2	Rs. 5-0-0 " 2-0-0 " 2 " 2	Rs. 6-2-0 " 2-0-0 " 2 " 2
Murtizapur Gins { Ginning Rate Pool Working Silent	Rs. 3-0-0 " 0-8-0 " 5 " 1	Rs. 4-4-0 " 2-0-0 " 6 " 0	Rs. 4-4-0 " 2-0-0 " 6 " 0	Rs. 4-4-0 " 2-0-0 " 6 " 0	Rs. 4-4-0 " 2-0-0 " 6 " 0	Rs. 4-4-0 " 2-0-0 " 6 " 0	Rs. 4-4-0 " 2-0-0 " 6 " 0	Rs. 4-4-0 " 2-0-0 " 6 " 0	Rs. 4-4-0 " 2-0-0 " 6 " 0	Rs. 4-4-0 " 2-0-0 " 6 " 0	Rs. 4-4-0 " 2-0-0 " 6 " 0	Rs. 4-4-0 " 2-0-0 " 6 " 0	Rs. 4-4-0 " 2-0-0 " 6 " 0	Rs. 4-4-0 " 2-0-0 " 6 " 0
Jalgaon Presses { Pressing Rate. Pool Working Silent	..... ..... ..... .....	..... ..... ..... .....	Rs. 3-0-0 " 1-10-0 " 3 " 3	Rs. 2-0-0 " 0-10-0 " 3 " 3	Rs. 1-8-0 " 0-2-0 " 3 " 4	Rs. 3-4-0 " 2-0-0 " 3 " 4	Rs. 3-4-0 " 2-0-0 " 3 " 4	Rs. 3-4-0 " 2-0-0 " 3 " 4	Rs. 3-8-0 " 2-3-0 " 3 " 4	Rs. 3-12-3 " 2-4-0 " 3 " 4	Rs. 4-1-0 " 2-4-0 " 3 " 4	Rs. 6-6-0 " 2-4-0 " 3 " 4	Rs. 6-4-0 " 2-4-0 " 3 " 4	..... ..... ..... .....
Jalgaon Gins { Ginning Rate Pool Working Silent		Rs. 4-4-0 " 1-8-0 " 4 " 2	Rs. 4-4-0 " 1-4-0 " 4 " 2	Rs. 4-4-0 " 1-4-0 " 4 " 2	Rs. 4-4-0 " 1-4-0 " 4 " 2	Rs. 4-4-0 " 1-4-0 " 4 " 2	Rs. 4-4-0 " 1-4-0 " 4 " 2	Rs. 4-4-0 " 1-4-0 " 4 " 2	Rs. 4-4-0 " 1-4-0 " 4 " 2	Rs. 4-4-0 " 1-4-0 " 4 " 2	Rs. 4-12-0 " 1-1-0 " 4 " 2	Rs. 4-12-0 " 1-1-0 " 4 " 2	Rs. 6-0-0 " 2-0-0 " 4 " 2	

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{Continued.}

(x) Further statement showing working of pressing factories at various stations.

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[Continued.]

(xi) Further statement showing working of ginning factories at various stations.

Year.	Agra.				Etawah.				Kosi.				Palwal.				Auraiya.				Dhulia.				Shirpur.			
	Total number of factories.	Ing factories.	Number of factories idle.	Pool rate.	Total number of factories.	Ing factories.	Number of factories idle.	Pool rate.	Total number of factories.	Ing factories.	Number of factories idle.	Pool rate.	Total number of factories.	Ing factories.	Number of factories idle.	Pool rate.	Total number of factories.	Ing factories.	Number of factories idle.	Pool rate.	Total number of factories.	Ing factories.	Number of factories idle.	Pool rate.				
1905-06	6	6	0	Rs. a. p. 0 2 6	8	7	1	0 10 0	12	12	0	Rs. a. p. 0 9 0	12	12	0	Rs. a. p. 0 9 0	12	12	0	Rs. a. p. 0 11 0	14	11	3	Rs. a. p. 1 12 0				
1906-07	6	6	0	0 3 3	9	8	1	0 11 0	13	13	0	No pool.	13	13	0	0 9 9	13	13	0	0 11 0	15	12	3	No pool.				
1907-08	7	7	0	No pool.	9	7	2	0 11 0	13	13	0	0 9 0	13	13	0	0 9 9	13	13	0	0 11 0	15	12	3	Do.				
1908-09	7	7	0	0 3 3	10	7	3	0 12 0	14	14	0	No pool.	14	14	0	0 9 9	14	14	0	0 11 0	16	13	3	1 10 0				
1909-10	7	7	0	0 3 3	9	7	2	0 12 0	13	13	0	0 13 6	13	13	0	0 9 9	13	13	0	0 11 0	15	12	3	No pool.				
1910-11	7	7	0	0 4 3	9	7	2	0 12 0	13	13	0	0 13 6	13	13	0	0 9 9	13	13	0	0 11 0	15	12	3	Do.				
1911-12	7	7	0	0 12 0	9	6	3	0 12 0	13	13	0	0 11 0	13	13	0	0 9 9	13	13	0	No pool.	15	12	3	Do.				
1912-13	7	7	0	0 12 0	9	6	3	0 13 0	13	13	0	0 11 0	13	13	0	0 12 0	13	13	0	Do.	15	12	3	Do.				
1913-14	7	7	0	0 12 0	9	6	3	0 13 0	13	13	0	0 13 0	13	13	0	0 12 0	13	13	0	Do.	15	12	3	Do.				
1914-15	7	7	0	0 12 0	9	6	3	0 12 6	13	13	0	0 13 0	13	13	0	0 12 0	13	13	0	Do.	15	12	3	Do.				
1915-16	7	6	1	0 3 0	11	9	2	No pool.	15	15	0	0 6 0	15	15	0	0 12 0	17	14	3	1 12 0	19	16	3	1 8				
1916-17	8	7	1	No pool.	10	10	1	Do.	16	16	0	0 12 0	16	16	0	0 12 0	18	15	3	1 13 0	20	17	3	1 8				

Year.	Amroht.				Khangraon.				Karinja.				Murtizapur.				Shegaon.				Kasur.				Katol.			
	Total number of factories.	Ing factories.	Number of factories idle.	Pool rate.	Total number of factories.	Ing factories.	Number of factories idle.	Pool rate.	Total number of factories.	Ing factories.	Number of factories idle.	Pool rate.	Total number of factories.	Ing factories.	Number of factories idle.	Pool rate.	Total number of factories.	Ing factories.	Number of factories idle.	Pool rate.	Total number of factories.	Ing factories.	Number of factories idle.	Pool rate.				
1905-06	13	13	0	Rs. a. p. 1 12 0	12	10	2	Rs. a. p. 2 0 0	6	6	0	Rs. a. p. 1 12 0	6	6	0	Rs. a. p. 1 10 0	6	6	0	Rs. a. p. 1 10 0	6	6	0	Rs. a. p. 1 8 0				
1906-07	15	15	0	1 12 0	13	11	2	1 12 0	6	6	0	No pool.	6	6	0	1 10 0	6	6	0	No pool.	6	6	0	1 8 0				
1907-08	15	15	0	No pool.	13	11	2	2 0 0	6	6	0	1 10 6	6	6	0	No pool.	6	6	0	No pool.	6	6	0	1 12 0				
1908-09	15	11	4	No pool.	13	12	1	2 0 0	6	6	0	1 10 6	6	6	0	1 10 0	6	6	0	No pool.	6	6	0	1 12 0				
1909-10	15	15	0	No pool.	13	13	0	2 0 0	6	6	0	1 10 6	6	6	0	1 10 0	6	6	0	No pool.	6	6	0	No pool.				
1910-11	15	15	0	..	13	13	0	2 0 0	6	6	0	1 10 6	6	6	0	1 10 0	6	6	0	No pool.	6	6	0	No pool.				
1911-12	15	15	0	..	13	10	3	2 0 0	6	6	0	1 10 6	6	6	0	1 10 0	6	6	0	No pool.	6	6	0	No pool.				
1912-13	15	15	0	..	13	10	3	2 0 0	6	6	0	1 10 6	6	6	0	1 10 0	6	6	0	No pool.	6	6	0	No pool.				
1913-14	15	15	0	..	13	9	4	2 0 0	6	6	0	1 10 6	6	6	0	1 10 0	6	6	0	No pool.	6	6	0	No pool.				
1914-15	15	15	0	..	13	8	5	2 0 0	6	6	0	No pool.	6	6	0	1 10 0	6	6	0	No pool.	6	6	0	No pool.				
1915-16	15	13	2	No pool.	16	16	0	No pool.	6	6	0	No pool.	6	6	0	No pool.	6	6	0	No pool.	6	6	0	1 11 0				
1916-17	16	13	3	No pool.	21	20	1	No pool.	6	6	0	1 10 6	6	6	0	No pool.	6	6	0	No pool.	6	6	0	1 11 0				

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[Continued.]

The Hon'ble Mr. PURSHOTAMDAS THAKURDAS, M.B.E., and Mr. HEERJEE KHETSEY, representatives of the Bombay Cotton Exchange, called and examined.

4796. (President.) Mr. Parshotamdas Thakurdas.—I think that there has been a deterioration in cotton in recent years. The deterioration has been marked in districts which grow long staple cotton. There has been a steady deterioration due to the temptation to the middlemen to mix short staple cotton with long staple. The parts that have been most affected are Broach, Surat, a portion of Kathiawar and the whole of the Nizam's Dominions more or less. I think the deterioration has been serious. What I have quoted in my written evidence shows the change that has come about between 1906 and 1917. In 1906, Mr. Fletcher said "I have never seen a field that contained more varieties of cotton than one." In 1917, the admixture in Broach cotton amounted to half and half. In some parts of the Broach district, the proportion of short staple amounts to as much as sixty per cent. As far as mixing in the field is concerned, it was not half as bad in 1906 as it is now. The quality of the Broach crop was decidedly better than it has been during the last five years. The Broach crop of 1905-06 as compared with Broach of to-day was something like Surtee of to-day. As a matter of fact, since 1911, I have had to make a new type—my type is B. U. C.—for the present growth of Broach. Broach cotton of late years is so low in staple that it can not possibly be sold on the old type, barring of course small quantities which my agent selects and keeps and gins and presses separately.

4797. I am in favour of agricultural banks as supplementary to co-operative societies. Co-operative societies can only work to a limited extent. I think agricultural banks started by Government would be much better equipped for financing the ryots. What I feel is that at present the ryot is more or less in a helpless condition: his crop matures and the Government dues have to be paid. There is the Deccan Agricultural Relief Act and, in the tracts to which that applies, a cautious *sahukar* will not give any advance on standing crops unless he gets possession of it. The result is that the ryot has to sell his stuff at the rate that is offered to him at the moment. He cannot hold out and so he goes to the *sahukar* and the result is that the heavy interest charges knock off a big slice from the price. Until something is done to help the ryot in that direction, I am afraid his condition will never improve. In spite of the high range of rates that has been given for his produce during the last few years, he has not been able to hold out. I have not thought out the details of the agricultural banks. The security for loans would be the same as the security for Government dues. That is why I say that Government alone can do it and that private banks cannot do it. The procedure for recovery would be the same as that for recovery of arrears of land revenue. If the bank is a Government bank, it comes to the same thing as if Government were recovering their own dues. Of course, this will limit the amount of the loan to each individual to the extent of the value of the standing crop. What is good enough for the *sahukar* is much better for the Government. The same difficulty existed in America before they started agricultural banks; there also the cultivator was helpless. I have not heard of the fate of the Egyptian bank. I am in favour of a considerable development of the co-operative movement as rapidly as possible but I am afraid that the development of co-operation is rather a slow process. The best men in the districts are not in the co-operative movement. The popular idea is that it attracts the best intellects but I am sorry to differ from that. They are not in it for various reasons; one is that they do not want to be responsible for the actions of others. They have not sufficient voice. But that is a matter which is more for co-operative people to discuss. The real position is that the financing of the ryot is very unsatisfactory. I should like agricultural banks and co-operative societies to develop side by side.

4798. As to the question of forecasts, they are better now than they used to be sometime back but they are not as good as they should be. The reason for that is that the people in the districts are not sufficiently interested in the matter. The Government have not yet succeeded in interesting the middlemen and the cultivators. I would very much like them to be interested by issuing these forecasts in the vernacular as far as the districts are concerned and by distributing them and asking the middlemen and the cultivators to compare the forecast with actual results. I am also anxious that the method of collecting the figures should be more on American lines. I do not know how things are done at present. I think the people who are asked to report should be asked to report facts and not their own opinions and from these facts the necessary inferences should be drawn by the head of the Department.

4799. As to the cotton pressing returns, they are absolutely worthless. They are very incomplete. In the month ending 31st October 1917, the total quantity pressed in Broach is put down as 57,760 bales and the total quantity received in Bombay from Broach till October 1917 is 77,306 bales. There is therefore a difference of 20,000 bales between the press returns and the actual arrivals. Then the despatches by rail to centres like Ahmedabad where there are mills have not been taken into consideration. They are bound to be incomplete; if the Government cannot manage to get complete returns, their publication is worse than useless. I am therefore in favour of making submission of returns from press owners compulsory.

4800. I am not in favour of the publication of prices of good Broach cotton in up country markets. If it is decided to publish them, they should not be published without the checks that I have mentioned in my written evidence.

4801. (Mr. Wadia.) There is a big shortage of long staple cotton in India and the demand is increasing from year to year. Japan is going in for staple cotton now, and the Bombay mills are scrambling for it. They have been going more for finer counts since the outbreak of the war than they did before. Mills now send buyers up country under the impression that if they do so, they will get pure stuff. I do not know how far these men succeed in getting pure stuff. They have to take steps which they used not to take before. The cotton that is coming to Bombay now is coming in in a more mixed condition than it used to do. The growth of short staple cotton in long staple cotton districts is increasing. It is certainly the case that the crop has deteriorated because more short staple stuff has been introduced in the districts which grow longer staple cotton and there is therefore the more temptation to the middlemen to mix. I have stated in my written evidence that short staple cotton is replacing long staple in Kathiawar. Long staple in Kathiawar is steadily decreasing. *Mathio* has replaced the long staple in some parts of Kathiawar so that there is no complaint there about mixing.

4802. I think that, during the last five years, the premium paid for long staple cotton has been fairly adequate. Looking at the differences between short staple and long staple, this difference has widened very much in favour of the long staple during the last five years. Once the whole crop is short staple, as it is bound to be in course of time if it is not checked and as has already happened in the case of *mathio*, then the range of prices will at once fall to the price available for the short staple stuff. I do not think that it would be sound policy for the Agricultural Department to give out short staple seed. I think that what the Agricultural Department should do is to persuade the cultivators to go in for the long-staple seed and to give them

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facilities for ginning and marketing the long staple cotton separately and the trade would respond. I am sure that the trade will pay and has paid during the last five years the necessary premium to make it worth while to grow long staple cotton. The whole difficulty is that it should be kept pure. That can be done in present conditions by the influence of the Agricultural Department; if the Agricultural Department has an adequate number of superior staff who take an interest in the cultivators' affairs and persuade them that if they grow long staple cotton, keep it separately and market it separately, then they will get the necessary premium for it, they will get that premium and will keep on getting it. The best test of that is what has happened in the Surat district. I have described this in my written evidence. The Agricultural Inspector there has been in very close touch with the cultivators and these cultivators have continued to grow the farm seed. The produce is brought pure to the gins and the buyers have always paid them five per cent extra. The short staple seed, which is known in Broach as *goghari* seed, must be stopped totally by Government. If the short staple cotton is marketed separately, there will very soon be a plethora of short staple stuff and the result will be the same as with *mathio*. I am, therefore, of opinion that the Agricultural Department should not, as far as possible give out seed of short staple cotton because in the long run such a policy would be fatal to the cultivators, though they may temporarily get what look like bigger prices. The comparison between the prices of short staple and long staple as given by the Director of Agriculture in the Central Provinces, appears to be for a tract in which long staple cotton is not the indigenous product of the district but has been introduced into a tract which has been growing ordinary fair staple. I do not know how the comparison would work out for a tract like that. But I have worked it out in districts like Broach and Surat and even in the Nizam's Dominions and the apparent benefit to the cultivator for growing short staple there is due, as I have said, to the high price that he gets for the short staple stuff because the middleman can mix it with the long staple. I have no wish to change the whole of India into a long staple cotton tract. *Roscum* has been introduced recently but it is pretty close to the old fair staple *Oomra* seed—not the new but the old one. The deterioration from the old ordinary Khamsaon Akola seed to *roscum* is not so marked but the deterioration from the old *bani* (ghat) *kapas* to *roscum* is very marked.

4803. I am very strongly of opinion that there should be a legal prohibition of the transport of *kapas* by rail from one district to another. There is absolutely no necessity for *kapas* or seed-cotton transport. Every district has got a ginning factory which makes it unnecessary for the *kapas* to be carried from one district to the other. I admit that there may be stray cases of *kapas* being carried by carts from one district to another but the middleman up country does it only up to a certain distance. A man might transport *kapas* from Agra to Broach but that is not a thing that an ordinary middleman would do. Prohibition would prevent *kapas* being carried from Bengal to Hubli or of *mathio* coming to Broach by sea. That is a flagrant misuse of the transport facilities. My point is that the bulk of the worst mixing would be stopped if transport by rail and sea were prohibited and that the trouble arising from transport by carts would not be so great. This could be looked after by the local committees which I have suggested. I have a copy of the notification issued by the Nizam's Government very lately, under which damping has been made a criminal offence in that State. They have not taken any steps to prevent transport by carts. The officer in charge thought that was not a very easy matter.

4804. I have referred in my written evidence to the extravagant and fraudulent mixing of Punjab American with *deshi* Sind Punjab. The difficulty is that Punjab American is very badly mixed with the *deshi* short staple stuff which is known here as Sind Punjab cotton. Punjab American has never been put on the market as a separate article. I have seen some that was much less mixed than what is obtainable in the market. I would not say that I have seen it absolutely pure. I won't say that I could tell exactly the percentage of mixture in the cotton. When the mixture differs by ten per cent, more or less one could value the cotton and say that this lot was better staple than that. I have handled Punjab American. It would be very difficult to say what the exact percentage of mixture was but it is not very difficult to say that one lot is more mixed than another. I am always able to say whether a lot is up to the standard of the sample bale or not. Allowance has been as high as Rs. 50 to 60 per *khandi*. The allowance was for staple and not for class.

4805. There is no class for Punjab American but we name the stations from which cotton should be despatched to be tenderable against Sind Punjab. The presumption is that Punjab American comes from stations in the Punjab. We go on revising these stations from time to time. If you look up the rules for five years back, the number of stations was much smaller than it is to-day. We should be prepared to make a separate class for stations in the Punjab. Inclusion of stations is based on the fact that there is a press at the station.

4806. In order to prevent mixing and adulteration my suggestion is that factories should be licensed. The penalty would be the withdrawal of the license for persistent and fraudulent mixing and for any serious misdemeanour. Whether the license should be withdrawn after the first offence or not would depend on the nature of that offence. If the first offence was of a serious nature, I would not hesitate to withdraw the license. It would all depend on the recommendation of the local committee. I would leave it in the hands of the local committee. They would make recommendations to the central committee in Bombay which would make the final recommendations to Government. I would like the central committee to be a purely advisory body but I would not like the Government to take any action independently of the recommendations of the central committee. What I suggest is that Government should take action on the recommendations of the central committee just as they act on the recommendation of Commissioners and Collectors.

4807. There are certain districts where the weights used are bad but there are others where the ryot looks after himself. A great deal depends on the intelligence of the cultivator. I would make it a condition of licensing that standard weights should be used. There would be no objection to that at all. Here in Colaba we have standard weights, similarly in Broach, Surat and Khandesh. I have experience of weighbridges. Weighbridges are more convenient when the receipts are large. Weighing by ordinary scales takes more time. When a man wants to cheat, either weighbridge or scale is good enough for him and bad enough for the unintelligent cultivator.

4808. As to the mixing of *kapas* with cotton by throwing it over the gin, it is quite possible that that happens accidentally but one can always make out whether it is deliberate or not. If it is done deliberately one finds it all through a lot, in every layer of the bale; if it is accidental, you find it in a few bales in a hundred. Night ginning is nearly always bad. I have seen that in my own factories. As to the suggestion which has been made to the Committee that a board should be put up in front of the rollers about two feet high which could be easily taken off for the purpose of adjusting the knives, I think that would help very materially but I do not know what would happen to the woman sitting on the platform. That would prevent the chance of accidental mixing. The *kapas* and the lint platforms are very narrow but, in issuing

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licenses, I would make it a condition in the case of new factories that these platforms should be made wider. I would not impose such conditions as would make ginning factories more costly than one can help. At any rate, I would not insist on any change or any material alteration in the construction of the ginneries. What we require is that precautions should be taken in the shape of local committees to look after these things. I have ordered out one of these roller gins with automatic feeder attached. It has not yet come. I am expecting it in March next, if all goes well. If any thing could be done in that direction, it would mean a great saving of labour as it would reduce the cost of ginning and would also prevent the great rush that takes place in a good season.

4809. I have stated in my written evidence that pools are not detrimental to the interests of the cultivators and that the prices charged for both ginning and pressing are reasonable. On the whole, though there may be some very bad cases where pools are very continuous, the charges are reasonable. A charge of Rs. 7 for pressing is really high. As long as the pools confine themselves to reasonable rates such as Rs. 4 to Rs. 6, nobody has any ground for complaint. But when they charge high rates, so much profit comes out of the pocket of the cultivators. When the rate goes beyond Rs. 6, I would call it high, for pre-war days. A case such as that mentioned from the Punjab in which they have been charging Rs. 9-8 and paying Rs. 3-8 to the pool, I should call bad. My remedy for that would be that these people should be told the first year that if they charged anything over Rs. 6, their factories would not be licensed. I would give the central board the power of fixing a maximum. I would not wait for complaints. It would be the duty of the board to keep themselves informed of what was being charged in the districts. There would be representatives of leading firms on the board. I would tell factory owners that unless they came down to a reasonable rate, their factories would not be allowed to work; they would not get a license. I do not know from what point of view pools can be held to be a blessing in disguise to the cultivator. When there is a pool and the rate is a reasonable one, the pool goes on for two or three years, but at the end of two or three years, the members usually manage to fall out amongst themselves. Then they work at actual cost or a little less. So that the average of these four years works out very nearly to the rate of ginning and pressing factories which are not in pools. I have not heard of any instances in which high pool rates have been used to enable higher prices to be paid to the cultivator for his cotton.

4810. I advocate a very large increase in the staff of the Agricultural Department both European and Indian, but I attach more importance to an increase in the Indian staff as I think they carry more influence with the cultivators. Better posts should be offered to Indians. Until sufficient Indian staff can be obtained, I have no objection to the importation of botanists, entomologists, etc., from England, but I would prefer the appointment of Indians as I think their influence especially with the cultivators up country would be much greater.

4811. I am absolutely opposed to any sort of export duty on cotton. I think the question was referred to us in 1914 not as a question of export duty but as a small duty for the benefit of the City Improvement Trust. The City Improvement Trust wanted funds and the Municipality suggested to the Government that all cotton export from Bombay should be taxed four annas a bale. The Government referred the question to us for opinion. Although a duty of four annas a bale looks a trifling thing in the case of an article like cotton which fluctuates hundred of rupees in a season, the Exchange opposed it very strongly on principle. If you put a duty on the quantity of cotton that is exported, what is gained by the public exchequer is restricted to export only; but the cultivator loses on the whole crop. Take Indian cotton for instance; roughly, the total produce is 60 lakhs of bales of which 20 lakhs are exported. Supposing a duty of Rs. 5 per bale is imposed then on 20 lakhs of bales, the public exchequer gets a crore; but I say that the cultivator will lose three crores because the only competitor in the local markets with the local consumers is the exporter and the price of the local crop will be settled on the price that the exporter can pay for the surplus product. Thus the ryots that grow cotton will have to pay something in addition to what other cultivators pay. An export duty is therefore equivalent to an increase in the assessment on cotton land. If cotton does not pay owing to an export duty they will take to something else. I am strongly against an export duty, at any rate until India is able to consume ninety per cent. of what she grows herself.

4812. (Mr. Hodgkinson.) I am not in favour of exotic seed being tried in India. I think Punjab American has more or less come to stay. I cannot say whether Punjab American is an exotic cotton because I do not know its history but there is canal irrigation in the Punjab and with that the climatic drawbacks to exotic seed more or less disappear. Cambodia has also come to stay. I think it ought to be pushed in tracts in which the conditions are similar to those of the tracts in which it is grown at present.

4813. If the trade get pure stuff, they do pay a premium for it. Mixing goes on because when the crop is marketed, the cultivator is not able to hold out; he must sell what he has got at once. He puts both long and short staple on the market and the middleman tries to get both as cheaply as possible. The next thing that the middleman does is to mix the two. It is a very short-sighted policy. The middleman himself loses by it in the long run. If the cultivator were able to get advances from the bank on his long staple crop and hold it for a bit, he would get the proper price for it. But the poor fellow must sell. He must sell to pay up his Government revenues and his dues to the *sahukar*. The whole point is that when Liverpool buys long staple cotton from a person, it buys it from a man who is in a strong position to hold it. I have shipped ordinary Navsari pure to Liverpool and I have been offered a penny over the American rate. I refused to sell at a lower rate and when I held out they paid me my price. If the cultivators were in the same position as a strong firm, I am sure they would take full prices from the mill-owners. Supposing an exporting firm took cotton to Liverpool and put it on the market and held it up saying that they were not in a hurry to sell if they did not get their price for it, then they would be sure to get what they wanted under similar conditions. Put the cultivator in the same position, and you will see the result. The purer stuff you put on the market, the better position you are in to hold out and the bigger will be the premium. In a place like Liverpool, if you send anything a little mixed, the difference in price is enormous in favour of the purer stuff. The Bombay mill-owners would pay a bigger premium if the other party were in a position to demand it. You cannot compare the Bombay mill-owners with the helpless ryot who has to sell his stuff as soon as it is ready. The middleman is not out for benefit of the cultivator, nor for the benefit of the mill owners. He does what in his opinion is to his interest, wrong though it be. I have known Bombay mill-owners buying in certain long staple districts who paid an enormous premium for pure staple cotton. They have been buying pure stuff through me in some districts. They have never minded the price. Their instructions were simply to buy pure stuff. My remedy is to put the ryot in a condition in which he can hold out for the highest price. Assure the ryot that that he will get a fair advance against his produce at a reasonable rate, and compel him to put his cotton in a Government godown if necessary for loans, and then you will see that he will get rid of his

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short staple and stick to his long staple. He must be financed by co-operative societies and by Government because it will be profitable to Government in the long run.

4814. I think the present system of trade classification is quite good and I do not see any way in which simplification would help the trade materially.

4815. I suggest that there should be legal prohibition on sending even half pressed bales from one district to another. Fully pressed bales should not be allowed to be rebooked in ordinary course. Myangam is a station in the Broach district; fully pressed bales are booked from there to Navsari and then rebooked from Navsari to Bombay. It is sold here as Navsari. All this rebooking of cotton from one station to another should be prohibited and the rest would be done by the name of the press which should be stamped on the flat of the bales. I would make it compulsory to have the name of a press stamped on the flat of each bale.

4816. Nominally there is a mutual allowance clause in both the Liverpool and Bremen contracts. I have shipped cotton on the mutual arbitration clause and find that they are very stiff about giving "on" allowances. They act on it simply to protect themselves. They never act on it with the idea of giving the seller points "on." That is the case both in Bremen and Liverpool. I do not think the mutual allowances clause would work here because exporters would not have it if they were made to pay the "on" allowance. I personally attach no importance to the mutual allowance clause.

4817. I have not tried saw gins in any district except at Dharwar but I heard from other people that they have not been a success. They have failed with cotton of short or fair staple but I do not see why they should not succeed with longer staple cotton, such as Punjab American or Cambodia. I am convinced that they would not succeed with short or fair staple. Saw gins at present are the only gins which are capable of being fitted with automatic feeders. I have experience of saw gins at Gadag, Hubli and Dharwar.

4818. (Mr. Roberts.) My point is that when the Department and the cultivator grow the short staple cotton, as long as there is enough long staple cotton to mix with the short, the effect of the deterioration on prices is not felt as the buyer pays more or less the same price for both but that ultimately when the long staple cotton disappears, the cultivator will suffer. As to whether, in Khandesh, where the Agricultural Department is putting out short staple stuff called N. R., after satisfying itself that the yield and ginning percentage are better than that of the cotton which is ordinarily grown in Khandesh, the policy followed is a sound one, here, as I said before, you are taking an instance in which the normal growth has been of fair staple or short staple. I am talking of cases in which the normal growth has been long staple and where short staple is being introduced. It is an open question—I have not gone into it—whether in districts like Khandesh, it would pay to introduce long staple cotton and whether it would be more to the benefit of the cultivator to have long staple cotton in preference to the ordinary short staple growth of the district. I do not know how long staple cotton would stand the climatic conditions of the district. In this particular case, the tendency at present is to put out a shorter staple cotton than anything that is grown there. It is a uniform short staple cotton the staple of which is the shortest in the mixture and even shorter than what could be called the *deshi* cotton of the district. I do not think that should be encouraged. The policy should be to work up to longest staple *deshi* cotton of the district and not to give preference to the shorter staple. I submit that if the figures are worked out, the profit on the shorter staple growths would not be greater than those on the better staple growths. As regards valuation, the comparison should not be between uniform short staple and mixed long and short staple but between uniform short staple and uniform fair staple. The whole point is that the trade wants something even; it should be even long or even fair or even short. For a mixture, one pays the price of the worst cotton in the mixture. As far as *roseum* is concerned, I think it is pretty close to the fair staple growth of Berars: as far as N. R. in Khandesh is concerned, I have not been able to go into details. If the figures showed that uniform short staple cotton was more profitable than uniform fair staple, then no one could say that it would be in the cultivators' interests to put out fair staple cotton but I doubt if the figures would prove that. Provided that a pure strain of each were taken and the figures were gone into thoroughly, I think it would be found that the medium staple cotton would pay better than the short and that the long staple would pay better than either. I would emphasize this for every tract that grows staple cotton. Keep up the long and medium staple in preference to the shorter staple. In the Surat and Broach tracts, it is true that the shorter staple crop in an ordinary market gives a better price than the longer staple but that is because they have got the longer staple to mix with it.

4819. Buyers up country do not go by stations. It is Bombay which goes by stations. In up country markets, it is not only the agents of Bombay firms and mills who are buying but there are also local mills; as to whether much mixing is done by cultivators or by middleman, my own experience is that the worst mixing is done by the middleman up country. He is more responsible than the cultivator and the only responsibility as far as Bombay mills are concerned may be that they may not have sufficiently experienced shrewd men of business buying for them. Punjab American is very badly mixed. It all shows mixture more or less—some of it up to twenty per cent. and some as bad as seventy per cent. That was two years ago. It was only American in name. I have seen some this year and last year. Last year there was a decided improvement on the year before. About this year I could not say; I have not seen much till now. Very little has come here this year. I have only seen some samples. We quote for Punjab-American if we are asked to do so. We have not been putting it in our usual price lists as it is not current, i.e., it is not a thing that people deal very day. We should be quite willing to do so.

4820. I am not absolutely opposed to the posting of prices up country but if it is done, it must be done with considerable care. The price of the right grade must be published. It is no use quoting Broach, or Khandesh in the Punjab. As I say to the people who advocate that, it would be absolutely misleading.

4821. I do not think that it would be difficult to get a quotation for Punjab-American in Bombay. If you asked the Cotton Trade Association or the Cotton Exchange about it, they would be willing to give it. Provided the grade were the same, there would be no objection to publishing the Bombay price of this variety. The quotation for Punjab-American would have to be for pure stuff, and if necessary for mixture up to a certain percentage.

4822. At present there is no very intimate touch between the Bombay and the up country markets where the greatest mixing goes on. I was wondering whether such a committee as has been suggested would be able to do something in this respect by educating up country markets and by informing Bombay of what was going on up country. The committee would perhaps bring to the notice of the buyers the ginning and pressing factories in which the worst mixing took place because they would have the information at hand. It would also keep the up country markets informed of the prices prevailing in Bombay. I do not know in what other direction the committee could be expected to help. The committee would be a good link

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between the up country market and Bombay, the distributing market, a chain that would not involve undue interference from Government officers who do not know much of the trade.

4823. In 1910 and 1911, there was very much damping in Etawah and Chandausi and I believe it continues there still. I think we bought there last year. Damping by cultivators is still done up to 25 per cent. and in some cases more.

4824. *Mr. Heerjee Khetsay.*—Buyers also damp cotton hopelessly. Damping by cultivators as well as by buyers should be prevented. In the Berars and Khandesh too, damping is done by a hose pipe. The suggested committee would be able to put a check on this and would not allow this sort of thing to go on.

4825. *Mr. Purshotamdas Thakurdas.*—I am afraid damping is so general that it is very difficult to find anybody pressing without damping. It is general enough not to allow of any distinction being made—almost everybody does it.

4826. I think the Divisional Superintendent of Agriculture in the Northern Division has got certain groups of cultivators who sow the seed that is grown on the Surat farm. He distributes the seed to them, I am told, and he goes round during the monsoon months and takes care that no other seed is sown. He keeps a record of it and of how much seed each cultivator took. He tells me some time in October or so that he expects so many bales as the outturn from these operations. I write and say that I undertake to buy them at a certain premium—say five per cent. above the price ruling in Surat on any day. Whenever the cultivators want to sell, they go to him and he wires to me or tells my agent at Surat. The premium is fixed on the basis of the price ruling in Surat that day. I sell the cotton simultaneously to local mills. I have made a point never to sell it to an exporter because then I would not get reports as to strength and outturn. I buy ginned cotton. When the *kapas* is ready, it is carted to my ginning factory where I think the Agricultural Department posts one of its clerks with a record that so and so has been given so many maunds of seed out of which the *kapas* outturn was so much, so that the cultivator cannot put in any inferior growth. If there is a better outturn, the cultivator gets the benefit of it. If it is bad, he loses. I take the cotton at any time the cultivators bring it. This year they sold it at Rs. 672. Since then the market has gone up to Rs. 752. I buy ginned cotton but it is ginned in my factory to ensure that there is no mixture. The cultivator is paid on the basis of ginned cotton. As far as I am concerned, there is no limit to the quantity that I am prepared to buy but I understand that there is a limit to the quantity that the Divisional Inspector can get grown under his supervision. I have been asking the Divisional Inspector to give me more. He says that he has not got the staff to look after a larger area. It is not a question of the distribution of seed only but of looking after the fields in the monsoon. If he were given more staff he says he could grow more cotton. A thousand acres is not very much. Every year they give me about 600 bales. I think it has paid the cultivators very well. I understand one year more cultivators offered to grow the cotton but he could not get the staff to inspect it. What happened some years back was that people took the seed and there was no supervision. Then when the marketing was going on, they brought in not only the produce of that seed but the produce of the ordinary seed. The Syndicate was then asked to pay a premium on 15,000 bales instead of 4,000 bales. The figures of Government and the Syndicate differed but the cultivators claimed a premium for a much larger quantity than was justified by the seed issued from the Government farm. Therefore I am anxious that the Divisional Inspector should not have a bigger area than he can comfortably look after. *Kapas* grown from the farm seed cannot be mistaken. *Kapas* grown from the farm seed can be made out from the other *kapas* which has got a bluish tinge about it by the mere sight of it. Until the staff has been materially increased and consists of reliable men who are not only intelligent but of a superior class and have influence with the cultivators, further advance cannot be made. Once or twice I have happened to have some differences; once the cultivators started their tricks and tried to give me bricks with the *kapas*. I protested very strongly and said I would not give them the five per cent extra. Just at that time the Divisional Inspector happened to be ill and the matter came to a serious difference of opinion but afterwards the whole thing was settled. I want officers who have influence with the cultivators. It is not a work which can be done by ordinary inspectors. I want a superior type of men.

4827. The question of having four or five cotton experts paid by the Associations to do nothing else but arbitration is one which has been mooted in Bombay for a very long time. I personally think that unless the arbitrators were well paid, it would not be possible to get the best men. I do not know that even for Rs. 2,000 a month, you could get a man who would be in touch with the trade and would command sufficient expert knowledge. No one is in better touch with the trade than the merchant here. No one is better fitted than a man who is interested in the trade. I am not in favour of official arbitrators who might know all about cotton before they are appointed but who, as soon as they were selected, would not keep in touch with the trade at all. As a shipper I know the Bremen system; I know what they want; how they arbitrate and what sort of allowances they give and how they handicap certain shippers. I do not think that they are uniform in their allowances; I think as far as we are concerned Liverpool is stricter. If two equal lots were simultaneously shipped, one would see at once that Liverpool would cut it to the very finest point. I think Bremen is a little slack; that is my experience. It is quite possible that somebody else's experience may have been different. Bremen is more uniform in this way that one does not have disappointments in the way of consignments arbitrated upon turning out to be much worse than one expected. In Liverpool different people arbitrate and so it is possible to get personal differences in awards. But in Liverpool there is an appeal Committee which is more or less uniform in its awards. In case of any dissatisfaction with the arbitration, we appeal to the Appeal Committee which is a standing body and we always expect the Appeal Committee to be uniform in its decisions.

4828. At the auctions at Lyallpur and other places in the Punjab, the cotton is sold to the man who bids the highest for it whether it is the consumer or the merchant. Don't you think that it is a very wrong policy to sell pure stuff to a person who may use it afterwards for mixing purposes? Suppose there is competition between a dealer and a mill owner. The mill owner is only prepared to pay up to Rs. 750. The dealer with a view to mixing the cotton with lower grades may go up to Rs. 775. Why do you put a weapon in the hands of a dealer for the sake of a paltry of Rs. 25 in preference to giving the cotton to one who would consume it and would be a buyer on a bigger scale next year? The middleman would buy presumably to mix it. As to whether agents of spinning and weaving mills mix at the time of pressing, I have no experience. If the mills mix up country, then it is hopeless and all your labours are not of much avail but I beg to submit that that may be an exception. I do not think it can be said that mill buyers up country mix there at the time of pressing. I say that these growths should not be sold to anybody but to the actual consumers and the enthusiasm of the mill owners should be judged by the price they pay. If the reserve fixed at the auction is Rs. 500 or Rs. 520 and if you get an offer of Rs. 525 from a mill-owner and one of Rs. 550 from a

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dealer, I should give the cotton to the mill-owner. If you allow it to go into the hands of middlemen you simply put more temptation to mix in their way. As long as there is short staple grown in any district, you will have middlemen who will offer you a better price than the actual mill-consumers. It generally is not the intention of middleman to put the purer stuff on the market. I am particularly tempted to put this on record because when the Agricultural Department left this Surat Farm business to me, two local dealers approached the Divisional Inspector and said that if my firm offered five per cent. they would give six per cent. The Divisional Inspector told me so and asked me if I would offer six. I told him that I offered five per cent. and that I would send the cotton pure to the mills and that the dealers offered six per cent. because they wanted to mix it.

Mr. LALJI NARANJI of Messrs. Mooljee Jaitha & Co., Bombay.

EXAMINED AT BOMBAY, JANUARY 30th, 1918.

Written statement.

4829. *Preamble.*—I am solely managing Messrs. Mooljee Jaitha and Company's affairs, which firm are agents of the Khandesh Spinning and Weaving Mills Company, Limited, and of the New East India Press Company, Limited, owning several ginning and pressing factories in Khandesh, Berar, Barsi and other districts and cotton *jethas* at Colaba and commanding large cotton business in various cotton districts. I am senior partner in the firm of Lalji Murarji and Company who are Secretaries, Treasurers and Agents to the Jam Shri Ranjitsinghji Spinning and Weaving Mills Company, Limited.

(2) I had the honour of giving evidence before the Indian Industrial Commission in November last. In my written evidence to the Commission, I had referred among other things to financing of cotton in an organized way. Much has been said and written about cultivation of cotton, its improvement, etc. India stands next to America in production of cotton and as such it is necessary that best efforts be made to increase the quantity and quality of cotton.

4830. *The present system of cultivating cotton and suggestions for improvement.*—I would first allude to the prevalent system of sowing cotton seed in vogue with cultivators, and their anxiety to have produce soon. The cultivators sow cotton seed of short-stapled cotton as is hereditary with them on the same lines as was done many years past without any eye to improvement of soil, manure, mode of sowing, etc. In many cases they are not at fault, as better seed of long-stapled cotton is not available to them, and even if made available, they are not sanguine as to what price they would realize when their commodity comes to be sold. In order to improve the quality of cotton and make the cultivators participants in the profit I would make the following recommendations or suggestions:—

(1) As cotton requires to be financed to a large extent and in an organized way, I consider the advisability of having Trade Guilds or Trusts as exist in Europe and America should be considered. Government encouragement is necessary for starting such Guilds in the following ways:—

- To aid cultivators financially when they commence sowing operations by providing them with good uniform seed through the agency of district officers.
- To make such laws as shall make it compulsory for cultivators of particular districts to borrow funds or money where such Guilds operate.
- Guilds or Trusts to operate in particular districts to be settled by Government. No other Guilds to be allowed to be started in such districts.
- To supply such Guilds with lists of different villages with names of cultivators who grow cotton.
- Guilds to supply every reasonable need of the cultivators from the commencement of sowing cotton till the crops are sold, in the shape of supplying good seeds at cheapest price, good implements and manure and to secure good prices for their crop at the opportune time.
- This will enable Government to control all produce of cotton on any emergency arising, such as war and similar other unforeseen circumstances.
- If one-third of the funds required for financing cotton, be raised by such Guilds, two-thirds to be provided by Government through co-operative or Government-fed banks.
- Guilds to be bound to finance cultivators and cultivators to be bound to get all produce sold through such Guilds. Both to be bound to each other under legal obligations.
- The Guilds to serve the purpose of a bureau or dépôt to supply every information regarding their produce to their constituents.
- Government to confirm appointments of Directors elected by the Guilds and accounts to be audited by Government or certified auditors.
- Guilds to have their representatives in Japan, the Continent and Liverpool, which are principal consumers of Indian cotton.
- Guilds of different provinces to have one central location, where general information pertaining different guilds could be available.
- Representatives in Japan, the Continent and Liverpool to be appointed jointly by different Guilds of different provinces.
- Reasonable commission to be payable to Guilds to be fixed after providing for all working costs, such as establishment, etc.
- Capital would be forthcoming from each district without any difficulty if the Guilds be under Government support.

(2) To persuade cultivators to adapt themselves to improved methods of sowing long-stapled cotton, it is necessary that following facilities be afforded to them:—

- Government through Guilds to provide seed for sowing long-stapled cotton.
- Cultivators being averse to change their primitive method of short-stapled cotton, the Guild to guarantee them the income which they usually get by sale of short-stapled cotton.
- The land loses its power when produce is got out of it from year to year without its being properly tilled and manured. In such cases, cultivators should be pointed out the best methods to adopt by a scientific expert whose business would be to approach cultivators and show them practically the improvements which ultimately will lead to their advantage.

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- (d) Cotton—the produce of land of cultivators—is secured by Agents of export houses before it is picked from fields. In such cases the cultivators get much less than what they would get if they were to take advantage of the Trusts or Guilds proposed by me.
- (e) The cultivators to get advances on security of cotton at reasonable rates of interest compared to heavy rates which the *sahukars* or *shroffs* charge them.
- (f) The Guild to educate cultivators' class in elementary education by easy method so as to make them understand the transactions of cotton which they entrust to the Guild for sale and receive advances against same and for their general advancement.
- (g) Ginning arrangements to be made by the Guild to gin *kapas* of cultivators by erecting ginning factories or availing of the ginning factories already existing in the cotton producing districts to save cartage, labour, etc. Ginned cotton will bring them better prices for their produce compared to sales of *kapas* or raw cotton.
- (h) Guild to correspond with Railway Companies and induce them in the interest of cotton trade to give facilities for transport of cotton and that too at very favourable freight rates.
- (i) Statistics of cotton produced and consumed in several countries of the world be published and circulated in vernacular in each district by the Guilds. Probable average and probable fertilizings of different districts also be made known to them.

4831. *Adulteration and damping of cotton.*—Much is made of watering of cotton for purposes of adulteration and the fault is laid at the doors of the cultivators. The cultivators are in no way to be blamed in this respect. It is the middlemen who buy *kapas* at cheap rates from the cultivators and take it for being ginned and pressed into bales. These middlemen in order to serve their own interest admix cotton and get the bales pressed. If ginning facilities be afforded to cultivators and their cotton ginned and pressed by Guilds' agency, this adulteration would be prevented and profit would ultimately go to cultivators.

4832. *Conclusion.*—I have expressed my views as above both in the interest of cultivators and trade. If Government would be pleased to give the cotton scheme encouragement in the lines suggested by me, or other improved methods through the Agricultural Department and co-operative or Government-led banks, the condition of cultivators would be greatly improved. A scheme on workable lines could then be drawn up with all its various details.

Mr. LALJI NARANJI called and examined.

4833. (Mr. Wadia.) I am Manager of Messrs. Moolji Jetha and Co., Owing Mill and Presses and dealing in cotton. In addition to spinning and weaving mill, we have got ten ginning factories and eight presses, mostly in Khandesh and Berar. We have one pressing factory at Barsi and one pressing factory in Gujarat. We have also got a *jetha* (store) here at Colaba where we store cotton for our constituents. I am agent of the Jam Sri Ranjitsingji Mills at Sholapur. For the Sholapur mills, we buy Nander and Parbhani cottons from the Nizam's Dominions. For other purposes we buy in the Westerns, Miraj, Broach and Gujarat Districts. In the mills at Sholapur we spin up to 20s warp. No weaving is done there. In Khandesh we spin up to 16s warp and 22s weft. We are using Cambodia at Jalgaon as a temporary measure. There is a good demand for finer yarn.

4834. Cotton is pure when it arrives in the market. After it has been pressed, it may be mixed. The prices in up-country markets are higher than they are at Colaba owing to the mixture of cotton. In order to buy pure cotton we buy up-country.

4835. The cultivators are generally in debt and borrow money to pay Government revenue and also for cultivating operations. In Khandesh and Berar, the *jalap* system is universal, that is the system of future contracts. Under that system, cotton is sold just after it is sown, which shows the indebtedness of the cultivators. Of course, things are improving and *jalap* is decreasing every year. The work of the co-operative movement should be advanced very materially. If the cultivators were free to sell their cotton at any time they liked, they would be able to obtain good prices for it. They are forced to sell their cotton forward on account of their indebtedness. Co-operative societies would not be able to advance the big sums required for financing cotton. The money should be advanced either by Government or by Government controlled banks. If the funds of the Presidency banks were utilised for cotton, it would be a good thing.

4836. Japan is the greatest purchaser of Indian cotton. India must have some representative there. Much of the middleman's profit could be saved by doing that. I have never been to Japan but I am shipping cotton to Japan through an English firm and I find great difficulty in doing so. There is a great difference between shipping through an English firm and through a Japanese firm. There are very few English firms who are doing business in Japan.

4837. In my opinion, the staple of cotton could be improved by putting in good manure in cotton lands. My experience over fifteen years in Khandesh is that every year the staple of the cotton is deteriorating. We used to get *ghat* cotton in Khandesh from near the Ajanta caves from which we used to spin 20s warp. From the same cotton now, we can only spin 16s. The reason is, I think, that the cultivators have no knowledge of the land or of manure and they grow cotton every year. The cultivators should have gins worked by hand or by bullock power and then they would get pure seed. Owing to all the cotton being brought to the ginning factories, the seed becomes mixed.

4838. I am a factory owner and would not like pools abolished as, if there were no pools, there would be no profit. The ginning factory would have to be closed. Every body wants to share in the profits of ginning and pressing and pools spring up in consequence. I know that there are buying pools because I am purchasing in many districts. Even if laws against pools were passed, ways would be found of evading them. It would be a very difficult thing to control by legislation.

4839. I think it is a very good suggestion to have licenses controlled by a Central Board but if the Central Board is going to entrust its powers to local committees, the regulations will be evaded. I have noticed that the Cotton Trade Association has suggested this but my idea is that if buyers bought mixed cotton at a discount, the practice of mixing would stop by itself. If the purchasers and consumers of cotton were to buy up-country, there would be no fraud. The Japanese own nearly half the cotton that comes to Bombay. They purchase in up-country markets themselves. I would rather that exporters and consumers had their agencies for buying cotton in the districts than to have legislations against mixing.

4840. (Mr. Hodgkinson.) The quality of the Indian cotton throughout India is depreciating. It is depreciating in every district whether in the Cambodia country, Surat or Khandesh. If you take the average for five years, you will find the same thing. I have no practical experience of agriculture but I think that

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the cultivators may be growing more crops of cotton than the land can bear. When there is no demand for coarser cotton, the cultivators will go for the finer; so long as they get good prices for the coarser cotton, they will not go in for staple cotton. Long staple cotton takes eight months to grow whilst short staple cotton only takes three or four months and so naturally the cultivator goes for short staple cotton. If the trade generally is going to spin finer counts of yarn, the tendency of the short staple cotton will be to sell at a discount. I am now using Cambodia experimentally. We can spin 30s warp out of Cambodia. From the Cambodia that I used to get from the same district ten years ago we used to spin 60s. It was called Podanur cotton. There was not a big demand for it then.

4841. I tried one saw gin at Khandesh. The cotton turned out by that saw gin was not approved by buyers. The cotton came out as a lap from the saw gins, and the saw gins cut the staple. Saw gins might be suitable for long staple American cotton but are not suitable for Indian cottons.

4842. (Mr. Roberts.) I have no experience of Navsari or Surat cotton. Hubli cotton has deteriorated. The deterioration in cotton may be due to the middleman. I buy ginned cotton. In Khandesh and Berar we get cotton from the central markets. Markets are very necessary for cultivators to sell their cotton.

4843. There is a large variety of weights used in Khandesh. It would be a good thing to have standardized weights. The Bombay Government are moving in the direction of standardizing weights in Khandesh. The Bombay maund of 28 pounds has been accepted in Berar. A similar system in Khandesh would save the cultivators from being cheated. Different weights always mislead them.

4844. (President.) The guilds I have suggested in my written evidence should have Government Directors. As to capital, I have suggested that one third should be supplied by the Government, and two-thirds by the Presidency Banks. The Presidency Banks would give security on the one-third of the capital supplied by Government.

THE BOMBAY MILLOWNERS' ASSOCIATION.

EXAMINED AT BOMBAY JANUARY 31st, 1918.

Written statement.

4845. *Preamble.*—This Association's representatives will appear before the Cotton Committee to give oral evidence when it meets in Bombay and in the meantime I am to submit, shortly, the views of my Committee on such of the questions as they are interested in.

4846. *Prevention of mixing and damping.*—As buyers of cotton, millowners require the best and longest stapled cotton as they can obtain. The best is none too good for their purpose. If cotton is mixed, it causes trouble everywhere in its manufacture. There are two serious drawbacks in cotton as marketed at present.

(a) Mixing, fraudulent or otherwise, in seed form, *kapas*, or as cotton.

(b) Fraudulent damping.

(2) Fraudulent mixing is an offence which the law should prevent. Fraudulent damping is an offence which the law should eradicate. In order to prevent fraudulent mixing and to obtain long stapled lint it will be necessary for all seed to be issued by the Agricultural Department. It will be further necessary by law to prevent transport of cotton from one place to another except in the baled form, with the proviso that when cotton is sent to an up-country mill for consumption the baling may be dispensed with. Further it will be necessary to identify where each bale has been ginned and pressed. For this purpose it is desirable that each bale in the case of a press or each package of loose cotton in the case of a ginnery should be branded on its side with the name of the pressing factory or ginnery from which it is issued. The brand should be on its side and under the hoops so that the marks cannot be obliterated.

(3) Watering should be made a criminal offence; the penalty being the closing down of the ginning or pressing factory concerned. Every ginning and pressing factory should be licensed and should be compelled to send fortnightly records of all cotton ginned and pressed.

4847. *Formation of a Central Cotton Committee.*—The administration of these matters should be placed in the hands of a Committee in Bombay consisting of business men and Government cotton experts with an adequate organisation. The Committee should have powers to delegate their authority to a limited extent to local committees.

4848. *Lery of an export tax on cotton.*—My Committee are of opinion that a duty should be levied on all exports of cotton. The present Cotton Agricultural Department of the Government is very weak owing to lack of funds and it is therefore suggested that the revenue derived from this export tax might be used to strengthen the Cotton Agricultural Department and specially earmarked for this purpose.

(Sd.) R. E. GREGOR-PEARSE,

Secretary.

Mr. C. N. WADIA (Chairman), the Hon'ble Mr. MANMOHANDAS RAMJI and the Hon'ble Mr. C. N. METHIA, Representatives of the Bombay Millowners' Association, called and examined.

4849. (President.) Mr. C. N. Wadia.—I am one of the Directors of the Cotton Trade Association and am Chairman elect of the Millowners' Association. There is a very considerable demand for long staple cotton in the Bombay market for the purpose of the mills. We do not get quite enough of it. The best cotton is hardly good enough for our purposes.

4850. There are several points that have struck us since we put in our written evidence. The first point is that cotton is grown by cultivator in rather a hap-hazard manner from unselected seed. We should like to see all cotton in India grown from selected seed. If you make a wide enquiry, you will find that good cotton is only grown from selected seed. The first necessity is therefore selected seed.

4851. The second point is that at present the cultivator is largely in the hands of the *bania*. The moment his crop reaches anything like maturity, the fields are sold to the *bania*. We think that the use of co-operative societies might be very largely extended and that agricultural banks might be established.

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[Continued.]

4852. The third point is that the ginning factory owners allow as much dirt and seed as possible to go into the lint. In some ginneries it is, in fact, the practice to take up handfuls of seed and throw them into the lint. That increases transport charges. For instance, *kumpla* cotton at the end of the season carries 25 per cent. of the dirt for no earthly reason. That wipes out the value entirely for export purposes. All this is due to want of knowledge on the part of the ryot and of supervision on the part of ginning factories.

4853. America, we understand, spends fifty times as much on cotton in her Agricultural Department as we do in India and yet they have not yet reached perfection there. It is very necessary that our Agricultural Department should be very much expanded. I would recommend a very considerable increase of the Agricultural Department, the opening up of a very large number of seed farms and then, as regards the financial aspect, a rapid extension of the co-operative movement supplemented, if necessary, by agricultural banks, if a workable scheme for them can be worked out. We consider that, if the work of your Committee is to result in any good, only selected seed should be sown, as far as possible, especially in the case of long staple cotton.

4854. I think that the cotton markets should be regulated on the model of the Benar cotton markets. There may be better markets but those are the best that we have come across so far. It is a good model to follow and to improve, if possible. Then we consider that a strict watch should be kept over the ginning and pressing factories. In fact both ginning and pressing factories should be licensed. The next step is for the Agricultural Department to find out the most suitable variety of cotton for each district. Steps should be taken to eradicate watering and also the mixing of short and long staple cotton in the ginneries. We would next suggest that the fullest advantage should be taken of the unoccupied land in Sind. I understand that Sind can with proper irrigation grow as good cotton as Egypt. We would recommend that the transport of cotton or waste be prohibited except in the form of bales and to a port or to a *bona fide* consumer. In regard to the formation of a Committee in Bombay to regulate the cotton trade, in our opinion an advisory committee is not of as much consequence as an executive committee with plenary powers to take such steps as they think best for the trade including such matters as the licensing of ginning and pressing factories, the regulation of pools, the issue of seed, means of tracing cotton back to the place of issue and the obtaining of reliable and accurate statistical information.

4855. (Mr. Wadia.) I think there are several reasons why long staple cotton does not command the premium it ought to do. To my mind, the first reason is that long staple cotton is not uniform. If you want a premium for good cotton, you must have the staple of that cotton uniform. It is no good having a staple of $1\frac{1}{4}$ th inch in one part of the bale and one of $\frac{3}{4}$ th inch in another. That is what we are getting in the so called long staple cotton. The second reason is that long staple cotton is mixed not only with short staple but also with dirt and seed and everything that can be put into it. All these things depreciate its value. My point is that if long staple cotton were marketed in a pure condition and in a clean state, it would fetch the proper premium that it ought to get.

4856. Mr. Manmohandas Ramji.—As an example of the fact that the consumer appreciates long staple cotton, I can quote the example of Navsari cotton which is quoted at Rs. 130 or Rs. 140 more per *khandi* to-day than Broach. This shows that long staple cotton fetches the better price and that there is an ample margin to be obtained by growing long staple cotton. Navsari cotton is marketed in a pure condition and that is why it fetches a high price.

4857. Mr. Mehta.—Navsari cotton is marketed in a much purer condition than the ordinary run of long staple cottons. At the present time, every cotton commands a big price simply because there is not enough for it to go round and the price of American cotton in England is 22d. a lb. simply because the cotton is not there and the transport difficulties are so great. To-day the price of American cotton is about 30 cents, or 15d per pound in America. The price of Broach here is about Rs. 650 per *khandi*; up at Broach that would be about 12d to 13d a pound so that long staple cotton in India fetches a reasonable proportion relatively to American.

4858. From the millowners' point of view, short staple seed should not be issued in districts which are capable of growing long staple cotton.

4859. Mr. Ramji.—The reason for growing short staple cotton wholesale is this that it matures earlier and is therefore available for selling earlier. The poverty of the ryot is therefore a cause of encouraging short staple cotton which matures about a month or six weeks earlier than the long staple. Another cause is that every day the number of holdings is multiplied. The sub-division of holdings increases with every generation and each sub-division reduces the producing capacity of the fields. It is only because it is family property and for sentimental reasons that people cling to these small holdings but it does not pay them to grow anything decent; they cannot look after the land properly or manure it properly and so it is neglected. That is the reason why they live such a hand to mouth existence. Large holdings should be encouraged and the sub-division of holdings should be stopped altogether.

4860. Mr. Mehta.—I think that one of the reasons why the cultivator prefers to grow short staple cotton is, as Mr. Ramji has pointed out, that it gives an earlier return. He therefore gets his money earlier and is thereby able to pay his Government dues. The Government dues are usually payable about January and long staple cotton does not begin to come in very much before March, April and May.

4861. Mr. C. N. Wadia.—I suppose that there must have been a shortage of cotton if pure Punjab American was getting Rs. 650 and the mixed stuff Rs. 640. I cannot conceive of any body buying mixed cotton when pure cotton was available, especially at a difference of only Rs. 10. If pure cotton is not available, mixed cotton would sell at any price. Personally I have tried to use this Punjab American year after year but, as marketed in Bombay, I found it such poor stuff, so uneven in staple and so uniform in character, that I have never been able to use fifty bales of it, although my mills have been crying for good cotton.

4862. We confirm what the Cotton Trade Association has told you about the mixing of *goghari* and Broach and that although the yield of *goghari* may be greater, the market price of Broach more than compensates for the difference. *Goghari* should not be encouraged at all in the Broach tract. At the present moment, the Broach cotton is deteriorating at a very rapid rate. It will command only the same price as Khandesh cotton and a very important trade standard will therefore disappear.

4863. Damping ought to be entirely prohibited. As far as I know, there is no truth in the statement that slight damping enables a bale of larger size to be pressed. The desire to obtain illicit gain is probably the strongest reason for damping.

4864. It is a good idea that separate ginneries should be set aside for ginning American and *deshi* cotton in the Punjab, if it is practicable. I understand that the first pickings of Punjab American cotton are very short in staple; the second pickings are longer in staple and the third are shorter again but not so short as the

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[Continued.]

first. It seems to me that the proper course would be to press the first pickings before beginning to press the second pickings. I do not think that separate ginneries, as suggested would overcome that difficulty unless the first pickings were sent to one ginner and the second pickings to another but then one ginner would be lying idle and a double supply of ginneries would be required. We have seen many bales of long-stapled cotton with either *kapas* or pure unadulterated seeds thrown into them.

4865. As regards the use of false weights in ginning factories in order to cheat the cultivators, I am afraid we are not competent to express an opinion but, of course, it should be a condition of a license that only standard weights should be kept in the ginneries.

4866. As regards the penalty for fraudulent mixing or damping, our opinion is that, if an offence is committed, it should be punishable and the amount of punishment should be left to the proposed Committee to decide but the punishment should fit the crime. It would be a very desirable thing if all factories were flagged.

4867. We have not suggested the abolition of pools but we have said that the Central Committee should regulate them. I think that the Committee might fix a reasonable price for ginning and pressing. If we were starting entirely afresh, it would be better to debar pools altogether but it would now be very hard even for a Central Committee to say which ginneries should be stopped and which should be kept going. It is therefore much better to regulate pools and to let them settle which factories shall be worked.

4868. Mr. Mehta.—In some cases pools have refused to gin pure cotton. That should certainly be regulated. No pools should be allowed with such an object. In regard to the suggestion that the ginning charges throughout India should be approximately the same, we are hardly competent to give an opinion. Much depends on labour and dearthness of fuel. But there is no justification for charging Rs. 3 per bale in one district and Rs. 9 in another. We have already suggested that the Central Committee should regulate the prices, where a complaint is made that exorbitant prices are being charged. Otherwise they should not interfere. The rates should be as nearly uniform as possible, taking into consideration local conditions and disadvantages and allowing a sufficient margin for depreciation and profit.

4869. Mr. Ramji.—I think there would be a danger of ginning factory owners cutting out others from buying cotton. I have noticed that when there is an unusually large crop and it is beyond the ginning capacity of the district, the ginning factories refused to gin any cotton for outsiders. They buy the *kapas* at a lower rate and gin it themselves. If the charge for ginning were regulated, it would be merely giving a monopoly to the ginning factory owners in the case of big crops. It is only when there is a shortage of factories that there is no pool; the pools exist where there are too many factories. If a maximum rate for ginning were fixed, then the ginners would buy all the cotton and gin it themselves.

4870. Mr. C. N. Wadia.—If it were decided to levy a cess or tax in order to meet the cost of the Cotton Committee's proposals we should prefer an export tax for the reason that it is so very easily collected. It would be very difficult to collect the tax at every ginning and pressing factory. It would be even more difficult to collect it on cotton which was not ginned or pressed except at the consuming factory. An export tax is paid by consumers in other countries. I cannot see the force of the argument used by the Bombay Chamber of Commerce that if an export tax only were levied and not a tax on the whole of the cotton grown, the mill owners would put that extra profit into their pockets and the cultivator would not benefit by it. Funds must be provided for the expansion of the Agricultural Department. Whether they are provided by an export tax which we should prefer, or by a general tax, money must be provided for work on cotton and must be earmarked for it. I would suggest a separate agricultural staff entirely for work on cotton. We want an organization something like the American organization which is very extensive.

4871. The question of the Sukkur Barrage is an engineering question, which it is for the Committee and the Irrigation Department to decide but we think that a project for irrigating Sind should be taken in hand as soon as possible. There are very large areas in Sind which, if they could be given water, would grow very fine cotton and we recommend that this point should be pressed in the Committee's Report as being most important and vital.

4872. (Mr. Hodgkinson.) The quality of long staple cotton in India is not so good as it was ten years ago. Saw ginned Dharwar American commanded a very high premium seven or eight years ago. There was a shortage of crop one year and waste was sent out from Bombay to be mixed with the lint of this cotton, so that the cotton lost its name entirely. The people who buy long staple cotton very largely will not touch saw ginned cotton now. Our idea is that short staple cotton has not deteriorated to any material extent but that long staple cotton has, the reason being mixture of seed and haphazard sowing. It is also partly due to the ginning factories. If they gin *kapas* from two different districts, the seed gets mixed and is sown mixed. There is depreciation in the next crop and the process goes on. As with most other things, it is a case of the worse always driving out the better. Deterioration due to picking unripe bolls is nothing like the deterioration due to the mixture of seed either knowingly or unknowingly. We are not in a position to make any recommendation with regard to the picking of the cotton. In regard to the crushed seed that is found in the bales, I think it is caused to a certain extent by bad ginning. A certain amount of adulteration with crushed seed is done wilfully in the ginning factories. There is no adulteration with stones but there is a small amount with sand though nothing like to the same extent as in America. We have used American cotton and we found 35 to 50 lbs of sand in one bale. When we complained, we are told that there had been a sand storm in that district. We cannot reject the cotton when we have got it out here and when it has travelled 6,000 miles. The natural moisture in Indian cotton varies a great deal according to the seasons. We have no particular standard for that.

4873. Mr. Mehta.—The *kapas* does get dew on it and that cannot be helped. If one examines the *kapas* in the morning, it is always damper than when the sun has been on it. The practice of watering cotton with a hose pipe still goes on to a certain extent. To a certain extent also the ground is damped and the *kapas* or bales of cotton placed on it. I do not think that there has been much improvement in these respects.

4874. Mr. C. N. Wadia.—I may mention one fact about dampness which is of interest. Cotton weighed at Colaba in May and again in August gains ten pounds a bale in weight during that period. That shows the rate at which cotton can absorb moisture.

4875. Mr. Mehta.—I use a considerable amount of Punjab American in my mills: it is badly mixed with *deshi* or with some cotton which is presumably *deshi*. It is very irregular. It is very difficult to say whether the irregularity is due to different pickings being mixed together or to mixture with *deshi*. The cotton is so uneven that it might be mixed with anything. At all events a lot of the cotton which has come down to Bombay has shown signs of being mixed with *deshi*. I cannot tell whether there is mixture when it is less than ten per cent. Anything beyond that we can tell not only by the staple, but also by the feel of the cotton.

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Mr. N. B. SAKLATVALA.

I have never been able to buy in Bombay pure Punjab American. I do not know whether it exists; if it does, we have not come across it.

4876. *Mr. Wadia.*—The Dharwar American cotton is all saw ginned. Saw gins clean the cotton very much better than the roller gins but they make it softer than when it comes from the ordinary roller gin. I believe it is weaker in tests. If the experience of Dharwar American is to be relied upon, I would not advocate the use of saw gins for long staple cotton. But I am hardly competent to decide.

4877. We agree that if classification could take place by standards without any fancy names, we should prefer it. The special names have become unnecessary. We should prefer classification by standards.

4878. The Bremen practice of a mutual allowance is a very good one. We should certainly prefer to pay the allowance than to receive it. The practice of appointing official arbitrators is also a very good one, and we are in favour of such a practice. The arbitrators should be men who would be unconnected with the trade in other capacities after appointment. Suitable men could be got if they were paid sufficiently highly.

4879. (*Mr. Roberts.*) Many mill owners own ginning factories up-country. Some of the largest mill owners have a very large number of ginning factories up-country. They can control them to some extent. They complain of the competition from the outside factories. If the punishment were made to fit the crime, it would be very easy to eradicate watering and mixing. The Nizam's Government is trying to do so now and has been quite successful so far. I take it that the first duty of the proposed Central Cotton Committee would be to establish a "yard measure" of damping. Once that measure has been established it would be easy matter to say whether cotton was damped beyond that measure or under that. We recommend that fully pressed bales should only be sent to a port or a *bona fide* consumer.

4880. My idea is that the Agricultural Department should be official seed suppliers; if distribution could be arranged through association or co-operative credit societies, it would come to the same thing. What we want is that nothing but selected seeds should be sown by the ryots. How the ryots would obtain such seed would be a matter of detail.

4881. I used Punjab American last year and the year before that. We tried it in very small quantities, a hundred or two hundred bales. It was not certified as pure. We bought it in Bombay from Ralli Brothers. It was certified as Punjab American cotton—Rallis' selection, whatever that may be. This year one firm has issued a notice that this year Punjab American cotton was coming in mixed but that, in a few weeks, they would be in a position to offer it pure to their clients, but we have not seen it yet. I think that ginning Punjab American in one ginning factory and short staple cotton in another might be tried.

4882. Our idea is that there are certain districts in which short staple cotton must be grown and that it should be grown in these districts. But where a district can grow long staple cotton, efforts should be made to provide it with cotton which is particularly pure and of long staple for which there will be a great clamour in the future, particularly if it is marketed pure and is of uniform staple. Then there is the question of the Mahuva tract which Mr. Mannohan Das has mentioned. Mahuva is particularly suitable for long staple cotton. The reason why short staple cotton is grown there is that the ryots have to pay their taxes at the beginning of the year. The short staple cotton matures quicker and therefore it is grown in that district. If there were proper supervision, observation and regulation it would be possible to grow long staple cotton there. I do not think that there have been any adequate experiments or tests there as to which cotton is the most suitable. I have great objection to the policy of distributing N. R. seed which is being followed in Khandesh. For a time it may work but the crop deteriorates gradually. If any reasonable good cotton is replaced by a cotton which is not good, the process of deterioration is not detected for a year or two. It probably takes three or four years. Then the cotton gets its proper valuation. The price depends on the relative position of the deteriorated cotton in the market. Khandesh cotton stands so low that it does not matter very much what happens to it.

Mr. N. B. SAKLATVALA, Director, Messrs. Tata Sons & Co., Bombay.

EXAMINED AT BOMBAY, JANUARY 31st, 1918.

Written statement.

4883. *Preamble.*—The views of my firm of Messrs. Tata Sons & Co. on the several questions under consideration have been exhaustively placed before the Committee by Sir Bezonji Dadabhoy, the Manager of our Central India Empress Mills at Nagpur. Again the Bombay Millowners' Association, of which body I am a member of the Committee, have also dealt with the several questions from the millowners point of view, and the Bombay Cotton Trade Association, also, of which I am a Director, have in their written statement expressed their views as far as the cotton trade is concerned. I am, moreover, in perfect agreement with the opinions expressed by Sir Bezonji, though I do not endorse all the views expressed by the two bodies mentioned above. I hope, therefore, I shall be excused, if I do not traverse the same grounds again, but content myself with handing in a copy of my written evidence on the subject, recently given before the Industrial Commission (Annexure I) and confining my further remarks to the attempt made for the development of the growth of American cotton in Sind, a matter in which, I understand, your Committee are taking a good deal of interest.

4884. *Working of the Sind Cotton-Growing Syndicate.*—With this object in view, I give herewith a brief survey of the working of the Sind Cotton Growing Syndicate, of which I am a Director, and my firm are at present acting as agents, and which was formed by some of the prominent Bombay millowners with the object of co-operating with Government in order to encourage the growth of long-stapled cotton from American seeds in the canal districts of Sind, the circumstances leading to its formation being briefly as follows:—

In January 1912, the Government of Bombay asked the Millowners' Association whether they were prepared to co-operate with Government in experimenting with American cotton in Sind and would provide an agency for supplying such baled cotton to the markets. The Association as a body were unable under their rules to do so, but the principal members of the body were willing to form a Syndicate with that object in view and were ready to meet Government for the purpose of arranging details in connection with the scheme. Accordingly after some correspondence and interviews with Government, an understanding for the starting of a Syndicate was arrived at as embodied in the annexed letters from the members of the Syndicate to the

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[Continued.]

Secretary to Government and their reply (Annexure II) and at a meeting of the members held on the 9th April 1912, the following resolution was adopted:—

"That a Limited Liability Company be formed with a capital of rupees one lakh, half the amount to be called up at an early date. That the firm of Messrs. Greaves, Cotton and Co., be appointed managing agents, and also the following gentlemen be asked to become Directors, *viz.*, Mr. H. R. Greaves, Sir Fazulbhoj Currimbhoj, Mr. J. F. Bradbury, Mr. Manmohandas Ramji and Mr. N. B. Saklatvala."

The prospectus issued by the Syndicate very fully deals with the objects for which the new company was started, and the same is attached herewith for the information of the Committee, as Annexure III.

(2) Unfortunately for the Syndicate, in the first year of its start, Government were unable for various reasons to bring seeds in time for sowing and they asked the Syndicate to postpone operations for one year. Subsequently at a meeting held on the 27th June 1912, when the Director and Deputy Director were also present, the following important points were decided upon:—

- The Syndicate were advised to set up gins at Shikarpur rather than at Jacobabad as land close to the station, good water and cheap labour were more likely to be obtained there.
- It was also thought necessary to set up a ginning factory at Mirpurkhas to deal with at least 1,000 bales.
- Government undertook to induce cultivators to grow long-stapled cotton from American seed supplied to them and they further took upon themselves to get the cultivators to bring their produce to the gins of the Syndicate.
- The basis of price to be fixed and the mode of payment were as follows:—

"Half the price of Middling American as quoted in the *Times of India* of a date two or three days prior to the date of receipt of the raw cotton at the gin should be paid on account to the cultivators on delivery. The percentage of lint to raw cotton to be calculated for this purpose at 33 per cent."

"Thus if Middling American was quoted in the *Times of India* at 6d. per lb., the cultivator on delivering 100 lb. of raw cotton at the gin was to be paid for 33 lb. at 3d. per lb. The balance due to the cultivators was to be paid on the basis agreed on between the Syndicate and Government after receipt of the result of the grading of samples in Liverpool."

(3) After all the preliminaries were thus settled, it was naturally expected that a good start would be made and the necessary stimulus given to the growth of American cotton in the canal districts in Sind, but the Syndicate's actual experience of five years has unfortunately been most disappointing owing to the under-noted causes:—

(i) Seeds not being received in time by Government, no sowing could be made for the year 1912 and though all preparations were made to erect factories at Shikarpur and Mirpurkhas according to Government instructions, the whole season had to be lost.

(ii) No American cotton has ever been grown at Shikarpur according to the undertaking given by the Government. Thus the factory has never been able to work and all the expenses of the Syndicate have been incurred to no purpose. The machinery of this factory had to be sold off at a loss of over Rs. 700 and the buildings were taken over by Government for the sum of Rs. 5,000 which involved a further loss of over Rs. 3,500, the reason given by Government for paying so much below the cost price being that, in their opinion, the buildings were badly put up by the then agents.

(iii) At the start, Government had taken upon themselves to induce the *zamindars* to grow cotton from American seeds and to bring all their produce to the Syndicate's factories for sale. This undertaking they were not able to fulfil for various reasons and hence even the factory at Mirpurkhas never got enough stuff to work it on a commercial basis.

(iv) Government according to their promise were not able to provide the *zamindars* with unmixed seed enough even to keep the factory going during all the seasons.

(v) The mode suggested by Government for payment to the cultivators for their *kapas* was found unacceptable by them and thus the *zamindars* had very little inducement to grow American cotton in place of *deshi*. This drawback was remedied last year when Tata, Sons & Co. took up the management.

(vi) The irrigation difficulties were experienced during all the seasons so much so that, during the present year, the factory could not be worked at all as the expected crop was much too small.

(vii) Government have maintained that if saw gins had been put up at the factory instead of the roller gins, the quality of the crop would not have suffered, a statement which the Syndicate's members are not prepared to subscribe to from their actual experience.

(viii) Government further maintain that the Syndicate from year to year has not paid the cultivators an adequate price for the American *kapas* and the difference in price between American and *deshi kapas* has not been a sufficient inducement to the cultivators to grow the former in preference to the latter.

In 1913, farm-grown American cotton was valued at 7½d. in Liverpool, the price of middling American at that date and the district grown American at 1 or 1½d. lower. In 1914, the prices were upset by the outbreak of war, still farm-grown American cotton secured 50 per cent. premium over *deshi* prices. In 1915, the advantage was only 5 to 7½ per cent. Last year, the premium given was about 25 per cent. though it was agreed among the Directors that the quality had deteriorated appreciably.

(ix) Mirpurkhas is a notoriously unhealthy spot and the management have to put up with great inconvenience owing to sickness among the staff.

(4) To throw some further light on the subject and in the hope that it would prove of some interest to the Committee I append a memorandum circulated by me among the Directors in this connexion on 31st May 1917 and marked Annexure IV.

(5) To sum up, it is indeed unfortunate that a venture started by the members of the Syndicate in co-operation with the Government for such a laudable purpose should so far have proved a failure for reasons already mentioned. The Syndicate launched the scheme not with any intention of making profits but with the sole view of co-operating with Government for furthering the cause of the growth of American cotton in Sind where the soil promised to give satisfactory results, but all the Syndicate's exertions and expenses have hitherto shown no encouraging results. This, however, is not to be wondered at, since under the existing conditions, it is evident that the venture was foredoomed to failure. But there is no reason to despair for the growth of American cotton in India, looking to the success that has attended similar efforts made in the Punjab

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[Continued.]

and I still maintain that if attempts are made under more suitable conditions, in the light of past experience, the question has possibilities of success.

ANNEXURE I.

Extract from the evidence given by Mr. N. B. Saklatvala before the Industrial Commission.

91. The adulteration of cotton has been for a number of years engaging the attention of millowners without their being able to suggest an effective remedy. The adulteration is carried on in various ways by the mixing of seeds, or *kapas*, or cotton. The whole trade is aware of these goings on, and Indian mills and Continental and Japanese exporters buy this mixed stuff with their eyes open. Pure cotton from the district of its origin is a rarity in the Bombay market, and it is safer to buy on spot, in the districts where the cotton is grown, and to gin and press it under one's own supervision. There are many examples of whole districts which have deteriorated in the quality of their cotton, until they have lost their reputation for their finer grades and have become of secondary importance. The idea underlying the action of the cultivators and merchants is the facility for the disposal of the stocks afforded by cheaper stuff which is more easily saleable. Many years back Government enacted a law making it penal to adulterate cotton, but they found the remedy worse than the disease, and gave it up.

112-B. The improvement of Indian cotton, both as to yield and as to quality, has of late been engaging the attention of all who are interested in the subject. That there is vast scope in both these directions cannot be denied. With the growing requirements of cotton all over the world, and with the wild fluctuations in prices in the American crops, the growing of more and better cotton within the British Empire becomes of greater importance every day. I must admit that the Government of India, the Local Governments of Provinces, and even the Native States, have not been idle, and experiments on a fairly extensive scale are being carried out for growing better stapled cotton and one that is free from admixture of indigenous varieties. I have knowledge of Government's great activity all over the country; but what I regret is that much of their exertions are nullified by the growers' innate proclivity to mix up seeds with the *deshi* stuff in order to lessen prices. I believe the growth of Cambodia cotton at one time promised brilliant results, but the cotton has by degrees sunk to such a level that all sorts of good and bad stuff came to pass under this name. The experiments with American seeds in Sind and the Punjab have so far given encouraging results, and the pioneering work done by the respective Governments is laudable. The British Cotton Growing Association have their eye on these tracts of land, where they consider, and rightly too, that the growth of these districts should yield results which may, in time, to some extent, solve the Empire problem of growing cotton for its own requirements within the Empire. Some of the Bombay millowners have also formed a Syndicate for buying *kapas* grown from American seed in Sind, and ginning it at their own factories, and thus encouraging farmers to go in for the growth of long-stapled cotton. A great authority like Professor Todd considers that India presents the best opportunity of growing cotton of finer quality suitable for Lancashire Mills, and he is strongly of opinion that exertions in this direction would yield speedy results. I think that if cotton is grown on more scientific basis in suitable districts, if more use is made of fertilizers, more care taken in ginning and pressing and strict watch kept over adulteration in any shape, India can very easily regain its place in the cotton world and be of the greatest help to the textile industry of the Empire and incidentally to itself.

ANNEXURE II.

Letter to the Hon'ble Mr. W. H. Lucas, Secretary to Government, Revenue Department, Bombay, dated 23rd March 1912.

We desire to thank you and Mr. Smart, the Director of Agriculture, for the kind interview you gave to us, the following members of the proposed Syndicate, for establishing a buying agency to co-operate with Government in experimenting with American cotton in Sind, and for ginning, pressing and supplying baled American cotton to the market, and, as per our discussion with you, we now have the honour of laying before Government our formal proposals for establishing such an agency.

We understood from you that the forty tons of American seed "Triumph," which the Government of Bombay had ordered through the British Cotton Growing Association, had been delayed and that it will not likely be arriving here till the end of May. It would be, therefore, too late this season to sow this seed in Jamrao and lower Sind, but that you are prepared to obtain ten tons out from Liverpool and to start experiment at Jacobabad this year. These ten tons will approximately grow 250 bales of cotton. We further understand that the Director of Agriculture will be prepared to deliver such *kapas* grown from American seed or cause it to be delivered, at the ginnery we propose to establish at Jacobabad free of all costs.

Accordingly our formal proposals are as follows:—

- (1) That the Syndicate shall put down at Jacobabad, on a piece of land adjoining the Railway Station, which shall be given free by Government, a ginnery consisting of ten machines, Macarthys cotton gins and two saw-gins.
- (2) That the special American cotton grown under Government supervision be ginned by the Syndicate at this ginnery and then pressed in bales either at Tando Adam or another convenient place and then brought down to Bombay.
- (3) The Syndicate would first offer to sell either by auction or by private treaty such cotton in Bombay to local millowners or shippers to England; failing which, at its option, ship the cotton direct to Liverpool or elsewhere.
- (4) The Syndicate at the beginning of the season send three or four type samples to Liverpool Cotton Exchange and have them graded on the basis of Middling cotton. On receipt of reply from Liverpool by wire, the Syndicate will day by day on the basis of above grading and price of Middling American of the day, pay the cultivators the equivalent price less the following charges:—
 - (a) Half per cent. brokerage to the Syndicate.
 - (b) If sold in Liverpool, less freight and insurance charges from Bombay or Karachi to Liverpool, and all other selling expenses for warehousing, delivering and commission at Liverpool.
 - (c) If sold in Bombay, all freight, insurance, warehousing and other charges from Karachi to Bombay and at Bombay.

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[Continued.]

- (d) All charges of ginning, pressing, railway and other charges to Karachi.
- (e) And also interest for two months at five per cent.
- (5) Ginning charges to be charged by the Syndicate are to be the average ruling charges in Sind.
- (6) If these proposals are accepted, this Syndicate will be prepared to co-operate with Government in 1913 and 1914 on the same terms for all cotton grown by Government from American seed up to 100 tons of seed each year, subject to such modification as may be mutually agreed upon after the first year's experience.

In conclusion, we may say that if these terms are accepted, we are prepared to form a Syndicate with sufficient capital to give this experiment a fair trial.

We have the honour, therefore, to request you to give us at an early date Government's reply to these proposals, so that Messrs. Greaves, Cotton & Co. on our behalf can push on with the erection of a ginnery at Jacobabad, which is required by you to be ready by December of this year at the latest.

(Sd.) N. N. WADIA.

(Sd.) FAZULBHOY CURRIMBHOY.

(Sd.) H. R. GREAVES.

(Sd.) C. N. WADIA.

(Sd.) J. F. BRADBURY.

(Sd.) B. D. PATEL.

(Sd.) MANMOHANDAS RAMJI.

(Sd.) N. B. SAKLATVALA.

Letter from R. D. Bell, Esq., I.C.S., Under Secretary to the Government of Bombay, to N. N. Wadia, Esq., Chairman, Bombay Millowners' Association, No. 3168, dated 30th March 1912.

I am directed to acknowledge the receipt of your letter dated 23rd March 1912 submitting proposals for the formation of a Syndicate for establishing a buying agency for long-stapled cotton in Sind.

2. In reply I am to state that the Governor in Council approves of the scheme submitted by you and accepts your proposals.

3. The Secretary of State for India has been requested by wire to send ten tons of *Triumph* cotton seed immediately on arrival at Liverpool so as to reach Karachi by the middle of May at the latest, to store the remaining thirty tons of the seed in England and to ship them after fumigation so as to reach India early in 1913.

4. With reference to the Syndicate's proposal that a piece of land adjoining the Railway station should be given free by Government for the erection of a ginnery at Jacobabad, I am to say that the Commissioner in Sind will be requested to select a piece of Government land and it is hoped that a piece will be found to suit the requirements of the Syndicate.

ANNEXURE III.

Extract from the Prospectus of the Sind Cotton-Growing Syndicate.

Incorporated under the Indian Company's Act, 1882.

	Rs.
Share Capital	1,00,000
Paid Capital	50,000
In Ordinary Shares of Rs. 100 each payable—	
Rs. 25 on application.	
Rs. 25 on allotment.	

Balance as and when required subject to one month's notice being given.

No interest will be allowed on amounts payable on application or allotment. Dividends on the shares will be declared at the annual General Meeting of the Syndicate and will be payable thereafter, but the Directors have power to pay interim dividends on account of the dividend for the current year when in their opinion the profits permit.

Directors:

The Hon'ble Mr. H. R. Greaves.
The Hon'ble Mr. Fazulbhoys Currimbhoy.
The Hon'ble Mr. Manmohandas Ramji.
J. F. Bradbury, Esq.
N. B. Saklatvala, Esq.

Bankers:

The Bank of India, Limited.

Agents:

Messrs. Greaves, Cotton & Co.

Registered Office:

1, Forbes Street, Bombay.

In issuing this prospectus, the Directors of the Syndicate beg to draw the attention of the members of the Bombay Millowners' Association, the Bombay Cotton Trade Association and the Bombay Cotton Exchange, to the object for which it is formed.

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Mr. N. B. SAKLATVALA.

[Continued.]

It is not expected that in the first year's working there will be any profit and the fact to be kept in view is that it is necessary to supplement the existing supply of long staple cotton and to co-operate with Government in their endeavours to produce the best class of cotton available. There have been many references both in the press and elsewhere to the scarcity of long staple cotton, and the Directors trust that everyone interested in the cotton crop of India and the cotton industry will support the scheme and do their best to make it a success.

Government are importing seed and will supervise the sowing, growing and everything in connexion with it, and this Syndicate is formed to assist Government in their object and also to provide the best means of marketing the crop and assuring the cultivator a reasonable price for his produce, and supplying the local mills with the long staple cotton which is needed. The large importations of American cotton this season prove that there is a market for good class cotton in India, and should there be a repetition of this year's short local crop coupled with shortage in America, the mills which require a long staple cotton would be seriously handicapped and probably faced with no alternative but to close down.

The Syndicate is at present discussing and arranging with Government regarding the details of the working and it is hoped that they will be able to settle it at an early date.

The Syndicate is formed for the purpose of co-operating with Government in experimenting with American cotton in Sind and for ginning, pressing and supplying baled American cotton to the market either in India or elsewhere.

The Syndicate will erect a Gin Factory at Jacobabad and will gin the *kapas* grown under Government supervision and will press and bale the same and rail it to Bombay or Karachi or elsewhere for the purposes of sale.

The Syndicate is formed to co-operate with Government this year and in 1913 and 1914.

The Syndicate will carry on the business of factory-owners, cotton merchants, brokers, shippers or anything else connected with the sale of cotton.

The subscribing members to the Syndicate are at present :—

N. N. Wadia, Esq.

J. F. Bradbury, Esq.

The Hon'ble Mr. H. R. Greaves.

The Hon'ble Mr. Mannohandas Ramji.

The Hon'ble Mr. Fazulbhoy Currimbhoy.

Bomanji D. Petit, Esq.

N. B. Saklatvala, Esq.

The Agents of the Syndicate will be—

Messrs. Groves, Cotton & Co.

The registered office of the Syndicate will be—

1, Forbes Street, Bombay.

ANNEXURE IV.

Note on the working of the Sind Cotton-Growing Syndicate prepared by Mr. N. B. Saklatvala.

As requested at the last Board Meeting, I beg to submit my note on the working of the Sind Cotton-Growing Syndicate, Limited, for the season which has just closed.

I shall not go over the grounds already traversed last year as in the correspondence between Government and Mr. N. N. Wadia, but try to put before the Directors how far the terms laid down then have been acted upon, and with what effect.

1. It was resolved last year that the Shikarpur Factory for reasons well known should be closed for good. The machinery was disposed of by Messrs. Greaves, Cotton & Co., and the buildings after some correspondence were taken over by Government for Rs. 5,000, although they had cost the Syndicate Rs. 8,700.

2. As resolved Messrs. Tata Sons & Co. took over the management from 1st August 1916, and sent their purchasing agent and engineer to the district as soon as the cotton began to arrive in September 1916. Samples of *kapas* were sent to Bombay immediately for valuation. The same were examined by the Directors, and the purchasing agents were asked to secure all the available *kapas* grown from American seeds. They started by making cash payments for all the *kapas* brought to them, and this mode of payment was very much appreciated by the cultivators. In the beginning, the price paid for this *kapas* was Rs. 1-8-0 to Rs. 2 per maund over the *deshi* variety. This was gradually raised, till at the end the extra payment agreed upon was Rs. 3 to Rs. 3-8-0 more for big lots. The Director of Agriculture makes out that for the American *kapas* 23 per cent. more price was paid than for the *deshi*.

As you will remember, Government have kindly consented to share half the loss of the working of the Mirpurkhas Factory in consideration of the Sind-American crop being only about 250 bales. In addition, however, to the ginning of the Sind-American, the factory was able to secure orders for ginning *deshi* cotton, and, thus it was possible to minimize the working loss which is not expected to be at all heavy.

The crop besides being poor in quantity left much to be desired in point of quality also. In 1913, this cotton was valued at the same price as Middling American. In 1914, it was valued slightly above Middling American, and secured a premium of fifty per cent. over *deshi*. In 1915, the premium secured was about 5 to 7½ per cent. and in 1916 about 25 per cent. It is very likely that in 1915, American grown cotton had not a fair field, but in 1916, though the first samples shown were valued at the same price as Navsari, subsequent lots were so poor that they could not fetch any higher rates than the one actually realised. All the Directors are agreed that the cotton was leafy and variable in staple and the feel was harsh, more like *deshi* than American.

The Director of Agriculture assures us that the seed was selected and there was no trace of mixing with *deshi*, and he suggests that the falling off in quality may be owing to the roller ginning of cotton. If that were so the cotton of former season should have suffered in the same way. I am inclined to think that the causes should be sought for in the heavy rains this season, the deterioration of seeds, and perhaps bad ginning.

My conclusions are that it is not worth the trouble of maintaining the Syndicate (1) if its factories have so little *kapas* to handle every season, (2) if the quality of *kapas* is as poor as it was this season, (3) if the factory is situated in such a notoriously unhealthy place that it is difficult to maintain an efficient staff, and (4) if the coming season is foredoomed to failure owing to the shutting off of the Jamrao Canal for necessary repairs.

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The Syndicate was never intended to be a profit-earning concern, but it cannot, on the other hand, go on losing money from year to year, more especially as the object with which it was started is not being fulfilled. Considering all these circumstances, it would be advisable to wind up the Company and sell the machinery when there is a fair prospect of getting a good price.

MR. N. B. SAKLATVALA, called and examined.

4885. (President.) The Sind Cotton Growing Syndicate is still in existence. We started with two ginning factories, one at Mirpurkhas and the other at Shikarpur. The factory at Shikarpur was never worked and has been closed for good. The Mirpurkhas factory has been closed this year as the Government told us that the Jamrao Canal was being closed for some repairs, and that, therefore, the crop of American would be very small and they would be able to deal with it on the Government farm. The question now before the Directors is whether, after the experience of several years, which has been so disappointing, it is worth while to go on or whether it would not be better in the interests of every body to wind up the concern. The reason for the failure of the operations has been that the assured crop that we were to get never materialized to any appreciable extent. We only got a few hundred bales. I am not personally acquainted with Sind. As to the question whether, in the event of irrigation conditions being altered and there being an assured crop of American cotton, it would be possible for the Syndicate to resume work on the same lines, I am afraid our experience has not been encouraging. We should think twice before launching out on another scheme of the same nature. It would be some time before confidence could be re-established.

4886. My personal view in regard to adulteration is that adulteration has been encouraged because the consumers so far have not sufficiently discouraged it. The cultivator has felt that he did not get the price for long staple cotton that he had a right to expect. Mixed cotton has fetched a better price proportionately, therefore it has paid to mix.

4887. We are very large users of Punjab American cotton. My own experience is that even pure Punjab American from Lyallpur is not up to the best of some of the indigenous cottons such as Navsari and the best *Dumras*.

4888. (Mr. Wadia.) We bought a factory at Lyallpur recently from a member of the pool there. Our buying agent may have given an undertaking that we would join the pool but as a firm I don't think we could have done so. It is not our policy.

4889. (Mr. Hodgkinson.) I am quite sure that the growth of pure cotton would be encouraged by paying a higher premium than we have been paying so far. We can afford to pay a higher premium. I am speaking of my own firm. The trade generally is of another opinion. We have scoured every market in order to get pure cotton and we try to pay the best price we can afford to pay. The trade as a whole does not pay as high a premium as it could afford to pay. It is better to get pure cotton and pay a higher price for it than to get this adulterated cotton. Up to the present year, we have always bought the purest possible cotton but this year conditions were different and it paid us to buy mixed cotton for our lower counts. This year the prices have been abnormal. I may mention that Berar cotton which is short staple sold at Rs. 640 whereas we could buy mixed Punjab American at Lyallpur at Rs. 600. We do our own mixing for manufacture. We have not been very large buyers of Cambodia cotton ourselves but the little that we bought at the beginning, came to us in a very good state and it was then a better cotton than Lyallpur. One gets all sorts of cotton now under the name of Cambodia.

4890. (Mr. Roberts.) As to the conditions under which the cultivators were paid in Sind, I have mentioned in my written evidence that the condition was that half the price should be paid at once and half retained until we received the Liverpool valuations. This was found unacceptable because the cultivator liked to have the whole amount at once. He did not mind if it were a little less or more provided he got the whole of it at once. Last year we paid the whole amount straight away. There was no difficulty in paying in actual rupees. I do not think they were paid in cheques. They were paid in cash taken from Hyderabad.

4891. One of the chief difficulties in regard to American cotton in Sind was undoubtedly the irrigation difficulty. But my impression is that the chief difficulty was the seed difficulty. There was never enough seed. I would attach more importance to the want of seed than to the irrigation difficulty. I cannot say what the reason for the low premium was in 1915 as we were not managing the affairs of the Syndicate that year. We only took them up in 1916.

4892. In Bombay the mills buy both ready and future cotton. There have been more future contracts during the last two or three years than there were before. They buy on the station names as a rule. Most of them buy ready cotton on the spot at Colaba and there they are guided more or less by the name of the cotton. I am afraid they attach more importance to class and the name of the station than to staple. That is why we get at Colaba, as I think, ninety per cent. of mixed cotton. From the spinner's point of view a standard for Indian cotton based on staple for arbitration purposes would be welcome if such a system were found practicable.

4893. This year we bought 20,000 bales of Punjab cotton—mostly Punjab American. We use it in all our mills. The cotton has not come in sufficient quantities to enable any opinion to be given as to whether it has deteriorated or not. The short staple cotton of Berar fetched a better price this year owing to speculation and other causes. Even mixed American should fetch a better price than the Central Provinces and Berar *jari* cotton. In my opinion, Punjab American is worth more than it is getting now.

Mr. P. D. PATEL of Messrs. Patel Bros., Bombay.

EXAMINED AT BOMBAY, JANUARY 31st, 1918.

Written statement.

I.—AGRICULTURAL EXPERIENCE.

4894. (Preamble.) This question has been engaging the attention in India for a considerable time past. It may safely be said that for thirty years, off and on, several experiments have been made, ample results recorded and valuable lessons have been learnt. I am not aware of any serious attempt on a considerably

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good scale based on scientific grounds having been made. Nor am I aware of reliable and detailed literature on the subject. Most probably Government has accumulated a considerable amount of knowledge on the subject, and, most probably it must be lying buried in the mountains of Government records, as a token of memory to its several authors and as food for the worms.

4895. *Provision of State facilities for agriculturists.*—Our Government can well take a leaf out of the methods of the Government of the United States of America, in regard to the State facilities for the agriculturists. When I visited America in 1910, I made myself acquainted with these methods and, from my experience of 24 years in the cotton trade, I may say, there is great room for improvement in the materials and help our Indian Government undertakes to afford to the Indian agriculturists. For instance, in every important cotton district in America there exists a Government farm, where the local labour is employed, not to run the farm on a commercial basis, but to impart practical scientific knowledge in the cultivation of cotton. The results obtained and the various lessons learnt are in each case recorded, printed, and circulated gratis, amongst those interested in cotton. Such an organisation, on right lines, will seek to lower the cost of production, by employment of scientific implements in place of aboriginal, and so increase the margin of profit.

4896. *Acclimatisation of American varieties in India.*—There is now no doubt that *Gossypium herbaceum*, to which the Mid-American quality of cotton belongs, did not originally belong to America, is spontaneous in India and was introduced in America from the eastern coast of India. What untold wealth America by its scientific and economic methods has achieved from cotton, needs no narration. Thus if the Mid-American cotton was a native of India, it requires no stretch of imagination to conceive the idea of its growth in India. From the results up to now obtained from the experiments of the cultivation of longer-stapled cottons made in India, it has been proved that the outturns were much lower than what are known to yield in America under favourable conditions, but it was also observed that the low outturns were due to adverse environment and that they could have been better by affording the varieties experimented upon the favourable conditions essential for full development. Now, as to quality, some varieties grown from American seeds yielded good, bad and indifferent cotton. The best yields were of the finest in colour, very soft in texture, which could be used for spinning 40s, 50s, and 60s. Other varieties yield quality good enough for spinning 20s and 30s. These yarns are in great demand for mills which propose to limit their output to cloths of finer texture. I think that with the staff experience now available in the Agricultural Departments, serious experiments should be carried on for a fairly long period in the acclimatisation of American varieties especially of the newer American types with shorter period of growth than some of the older ones, and that this should be done in every part of India.

(2) At the same time, I feel that even with all this, it is only where you can get a longer growing period—either through early sowing with irrigation or through special suitability of climate—that these exotic types are likely to succeed and pay the cultivators. In Khandesh, Berar, Central India, Rajputana and the Deccan as far south as Sholapur, I do not think the sowing season can be made long enough by either of the above methods to make growing these exotic long staple cottons pay as compared with the present varieties which grow quickly and yield well. The same probably applies to Northern Gujarat. In other parts of India, there are reasons to suppose that exotic cottons will grow and pay well. In North India, this will be by early sowing under irrigation. In the eastern part of the Central Provinces, and in the whole of South India as far north as the South Deccan (including the present "Western" districts) there seems reason for supposing that exotic cottons of special types may grow and pay well as the climate seems not unsuitable. The special type will need a lot of acclimatising and testing, but it is worth while to make very careful experiments.

4897. *Encouragement of short-stapled cotton in certain tracts.*—As regards the other districts—Khandesh, Berars, etc., as named above—I feel (1) that no American type available is suitable and Cambodia is doubtful, (2) that the present existing long staple types (like the *bani* of the Central Provinces and the Godavari valley) yield so badly that the cultivators do not want to grow them, (3) that unless some indigenous type combining high yielding and long staple can be developed,—which is not impossible,—the sowing of cotton much longer in staple than the present types is not likely. The cotton industries of India, if multiplied, could not fully supply the needs of coarse cloths for clothing the majority of the population. For the manufacture of coarse cloth, lower counts of yarn spun from short stapled cottons would do. For this purpose the agriculture of short stapled cotton should receive every encouragement. All energy should be directed towards increasing the yields from the same acreage. Thus India's wants are difficult to be supplied by India herself. When I come to think of India supplanting American cotton in England and other countries of Europe, I am simply staggered by the idea.

4898. *Conflicting interests of cultivators, middlemen and millowners.*—The vital question seems to be to get the local variety—or develop one—which combines in the greatest yield the highest ginning percentage and the longest staple. Here one meets with the difficulty that the interests of the cultivators, the middlemen, and the millowners are varying. To the cultivator, the yield is the first consideration unless the difference in price is large enough to make up for smaller yield and lower growing percentage. To the middlemen, the cotton which gives the highest ginning percentage is best unless the lint price of the higher staple is so much higher as to compensate for the difference in lint yield of the *kapas*. To the millowner, the cotton which has the longest staple is the best. So that the cultivators will grow, whatever you do, the cotton which yields best until the difference in price is great enough to compensate for lower yield and additional trouble, and a similar consideration applies to the middlemen as far as ginning percentage is concerned. But a sufficient difference in price cannot be expected unless the longer staple cottons are pure.

4899. *Necessity for Indian cotton-spinning higher counts.*—If India can grow cottons that can be spun up to 40s and 50s, it will not only meet a great part of her industrial requirements but save to herself an immense amount of wealth that is drained off by her imports of these counts for her requirements. The full force of these facts could be gathered by a review of the following figures which are for the period of two decades ago, viz., 1897-98:—

	Quantity.	Value in
	lbs.	Rs.
Total import of cotton yarns	58,291,000	3.5
„ „ „ goods	...	23

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Yarns imported.		Percentage of total
	lbs.	
No. 20 and under	4,071,290	7.2
21 to 25	3,378,109	6.4
26 to 30	9,195,518	16.4
31 to 50	36,688,057	65.6
Above 50	2,512,669	4.4
TOTAL	55,845,643	

The figures for the quinquennium 1909-10 to 1913-14 are as under. I have selected these figures for the obvious reasons of the shortage in imports due to the present war:—

The yarn figures are:—

		Percentage of total in the quinquennium.
	lbs.	
No. 1 to 20	1,375,000	3.27
21 to 30	4,374,000	10.47
31 to 40	23,213,000	55.55
Above No. 40	7,602,000	18.19
Unspecified descriptions	5,230,000	12.52
TOTAL	41,794,000	100

The figures for 1916-17, however, are also given here:—

Total value of imports of yarn Rs. 4,04,89,000

The analytical yarn figures are:—

		Percentage of total.
	lbs.	
No. 1 to 20	1,304,000	4.4
21 to 30	1,970,000	6.7
31 to 40	16,018,000	54.2
Above No. 40	4,886,000	16.6
Unspecified descriptions	5,352,000	18.1
TOTAL	29,530,000	100

(2) Taking the figures of 1897-98, about 95 per cent. of the yarn imported was of No. 50s. and below and only 4.4 per cent. of the imports was above No. 50s. The sum of these imports totals up to 3½ crores of rupees in a year. Taking the average figures of the quinquenniums 1909-10 to 1913-14, about 87.5 per cent. of the yarn imported was of No. 50s. and below and only 12.5 per cent. of the imports was above No. 50s. The sum of these imports totals up to 4.18 crores of rupees per annum. Again, if I take even the figures of 1916-17, the imports are valued at 4 crores; about 11 per cent. of the total are yarns No. 30 and under, 54 per cent. of yarns No. 31s to 40s. If to this demand be added 72 crores of rupees to which value England imports Mid-uplands every year from America and that a good part of these imports is for spinning counts from 20s to 40s, then alone it will be seen how extensive is the field that lies before India if she goes about the matter in the right earnest way. Even if India can produce cotton good enough for 30s, the benefit accruing to her would be incalculable.

4900. *Suitability of Indian conditions for growth of American varieties.*—There is nothing repugnant in the soil and climate of India for the growth of naturalised American cotton of long staple varieties. India can, on an average basis, give the cultivator a sufficiently long-growing season for the plant to mature and clear weather of about two or three months for the picking season free from rains and clouds. India can supply copious and cheap labour. Moreover, the climate of the cotton growing states of America is similar to that of India;—a careful study of the meteorological tables of both the countries during the seasonal months must convince sceptics about it. If there is a difference, it errs on the right side. Indian climate is comparatively forcing and produces early maturity which means what is lost in quality thereby is made good by the quantity.

(2) A few points based on experiments made over extensive periods of time are necessary for the cultivation of American cotton in India:—

(a) Taking the active growing periods of cotton in different places such as Egypt, Texas, Southern Louisiana, Mississippi bottoms, South Carolina Coasts, Pine levels of South Carolina and Georgia, North Arkansas, Cawnpore, Tinnevely, Broach and vicinity, the intervening period between sowing and picking ranges from 102 to 195 days. Experiments made at different stations prove that the growing period can be lengthened by early sowings.

(b) The points to be borne in mind during the time of sowing are, by being too early, the picking season may have commenced early and, by being late, the pickings may not commence early enough. The time of sowing, a knowledge of the distribution of the rainfall, and the approximate date by which cold weather fully sets in October in a locality are a useful adjunct in deciding as to sow early or late.

(c) The season for planting the exotic is the season for planting the indigenous variety and soils which are unsuitable for Indian cotton are equally unsuitable for the exotics—places which have a heavy rainfall and are thickly populated.

(d) Great patience, care and observation are necessary before a foreign variety becomes acclimatised and naturalised.

(e) The standard of the staple should be kept up by selection of seed, tillage, manuring, space allowed to each plant, and interculture.

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(f) If these factors are carried out, and Indian cultivators made well versed in them by instructions in model farmers in each district, the day of Indian cotton would indeed be a glorious one.

(g) The first stage in the pickings is that of the selection of seeds for next season. The most productive plants that have the largest, best formed and most numerous bolls should be picked first and separately hand-ginned and stored for sowing next season. The eye will readily detect these plants. Such a system should be taught to our planters throughout India, and should, of course, improve the seed stock to a high degree. Such an attention to broad details is worth more than its cost and would give ample reward for any additional labour that needs be spent thereon.

II.—COMMERCIAL ASPECT.

4901. *Agricultural conditions.*—What happens at present with the Indian farmers who are the least prosperous of the world's farmers may be summarised as under. When the crop is standing in the fields, the farmer estimates the quantity and takes an advance thereon from the usurious banker, called *jilap* at an average rate of Rs. 60 per *khandi* lower than the then ruling rate in the Bombay market. When the cotton crop matures, the Government dues are due to be collected. This insurmountable obstacle in the way of the farmer compels him to dispose of his product at a much lower price than he would otherwise obtain were he to obtain any sort of financial relief either from the Government or the banks. A conflict of wits and interests follows. The vendor strives to conceal the shortcomings of his merchandise; the purchaser strives to exaggerate them. As the latter is skilled at the business which is his daily occupation, the probability is that in the end he has the best of bargain.

4902. *Necessity for constitution of State Banks.*—The monetary circulation of the country is made available to business enterprises largely through the banking system now obtaining in the country. The loans of foreign and indigenous banks are granted to Indian industries and trade and they are even on the increase, but the circulation of money is not proportionately on the increase, but it is woefully poor. The facilities which they obtain are denied to the agriculturists in our country. In the existence of such a state the poor farmer, after the crop is marketable, sends his cotton to his agent for sale and pays him a consideration for his trouble. The very agent of the farmer is usually the agent of a purchasing house in Bombay, and what loss the farmer is made to suffer could be easily gauged without any effort. Thus the farmer is a victim of the usurer, the Government, and the commission agent. (2) The extent to which the cotton agents have interfered, and the mischief which this interference has produced are so remarkable as to make thoughtful men wonder how the cause of cotton agriculturists could advance, in the face of such repeated obstacles. If there is any well-to-do condition, it is owing to the ability which has been displayed by different Governments and to the sagacity with which the evils of usury have been palliated by such legislation as the Deccan Agriculturists' Relief Act and facilities by co-operative societies.

(3) No Government can force any banks to afford financial support to the agriculturists. The only remedy lies in the institution of State Banks for their relief and the need of legislation to collect Government dues after the crops are sold. When we examine the agricultural history of the civilized countries of Europe, we find that, but for the introduction of co-operation, European and American agriculture would have been almost at the same level as our Indian.

(4) The English landlord has his squire to help him. The European and American farmers have banks and co-operative societies to give strength to his feet in standing up for a fair price for his product. The Indian farmer has to face the music of the usurious banker, the tax-collector, and his double-faced commission agent.

4903. *Co-operation and tenure of land.*—The common remedy for the improvement of agriculture generally and that of cotton in particular is said to be co-operation. To me the idea seems to be a half-digested idea. India has no other resource than agriculture and the people of India, having no other resource, rely on it as a living. In fact, agriculture is the breath of their nostrils (when I use the term "India," I mean of course the greatest percentage of the population). Of course co-operation, which means financial and intellectual help, would really go a great way. But the question is, can co-operation flourish in the country so long as our laws relating to land ownership and customs relating thereto remain unchanged? For co-operation to practise and succeed there must be freeholders. Co-operation withers where the land is hired and not owned. If Government can introduce some form of legislation, by which any native or naturalised person, able bodied, of unimpeachable character, with a four years' experience in actual farming work after the age of eighteen years,—in fact one who has earned his living by farming and has some resources of his own to fall back upon,—can become the freehold possessor of land, then and then alone can co-operation take root in India. I am not going into the actual details of such a legislation, but should a sample be necessary for the introduction of state small-holdings, the only Act of the sort, for aught I know, that exists in the world is the Danish Small Holding Law of 1909. The unit of each small holding is a matter of detail. Then every allotment of land should have free access to the public road and a legally secured access to water from some place in or out of the land. Government may charge a fair rate of interests and the management of the estates may be entrusted to local committees, disputes between the latter and the freeholders to be ultimately decided by a higher authority. On the basis of such a foundation of freeholders and for permanent tenants, co-operative societies could be established for any mortal purpose. Every farmer can then become a member and all may have equal voice, vote or legal influence. These societies will help the farmers in the use of better and scientific instruments for tilling and ploughing the lands. They will help in the attainment of the best results in growing the crops. They will help them in carting their produce free of charge to the best and nearest market. They will help the farmers in obtaining for their produce the best price. Such a combination would mean strength. Even then the farmers can have what are called "Control Societies" to keep accounts by means of careful registration of the yield of each field, of the amount of cotton in the product and the relation between the yield and the expenditure with the object of eliminating inferior varieties in future. One of the best agricultural countries of Europe is Denmark. It is a small country with an area under ten million acres. But its population of 2,590,000 works out at 170 per square mile and thus it is a more crowded country than either Scotland or Ireland. It is also a fact that no other country in Europe has made a more rapid and certain advance than this small country of poor, sandy, and indifferent soil, of insular position and with climate not of the best and perpetually exposed to tearing gales of the seas and the inclemencies of winter from the frozen Baltic. In spite of these drawbacks, a farmer of Denmark makes more out of a hundred acres than either the landlord or the tenant or both of them together expect to receive from a two or threefold area in India. In spite of these drawbacks, Denmark carries on an enormous trade valued at some millions of

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pounds in agricultural produce and England is her best buyer. The country appears to be in good financial state, the revenue has invariably exceeded the expenditure and perhaps it is the only country in the world able to write off steadily and gradually a part of her public debt.

(2) In my opinion, such a prosperous state is due to co-operation and the success of co-operation is due to the laws of land. The conclusion is that, in India, a purely agricultural country, co-operation is necessary to a full measure of its success, but as only freeholders or farmers holding permanent tenancy can hold fast to co-operation, the present law and customs regarding land tenure are not conducive to co-operation on a wide extent.

III.—STATISTICAL.

4904. (33) *Improvement of cotton forecast.*—I consider the cotton forecast as at present published is far from being accurate and consequently of not any material utility to the trade in general.

(2) As I have said above, during my 1910 tour through America, I had an occasion to visit the Government Agricultural Bureau of cotton at Washington. This Bureau amongst its numerous activities publishes monthly, commencing with June each season, its reports on the condition of the American cotton crop. The period of growth of the cotton crop is from May to October. During this period spinners, speculators, gamblers, middlemen all unite in an organized effort to find out what would be the size of the growing crop. We learn the weather condition of the crop issued by the diligent federal Bureau with the help of thousands of trained observers. The Bureau issues to its observers certain printed cards with definite questions to be filled in. A specimen of such a card is given here. They report every step of the cotton plant's growth, every rain, every attack of worms or weevils, every hot wind or cool night day by day. Then the trade will chronicle daily receipts at primary markets, and receipts at ports. Then the output of the gins will be reported by the Bureau bi-monthly beginning from 9th September with comparative tables of preceding years.

Specimen of the Card.

Please post this every succeeding Monday of each month till the end of October.

- | District | Town |
|--|------|
| I What is the acreage devoted to cotton.....acres against last year..... | |
| II Do you notice any improvement in the method of cultivation?..... | |
| III Any change in seeds for planting..... | |
| IV Rainfall during the week under review.....inches.
Number of days rain..... | |
| V Effect on growth..... | |
| VI Any damage by insects..... | |
| VII Are plants fruiting well?..... | |
| VIII If any shedding or rust in your place..... | |
| IX Give reason for same. | |
| X General Remarks: | |

(3) The trade determines, on this report, the condition of cotton. 100 per cent. represents normal full growth and vitality. We have also to learn the highest yield per acre with 100 per cent. condition. As for American, they take 275 lbs. as the hypothetical maximum. It may be explained that for estimating the size of the crop the condition factor represents the average of the June to October conditions again averaged with the October condition so as to give the latter a preponderant weight. It has been found that theoretical full or 100 per cent. yield per acre for the past fifteen seasons is 275 pounds or 55 bale of 500 lbs. net. The season's condition factor is applied to 275 lbs. and the result found applied to the revised acreage, giving the indicated yield. For instance, in 1916, the condition reports from June to October were 77.5, 81.1, 72.3, 61.2, and 56.3, average 61.6. This averaged with the October condition of 56.3 gives a working factor of 58.9. The theoretical full yield being 275 lbs. 58.9 is 162.07 pounds, and this applied to the acreage of 36,052,000 gives a total indicated crop of 11,685,895 bales of 500 lbs. net each, against actual 11,364,000 bales. The close proximity between the total indicated and the actual is a self-evident commentary on the exactness and correctness of the Bureau figures, on which the whole world relies.

4905. (34) *Improvement of other statistical information.*—The cotton press returns are a publication simply issued to justify the existence of the Government Department that is responsible for its publication. I can produce some specimens, which would prove that the accuracy is its least feature. Unless Government can give in these returns figures pertaining to each and every press, the publication will retain the value it is now estimated at.

Mr. P. D. PATEL called and examined.

4906. (President.) It will be seen from my written evidence that the bulk of India's import of cotton yarn runs between 30s, 31s to 50s counts. In India, Cambodia carries us up to 40s and so does Bourbon from the Tinnevely district but there is only a small quantity of the latter. There is nothing which goes beyond 40s. This year's crop of Punjab American is very good but last year it was very much mixed in staple and some of the mills found it very unsatisfactory. We may get up to 30s out of it. Last year it could not have gone beyond 20s warp. It is very poor in tension as compared with Cambodia.

4907. I have a fairly extensive acquaintance with India. I do not consider that the local mills are offering any very great encouragement to long staple cotton. The cotton selectors do not know their business very well. Any defects in selection detected in manufacture are neither brought to the notice of cotton selectors, nor recorded by the mill managers for a guide to future. Thus these defects get buried in cotton waste bags. Selectors do not know the production wanted, production at present, production possible and production previously obtained. These are great drawbacks.

4908. Another point is that when a merchant sells long staple cotton to a buyer, i.e., to a mill, the mill wishes to get the arbitration of the Bombay Cotton Trade Association with the idea of securing arbitration allowance. Arbitration is most unsatisfactory both from the point of view of the buyer and the seller. Indirectly it encourages sellers to mix their cotton with a quantity of unequal length and unequal strength of fibres because some sort of allowance is always made and so the seller mixes with short staple because it always gives a better colour in order to escape as cheaply as he possibly can in arbitration. The arbitrators do not pay much consideration to the merit of the staple.

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4909. My personal view is that the Cotton Trade Association should be organized on lines of the foreign exchanges and associations. Up to four or five years ago, the Bombay Cotton Trade Association had no rules for spot cotton and there are up to now no sub-committees. I think that the trade wants re-organization of these bodies very badly. There are now sixteen Directors of the Bombay Cotton Trade Association who, more or less, have been vested with the full control of the trade. Up to last year there were nine Directors only. The number was increased to sixteen in consequence of a row between the Cotton Trade Association and the Cotton Exchange.

4910. As regards the financing of the agriculturists, the state of affairs must be well known to the Committee who have travelled up and down the country and must have seen how very poor the cultivators are and how more imperative it is that the Government should establish co-operative societies to help them. I do believe in co-operation as a principle but it works too slowly. More rapid development is wanted. I have taken my cue from Rider Haggard's book. There are land banks in Ireland too.

4911. Grading is done on a very accurate scale in New York. There is no half grade standard here in Bombay. It is imperative that there should be half grades. There is no standard between "fine" and "fully good" and the difference between them is Rs. 10. If we have half and quarter grade standards as on the American exchanges, it would simplify matters and it would make the decisions of the arbitrators more accurate. These standards would be for class only. As for staple let it be defined properly as in America in millimetres. The results of arbitrations at present are very unsatisfactory to the trade in general. Unless there is a very drastic and radical reorganization of the trade there is no great hope of improvement.

4912. (Mr. Wadia.) I am a broker for Rallis, in addition to my own independent business up-country. I handle on behalf of my constituents all sorts of cotton, mostly Broach. I have my own ginning and pressing factories in the Satara district. I handle all the sorts of cotton that Rallis mostly trade in. Now a days, Rallis sell more in India as, owing to the want of freight, export is small. All Rallis' selling business is done at present through me alone. The arbitrations here are faulty and unsatisfactory as the knowledge of arbitrators is deficient. None of Messrs. Rallis' people arbitrate, at least very seldom. There are no good arbitrators. The share holders in the Cotton Trade Association have the right to arbitrate. I maintain that there should be sub-committees of the Association as there are on European Exchanges. I am not going for any one personally. I am merely saying what is my general feeling. The Directors are all good friends of mine. The arbitration rules are all right but the results are unsatisfactory. It would be quite satisfactory if there were paid arbitrators as there are on the Bremen Exchange. On the New York Exchange, the arbitrators are not appointed by the buyers or the sellers. They are appointed by the Committee and they are changed twice a week. They are appointed in rotation. This was the system in 1910 but the rules may have been changed since then. I have no idea how things are done in Liverpool but I think that the rules are the same as those of the American Exchanges. I would suggest full-time arbitrators who have no concern at all with the business in hand and are appointed by the Board of Directors, not by the buyers and sellers. There are men who can arbitrate on different varieties; certain people, for example, can arbitrate on Coconadas, certain others on Tinnevelles and certain others on Westerns. They cannot arbitrate on other styles. Then there are men who have been accustomed to short staple cottons. For the general styles of *Omras*, Khandesh, and Bengals, arbitration is not so very difficult because these cottons are sold on class. With staple cotton, arbitration is more difficult. There is a very small quantity of staple cotton. What we get is generally a mixture. Of good staple cotton only about seven to eight lakhs of bales comes to Bombay. I would call cotton from Wadiwan, Virangam and Kadi long staple cottons. The best experience a man can have for judging staple cotton is by buying and selling it himself. He must deal in it personally and have a certain knowledge of up country markets. My point is that the men who deal in Bengals, Khandesh and other short staple cottons should not be asked to arbitrate on long staple cotton. For long staple cotton, a better class of arbitrators is required. The bulk of the long staple cotton which comes to Bombay is handled by four or five big firms. These firms would supply the best arbitrators but their arbitration should be blind, i.e., without exposing the buyer and seller. They have some knowledge of the up-country markets. I do not say that they are the only people who are qualified to arbitrate on long staple cotton but they are the best. Let certain arbitrators be set aside for long staple cotton and others for short staple cotton. There is a blind appeal in Bombay. The appeal committee does not know who the buyers or sellers are as the names are not given to them. The decision on appeal is all right. My objection is to the first arbitration. The appeal committee sets the matter right in many cases but why not have good arbitrators in the first instance? I know of cotton that had been rejected on arbitration. The same identical lots have been tendered subsequently and have been passed. I could show instances from my books to prove that. Arbitration depends upon the human eye. Cotton at 11 o'clock in the morning looks different at 4 o'clock in the afternoon.

4913. I can tell a mixture of *deshi* cotton in long staple cotton when it is above ten per cent. but not when it is under. The percentage of *deshi* in the cotton that we get in the market is much more than ten per cent. but the allowances made for it are not enough. That is my point. I want the rules made stricter in the matter of admixture of long and short staple cotton.

4914. Cambodia has much stronger staple than Punjab American; as to class Punjab American is better. Cambodia has a creamy tint. Punjab American is better in colour but much weaker in staple. Punjab American is very exceptional this year; it is very uniform in staple. Last year it was very bad. There must be about five to six thousand bales of Punjab American on the market. Cambodia is always uniform in staple. It is generally sold on type. The Tiruppur Cambodia is a little shorter than the Tinnevelly Cambodia in staple but the best types of both are uniform. The spinner pays not much less for mixed than for uniform staple. This preferon for mixed staple does not encourage the trade in uniform staple cotton.

4915. (Mr. Hodgkinson.) There are two associations in Bombay, the Bombay Cotton Trade Association and the Bombay Cotton Exchange. Their history is as follows. When the European Exchange Association was formed, the Indian element was asked to take shares but they refused to do so for certain reasons. Later on, the Indian element formed their own association called the Cotton Exchange. The rules of both Associations are more or less the same. Last year there was a difference of opinion between the English and the Indian merchants because the latter wanted a voice on the Bombay Cotton Trade Association and now they have a representative on the Bombay Cotton Trade Association. Specific contracts are made under the rules and regulations of the Bombay Cotton Trade Association. The rules of the Cotton Trade Association and the Cotton Exchange are the same. The only difference is that there are Indian arbitrators in the Exchange.

4916. Mill-owners could pay a higher premium than they are doing at present for long-staple cotton. There are a few mills who well understand their business but the others are mostly guided by their cotton

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selectors and their cotton purchase business is very badly conducted. Their selectors cannot judge strength or the proportion of admixture. It would help the cultivator a lot if a better price were paid for long staple cotton.

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EXAMINED AT BOMBAY, FEBRUARY 1ST, 1918.

Written statement.

4917. *Division of subject.*—From the series of questions suggested, the main object of the inquiry seems to have been directed towards considering the means for (1) a better and wider supply of long staple cotton and (2) the prevention of fraudulent mixing and damping of the same.

(2) We shall here summarise our views in a general way, taking the two features as our basis for consideration of the means to be employed.

(3) Under the first head of a better supply, the following topics require consideration:—

- (i) The supply of proper seeds to the cultivator.
- (ii) Whether the present area under cultivation of long staple cotton is sufficient to improve both the quality and the output and what would be the effect of an increase of area.
- (iii) The question of restricting the railing of *kaps* and cotton from one station to another except to ports or stations of consumption.
- (iv) The question of restricting carting of same from one province to another except for actual consumption.
- (v) The tendency of the cultivator towards using short staple cotton seeds because the return to him is better.

Under the second head would come such questions as—

- (i) The licensing of factories and compelling them to stamp every bale and *doera* that leaves their premises with their distinguishing mark.
- (ii) The prevention of watering and steaming cotton.
- (iii) How to restrict the use by the cultivator of loose and crushed seeds produced during ginning.
- (iv) The practice of mixing hand-ginned cotton with machine-ginned.
- (v) The practice of false packing.

4918. *Means of securing a better supply of long staple cotton.*—(i) *Supply of seed.*—Generally the cultivators take away seeds from the ginning factories. These are an admixture of both long and short staple cotton, the result being a gradual but steady deterioration in staple of crops every year. This evil could only be remedied if the proper and right kind of seed is supplied to the cultivator. Even with gins, the seed from a hand-gin is better than that from a machine-gin, as the ends are not cut in the former.

(2) (ii) *Sufficiency of area under long staple cotton.*—The present area under cultivation of long staple cotton is quite sufficient to meet the demand if properly improved. Any extension of area would not be desirable under the present circumstances, and, if done at the cost of food-grains, would not be beneficial or advisable.

(3) (iii) *Restriction on transport by rail.*—The railing of *kaps*, cotton and the fly and droppings of mills in any form produces deterioration of quality by encouraging the practice of mixing inferior with the superior grade. This is a point of vital interest in the matter of keeping up the staple of each place and restriction ought to be legalised. Exceptions should only be made for *bona fide* consumers and in cases of destination ports.

(4) (iv) *Restriction on transport by cart.*—The same applies to the carting of *kaps* and cotton from one province to another—as for example, Khandesh *kaps* was being and is carted down to the Nizam and Berar markets and has thus become the main cause of the deterioration in these districts. Therefore provincial restriction is necessary and ought also to be legalised.

(5) (v) *Attitude of cultivator to long staple cotton.*—More lately the tendency of the cultivator is towards using short staple cotton seeds, because he could get a better return. This question therefore, is one which could be better solved by an expert in agriculture.

4919. *Prevention of mixing and damping.* (i) *Licensing of factories.*—Some factory people are in the habit of colluding with the merchants and resort to fraudulent practices. This evil cannot be remedied unless factories are made to understand their responsibility by the issue of licenses to them. No factory should be refused a license unless and until it is proved to be practising fraud of any kind. This could be ascertained if factories are compelled to stamp each and every bale or *doera* that leaves their premises with their distinguishing mark. The fraud could then be traced to the original source, and should be reported to the responsible authorities appointed for the purpose with the proper certificates from responsible trade bodies proving the same. The authorities, in such cases, in satisfying themselves and tracing the fraud fully to the factory may use their discretion in warning off the culprit or discontinuing the license for a year or two according to the gravity of the offence.

(2) (ii) *Prevention of watering and steaming.*—Means should be taken to stop this abuse totally. Licensing of factories will ease the difficulties instopping this.

(3) (iii) *Prevention of mixture of loose and crushed seeds.*—This question will be solved by the licensing of factories suggested above. Unless that is done, this evil will never be removed.

(4) (iv) *Prevention of the practice of mixing hand-ginned cotton in machine-ginned.*—This is not desirable because often times hand-ginned cotton carries more seed with it with the result of more loss per cent. At some places, short staple cotton is mixed with long staple. This evil could be avoided by the restriction of railing and carting.

(5) (v) *Prevention of false packing.*—This refers to the practice of mixing very inferior cotton as well as fly and droppings of mills in the middle part or hard side of the bale and sometimes all throughout. This will be greatly remedied if the licensing of factories is made compulsory.

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III.—STATISTICS.

4920. (33 and 34) **Improvement of statistical information.**—Licensing of factories will also help in bringing out more accurate reports of the output.

4921. (35) **Publication of Liverpool and Bombay prices.**—We are in favour of publication, and that ought to be twice a day, meaning the closing reports of overnight in Bombay early morning before the opening of the markets in the *mufussil* and the opening reports before evening of the same day.

Sir VITHALDAS THACKERSEY (*Chairman*), and Mr. MATHURADAS V. KHIMJI, representatives of the Indian Merchants' Chamber and Bureau, called and examined.

4922. (*President*.) Sir Vithaldas Thackersey. If the area under long staple cotton be increased where it does not conflict with wheat it would be an advantage. I do not want to sacrifice the area devoted to food grains in the interests of cotton. Areas which are suitable for long staple cotton at present grow short staple cotton for the purpose of mixing and, if that were stopped, there would be a large increase in the area under long staple cotton. Better cultivation on the areas under long staple cotton would increase the outturn.

4923. As we have pointed out in our written evidence it would be very difficult to regulate the transport of cotton by road but it would not be impossible to regulate dispatch by rail. There must, I think, be legislation to some extent. Cotton from Khandesh is imported into Broach and the cotton of that district which was at one time very good has deteriorated because of the fraudulent practices of the merchants. Ultimately these fraudulent practices will harm the cultivators themselves. I do not see how the trade can regulate matters if the ginning factories encourage watering. If other people buy watered cotton, the ginning factory owners get the advantage just the same. Watering is a fraudulent practice which does no good to any body. It is an absolute fraud. I am not very hopeful about the trade organizing itself sufficiently to prevent abuses.

4924. (*Mr. Wadia*.) I have heard of the Berar seed unions but I have no personal experience of them. It would be a very good thing if co-operative societies and unions could undertake seed distribution. It would be a great help. Some means would have to be found by which the unions could procure good seed.

4925. I have just now stated to the President that the cultivation of short staple cotton in areas where long staple used to be grown should be restricted. That is only a suggestion if large quantities of long staple cotton are wanted. If the areas which are suitable for long staple cotton are reserved for that, it will naturally increase without harm to the cultivators themselves. To a certain extent in certain areas it is true that the yield of short staple cotton is bigger than that of long staple and the ginning percentage is so good that it pays the cultivator to grow short staple cotton. The short staple cotton matures early and there is less risk of its being damaged by drought late in the season. In that way, it pays the cultivator to grow it as he gets his money earlier in order to pay the Government dues but that it is no reason why short staple cotton should be encouraged in areas in which those conditions do not certainly exist. We find that in certain districts short staple cotton is grown because it gets a better price than its real value on account of the reputation of the district. If the short staple cotton were kept separate from the long staple, then it would fetch a very much lower price. It would not fetch the same price as it is doing now. When short staple cotton is grown in a long staple district, it fetches more than it is worth. It is my view that short staple cotton in those districts should not be encouraged by the Agricultural Department.

4926. In regard to the restriction of railings *kapas* from one station to another, I would allow cotton to be brought in fully pressed bales provided that it is for legitimate purposes. I am of opinion that the movement of cotton in any form by rail should be prohibited entirely except in the case of cotton required for *bona fide* consumption or for export. The difficulty of restricting transport by cart is so great that my Chamber is not prepared at present to put forward any suggestion which they can regard as very satisfactory. If as the result of the evidence taken by the Committee, any method can be suggested in regard to it, it would be a great advantage to the trade. Every bale should be marked on the flat of the bale with the name of the pressing factory and the name of the station at which it was pressed as well as with a mark which would give particulars so as to allow the history of the bale to be traced. What is wanted is some distinguishing mark by which if any fraud is committed and is found out in the market, the bale could be traced back to the original pressing and ginning factories.

4927. I would recommend a rule that standardized weights only should be used in the factories. If a system of licensing is adopted and if a ginning factory is found resorting to damping or mixing, the license should be taken away. Crushed seed passes into lint owing to the bad setting of the gins but there is a certain amount of fraudulent setting of the gins in order to allow it to pass into the lint. I would make it a condition of a license within reasonable limits that the gins should be properly set and kept in order. I do not consider the mixing of hand-ginned cotton with machine-ginned cotton as a very serious problem because after all it can at once be found out. The mixing of waste and fly with cotton is carried on up-country especially in the saw-ginned tract from which the saw-ginned Dharwar American cotton comes. I think it would be overcome by the prohibition of transport by rail. It is a very serious matter.

4928. We are in favour of the publication of prices twice a day if practicable and at any rate once a day. The prices that I would like to see published would depend upon the district. Broach is the standard in Bombay but in a place like Berar the price of Akola Khangaon cotton could be published.

4929. (*Mr. Hodgkinson*.) I think that the quality of long staple cotton in India has been going down in many districts during the last few years. In Nander and in other places in the Nizam's Dominions as well as in Broach, all the cotton has deteriorated owing to the gradual mixing of seed. The principal cause of deterioration is the mixing of seed in the ginning factories and the seed being sown mixed. The picking of unripe bolls is a different matter. That deteriorates the cotton in a different way. If unripe bolls are picked, it causes a certain amount of irregularity in staple. Going over the fields twice might improve matters but we have no experience of up-country conditions and I would rather not give any opinion. There is not much *kapas* found in the bales of cotton that arrive in Bombay. It mostly comes from the Dharwar district not from Navsari.

4930. Mr. Khimji.—I think that there has been an improvement in regard to damping in recent years. In the Nizam's Dominion that is specially the case as matters are regulated by law there to a certain

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[Continued.]

extent. Khandesh has improved a little. The Bengals tract is the worst as regards damping. Damping there is done deliberately with the idea of adding weight to the cotton.

4931. I have seen Punjab American in Bombay. It is not pure cotton but is all mixed with *deshi*. Very little pure Punjab American cotton comes to Bombay from the Punjab. There is very probably about 25 per cent. of *deshi* mixed with it. If it is very short staple *deshi* cotton which is mixed with long staple, it could be detected at once, otherwise not. I could detect a mixture of ten per cent. in lint but not less. If Punjab American were sent to Bombay in a pure state, it would fetch a much higher price. It is not mixed by the cultivator but it is the middleman who is responsible. The mixing goes on in the gins and presses. It is the middleman who does that to get a better return. If the Bombay spinner could afford to pay a sufficiently high premium for the pure stuff, there would be no incentive for the middleman to mix. But once the name has been spoilt, it is very difficult for the buyer to pay the whole value at once. He is always nervous until the cotton goes to the spinning point and he finds out the results. I do not find Cambodia mixed to that extent but it is also coming in mixed to some extent short staple cotton.

4932. Sir Vithaldas Thackersey.—Mixing in Tinnevely has stopped owing to the combination of all the gin owners and press owners there. There are only a few large buyers and they have combined and with the assistance of the Director of Agriculture the short staple variety is being gradually eradicated from there. The merchants have combined not to gin and press it and have been very successful in keeping it out.

4933. I use only a small quantity of saw-ginned Dharwar American. The difficulty with saw-ginned cotton is that the staple is cut and that in spinning we find the yarn nappy. That is the reason why mills do not care to use it in large quantities. If it is carefully ginned, the colour is very good but with all our efforts we cannot get rid of nap.

4934. Mr. Khimji.—As to classification, it would be better if cotton were classified according to the old system, i.e., if districts were taken up as a whole and the cotton were valued according to the length and strength of the staple as well as on class. I prefer to buy on types or something like that rather than on names. The name of the station would be useful in tracing out fraudulent practices but otherwise it has no bearing on quality or otherwise. At present, the general tendency of the trade is not to buy cotton on the name of the station. The buyer is, however, generally influenced by the name of the station. There is nothing to prevent a man taking an inferior cotton from one district to another. The seller may obtain a higher price than the real value by adopting such a practice. The buyer does examine the staple but his examination is sometimes very rough.

4935. I do not think the Bremen rules would be possible here. I am not in favour of permanent official arbitrators. I prefer the present system of arbitration which works satisfactorily. It has got its little defects but all round it is a good thing.

4936. (*Mr. Roberts*.) Sir Vithaldas Thackersey.—The function of the Indian Chamber of Commerce is to represent all trades and all classes. It represents the piece goods merchants, the Murwari merchants, the cotton merchants and grain dealers. It has the same functions as the Bombay Chamber of Commerce except that the members are Indians, whereas those of the Bombay Chamber of Commerce are mostly Europeans. The rules are practically the same.

4937. Mr. Khimji.—When cotton is railed to Bombay, the rail receipt is given to the *mukaddam* (carting agent) who clears the cotton from the station and sends it off to the cotton green or to the godowns. He charges about eight or twelve annas for carting and the cart contains four bales. After that the cotton comes into the charge of regular *mukaddams* or shippers. Then it is handled by the *mukaddam's* coolies in weighing, piling and giving delivery to the buyer. The expenses of that come to about Rs. 2 per *khandi*. When the cotton has to be exported it does not go straight to the ship; it has to be weighed; it has to be marked and taken to the docks but the facilities for shipping are never prompt. It has to be kept for a day or two somewhere. The *mukaddams* are agents. The people who weigh out and deliver are the agent's men. Cotton for export is mainly stored on the green before it is despatched because shipping is not available at once. There is no compulsion about taking it to the godowns.

4938. Sir Vithaldas Thackersey.—For the last two years the Port Trust have opened a depot at the docks. Ralli Bros. and some other large shippers take their cotton direct there. Cotton at the Port Trust depot is under cover. The cotton green has no shelter but there are a large number of godowns there. Eight to ten lakhs of bales could be under cover. The bales are never left in the open in the monsoon. The intention is that the cotton green should be abolished after three or four years, and that cotton should be taken direct to the docks.

4939. Mr. Khimji.—A survey by arbitrators on the basis of the staple of cotton is difficult. There is no other difficulty.

4940. Sir Vithaldas Thackersey.—In regard to the tendency to grow short-staple cotton in certain tracts, I think this is a matter which must be threshed out by the Agricultural Department. If they can find out long-staple seed with all the advantages of short staple in regard to growing period and resistance to weather, it will pay the cultivator to grow it and the problem will be easily solved. The question is an agricultural one.

4941. Mr. Khimji.—I have myself been getting Punjab American for sale here. I have seen some this year. The usual mixture is there; there is no improvement. The quantity that has come in is very small. I have not come across anybody who has been using it this year.

4942. Sir Vithaldas Thackersey.—We have bought Punjab American this year through Messrs. Volkart Brothers and made special arrangements for getting it ginned. We got good samples and we bought on those samples. Owing to dislocation of railway traffic, we have not got a single bale down here; every thing we bought is lying in the Punjab. My firm is Messrs. Thackersey Moolji and Co. We purchased pure Punjab American at the Government auctions and Messrs. Volkarts sent two other samples, one with five per cent. mixture of *deshi* and the other with ten per cent. mixture. We purchased these three kinds. But we have not got a single bale to try. I must say that if the cotton comes in according to the sample, it will be a very good quality. We are going to try it as soon as the cotton arrives.

4943. As to publication of prices, I do not say that the Liverpool and Broach prices are a very good criterion because so many things affect prices but at the same time we know usually that a rise in Broach affects the up-country markets. It is only a few people at present who can get telegrams and it is only people who are strong enough who get the information. The poor people do not get the information. By the publication of prices every body will get the same information whatever the value of it may be.

Bombay.]

Mr. MANIBHAI DALPATBHAI.

Mr. MANIBHAI DALPATBHAI, Millowner and Banker, Ahmadabad.

Examined at AHMADABAD, FEBRUARY 6TH, 1918.

Written statement.

I.—AGRICULTURAL EXPERIENCE.

(b) "Deshi" long staple cotton.

4944. (10) **Experience.**—I am a millowner and also hold some land in Dholka district where to a minor extent, cotton cultivation is carried on. From my experience as a millowner, I would give my views regarding the questions put. I am living in Gujarat. I have got my tenants, who are growing cotton on my land.

4945. (11) **Varieties.**—Principally *wagad* cotton is grown but to some extent *lallo*, *kanvi*, *sakalia* and *mathio* are grown in these parts of Gujarat and Kathiawar.

4946. (12) **Size of holdings.**—The size of the land under cultivation for cotton mostly depends on the ruling prices of the cotton in comparison with other food-stuffs, etc. Especially this year about two-third of the land has been used for cotton cultivation.

4947. (13) **Yields and profits and comparative returns.**—The average yield per acre depends upon the quality of land. In our district good land produces under favourable climatic conditions 200 maunds per acre while inferior land under similar conditions produces only fifty maunds per acre.

4948. (14) **Rotations and manures.**—Where cotton, except *mathio* is grown, rotation is impossible as sowing begins in the Hindu month of *Shravin* and cotton becomes ready for sale in *Fagun*. In districts growing *mathio* cotton, wheat crop or other winter crop is likely to succeed. As for manure, cow-dung is generally used. Everything is done by manual labour and commercial fertilizers are not used.

4949. (15) **Conditions affecting increase in area.**—If at the expense of food crops, more ground is used for cotton cultivation and good labour supply is given to farmers, an increase in the acreage is likely and also artificial water supply is not enough to cope with the needs of the farmers. A great improvement in this direction is possible by constructing canals where feasible, if not by constructing reservoirs or artificial wells by boring.

4950. (16) **Suitability of existing varieties.**—If cultivation is carried on by scientific means, further improvement in the quality of the cotton is quite possible.

4951. (17) **Prevention of mixing of different varieties.**—It is imperative that the mixing of long staple cotton with short staple cotton should be prohibited by most stringent means and made punishable by law. Some fraudulent merchants bring *kapas* by rail from other short staple cotton growing districts and mix the same with long staple cotton in ginning factories; thereby not only do they spoil the quality of the cotton, but they spoil the future growth of cotton by mixing the inferior seeds. I would suggest that the railing of *kapas* from short staple cotton growing districts to those where long staple is grown should be stopped and some measures should be taken with gin owners, prohibiting them from mixing short staple with long staple cotton.

4952. (18) **Uses of seed and seed selection.**—Seed is generally used for cattle food and partially for poor industrial purposes. Seed is not specially selected of hand-ginned cotton but the cultivators would prefer hand-ginned seeds where practicable.

4953. (19) **General economic conditions.**—The economic condition of the farmers is not sound. They are obliged to borrow money at an exorbitant rate of interest from petty money-lenders who not only take high rate of interest but also receive the produce of the land in return for their money at a very comparatively cheaper rate. Hence to improve the condition of the cultivators, it is urgently necessary that the co-operative credit system should be introduced all round and money may be lent to the farmers at a reasonable rate of interest. Also the assessment of the land is very high and is changed at a very short interval, which should be lengthened so that the farmers may have an opportunity to improve his land and may enjoy the fruits of his labour. If his economic condition improves, then only could he use better means for cultivation and thereby a great increase in the yield per acre could be effected.

(c) Exotic cotton.

4954. (28) **Importation of seed.**—Under this head I would like to express my views for general information only. If pure seed for exotic cotton is imported from America or Egypt and large quantity of good American or Egyptian cotton is grown, it would be to the general interest of the farmers as well as the consumers. There are every chances for this cotton to be grown in India where at present long staple cotton is grown.

II.—COMMERCIAL ASPECT.

4955. (30) **Local trade customs.**—The condition of the farmers is generally so poor that they are selling *kapas* before it is ready to the petty merchants for paying Government assessment. These petty merchants are also selling some of the holdings to big buyers as future contracts and these buyers are in their turn selling to mills and big exporting houses. The petty merchants advance money to the farmers.

4956. (31) **Standardization of commercial names.**—The principal names of various grades of cotton are as under :—

Oomras—Khandesh, Central India, Barsi, Hyderabad (Deccan), Berar.

Dholera—Kadi, Viramgam and Kathiawar districts.

Broach—From Ankleshvar to Palej, *Surat* from Syam to Navsari.

Bengal—Cawnpore, Delhi, Agra and upper India districts.

Sind-Punjab.

Kumpla-Dharwar—Coming from Dharwar district.

Tinnevelley and Cambodia—Madras side.

Coconada.

These are very wide names by which name some inferior cotton is sold; the names could be standardized if small sections are given separate names, and to do that, in my opinion, seems to be much better than these wide names.

Bombay.]

Mr. MANIBHAI DALPATBHAI.

4957. (32) **Buying agencies.**—Instead of buying from Bombay market, I would prefer to buy in up-country markets through reliable commission *aratyas* of those places so that unmixed could be had.

III.—STATISTICAL.

4958. (33) **Improvement of cotton forecast.**—The cotton forecast hitherto published by Government should be published on the lines of the American Government for the whole of India, giving precise information regarding acreage and condition of the plants every month.

4959. (34) **Improvement of other statistical information.**—If ginning or pressing figures, as in the case of America, were to be published periodically, it would help the trade regarding the statistical position and buyers would be guided by it.

4960. (35) **Publication of Liverpool and Bombay prices.**—If the daily prices of the Bombay and Liverpool cotton markets are published in up-country markets, it would be a guide to the sellers.

IV.—MANUFACTURE.

(a) Ginning and pressing.

4961. (36) **Type and number of gins and presses.**—I have got 24 five bearing single roller gins of Messrs. Platt Brothers' make in my mills.

4962. (38) **Saw gins versus roller gins.**—I prefer roller gins to saw ones. Saw gins are not successful because they break the staple and cut the seeds to some extent.

4963. (40) **Factory labour.**—Labour is very dear and scarce owing to general rise of prices in India.

4964. (44) **Condition of cotton.** *Kapas* is not coming in clean. If *kapas* is picked by better methods, no dust and leaves would be coming.

(b) Spinning and weaving.

4965. (43) **Counts spun and market for yarn or cloth.**—We have been spinning yarns from 6s to 40s generally; as we have a weaving shed in our factory most of our yarn is taken up in weaving. What little yarn we can spare for sale is sold in Calcutta, Cawnpore and other parts of upper India.

4966. (44) **Condition of cotton.**—In this question, if adulteration of inferior cotton is to be understood, I would refer to my answer to question 17 (paragraph 4951), but if the actual condition of the bales is to be meant, I could say that we do not find any difficulty in fully pressed bales but we generally find great difficulty in the transit of three-fourths or one-half pressed bales, which get loose in the transit.

4967. (45) **Effect on cotton market of replacement of short-staple cotton by long-staple.**—If short-staple cotton is replaced by long-staple, it would be to the advantage of textile industry preparing cloth.

Mr. MANIBHAI DALPATBHAI called and examined.

4968. (Mr. Wadia.) I have two mills, the Saraspur and the Edward mills. I have some land; about two thousand acres in extent but perhaps it may be a little more than that. I cannot say how much of that land is under cotton. I have given out the land to tenants under two systems—one *bighoti* and the other tenancy. Under the former system, the tenants get a share of the produce whereas in the latter system they pay a rent of Re. 1 or Rs. 2 per *bigha* and take the whole produce. I pay the Government assessment in both cases. I do not remember what the assessment is.

4969. In Ahmadabad district, *lallo* and *wagad* are the only two cottons grown. Of the two, *wagad* is the better. In length the staple is from three-fourths of an inch to an inch. The staple of *lallo* is the same but it is weaker. It is a softer cotton. *Kanvi* cotton is a short staple cotton. It grows in Wadhwan district and is better than *mathio*. *Sakalia* grows in Wadhwan and on the *Dholera* side. It comes in a very dirty condition. *Mathio* comes from the Bhavnagar side. *Mathio* is the poorest of the whole lot. The staple is less than half an inch. The Hindu months, *Shravin* and *Fagun* mentioned in my written evidence are the months of August and April respectively. *Mathio* comes in earlier, in *Kartik*, i.e., about December.

4970. People bring in short staple cottons from other districts and mix them here with long staple cotton. This should be prevented. They bring cotton from Beawar and also from Ajmer, Khandesh and Nandubar. They bring it to Kalal. We have gins in Kalal. It is only ten or twelve miles from Ahmedabad. I use Surat and Navsari cotton. Broach, Surat and Navsari cotton are all mixed together. I would say that people should be prohibited from transporting *kapas* by rail. On the borders of tracts which are growing different varieties of cotton, the ginneries should be regulated. As to the transfer of cotton by carts, I should say that the ginneries and presses dealing in cotton should be liable under law. My idea is that ginneries should be prevented from mixing short with long staple. I have only one gin in the mills here and none in the district. The ginneries do not mix but it is the men who buy from outside who mix the cottons. Some damping of cotton is carried on here. On the Akola side they put cotton under the hose pipe. I think that damping ought to be stopped too. I think that it can be stopped by licensing or by passing an Act.

4971. I have said in my written evidence that the assessment on land is very high. I cannot say exactly what the assessment is but in my place it varies from ten annas to Re. 1-12 per *bigha*. I have got three or four villages. The assessment is changed every fifteen or twenty years as far as I can remember. The assessment is collected once in the month of January. I would suggest that Government should collect the assessment later on in the year that is to say in July or August when money is easier.

4972. It is the custom here for the cultivators to get advances from the *banas* and *boras*. There are some Muhammadan *sahukars* too. I do not know exactly what interest they charge but I think that it is from nine to twelve per cent. per annum but the whole produce of the borrowers field to be sold to the man who advances the money at a certain price. I know that the price paid to the cultivator is low. I would suggest some sort of co-operative movement to help the cultivators. I do not know whether there are any co-operative societies in Ahmedabad.

4973. (Mr. Hodgkinson.) *Kapas* does not come in clean. If it were picked by better methods, there would be no dust and leaves. I have no suggestion to make to improve the picking.

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Mr. NAGINLAL MAGGANLAL.

4974. I have had no experience of saw gins. The statement in my written evidence that saw gins are not successful because they break the staple is what I have heard.

4975. We are spinning from 6s to 40s from Surat cotton. It is weft. I have not spun warp. I think Surats will spin up to 24 or 26 s warp. I think the trade as a whole pay sufficient for good cotton. If we get a better cotton we could afford to pay more than at present, as we should realise more.

4976. I have used Punjab-American in my factories. I used only a few bales. It was used only once : so I cannot say whether it is pure or mixed in staple.

4977. (Mr. Roberts.) We have some lands here which yield five maunds of *kapas* only. Our maund is forty lbs. One reason for stopping the importation of *kapas* is the danger of getting inferior seed into the hands of the cultivators after ginning. When people bring in short staple *kapas*, the seed remains and it spoils the whole growth of cotton in the tract.

4978. I take from my tenants from 10 annas to 1½ rupee per *bigha*. The Government assessment is about six or seven annas. Re. 1-12 would be the rent of exceptional land but generally it is a rupee. The rent is always more than the assessment.

4979. Instead of buying in the Bombay market, I would prefer to buy in up-country markets through reliable commission *aratyas* of those places so that unmixed cotton could be purchased. The mills generally buy up-country, through their own agents. Each mill has its own agents. We use much *Kathiawar* cotton. The mills compete with each other and each mill does not confine itself to any particular tract. There is no limitation at all in regard to mills buying from any tracts they like.

4980. Arbitration is carried out by the *mahajans* in the villages or towns. They have their own local rules. There is no Cotton Trade Association here as they have in Bombay. There are no uniform rules for arbitration, they are simply local rules in each place which is a buying centre. It would be an advantage to have some uniform rules with regard to arbitration for settling contracts. Everybody would have to agree to it.

4981. I have heard of the American system of statistics. It would be a good thing to have the American system in India and to get information every month.

4982. (Mr. Wadia.) We do not buy Surat cotton direct from the cultivator. We buy it from the merchants who purchase the cotton from the cultivators ; they gin it and then they sell it to us. Sometimes they have ready bales there and we buy those. We do not give advances to the cultivators ; it is the *aratyas* who do so.

Mr. NAGINLAL MAGGANLAL of Viramgam.

EXAMINED AT AHMADABAD FEBRUARY 6TH, 1918.

Written statement.

I.—AGRICULTURAL EXPERIENCE.

(b) "Deshi" long-staple cotton.

4983. (10) **Experience.**—I have resided in Viramgam district for the last fourteen years and I have not been in actual touch with cotton cultivators.

4984. (11) **Varieties.**—*Wagad* variety is grown in this district and is known in the Bombay market as Viramgam Kadi cotton.

4985. (12) **Size of holdings.**—Half of the land is kept aside for cotton sowing by the cultivators ; and this year out of this half, one-fourth remained unsown on account of heavy rains.

4986. (13) **Yields and profits and comparative returns.**—The average yield per acre is twelve to sixteen maunds of cotton pods or three to four maunds of lint cotton and the profit to a cultivator is about Rs. 20 to 30 per acre.

4987. (14) **Rotations and manures.**—Only one crop is taken in a year. Sowing is commenced in June-July and the harvest is collected in March-April. Cowdung manure is very sparingly used.

4988. (15) **Conditions affecting increase in area.**—Length of ginning season with less restrictions on the factories and easy labour supply would encourage cultivators to increase the sowing area.

4989. (16) **Suitability of existing varieties.**—Superior types of long staple cotton could be introduced with advantage.

4990. (17) **Prevention of mixing of different varieties.**—Selection of seed by the cultivators, and prohibition of ginning inferior cotton by the factory-owners, would prevent the mixing of inferior seeds.

4991. (18) **Uses of seed and seed selection.**—The seed is used for feeding cattle only. No seed selection is practised and the cotton is not hand-ginned for procuring good seed.

4992. (19) **General economic conditions.**—As the cultivators are comparatively poor, cotton sowing taken in hand by companies, who command a fairly good capital and use steam power, would increase the crop a good deal.

II.—COMMERCIAL ASPECT.

4993. (30) **Local trade customs.**—The cotton pods are brought in carts to the nearest market by the cultivators for spot sale through brokers. Some cultivators make future sales also for a part of their produce to merchants (i.e., *aratyas*.) The *aratyas* get their cotton ginned and sell the lint cotton to *kharidias*, i.e., buyers, either as ready delivery or in future by a contract. The "future" business is generally done on a very limited scale.

4994. (31) **Standardization of commercial names.**—We have only two commercial named cottons—(1) *chalni*, i.e., mixed variety, and (2) *kari*.

4995. (32) **Buying agencies.**—*Aral* system of buying agency is in vogue here and this is not bad.

IV.—MANUFACTURE.

(a) Ginning and pressing.

4996. (36) **Type and number of gins and presses.**—Roller-gins are used here and full presses worked in our factory. We have ninety gins and three presses of Whittle & Co. here

Dumouy.]

Mr. NAGINLAL MAGGANLAL.

[Continued.]

(2) In Viramgam there are altogether 400 gins and four presses. One ginning and one pressing factory are under erection also.

4997. (37) **Size of bale.**—The size of the bale 47 ins. length × 21 ins. × 17 ins.

4998. (38) **Saw-gins versus roller gins.**—Saw-gins are not good for fine fibred cotton. The fibre, i.e., staple, is injured by the saw-gins. We are using roller-gins here.

4999. (39) **Effect of saw-gins on Indian cotton.**—Saw-gins have not been successful with Indian cotton. The staple is thereby injured.

5000. (40) **Factory labour.**—The labour difficulty is every day getting worse.

(b) Spinning and weaving.

5001. (43) **Counts spun and market for yarn or cloth.**—Counts 6½ ; 8½ ; 10½ ; 13½ ; 20 ; 21 ; 22½ for the market and 20s and 30s for weaving shed. Cawnpore, Calcutta and Bombay are our principal markets.

5002. (44) **Condition of cotton.**—Crushed seeds are found in cotton. This can be stopped by Government regulations or by an association of ginners and buyers.

Mr. NAGINLAL MAGGANLAL called and examined.

5003. (Mr. Wadia.) I work with Messrs. Whittle & Co. at Viramgam. I get a commission on that work in the ginning factories. I have shares in two mills, one at Viramgam and the other at Broach, and I am also a partner in pinning and pressing factories at Bardoli in the Surat district and Mandal in the Viramgam district. My experience in the Viramgam district is confined to *wagad* cotton. *Wagad* is much better than *mathio* and better than *lallo*. It is better than *lallo* in spinning qualities. The percentage of blow room loss is less than that of *lallo* and it has a better strength. The spinning properties are far better. *Wagad* spins up to 20s warp and 22s for reeling. Sometimes we take it up to 24s but with a less twist. We do not use much *lallo*, it spins two counts less and does not give so good a test. Sometimes we buy a very little *mathio* for low counts.

5004. I have no knowledge of the actual cultivation of cotton so I have no land. When we buy cotton at Viramgam, we buy ginned cotton and not seed cotton. We do not buy *kapas* as there are merchants at Viramgam who are ginners and can do the ginning. In Bardoli, we have to buy seed cotton as there are no merchants there to do the ginning work. Sometimes the merchants buy cotton from the cultivators "forward" and sometimes the cotton is bought "ready" in Viramgam. Some of the old merchants sometimes buy forward from a few good cultivators who can give proper and regular delivery. We could also buy forward but we do not want to take the trouble.

5005. The pods of *wagad* cotton have to be picked in the fields. That means that the owners of godowns have to collect the pods and get them opened : for this purpose they distribute them to females. For that a special staff is necessary and it entails having a special godown near the town where females can come and pick the cotton out. Things are different in the Surat district. There the seed cotton is brought in direct from the fields. We prefer to buy *wagad* from the merchants because it is hand-picked by them.

5006. Ginning is done on commission in Viramgam. Anybody can bring *kapas* and get it ginned. As regards the ginning percentage of *wagad*, a gin working only eleven hours gives eight to nine maunds of lint and one working fourteen hours gives about ten to twelve maunds of lint, i.e., about 34 lbs. per hour. From twenty maunds of *kapas* we get about seven maunds of lint. So that practically we get a little more than one-third in lint.

5007. I have already mentioned that the buyers at Viramgam have combined to refuse to buy any thing except *wagad*, as the mixture of *lallo* with *wagad* tells against the percentage of Viramgam cotton. Besides when these cottons are mixed, the seeds also get mixed. The cultivator takes the seed for cultivation and not for feeding the cattle and the result is that short staple gets mixed with long staple, and *wagad*, *lallo* and *mathio* are all mixed together. All the cultivators care about is weight. As they did not care what sort of cotton they grew, the dealers and the buyers combined to avoid trouble and to keep a check upon the cultivators so that they might get the true *wagad* cotton.

5008. I have already mentioned in my written evidence (paragraph 4988) that a longer ginning season with less restrictions on the factories would increase the area under cotton. By restrictions I meant the restrictions regarding holidays. In the ginning season, we have to observe the local holidays as well as the holidays under the Factory Act. Instead of four holidays as in Bombay, we have six or seven every month. On *Ekdashi* and such other local holidays the factories must be stopped. In Bombay they do not observe the local holidays in the mills during the ginning season but here the case is different. We have to close on these local holidays because on those days the merchants will not bring their *kapas* in. In Bombay, they have not to depend on the merchants. We have no heap system but consume all that we get every day. Even if we had the heap system, that would not solve our difficulties for the merchants would not send their servants to work on a holiday. The cotton belongs to the merchants and not to the gin owners.

5009. (Mr. Hodgkinson.) We have ninety gins and three presses. The cotton that comes to the ginning factory is weighed by weigh-bridges. The cultivator has nothing to do with weighment as he sells his pod cotton to the merchants who store it in their godown for a number of days before it is picked by women. It is the merchant who sells to the ginners and weighment is done by the gin owners in the factory. In Surat, however, the custom is different. There the *kapas* is bought directly from the cultivators by the ginning factory.

5010. The amount of *kapas* a maund of cotton pods will produce, depends on the land and also on the seed and rain. At Viramgam there are different rates. Sometimes a hundred maunds of pod cotton produces and maunds of *kapas*. Sometimes it is 73 maunds and sometimes it is 71. A rough calculation would be three quarters *kapas* and one quarter husk. The ginning percentage is about 35, but it varies greatly according to the quantity of rain that we get in a given year.

5011. As to the crushed seeds that are found in cotton, this can be stopped by Government regulation or by local regulations as we have done. If the freight for the carriage of cotton with seed in it, i.e., of *kapas* were increased, it would not pay the merchants to take *kapas* from one district to another. They only bring in this *kapas* to get a little margin of profit but if that extra margin were taken away by railway freight and other things, they would not trouble to carry *kapas* from one place to the other. The adulteration of ginned

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cotton with crushed seed may be due to bad ginning but sometimes it is done deliberately by the traders. Sometimes the fitters in the factory can do it without the knowledge of the factory owner. I do not think that licensing could stop this evil unless the merchants themselves wished to stop it. In our merchants' association we impose a penalty. When we buy cotton with crushed seed, we keep the cotton in a separate room. When a buyer comes, he sees that the stuff is not pure but contains crushed seed. We tell the other buyers that the cotton in this room contains so much crushed seeds and we cancel the purchase of the cotton. There are sometimes other buyers in the Bombay market who do not mind a little crushed seed. In order to prevent adulteration with crushed seed we have formed this combination between merchants, gin owners and sellers but these combinations generally last for a year or two and then break down.

5012. (Mr. Roberts.) The combination at Viramgam which has been formed to check mixing and such practices consists of all the ginners and all the merchants and *mahajans*. They have agreed among themselves that certain things should not be done. What happens is this. If a man finds *kapas* or crushed seed mixed, he informs the association and the association informs all the ginners and buyers that they are not to buy that cotton. If any member of the association tries to sell mixed cotton, he has to pay a fine according to the gravity of his fault. The maximum punishment is a fine of Rs. 50. That amount is taken by the association and spent on charitable objects. Sometimes instead of a fine the member is warned. The mixed cotton is kept separately and ginned separately and the seed is fed to the cattle. The association will not buy ginned cotton of this kind. If a ginning factory were to gin a mixed lot, there would be nobody to report the matter to the association. I can tell the difference between *mathio* and *vagad* cotton but it is harder to tell in *kapas* than in lint. If they are mixed in small quantities, no one can detect it.

5013. I am not in favour of licensing ginning factories as it would be a discouragement to the trade and the ginning factories. There is a Factory Act already for the mills but for a seasonal factory it is a great hardship. For the last two years the Factory Act has been extended to ginneries but I do not think that the Factory Act Inspectors are required for seasonal factories. The Inspectors do very little. They only mean worry and less work. The only thing they are concerned about is the employment of children and the ginning factories have to employ children. When there are a father, mother and children, the mother goes to cook the food and the child takes her place in the ginnery or the father goes to eat his food and the boy takes his place. The child is not employed throughout the day.

5014. It would be advisable if the Agricultural Department were to certify certain lots of seed from the ginneries as suitable for sowing if this were possible.

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EXAMINED AT AHMADABAD, FEBRUARY 7TH, 1918.

Written statement submitted by Mr. Mangaldas Girdhardas Parekh, President, Millowners' Association, Ahmadabad.

5015. *Experience*.—I have the honour to state that I belong to the Bombay Presidency and have several ginning and pressing factories at various places in Gujarat, both in the British as well as in the Gaekwar State territories. Besides I am working as the Agent of seven spinning and weaving mills and guiding several other mills. In my capacity as the Agent of the above mills, I come across cotton of various kinds and my views regarding cotton and cotton industry in India are attached herewith.

5016. *Factory labour*.—As for the question of factory labour I find that now-a-days it is getting very dear. We have to pay very high wages to our workmen and at times, in spite of our offering very good wages, we are unable to procure sufficient men to go on with the proper working of our mills and factories.

5017. *Importance of questions before the Cotton Committee*.—The question before the Committee is a question of primary importance to the cotton mill industry of India as well as to the British Cotton Growers' Association, who are leaving no stone unturned to grow in India cotton of a good staple, and on a scientific basis, so that in course of time the British Empire may be a self-supporting one, and remain quite independent of other countries under foreign rule.

5018. *Deterioration of Indian cotton*.—It is a fact, known to the merchant world dealing in cotton, that cotton, grown in several districts of India, is year by year deteriorating in quality. The reasons for the same are quite evident and they are:—

- (1) Some twenty years ago the export of cotton seeds to Europe was very little but for the last fifteen years the quantity has increased enormously and the figures are very astonishing. The exporters of seed do not mind whether seeds of one district are mixed with those of the other, as the buyers want them only for the purpose of extracting oil. These seeds, as soon as they go to the nearest railway station, get mixed, and when the sowing season begins, the farmers buy the seeds from the money-lenders. Thus the seeds come naturally mixed and the farmers do not care to discriminate. The result is that the cotton grown from such seeds is hybrid and goes on deteriorating in quality every season.
- (2) Again, there are several cotton-producing centres in India where long and short staple cotton is grown side by side, say within a compass of five to six miles. Under the circumstances, the seeds get mixed and the result is deterioration in quality. The Hinganghat cotton is a striking instance of this evil. Twenty years ago, Hinganghat cotton was as good as the best Surat or perhaps even better. To-day one can hardly spin 22s. out of it with satisfaction.
- (3) But fortunately for India such times are gone. People have now come to realize what is good for them. The users and shippers of cotton now form an intelligent class, and do not adopt the old methods of buying cotton but send their representatives to the very districts where cotton is grown and buy on the spot. The growers too are now taking to modern methods and are doing their best to produce better quality.

5019. *Remedies for deterioration*.—To stop the evil the following steps may be taken:—

- (1) The farmers, instead of buying the seeds from money-lenders, should buy from the branch of the co-operative bank, or, if the district be too small to have the advantage of a co-operative bank, the seeds should be bought from a Government depôt. If the farmer is unable to pay in full, the banks or Government depôts should advance them at a reasonable rate of interest, say

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six per cent. and out of the first proceeds the farmer gets he may pay off for the purchase of the seeds.

- (2) The Government Agricultural Department should help farmers by investigating what seeds would be best suited for one particular district. Having ascertained that, the Department should so arrange that before the next season commences, a proper stock of the above seeds may be kept available for the farmers to buy at their own door.
- (3) The Government should pass an Act strictly prohibiting *sahukars* or any private individual from selling seeds to farmers, and also warning farmers not to buy seeds from any source but through the advertised depôts.
- (4) Now-a-days, there are thousands of ginneries and presses spread all over the country and it is quite easy to gin and press the cotton in the very district in which it is grown. But it is a sad fact that cotton dealers or middlemen are actually carrying *kapas* of one centre to another centre, in spite of the gins and presses on the spot, solely with the view to mix that cotton with the superior cotton of the other district and to get the marks of the railway centre to bring out to Bombay market and to sell there as such and thus cheating the buyers of several rupees per *khandi*. This evil can very easily be stopped by legislation and centres may be defined, and cotton, produced in one particular centre, can be easily made to gin and bale there. If the above plan be adopted, the mixing of one cotton with another will cease altogether and so too the mixing of seeds.
- (5) The malpractice of the middlemen has gone to such an extent that hundreds of cotton presses all round India are provided with humidifiers, and while the cotton is under the process of being packed, the humidifiers are allowed to run at their maximum speed and the cotton absorbs four to five per cent. of moisture. This is an open secret known even to the Factory Inspectors, and in some cases they will admit that the hose is played upon the cotton to give sufficient moisture before packing. In the districts of Wadhwan and Viramgam and other adjacent places, sand or some such substance was actually added while pressing in a small proportion of three to four per cent. When things like this happen it becomes very difficult for a cotton selector to detect the percentage mixed while selecting cotton.
- (6) Lastly, the farmers are now becoming aware of the fact that they suffer chiefly on account of the malpractices of the middlemen; the mills too, realizing this fact, are at present sending their own men to the cotton districts for the purchase of cotton in order that they may get pure stuff; and they do not now stick to the Bombay Colaba market only, as they used to do in times gone by.

5020. *Introduction of American cotton in the Punjab and difficulties experienced in marketing it*.—I think before I close this topic, I should invite the attention of the President and the members of the Commission to the facts and figures published by Mr. W. Roberts, B. Sc., Professor of Agricultural College, Lyallpur. This gentleman, for the sake of trial, introduced American seeds among the farmers, and in certain tracts Dharwar long-stapled seeds. The trials began in 1905-1906 but the results were not satisfactory. Then a special variety drawn from the Dharwar-American seed was selected by the Economic Botanist and handed over for further trials to the said Professor. This met with great success. One hundred acres were cultivated under that variety in 1913, 3,000 acres in 1914, 9,000 acres in 1915, in spite of the war, and when the cotton had touched the lowest price it ever did, 65,000 acres and more were sown in 1916, and it was estimated for the next crop 120,000 acres would be sown. The very figures prove that the farmers have now come to know what is beneficial to them. The average price obtained per maund was Rs. 3-13-0 more than the *deshi* cotton such as was produced before the new kind was introduced. In addition to this, the new seeds yielded twice as much cotton as the *deshi* seeds yielded per acre. Now comes the question of marketing this cotton, and here too the middlemen for their gain are spoiling, nay ruining, the fruits of labour bestowed by the cultivators and Government scientists. Mr. Roberts' own words will open the eyes not only of the millowners but also of the Government, and it is high time that an Act should be passed to put a stop to these undesirable mixings and the consequent ruination of the agriculture of cotton in India. The words of Mr. Roberts are as under:—"The marketing of American cotton still leaves much to be desired. The trade is mostly in the hands of Indian ginning factory owners at present, the European firms having done a comparatively small business up-to-date. Bombay in the chief buyer. What is curious about the business is the almost universal mixing that goes on in the ginning factories. The usual grade sent to Bombay contains from ten to thirty per cent. of *deshi* cotton. Some of the factory owners are very frank over this mixing, and the writer has often seen American cotton with twenty to thirty per cent. of *deshi* being added to it before ginning, especially in the Jhang district. One reason for this is that *deshi* cotton has a better colour than American and no doubt the mixture looks whiter than pure American. One would expect spinners would find the defect. Individual spinners in Bombay stoutly deny that they want such mixtures, yet that is what they mostly get and pay for. It might be pointed out that the ginning outturn of all cottons was low last year, and thus there was more than the usual percentage of short fibre. This fact no doubt facilitated mixing with *deshi*. The dangers for the seed from this and other causes will probably make it necessary to brand 4F. bales in future. The point is receiving careful attention. It is satisfactory to note that, this year as well as last year, a good deal of cotton was sent pure both to Bombay and Nagpur. The widespread growing of American cotton is brought home to anyone walking in any part of the above tract comprising the Lower Jhelum, Lower Chenab and Lower Bari Doab Canals. There is scarcely a village without a field or two of American, and in some places practically no *deshi* cotton can be seen for miles. As an instance of the indirect effect of the cotton sales, the case of certain large growers near Lyallpur may be mentioned. Up to the day of our first sale, the best price offered to these *zamindars* was Rs. 10 per maund, whereas the day after the sale they were offered Rs. 11 and some actually sold privately at Rs. 11-4-0 per maund of *kapas*."

Written statement submitted by Mr. G. R. Rele, Manager, Ahmadabad Ginning and Manufacturing Company, Limited, Ahmadabad, and Representative, Ahmadabad Millowners' Association.

II.—COMMERCIAL ASPECT.

5021 (30) *Local trade customs*.—Generally the proprietors of gins act as small merchants to buy seed cotton from the farmers in their respective districts through brokers and these ginners make formal contracts with the consumers or big merchants and shippers as it is only the shippers and big merchants that

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hold big lots in stock. For securing cheap bargains when the cotton is in process of growth, the ginners make small advances to the farmers in proportion to the quantity of cotton a particular farmer is likely to produce in his field. This system is particularly practised in Southern Gujarat. In other parts of Gujarat, and also to a small extent in Southern Gujarat, there is a class of cotton commission agents who buy, cotton direct from the ginners and big merchants as seed cotton, and gin and press it for their constituents, the commission agents being responsible for money due to ginners and merchants.

5022. (31) **Standardization of commercial names.**—Generally the cotton grown in Surat district is known as Surat; but cottons grown in that district are distinguished by the general names of the countries in which they are grown; such as *Bilimora*, *Navsari*, *Maroli*, *Vesma*, *Bardoli*, *Elav*, *Kim*, etc. In my humble opinion, the general classification as Surat is rather misleading and, as the staple and quality of cotton grown in the above-named different countries varies to a great extent, they ought to be classed for trade in the names of the countries and the ginners and the merchants prevented by law to carry either loose or cotton in any form or *baplas* from one country to another. In some cases it is found that want of a press factory in one particular country requires the cotton to be carried to other country. To avoid this, steps should be taken to establish press factories in a country where they do not exist. Legal restrictions must be enforced against pressing the cotton brought from other countries and the owners of such factories must be brought to law for pressing such imported cotton in their factories. No bale pressed in a pressing factory should be removed from the premises without a stamp showing the name of the commercial country in which it is grown.

5023. (32) **Buying agencies.**—The best form of buying agency, in my opinion, is to have several such agencies in the cotton growing districts where cotton can be bought by the consumers direct from the up-country merchants instead of the cotton being taken to big markets of Bombay and the like for sale. Arrangements for purchasing the cotton in the districts would facilitate the consumers and exporters in securing unmixed cotton in various districts. Thus there is less chance of the cottons of different districts being mixed.

III.—STATISTICAL.

5024. (33) **Improvement of cotton forecast.**—The cotton forecast as at present published is far from being satisfactory or accurate. It lacks in details of information as regards quantity of the various qualities of different districts and provinces which is quite essential to form any idea of various growths of cotton. The forecasts hitherto published are very general and details of the number of bales is hardly available. Secondly, the forecasts ought to be published every month beginning from the time the cotton is sown and these forecasts should be distributed among all the manufacturers by Government whenever published. They should also be published in the monthly reports of the Director of Agriculture of the Province and these reports must be made known to the public through the leading newspapers of every province. Moreover, in the district such as Surat, Viramgam, Tiruppur, Tinnevely and the like, where better kind of cotton is grown, the cotton may be sold to the public by public auction and pure cotton of that particular district (as is done in the case of selling the Sind and the Punjab American cotton at Lyallpur) guaranteed.

5025. (39) **Publication of Liverpool and Bombay prices.**—I am in favour of the publication of the Liverpool and Bombay cotton prices in the up-country markets. This will keep the up-country dealers and manufacturers in constant touch with the fluctuations of the markets in Liverpool and Bombay.

IV.—MANUFACTURE.

(b) Spinning and weaving.

5026. (43) **Counts spun and market for yarn or cloth.**—In my mill, we spin cotton from 6s to 70s, but larger quantity of 20s to 30s. We offer rather a small quantity of yarn for sale, the major portion being utilized for our looms. My market for yarn is mainly Ahmadabad and a small quantity is sold at Calcutta. My principal markets for cloth are Ahmadabad, Calcutta, Cawnpore and Madras, but nearly half our production of piecegoods is sold to local merchants in Ahmadabad.

5027. (44) **Condition of cotton.**—Nearly half the cotton received in my mill is faulty, as regards presence of carelessly or fraudulently added dirt, water or mixed with inferior varieties and I suggest legislation against adding excessive moisture and carrying of unginned or loose cotton in any form either in bags or *baplas* from one cotton growing district to another. Prevention of carrying of unginned cotton will also discourage mixing of inferior cotton seed with superior varieties.

5028. (44) **Effect on cotton market of replacement of short staple cotton by long staple.**—Any attempt to replace the short stapled cotton in India with long stapled varieties, would increase the commercial value of the Indian cotton generally and this change would be welcome to the consumers of Indian cotton generally. I have tried the American cotton grown in the Punjab and I am of opinion that, if the cultivation of this variety is extended with adequate measures for preventing the mixture of the Punjab local cotton seed with the American seed, it would give the Indian manufacturers greater opportunities of spinning medium counts and improving the qualities of their productions. I found Punjab American cotton so be a good class of cotton grown in India.

V.—GENERAL.

5029. (46) **Attitude of buyers to improved cottons.**—In the past, Indian manufacturers seem to have paid little attention to encourage the growth of improved cotton, but recently I find that some of the manufacturers give encouragement and actually pay premium for improved cotton such as Cambodia, Tiruppur, Tinnevely Government farm, Navsari and Punjab American cottons.

Mr. MANGALDAS GIRDHARDAS PAREKH, (President) and Mr. G. R. RELE, Representatives, Ahmadabad Millowners' Association, called and examined.

5030. (Mr. Wadia.) Mr. Parekh.—The total number of mills in Ahmadabad is about fifty. The total number of spindles is about ten lakhs and the number of looms is about twenty thousand. All the millowners except the owner of one small mill are members of the Millowners' Association. The mills use all the different varieties of cotton but mostly Gujarat cotton including Surat. Some mills use Cambodia and this year Lyallpur American. They also use Hubli and Dharwar cotton and some Coconadas. Very little Khandesh cotton is used. Some mills used Khandesh and Akola cotton. We do not get enough long staple cotton here and we have to import it from outside. The districts round here grow *wagad* and *ladio*.

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Wagad is a better cotton than *ladio* and the mills, generally speaking, prefer it. Some *rozi* cotton from the Kaira district is also used. With *wagad* we spin up to 32s weft and 20s warp. With *ladio* we can spin up to 30s weft and 18s warp.

5031. (Mr. Rele.) We have not tried *ladio* separately; it is usually mixed with *wagad* for hand looms. The spinning mills use it for yarn.

5032. (Mr. Parekh.) Navsari cotton spins 24s to 26s warp and 38s to 40s weft. It depends on the climatic conditions at the time of weaving. Cotton generally comes in a very mixed state but it depends upon the way in which a man buys. If we send our own agents out and they are very careful, we can get Surat cotton more or less pure. If we buy in the market here we get mixed cotton. I do not use any Broach cotton and I do not think many mills in Ahmadabad use it. It may be on account of the price. I cannot say if it has gone down in quality but I have heard that it generally comes in mixed. Short staple cottons from Sankheda and Badarpur are imported into Broach and mixed there with Broach cotton. We do not use any *mathio* cotton here. It mostly goes to Bombay.

5033. The quality of cotton is everywhere deteriorating. We find it especially in the Ahmadabad cotton, but it is true of almost all the cotton that we do not get such staple as we used to get some years ago. All the cotton of Gujarat has not deteriorated. The cotton from Morvi, Dhandragarh and Wadhwan is pure and now-a-days that from Viramgam is also good. The *kadi* cotton is also pure if it is bought at Kadi itself. There is no mixing or short staple cotton there. The quality of Surat and Broach cotton has gone down. I think this is due to the fact that they take from interior districts to a district the cotton of which is superior and commands a higher price. For instance, *kapas* is taken from Bardoli or Kim to Navsari to be ginned and thus Navsari cotton is spoilt. I have no personal experience of this but I have heard that people are taking *kapas* from interior districts to places where the prices are more favourable. Another cause of deterioration is that mixed cotton is ginned and the seed is distributed to the cultivators. In my written evidence, I have referred to the case of Hinganghat as a striking instance of the evil of mixing. I used to buy Hinganghat cotton some years ago but I do not buy now as the staple is very short and is not uniform. With the former Hinganghat cotton we used to do fine work and used to spin from 22s to 24s. Now we cannot spin even 22s. I buy Punjab American; it is mixed in staple. I think the mixing is done by the ginners but it may be due to other causes such as mixed seed. All we know is that we get cotton of mixed staple. Dirt and water are added to cotton. I have experience of this in Ujjain, Indore, and Malva cotton. Merchants sometimes ask the press owners to make some arrangement for damping.

5034. (Mr. Rele.) I am of the same opinion. A lot of water is added intentionally. I have experienced this in the cotton from Patli near Viramgam. This year I have noticed that some of the cotton from Lyallpur has been highly watered. I did not buy it myself but I have got my own agent at Lyallpur. As a first remedy for deterioration, it is suggested in our written evidence that the cultivators should buy seed from a co-operative bank. There are some co-operative banks in this district, and almost all the villages in the Geakwar's territory have co-operative societies. The number of such associations is increasing.

5035. (Mr. Parekh.) A Government depot might be opened in some central place at which seeds might be sold. I want the whole seed supply controlled by a Government department, if it is possible. Then only good seed will be distributed and there will be no mixing.

5036. The second remedy for deterioration that we have suggested is that the Agricultural Department should help the cultivators by finding out which seed is best suited for a particular district. We must try for long staple, not for short staple at all. We want Government to find out what long staple cotton can be grown in particular districts. I have heard the argument used that the short staple cotton has a bigger yield and a higher ginning percentage and that therefore it pays the cultivator better to grow short staple than long. That is true, there is less danger in growing short staple cotton. Long staple cotton takes a longer time to grow and therefore is more liable to damage from extreme cold. As to whether it is possible to encourage the cultivators to grow long staple cotton by paying higher prices for it, I think that we are paying a sufficiently high price for long staple cotton as can be seen from a comparison of the figures. Formerly, the difference between good quality Ahmadabad, i.e., *wagad* cotton and Surat cotton was only Rs. 2 per maund of 40 lbs. in favour of the latter. The difference now has gone up to Rs. 6 or Rs. 7 per maund. There is the same difference between Broach and Surat cotton, i.e., about Rs. 120 per *khandi*. We pay a better price for our *deshi wagad* cotton than for Broach. I have already said that if the short staple cotton were kept separate from long staple, the difference in price would widen, but much depends on supply and demand. Sometimes the price of short staple cotton goes up if there is a demand for coarse counts.

5037. All seed from gineries should be sold for export or for feeding cattle. It should not be sold by *sahukars* or private individuals for seed purposes. That should be stopped by legislation. Of course, the cultivator might buy the seed with the ostensible object of feeding cattle and then use it for cultivation. I am merely putting forward suggestions. It is for Government to decide what action should be taken.

5038. The other remedy suggested in my written evidence is the prohibition of the transport of *kapas* and half pressed bales from one station to another. If that is done, mixing can be stopped. It is not the gineries who are mixing, but the merchants. It would be rather difficult for the ginowners to do it as they do not know from what district cotton is brought. If the merchants are prevented from bringing in *kapas* from outside, that is a better way of stopping mixing than the licensing of gineries. If transit by rail is stopped, the evil will be overcome to a certain extent.

5039. I know that pressing factories are provided with humidifiers. I have one in my own pressing factory. I have been told that in Ujjain bags filled with cotton are put in layers and that hose pipes play upon them. We have been asked by merchants to put in humidifiers in our pressing factory at Viramgam and Massana. It is true that slight damping makes pressing easier as the cotton becomes softer. Damping improves the staple, and makes it a little stronger and stiffer. That is the case when cotton is damped one or two per cent. I do not think that a little damping does any harm to cotton.

5040. (Mr. Rele.) I would not have any damping at all. It does facilitate pressing but I would rather have it abolished altogether.

5041. I consider that bale should be stamped in the pressing factories by the name of the station at which the cotton is pressed and that from which the cotton comes. Legal restrictions must be enforced against pressing the cotton from other *talukas*. If transport by rail is prohibited, the cotton will be transported by cart. I think it would be better to have restrictions on the factories than to prohibit transport by rail. I would suggest legislation for licensing gineries and presses.

5042. The cotton forecasts at present are incomplete.

5043. (Mr. Mangaldas Parekh.) They are not accurate but they are useful.

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5044. (Mr. Rele.) More details should be provided. As at present published they are very general, relating to a very big province. Details should be given showing the average yield of the cotton growing tracts in the Province, and the forecasts should be published monthly. Both the Association and the individual millowners get the provincial forecast from Mr. Keatinge's office.

5045. (Mr. Parckh.) I have some experience of ginning pools at certain places. There are such pools at Surat and Viramgam amongst other places. I think they work satisfactorily, from the point of view of the ginners but not from that of the cultivators. Formerly the ginning charge was between Rs. 3-8 to Rs. 4 for twenty maunds (in some places 24 maunds) of *kapas*. We charge for *kapas* and not per bale of cotton. Now on account of the dearth of stores, I have heard that, at Viramgam, they have fixed the charge at Rs. 6-8 for ginning. The pressing charge last year was about Rs. 5 to Rs. 5-8 a bale. This year as the prices of hoop iron and cloth have gone up, the charge is about Rs. 6-8 to Rs. 7. Before the war, the charge used to be Rs. 3 per bale at Viramgam, Wadhwan and at other places. The pools are not to the advantage of the cultivator but they are not charging very high prices. They exist simply to do away with competition because if there are five or six ginning factories they will compete against each other if there is no pool. The pools make a profit of say fifteen to twenty per cent.

5046. (Mr. Hodgkinson.) The mixing of seed is not the sole cause of deterioration. Here the cultivators get good manure. If they were to cultivate on scientific principles, the staple would be better. I think the cultivators do their very best to grow good cotton but the chief cause of deterioration in quality is the mixing of seed.

5047. Generally speaking, the cultivators do not pick unripe bolls. If unripe bolls are picked, the staple will not be uniform. I cannot suggest any improvement in the way of picking cotton. Each place has a different way of picking. In some places, the cotton is picked cleaner than others. There are two methods of picking. In most places the cotton is picked from the bolls in the fields but in the case of *wagad* cotton the whole boll is picked and the cotton is removed from it afterwards.

5048. Some ginning factories put in cotton seed into ginned cotton to increase the weight. There used to be some adulteration of ginned cotton with seed at Viramgam but that has been stopped.

5049. Punjab American comes in mixed. I have not been able to get any pure Punjab American in my factory. There used to be fifteen to twenty per cent. of *deshi* in it. I have not yet received any Punjab American this year.

5050. (Mr. Rele.) We have received about 200 to 300 bales of Punjab American this year and the quality is very good. The mixture of *deshi* in it is only about five per cent. We bought it at the auctions, where it was classified as containing a mixture of five per cent. *deshi*. We have bought class A also which is pure but the bales have not yet arrived. We can spin 24s warp out of pure Punjab American 4F, but if we adopt a special process, we can get 28s warp out of it.

5051. (Mr. Parckh.) Of course we could spin finer counts with it but it all depends on the climatic conditions of the time at which we are spinning. We can spin higher counts in the rainy season. It is very difficult to spin the finer counts in the cold season. Cambodia has a longer staple than Punjab American but the colour is not so good. For certain class of piece goods, the colour does not matter. If the cloth has to be bleached and dyed it does not matter if the cotton is yellow or white.

5052. The gins here are all single roller gins.

5053. I am using Uganda cotton in my mills. We only began to use it last year and we find that the Indian operatives are not sufficiently efficient to deal with this class of cotton. Even the spinning master wants to be trained to use it yet. Up to this time we are spinning up to 20s, 30s, or 40s, reeling out of it. The machinery is not very well adapted for that purpose. It is not fit for the work that I want to get out of it but, owing to certain circumstances, I am obliged to spin finer counts at present. The Indian operatives have up till now only been habituated to work on coarse counts. It will take some time to train them to use finer varieties but if they are trained they will be able eventually to do the work provided, of course, there is proper machinery. I do not think that as long as coarse counts pay, any one will try the finer counts.

5054. (Mr. Roberts.) The mills have to go further afield now for their long staple cotton. I am buying in new tracts. I buy mostly Surat cotton but I also buy Cambodia. Last year and this year I have bought Lyallpur Punjab American cotton. When Sind American was procurable, I bought that. The first and second years, the crop was good. Later on the quality of Sind cotton went down and it also became very dear compared with other cotton and so we stopped buying it. I bought Punjab American last year in Bombay. This year we sent our own men to buy at Lyallpur. I think I have got better cotton by sending my agent to purchase at Lyallpur. We bought the cotton on sample. We have not got the bales yet. I think this year's crop is better than last year's. Mr. Rele and I are the only two persons in Ahmadabad who have bought Punjab American. We are buying in partnership. Another buyer from Ahmadabad, The Ahmadabad Manufacturing & Calico Mills, Ltd. have made very small purchases.

5055. (Mr. Rele.) We cannot get pure Punjab American unless we purchase at the auctions and at the auctions we have to pay cash down. Our difficulty in getting pure cotton was the difficulty about financing as we could not make arrangements for immediate payment. I have received information that ginning has been commenced already. According to the reports of my representative, we are not certain of getting pure Punjab American except at the auctions.

5056. We both advocate the stamping of bales in factories, as it would enable the purchaser to trace the place from which the cotton came. This is most important from the purchaser's point of view. I think that each factory should have a brand of its own which should be registered. One ginning factory may have a good name and the other a bad though both are in the same place, so that it is advisable that every factory should have its own registered mark so as to distinguish the quality contained in the bale. At Ahmadabad there are two cottons and it would be necessary to have two different marks, one for *lalio* and the other for *wagad*.

5057. (Mr. Parckh.) Here in Ahmadabad we buy ready cotton but we also buy on contracts as well as in the districts where the cotton is grown. About half the mills are in the habit of buying cotton in the district. Disputes are settled according to local rules, which vary in every place. We do not find any difficulty at present in having our own local system and I do not consider that any uniform system of rules such as those of the Bombay Cotton Trade Association is required as at present.

Bombay.]

Mr. AMBALAL SARABHAI.

5058. The prices of the various classes of cotton to-day are as follows:—

	Rs.
Navasari	730 per <i>khandi</i> .
Surat	.715—720 „
Syan and Kim	680 „
Broach	630 „
Wagad	.570—580 „
Laho	.560—570 „
Kadi	.580—590 „

All these prices are for loose cotton. Rupees 630 is the Bombay price for Broach but it must be less than Rs. 580 in the district. We do not speculate so we do not know much about it.

5059. My experience is that Navsari is not deteriorating. We sometimes get very good Navsari cotton. Billimora cotton is better than Navsari.

5060. (Mr. Rele.) The practice of mixing sand with ginned cotton is now not common. I have said that I have noticed damping in the Punjab cotton. I think it is done intentionally. The *kapas* is intentionally kept near the small water channels in order to absorb moisture and is then loaded in carts for the market. The reports I have received are to that effect.

Mr. AMBALAL SARABHAI, Mill Agent, Ahmadabad.

EXAMINED AT AHMADABAD, FEBRUARY 9TH, 1918.

Written statement.

II.—COMMERCIAL ASPECT.

5061. (30) Local trade customs.—No practice of advances is in force in Ahmadabad itself but in villages the dealers advance money against raw cotton to the cultivators. No future buying contracts are made, but forward sales (delivery in maunds or bales) are made just a month or so before and after the arrival of *kapas* in the market. In Sanand, Bawla, Kalol, Dholka and in Ahmadabad this system is prevailing. Similar system prevails at Kadi, Jotana, Patri, Mehsana, Anand, Petlad, Cambay and in Kathiawar.

(2) Surat.—Cotton is sold in half-pressed bales by *khandi* of 796 lbs. equal to 19 mds. 17 seers Ahmadabad weight. The agents deduct from sellers Rs. 1-12 to Rs. 1-14 per *khandi* for charges such as brokerage, etc. Similar system also prevails in Navsari, Surat, Syan and Kim districts.

(3) Broach.—Cotton is sold in half-pressed bales by *khandis* of 21 maunds each of 41 seers (a seer of 40 tolas). The buyer pays four annas per *khandi* as brokerage besides the commission and sundry charges such as cartage and pressing charges, etc.

(4) Hubli.—Cotton is sold by *nag* of twelve maunds (maund equal to 28 pounds). *Kapas* is sold in the same way but the rate is fixed per *nag* of 48 maunds of 28 pounds each.

(5) In Ahmadabad, cotton is imported into full-pressed and half-pressed bales for sale. Raw cotton (*kapas*) is also imported in carts and railway wagons.

5062. (31) Standardization of commercial names.—The following are the names of some of the important grades:—

Gujarat cotton—	
Wagad	Lalio.
Muttra	Rozi and Kanvi,
Kathiawar—	
Dhrangadhra	Wagad
Wadwan	„ and Lalio.
Morvi	„
Lakhtar	„
Limbdi	„ and Lalio.
Hubli	Kumpta

but outstation cottons are generally known by the names of the places they come from—

Surat—	
Navasari	Bardoli.
Sayan	Kim, etc., etc.

In most of the districts different grades of cotton are mixed and this is very undesirable. The remedy is suggested in this written evidence at the end.

(2) To a certain extent, commercial names of various grades of cotton are standardized at the present time; for example, cotton grown from American seed in Sind is called "Sind-American," and this year the cotton grown from Cambodia seed in Dhrangadhra will be called "Dhrangadhra-Cambodia." The word "Sind" and "Dhrangadhra" have to be used because the quality of cotton grown in the particular districts from a foreign seed is different from the cotton grown from the same seed in its local area. Standardization without any effectual remedy against mixing of seed and cotton is likely to fail.

5063. (32) Buying agencies.—Speaking from the standpoint of the cultivator and the consumer, the best selling and buying agency in the interest of both would be one, a sort of banking and trading concern, which would stop the passing of *kapas* through many hands, from the cultivator to the buyer of baled cotton. I shall be glad to give outlines of the scheme if desired.

Bombay.]

Mr. AMBALAL SARABHAI.

[Continued.]

III.—STATISTICAL.

5064. (33) **Improvement of cotton forecast.**—Either due to ignorance of or the prevailing belief that the forecasts are not reliable, the Government forecasts have not been much availed of. The information asked for by Government in compiling the forecasts is not given by the public with that accuracy and precision with which it deserves to be given. In order to make such publications accurate, there should be legislation to punish those (1) who do not give information in time and (2) which cannot be considered reasonably accurate from the data at the disposal of the party from whom the information is required by Government.

IV.—MANUFACTURE.

(b) *Spinning and weaving.*

5065. (43) **Counts spun and market for yarn or cloth.**—Since sometime the two mills under my management sell very little yarn. The counts spun are from 20s to 32s for warp and from 20s to 48s for weft. Since January 1916 most of my cloth is sold to Ahmadabad merchants. The cloth eventually goes to Calcutta, Amritsar, Delhi, Agra, Cawnpore, Nepal, Persian Gulf ports, Madras, Bangalore, Lahore and Sind.

5066. (44) **Condition of cotton.**—Hessan used for cotton baling purposes is usually previously used and of inferior quality, and hoops are rusty, patched and old and so due to faulty packing there is a loss of cotton in transit. The railway goods-yards and enclosures on which bales lie are not all paved, with the result that dust and small pieces of stone find their way in cotton and sometimes cause fires in the blow rooms. I cannot say that cottons bought from places other than Bombay, and which are usually baled under the mill supervision, are artificially damped, while some of the lots that are sometimes purchased from Bombay do show signs of artificial damping.

5067. (45) **Effect on cotton market of replacement of short staple cotton by long staple.**—It is contended in some quarters that short-stapled cotton pays the cultivator better than long-stapled cotton. It is also contended that in the case of short-stapled, though the price per maund be less, the realization for the yield per acre amounts to more than in the case of long-stapled cotton. This may be attributed to two causes:—

- (1) The stapled cotton being usually in better demand, some of the short-stapled cotton of good shade is used by cotton merchants for mixing purposes. The price therefore paid for such cotton is higher than what it should be, looking to the quality of the cotton. If no mixing were to take place, the stapled cotton would fetch a higher price and clean inferior cotton a lower price than what they do at the present time.
- (2) Taking the above fact into consideration, perhaps the yield of inferior quality of cotton gives a better return than that of the stapled cotton. If short-stapled cotton were replaced by long-stapled cotton, and there be no mixing of superior and inferior qualities of cottons, the prices realizable for long-stapled cotton will be more than they are at present, which the consumers and exporters will not grudge paying.

V.—GENERAL.

5068. (46) **Attitude of buyers to improved cottons.**—The buyers have been prepared to pay higher prices for improved cotton. The Government are doing something in the matter with good results in Surat district. Cotton from known growers of established reputation in Gujarat also realizes a premium over current market rates on their cottons. But the quantity of such cotton is so small that consumers have not been able to give it a substantial support as it deserves to get. The consumer is not to be blamed for his indifferent attitude, for, after all, what would be the gain to him if only one-twentieth of his purchase was only of a better type of cotton?

5069. **Remedies for mixing and damping cotton.**—The mixing of superior quality of cotton with the inferior quality should be penalized; so also damping of cotton. I suggest two remedies: (1) the Railway Company should not book *kapas* except in cases of cotton mills, who wish to have it for their own use; (2) ginning and pressing factories should be licensed and proper arrangements should be made for frequent inspection for detecting and punishing abuse (mixing and damping).

Mr. AMBALAL SARABHAI called and examined.

5070. (President.) I am a mill agent in Ahmadabad. We usually handle Kathiawar, Surat, Hubli and Latur cotton but sometimes we get Lyallpur and Cambodia. From Surat cotton, from Syan and Kim we get 32s. to 34s. weft. For warp we usually use Kathiawar and Hubli cotton. From Cambodia we spin 24s. to 28s. warp. From Punjab American we get 22s to 24s warp, if it is good, but a lot of mixing goes on there. We buy it at Lyallpur, through our own agent. This is the first year we have purchased cotton at Lyallpur. It is very uneven; some lots are very good and some are very bad. I would not make any general statement about it. We get 22s to 24s out of it. This is the first year we have been buying Punjab American direct. We used to buy it in Bombay. We sometimes buy *kapas*. In that case our agent arranges to have it ginned and pressed. We only see the bales in Ahmadabad.

5071. I do not see much of the statistics issued by Government. I do not rely on them. I do not submit ginning and pressing returns.

5072. (Mr. Wadia.) I have some land in this district and my cultivators grow cotton. I have got about five hundred acres under cotton cultivation. It is all leased out to cultivators. I used to get half the crop till last year, but now the tenants pay me a fixed rental. The land I have is *inam* land and I pay an assessment of about Rs. 500 per year for 7,000 acres. Though I am a landowner, I have no experience of the actual conditions under which the cultivators grow cotton as I do not go out into the districts myself.

5073. In Ahmadabad, the cultivators do not send in their *kapas* to be sold; it is all brought in by dealers. I do not buy on forward contracts from cultivators, but sometimes do so from Surat merchants. I do not buy on forward contracts in Ahmadabad, but I do so sometimes in Kathiawar. In Surat we can depend on getting delivery as a rule but not so in Kathiawar. In Kathiawar, if the rate goes up they do not give delivery but only give the differences. If they do give delivery, they only do so after a good deal of trouble and then they give bad quality, and make long delays. Usually there is no fixed time for delivery.

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Mr. PARI JESHINGBHAI UJAMSHIBHAI.

They have plenty of money and so are very indifferent. When buying forward, we give them deposits. If the price goes down, we get delivery and if the price goes up, we are paid the difference. It is a sort of cover against the sales of cloth. We can not depend upon the cotton. In Surat, there are four charges: *dhamada* (charge for charity), brokerage, weightment charges and storing charges. The total amounts to Rs. 1-12-0.

5074. Both in the Surat districts and in the districts around Ahmadabad, if the cultivator brings in cotton from his own fields, it is not mixed but if it is brought in by merchants or *banias* it is usually mixed. Even if dealers buy ginned cotton, they mix it purposely. I am in favour of licensing of ginneries to prevent adulteration.

5075. Railway companies should not book *kapas* except to a cotton mill to be ginned and consumed in that mill. Some mills have their own gins on the premises and therefore they would like *kapas* brought in so that they can gin it themselves. A special exception should be made in their favour. Otherwise all booking of *kapas* by rail should be prohibited. Some of the mills here have ginning factories in other places such as Hubli. If they wanted any cotton from those districts, they should be allowed to take it to Hubli, gin it and then send it to Ahmadabad. They should be allowed to transport *kapas* for their own use but not for the market. I know that Broach cotton goes to Surat and so also does cotton from Ujjain and Khandesh. In consequence, a lot of mixing goes on in Surat. There will be less chance of mixing if transport by rail is prohibited. They could transport cotton in carts but that would not be in very large quantities. Some arrangement might be made for penalising such transport.

5076. Surat cotton is not as good as it was six or seven years ago. At one time I used to spin 32s warp from Navsari and for doubling we used to go as far as 40s. Now we find it difficult to spin up to 28s. There are some good lots from which we can spin 32s but they are rarer than they used to be. The reason why we have to go to places like Hubli and Coimbatore for long staple cotton is that we cannot get the long staple cotton here that we used to get. Besides the Japanese buy in advance and in the season no cotton is available for us. In Dhrangadhra, the Japanese bought 8,000 bales before the crop came into the market. So we have to go to places where the Japanese are not buying. They are buying very freely in Virangam and Kathiawar. Formerly they only used to buy clean cotton from Surat; now they do not mind even Porbandar cotton which is very dirty.

5077. (Mr. Hodgkinson.) There are two classes of *banias*. One class buys the seed cotton; and the second class supplies seed and gives advances for labour and other charges and there buys the *kapas* at a fixed rate. It is very difficult to give the percentage of the value of the crop that the *bania* advances because the cultivator does not confine himself to one *bania*. If he wants to buy a bullock, he goes to one *bania* and if he wants to buy seed he goes to another. The money is advanced before the cotton is sown. If there is a big rise in price in the market, it is the *bania* who gets the advantage of it as he fixes such a rate that he never loses by it. In my village, the cultivators are getting poorer and poorer every year. I find so in other villages also. I am talking of Gujarat, especially the Samed district.

5078. We can get 24s warp and 34s weft from the Punjab American. That is from the ordinary mixed market stuff. I could not say what is the percentage of *deshi* in it. The lots vary very much. One lot of fifty bales is quite different from another lot of 100 bales. If we have 2,000 bales, we go through all the lots and mix them ourselves. I have had no experience of spinning pure Punjab American. Except in very rare cases, we do not get pure cotton in India. I once tried Sind Egyptian; I bought it at the auctions of the Agricultural Department. I found it very good but the staple was uneven.

5079. The loss of cotton in transit from Surat to the mill in half pressed bales of fifteen maunds comes to about three to four lbs. The loss in full pressed bales is less. Rusty hoops are not used to the same extent for *pukka* bales as far half pressed bales. If superior and inferior qualities were not mixed, the trade would pay an adequate price for the superior quality. If we were assured of the quality, we could pay the proper price. We pay a proper price for cotton from America as we know what we are getting. We should be prepared to pay a higher price for pure cotton in India.

5080. (Mr. Roberts.) About 500 bales of Cambodia are expected from Dhrangadhra this year. This is the first season it has been grown there and the cotton is expected in April or May.

5081. I had a ginning factory at Kalol which is about an hour's journey by the metre gauge railway from Ahmadabad which I managed for two years. I found that the pure Kalol *kapas* was good but that they used to get *kapas* from the adjoining short staple districts, and sell it as Kalol cotton. If the cotton was pure, there were only 1,000 bales of it but, by mixing it became three or four thousand bales. They found that it paid them better to mix than to sell the cotton pure, as the purchaser did not know whether he was buying the mixed stuff or the pure stuff. The middlemen do not suffer at all. Mixing upcountry is intentional as it pays the middleman to mix. One *bania* gives advances to fifty cultivators. He buys a particular quantity from each cultivator. That means that fifty cultivators give him fifty different sorts of *kapas* he mixes them all up and takes them to the ginning factory.

Mr. PARI JESHINGBHAI UJAMSHIBHAI, Commission agent, Ahmedabad.

EXAMINED AT AHMADABAD, FEBRUARY 9TH, 1918.

No written statement was submitted by this witness.

(Translation.)

5082. (Mr. Wadia.) I am a cotton commission agent. I was first doing business in Akola and Hubli, but it is long since I closed my business there. At present I do business on commission in Wadhwan, Virangam Surat and Ahmadabad only. I buy on commission for Bombay and the Ahmadabad mills. I buy for the Jehangir Vakil mills at Ahmadabad, and for another mill at Bhavnagar. I buy mostly at Wadhwan and Virangam for these mills, but I also buy cotton grown round about Ahmadabad, Saran, Morvi and Surat. I get one half per cent. commission on my purchases. The mills pay for the cotton when they have the railway receipts in their hands. I buy most of my cotton from dealers not from cultivators. I sometimes advance money to dealers who bring me in *kapas*. I get the cotton ginned both at Wadhwan and Ahmadabad. The usual charge for ginning is about ten to twelve annas per maund of ginned cotton. A maund is equal to 41 lbs. When I buy for the mills, I only buy lint but when I buy on my own account, I buy

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Mr. MANICKSHAW DINSHAWJEE.

kapas to sell again. I deal in lint myself in Wadhwan. I sometimes supply my own ginned cotton to the mills at the market price, and then I charge the usual commission. The price to-day of Wadhwan cotton is Rs. 31 per maund. For *kapas* the price to-day is Rs. 10. The ginning per centage is 33. In Wadhwan there is only one quality of cotton grown which is called *wagad* and so there is no mixing done. The seed is sold at Rs. 1-10 per maund. The sale of cotton seeds nearly pays for all the expenses incurred, from buying *kapas* to making it into ginned cotton.

5083. (President.) In the Wadhwan and Morvi State, it is the rule that the cultivators can not grow any other cotton than *wagad*. So the cotton is absolutely pure. Round Ahmadabad cotton is grown mixed. Two varieties are grown, *lallo* and *wagad*. The cultivators bring them separately for sale. As the *lallo* cotton is mostly in demand here, the *wagad* cotton fetches a lower price so the cultivators take their *wagad* *kapas* to Sanand and Viramgam. The price of the *wagad* *kapas* which is taken to Sanand and Viramgam from the Dhaskroi taluka and from round Ahmadabad is the same as the price at Wadhwan.

Mr. MANICKSHAW DINSHAWJEE, Sub-Agent, Messrs. Ralli Brothers, Broach and Surat.

EXAMINED AT BROACH, FEBRUARY 11TH, 1918.

Written statement.

I.—AGRICULTURAL EXPERIENCE.

(b) "Deshi" long staple cotton.

5084. (10) Experience.—I have been stationed in Surat District for the last 34 years. I am not in actual touch with the cotton cultivators.

5085. (11) Varieties.—The long stapled cotton called *Surtee* is generally grown in this district. The tracts surrounding Navsari produce the best cotton, while those around Kim-Sayan inferior styles.

5086. (14) Rotations and manures.—No manures are used, but it is customary to sow, alternately, *juar*.

5087. (15) Conditions affecting increase in area.—Although labour supply is day by day getting scarce, and in spite of the necessity of observing rotations the cultivation under cotton is increasing every year, at the expense of food crops, the reason being, among many others, the cultivators realizing better prices for their *kapas* than food-stuffs.

5088. (18) Uses of seed and seed selection.—The seed is generally used locally as fodder and a part of the supply in extracting oil; and what it is exported to other districts is also used as fodder. A good deal was also exported to Europe before the war. Hand ginned seeds are generally preferred by cultivators for sowing purposes, but as these are not available now-a-days, the machine-ginned seeds are used.

II.—COMMERCIAL ASPECT.

5089. (30) Local trade customs.—Cotton is brought in the market for sale as under :—

- I. *Kapas* (cotton with seed as picked from the fields).
- II. Cotton machine-ginned in factories outside the district.
- III. The *kapas* is brought to the factories for sale by the cultivators direct, and by petty traders brokers, who buy the cultivators' *kapas* in their villages; some of the cultivators sell their *kapas*, before it is ripe in the fields, to the traders who make them advances against such sales.

5090. (31) Standardization of commercial names.—The commercial names of the grades are "choice," "superfine," "strict fine" and "fine." All these grades come from one and the same area, but at different times of the season and climatic conditions.

III.—STATISTICAL.

5091. (33) Improvement of cotton forecast.—The forecast figures at present are nearly correct so far as the area sown is concerned, but the forecasts of outturn, in quantity, at times differ from the actual production.

5092. (34) Improvement of other statistical information.—No returns are published either by gin-owners or press-owners; however, I would suggest that all these figures should be taken and published by the Department of Statistics, and I would recommend, in this connection, also that a system of licensing of ginning and pressing factories should be instituted, as I think that, if this is done, correct figures could be easily obtained.

(2) I would also point out that the cotton crop forecast might be ameliorated by drawing the estimate to a greater extent than is the case at present from non-official agencies, such as local merchants, mills, gins, presses, etc., and too much reliance should not be placed on the official reporting agency, which is at present a revenue agency rather than an agricultural reporting agency.

5093. (35) Publication of Liverpool and Bombay prices.—I do not consider this necessary as these prices are already known through Bombay agents of up-country merchants.

IV.—MANUFACTURE.

5094. (36) Type and number of gins and presses.—The gins in our district are single rollers. The press is Nasmyth Wilson.

5095 (41) Condition of cotton.—Generally the condition of raw cotton, arriving in the market, is satisfactory, although in some cases adulteration, such as damping, etc., is resorted to.

V.—GENERAL.

5096. (46) Attitude of buyers to improved cottons.—The cultivators get better prices for improved and carefully picked cotton.

Bombay.]

Mr. GULABBHAI BHAGWANJI DESAI.

[Continued.]

Mr. MANICKSHAW DINSHAWJEE called and examined.

5097. (President.) I am Messrs. Ralli's agent and have been for over 34 years in the Surat district. There has been a marked deterioration in the local cottons during the time that I have been here. This is particularly the case with Navsari cotton which is the best of the local cottons. The staple is getting shorter. I do not think there is any admixture going on with inferior grades. It is perhaps due to the fact that there is no rotation of crops or that no attention is paid to seed selection. Broach is also deteriorating. The reason of deterioration in this case is that the gin-owners and others are bringing in inferior *kapas* from other districts and the seed is getting mixed. I have got no experience of ginning myself.

5098. The figures in the cotton forecast are always inaccurate. They are sometimes too high and sometimes too low. Sometimes in order to facilitate speculation, some people spread reports that the figures are too high or too low according to circumstances. I would recommend that Government department should get more in touch with the trade as I think the forecast would thereby be improved. The returns from gins and presses are very incomplete, and their submission should be made compulsory by the licensing of the factories. At present they are of no use to us at all. We have a large agency for making forecasts ourselves. In many instances, our forecasts are more accurate than Government ones and a great deal of our success depends on that. A great deal of time is devoted to them by our assistants.

5099. (Mr. Wadia.) In my opinion, Broach cotton has gone down in price and in quality. The deterioration in the quality of the cotton may be attributed, in the first place, to the fact that cultivators usually sow cotton after cotton every year, in the second place, to the fact that they bring in inferior cotton from other districts. I have never heard of Khandesh or *mathio* cotton being brought here. The gin owners prefer the style of cotton which they can easily mix with Broach. *Lallo* cotton will mix easily with Broach. *Goghari* cotton is also mixed with Broach *deshi* and Surat *deshi*. I do not know where *goghari* comes from particularly but so far as I know it is not a foreign cotton. For many years past the cultivators have been using the seed and so it has become mixed with Broach. This mixture of *goghari* with *deshi* has tended to spoil the crop. I can buy pure cotton in Surat, and that is the only cotton I buy. If any mixed cotton is offered to me, I reject it. We buy under condition. Of course every thing depends upon the selector: If he is not experienced, he is apt to be deceived. We buy loose cotton. I cannot tell whether lint is mixed five or ten per cent. But I can tell whether cotton is pure from the staple. I reject the cotton if the staple is mixed.

5100. I get my cotton ginned and pressed in the Mahomedpura cotton ginning factory in Surat. We have got a working arrangement with them there and pay a fixed price. They have now joined the pool. The charge for pressing is now Rs. 6 per bale. Before the war, i.e., three or four years ago, the charge was from Rs. 2-8 to 2-12. This year there is a combination and so the rates have gone up. When there is no combination, the owners of the different presses compete among themselves and that keeps the rate low. Labour is very dear now and the prices of stores such as oil and fuel have also gone up. That is one reason for the increased charges but the chief reason is the pool. If there were no pool, the pressing rate would probably be about Rs. 3-8 per bale. The charges would then be fixed according to the competition to secure the pressing. There are ginning pools as well as pressing pools. Of course in such cases the cultivators are losers especially when a ginning combination is made. I think that pools ought to be stopped.

5101. The mixing of short and long staple cotton is carried on in the ginneries to some extent. This is what happens: Navsari cotton fetches a very high price owing to its long staple: the cotton of Syan and Kim fetches a lower price. The distance between these places is not very great and so the ginneries are induced to buy *kapas* from Syan and Kim to mix with Navsari. If this is allowed to continue, Navsari cotton will certainly lose its name too. The soil is very rich: in past years the quality was far superior to other cottons in brightness, silkiness and in every way. Now it has gone down to some extent. In previous years, there was no cotton cultivation in Bilimora. During the last four or five years new lands have been opened up and cotton has been cultivated there but when there are heavy rains the ground is such that the crop is apt to be washed away. When there is not much rain, there is a good crop there and as the soil is virgin soil, it is good as regards quality. *Kapas* is not imported into Navsari by rail but the cultivators bring in their carts in order to get higher prices by passing off the cotton as Navsari *kapas*. They do not import any *kapas* by rail.

5102. (Mr. Hodgkinson.) If the *kapas* is picked with care and is bright and is free from damp, the cultivators get better prices because the ginneries all make certain allowances for drying. The cream of the cotton crop is the first picking though the first pickings are not good when they contain premature growths. There are three pickings. The first and second pickings are the best. The best time to pick cotton is after 8 A.M. when no dew sticks to the cotton. If cotton is picked with the dew on it, the leaf sticks to it.

5103. I have no experience of saw gins. Our gins are all single roller gins.

5104. (Mr. Roberts.) As one goes south from Ahmadabad, the cotton improves. Navsari cotton is far better than Surat cotton. *Kapas* is carried by road from north to south all along the tract and this tends to deteriorate the better cotton. If the Collector were to give orders to the Mamlatdars that *kapas* should not be carried from one district to another, then the practice would stop.

Mr. GULABBHAI BHAGWANJI DESAI, Manager, Sisodra Ginning Factory, Amalsad, Bombay.

EXAMINED AT SURAT, FEBRUARY 12TH, 1918.

Written statement.

I.—AGRICULTURAL EXPERIENCE.

(b) "Deshi" long staple cotton.

5105. (10) Experience.—I am a resident of a district in which Navsari *fine* and Surat *fine* cottons are grown. I have been in actual touch with cotton cultivators of the said districts as well myself being a cultivator and more of a merchant dealing in these kinds of staple cotton. I am also a partner of a ginning factory, known as the "Sisodra Ginning Factory," situated at Sisodra in sub-district Jalalpur.

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Mr. GULABHAI BHAGWANJI DESAI.

[Continued.]

5106. (11) **Varieties.**—I am familiar with *deshi* long-stapled cotton known as the *Narsari fine* cotton grown in the districts surrounding Narsari, while the *Surat fine* cotton grown in the sub-districts surrounding Surat such as Olpad, Syan, Kin, Bardoli, etc., and also in the places situated on either side of the Tapti Valley Railway between the stations of Surat, Bardoli and as far as Vyara.

5107. (12) **Size of holdings.**—The average size of the holdings in which cotton is grown is approximately eight acres and the proportion of the holding under cotton is nearly half of the total area.

5108. (13) **Yields and profits and comparative returns.**—The average yields per acre are as under :—

- (a) In Narsari District, it is about 180 lbs. to 200 lbs. per acre.
- (b) In Bardoli District, it is about 200 lbs. to 210 lbs. per acre.
- (c) In Surat district and surrounding places, it is about 180 lbs.

(2) The average profit per acre in all the above said places is, during the period of ten years before the war, about Rs. 10 per acre and during these three years of war is about Rs. 15 to Rs. 20 per acre owing to the high prices of cotton.

(3) Comparing the *deshi* long-stapled cotton with the *deshi* short-stapled cotton, the profit of the former is somewhat more than the latter, but the yield is less, and compared with other *deshi* crops, it is varying according to the prices of various kinds of crops and circumstances.

(4) As for the exotic cottons, I can say from my personal experience that none of the exotic cottons is sown in the aforesaid districts and places, as the climate hereof is not agreeable to the growth of such cottons as American and Egyptian. The inference is made from my personal experience, as once upon a time I sowed some seeds of Egyptian cotton in my yard, and although the plants grew very high and bore fruits in great number they did not open so well as the *deshi*; the same plants were preserved till next season, and they bore as many fruits as before but the opening of the fruit failed as before, so I came to the conclusion that the climate does not seem to be agreeable to foreign cottons; even with this, I am of opinion that if experiments are made on small tracts by agricultural experts under supervision of the Local Government, the defects may be found out, and success may be arrived at, because the farmers of this part of the district are for the most part not advanced in agricultural science and do not care to make agricultural innovations.

5109. (14) **Rotations and manures.**—In this part of the district, the cotton is generally sown every third year and *juar*, groundnuts, *tur* and sesamum are used as rotations, but experience has proved that plantations of groundnuts and sesamum are the strong elements to enrich the soil as the roots and leaves thereof mixed with the soil decompose and serve the purpose of manures, and also the average profit obtained thereby is somewhat large, but the plantation of *juar* is given preference to all these, as it is mainly used as daily food. Cattle dung and goat dung is generally used as manures in this part of the districts, but the former cannot be had in sufficient quantity on account of the cattle being in very small numbers; the farmers apply manure to *kyari* land only, in which paddy is generally sown, and this *kyari* land yields two crops every year—first paddy and then *ravatal*, such as gram, *ral* and peas and such others, while the *jarayat* lands, which is used for cotton and other crops, yield only one crop every year, but the farmers, who can afford to secure sufficient quantity of manure, may apply it to *jarayat* also.

(2) Here, in connexion with the question of manure, I am of opinion that the farmers of this province of Gujarat do not possess sufficient acres of land to feed large number of cattle, and without large number of cattle, manure is not sufficiently gathered, and therefore no farmer is able to manure every year all the pieces of land he may have, and this is generally due to the reason that the Government has decreased the areas of the *kharaba* (waste) land in most of the villages, which were formerly reserved for grazing the village cattle.

5110. (15) **Conditions affecting increase in area.**—In connexion with this question, I can say from experience that the ginning season here very often commences later than in the districts where *deshi* short-stapled cotton is produced, because the *deshi* long-stapled cotton requires longer time to fruit, and therefore the ginning season in this district is rather shorter and is believed to have some effect on increase of area under cotton cultivation.

(2) Food crops are also as essential as cotton, and grass is also an important factor to farmers; therefore every farmer is generally obliged to utilize his land for all different kinds of crops that may be necessary for him, and therefore the increase of area under cotton may be naturally restricted to a certain extent.

(3) Irrigation is not necessary in this district for cotton crops, but labour supply is very difficult to obtain for all agricultural purposes and therefore want of sufficient labour supply has some effect on the increase of area under cotton cultivation.

5111. (17) **Prevention of mixing of different varieties.**—Mixing of *deshi* long-stapled cotton with the *deshi* short-stapled cotton is not practised in this district nor with the exotic cotton. Also there is not the least possibility of mixing of such cottons in the field as well as in the factories because the method adopted for selection of cotton in this province is very severe and accurate too as far as possible.

5112. (18) **Uses of seed and seed selection.**—Cotton seeds in this district are generally used as cattle food; they may also be used for manufacturing (cotton) seed oil, but the use for the former is greater than for the latter. These cotton seeds were exported to England and other European countries by European firms before war broke out in Europe but now, on account of the scarcity of freight, the export has been put a stop to to a certain extent.

(2) Seed selection is one of the most important points in producing good staple cotton everywhere, but very little attention seems to have been paid by the farmers in this direction. The general practice of obtaining seeds for sowing in this part of the country is to purchase seeds for sowing from the heaps stored up in the ginning factories or from the merchants who may have already bought from the ginning factories, and, therefore, the seeds for sowing are not considered as pure as they ought to be, and hence the state of cotton cannot be successfully improved; wherefore some precautions are required to be taken for selection of seeds. Seeds taken out by hand gins are considered best for sowing but that practice is now obsolete since the introduction of the ginning factories; moreover, hand ginning is not an economic process, and so the old system of hand gin has now quite disappeared. But it is an established fact that seed selection is absolutely necessary in every part of the country to improve the condition of cotton, and I believe that the present Government Agricultural Department has made experiments to produce improved cotton by sowing selected seeds in various parts of this district, and also presented the result of such experiments to the farmers of every quarter, holding periodical agricultural exhibitions, but most of the farmers of Gujarat are illiterate and seem to be careless too to follow such improved methods; therefore, I am of opinion that seed depôts should be opened by Government under the strict supervision of the Agricultural Department to store up

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best kind of cotton seeds and the farmers of the surrounding places should be forced to purchase seeds for sowing from such depôts, because by the present practice of seed selection the state of cotton is not expected to improve, but on the contrary, it is feared that in the long run the *deshi* long-stapled cotton will be degenerated.

II.—COMMERCIAL ASPECT.

5113 (30) **Local trade customs.**—In point of marketing cotton, there is no regular market in this province where buyers and sellers assemble together, nor there is any regular association of cotton merchants, but the general practice prevalent at present here is that the agents of buying houses of different parts come and reside in Surat near the railway station where gin owners from different quarters daily come to Surat and meet together in an open arena near the railway station and make verbal bargains. There are no written contracts made between the parties like Bombay and other markets, nor there is any formation of regular business, and without which great disputes arise sometimes between the parties, which is a matter of regret for such an important centre of *deshi* long-stapled cotton like Surat.

(2) No money is advanced for cotton purchases, but payments are made immediately after the delivery is given; future purchases are generally practised, but they are all verbal bargains and such bargains are made through the brokers.

(3) There is not a fixed date in the Surat market like Bombay and other places for the settlement of forward contracts, but delivery is made in convenient lots and on convenient dates suited to the parties concerned, and the amount of Rs. 2-2-0 (rupees two and annas two only) assigned for the cost of brokerage, charge of *talat*, market, etc., is generally borne by the seller. No other kind of discount is given.

5114. (31) **Standardization of commercial names.**—The commercial names of cotton coming from different localities are generally known by the names of principal town or *taluka* from which cotton comes, and these names are suitable to distinguish one from the other and no alteration is desired.

5115. (32) **Buying agencies.**—With regard to buying agencies, I am of opinion that, in absence of regular markets, it is difficult to establish regular agencies and in order to facilitate the buying houses the Committee is requested to recommend the Government to form a regular market and a committee may be appointed to regulate the work and some special rules and regulations are required to be made for such constitution.

III.—STATISTICAL.

5116. (33 and 34) **Improvement of statistical information.**—The present statistical information published by the Government, with regard to cotton may not be considered so accurate as it is believed, because these figures are gathered from the cotton press returns, but the half-pressed bales which are pressed in the local ginning factories and which the agents of the mills send direct to the mill premises without having full pressed are not taken into consideration and so they pass away unrecorded, and therefore, if all the buying agencies of this district may be directed to supply all such figures accurately, I believe the statistical information may be published more accurately.

5117. (35) **Publication of Liverpool and Bombay prices.**—With regard to the daily publication of Liverpool and Bombay cotton prices in this market, I am of opinion that it is urgently necessary for the cotton dealing public, and such daily publication, if arranged, will prove very important to the cotton dealers, because, for want of such publication, the dealers very often fall a prey to sudden fluctuations of the market; otherwise they have no other sources of information, because most of the merchants seem to be unable to bear the charges of daily messages of foreign markets and therefore the Committee is requested to weigh the importance of such daily publication.

IV.—MANUFACTURE.

(a) Ginning and pressing.

5118. (36) **Type and number of gins and presses.**—I have got Platt Brothers' single roller gins in my factory and they are 28 in number.

5119. (37) **Size of bale.**—The size of the bale (*kachcha*-pressed) is four feet in length, three feet breadth and five feet in height.

5120. (40) **Factory labour.**—The factory labour is now-a-days very difficult to obtain, as the labouring class goes in large number to seek labour in foreign countries, such as various ports of Africa and in the interior part also, where they find employment in constructing new railways and such other manual labour in bridges, etc. Moreover, those who were formerly real farmers have assumed a new mode of life and they were replaced by the labourers, and among all these the Factory Act has added fuel to the fire to a certain extent.

5121. (41) **Condition of cotton.**—The condition in which raw cotton reaches the factory in this district does not appear to me in any way objectionable.

V.—GENERAL.

5122. (46) **Attitude of buyers to improved cotton.**—So far as my experience goes no attempt is said to have been made to offer any premium to encourage the growth of improved cotton from the buyers in the past.

5123. (49) **Effect of tenure of land.**—I do not consider the tenure, on which land is held, anyway affects the extension of cotton cultivation.

5124. **Publication of American cotton reports.**—In conclusion, I beg to request the Committee to make arrangements to publish in this part of the district the cotton cultivation reports which are published by the Agricultural Bureaus of the United States of America in their weekly or monthly periodicals, so that many of the farmers hereof who are educated may take advantage of the different methods adopted by those farmers of the West who are far advanced in the science of agriculture and especially of cotton cultivation.

Mr. GULABHAI BHAGWANJI DESAI called and examined.

5125. (President.) I am the manager of the Sisodra Ginning Factory, Amakad. We gin cotton for ourselves. We buy the *kapas*, gin it for ourselves and sell the lint to merchants. Sometimes we gin for

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commission for others. We sell the seed from our factory, sometimes retail and sometimes wholesale to the merchants of the surrounding villages. The merchants retail the seed to the cultivators. We only gin Navsari cotton in our factory and we gin it as pure as we can get it. Amalsad is near Vitga station. It is about sixteen miles from Surat and ten miles from Navsari and is on the main line between the two places. We buy our own cotton. I examine the cotton before it is bought and see that it is pure Navsari. If it is found to be mixed, it is rejected.

5126. There is no watering of cotton except what is due to dew on it. I do not think that the cultivators ever water their cotton. It is not the custom in the Navsari District. We keep the cotton as pure as possible and free from water.

5127. We do not submit ginning returns to Government. I think they should be submitted as then the actual crop returns would be correctly known. If the ginning factories and gin owners were asked to supply these figures to Government as in America, it would be a great advantage. As a gin owner, I have no objection whatever to submitting returns. No one has ever asked me to submit them.

5128. Unless the area from which *kapas* can be brought in to a ginnery or press is strictly limited, a system of licensing would not be advantageous to the Government or to the ginners as well. For instance, in some cases *kapas* can be taken to factories either to Surat or Navsari, so that since cotton can be carted to considerable distances, the knowledge that it was ginned at any particular factory would not be good evidence as to the place where it was really grown. Licensing would not therefore be advantageous.

5129. I attach great importance to seed selection. The samples of cotton bolls which I produce show how many different types there are in the field. They show how necessary it is to make careful arrangements about seed selection and how important factor seed selection is for producing long staple cotton.

5130. We prefer to gin long staple cotton although the outturn from short staple cotton is very often much more than from long staple cotton. We wish to promote the industry of the country and also to be in a position to compete with other markets in Europe. Long staple cotton is more essential for the industry and for making fine cloths.

5131. (Mr. Wallis.) I have not so much knowledge of Broach cotton as I have of Navsari as I only deal in Navsari cotton. It is reported that Broach cotton is sometimes brought into the market in a very mixed condition. It is mixed with *goghari* and other short staple cottons. I do not buy Surat *deshi* because, in our factory, the only cotton which is ginned is brought from the district round Navsari and we are very much averse from mixing long staple with short staple cotton. The cotton grown in the Navsari district is very nearly all of one kind. The cultivators try to obtain as pure seed as possible but the general system of obtaining this kind of seed is to buy it from the ginning factories or from merchants who have already bought it from the ginning factories and consequently the seed obtained from the ginning factories is not always as pure as it is expected to be. The cotton coming from Navsari is all long staple. Navsari cotton is as good now as it was ten years ago. A great deal depends on the climate of the year. If the rainy season is very long and it rains continuously throughout the season, then the cotton has a good staple on account of the soil being very full of moisture. Except for the question of climate, I do not think that there has been any change in Navsari cotton. As far as my experience goes, there has been no deterioration. The difference between Broach and Navsari is now wider than it used to be. Formerly the difference in Bombay was between Rs. 20 and Rs. 30 a *khandi* but at the present time so far as I can see the difference is wider, about Rs. 50 per *khandi*. Pure Navsari is not sent to Bombay. Japanese firms buy most of the pure Navsari and Ahmadabad cotton and Bombay only gets the inferior stuff. The price of Navsari cotton in Surat is often higher than it is in Bombay. The price of Navsari in Surat at present is Rs. 750 per *kandi* and I do not therefore see how the price of pure Navsari in Bombay can be Rs. 767 as stated. The Bombay price for cotton is generally affected by speculation.

5132. There is no combination of ginning factories at Navsari at present. The charge for ginning *kapas* is Rs. 5 per *ghar* of 24 maunds or 924 lbs. The pressing charge is now about Rs. 5 per bale but it varies owing to war conditions. Formerly that was not the case. There has never been any pool in Navsari.

5133. (Mr. Hodgkinson.) We weigh carts on the weighbridge. These weigh-bridges are certified to be correct. If they were not correct, the merchants and cultivators would at once complain as they have previously weighed the cotton in their own houses. No one ever comes to test the weigh-bridges.

5134. We work under the Factory Act. Our hours of working are from 6 A.M. or 7 A.M. in the morning till 7 P.M. in the evening but when the season is short on account of its being late, we get permission from the Inspector of Factories to work the factory for some two or three hours longer by employing more persons according to the rules. We do not employ children because it is prohibited by the Factory Act. Children are only employed to pick over the heaps of cotton in the Factory yard. They are not employed inside the factory.

5135. Cotton does not pass through an opener before it is ginned. It is not considered necessary as our *kapas* is free from leaf. We take precautions to set the gins in proper order before ginning is commenced and consequently we obtain seed as pure and wholesome as possible. If the seed is at all cut, we at once set the ginning machinery in proper order.

5136. (Mr. Roberts.) I know that the Government Agricultural Farm at Surat supplies the cultivators with the best kinds of seed if they demand them. There is a Government farm near our factory at Sisodra where seed was tested and the results obtained were very satisfactory. I have bought some of the *kapas* grown by cultivators from this improved seed. I paid a premium for it of about Rs. 5 per *bhar* of 24 maunds or 824 pounds and sometimes more. The premium that we paid was for staple as well as for higher ginning percentage. The charge for brokerage is Rs 2-2 per *khandi* of 20 maunds of lint (800 lbs.)

5137. I especially recommend the establishment of cotton markets for buying and selling. I have never seen any of the markets in Berar. In Bombay, there is a market where all the merchants assemble together. The present system of marketing cotton in this locality is for the gin owners from various directions to assemble together in Surat near the station and there they make their bargains with the merchants. That is not a systematic way of marketing. They merely ramble here and there from person to person. There should be fixed rules for marketing; there should be regulations like those of the Bombay Cotton Trades Association. There must be some kind of constitution. I would favour the establishment of open markets for the cultivators to bring their *kapas*. I have got some experience of Khandesh. There the cultivators bring their *kapas* into places such as at Amalner and Jalgaon where they sell their cotton in the market but that is not the custom here.

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5138. If the reports of the American and Egyptian Agricultural Departments were published in this country, the cultivators would know what is being done in other parts of the world to obtain the best kind of cotton by improving the state of land, by manuring it and by improvements in other ways, a kind of knowledge which it is difficult to obtain in this country.

5139. The present system of selling is that the brokers from the gin owners go to the cultivators at their houses and buy their cotton. If markets were established, the cultivators would have to change their present system and, instead of selling cotton in the villages, would have to bring it in here. That would facilitate the sale of *kapas*. In the present circumstances, we have to loiter about from house to house. The cultivators cannot make up their minds as to the rate they want for their *kapas* and give us trouble in many ways. I am therefore strongly of opinion that a central market would be of great advantage to the merchants in general.

5140. I should like to draw the attention of the committee to one special point which is that cultivators here have great difficulty in obtaining manure because there is sufficient land on which to graze their cattle. All the *kharaba* (waste) lands have been sold. Formerly it was the custom to use these *kharaba* lands for grazing cattle and so the farmers at that time used to rear a great number of cattle. Now the number of cattle is decreasing and unless the soil is manured, the outturn of cotton will be limited. If land were given for grazing, an increased number of cattle could be reared and there would be a more plentiful supply of manure.

Mr. TRIBHOVANDAS PRANJIVANDAS ROOWALA, Agent, Messrs. Narandas Rajaram & Co. and the Surat City Press Co., Ltd., Surat.

EXAMINED AT SURAT, FEBRUARY 12TH, 1918.

Written statement.

II.—COMMERCIAL ASPECT.

5141. (30) **Local trade customs.**—The custom in Surat District is that the farmers generally sell their *kapas* to local merchants, who are in most cases gin-owners. These gin-owners employ brokers to buy *kapas* from the farmers and they are paid a small brokerage by the gin-owners. This system, generally speaking, is advantageous to the farmers because they have not to depend upon one or two buyers, but they get the highest prices possible at the time of selling. These gin-owners sell their but either forward or ready. Their selling depends upon the opinion they hold about fluctuations in the market.

(2) The Surat District cotton crop is mostly bought by Ahmadabad and Bombay mills and to a small extent by exporters, chiefly Japanese. They buy forward or ready as suits them, and the principal market for above cotton transactions is Surat proper. The fluctuations in this cotton are guided by quotations from Bombay markets, especially of Good Broach.

(3) The system prevailing for approval of cotton is that the buyers go to ginning factories for selection and they have to select according to the quality of the crop as produced during each season. If the quality tendered is lower than the average quality of the year, the buyer rejects and has a right to ask for a fresh tender. The seller in this case is bound to give a new tender or, in default, he has to pay the price of the day of settlement of contract. The buyers select each bale (half-pressed or three-fourths-pressed) separately and the system prevailing has proved to be very good for the trade.

(4) The Advance system.—(a) Advances against standing crop is as follows are called *jalap*. Farmers sell *kapas* at a fixed rate and get as an advance twenty to fifty per cent. of the selling price, and the balance is paid when they give delivery of the *kapas* in ginning factories. (b) Farmers get money from *sahukars* on the crop (estimating outturn from fields) and when the crop is ready these farmers sell the crop, and the money so recovered is paid to the *sahukars*.

(5) Cotton cultivators in the Surat District are very intelligent and well informed for their class. They sell *jalap kapas* too on a parity with rates of cotton ruling in Surat and, in my opinion, they get fair rates for their *jalap* sales too. The *jalap* system in the Surat District is not in any way disadvantageous to the farmers, but when the crop fails or the quality becomes bad owing to unforeseen circumstances, then only buyers of *kapas* have to suffer. In this case buyers have to defer repayment of their advance and for quality they have to take the *kapas* as it is.

(6) I find that in my experience of the last fifteen years ryots have had to sell their *kapas* every year at the time of what is known as *kist*, i.e., paying Government dues. They are not able to hold their produce then even if the parity of rates prevailing be not very paying to them.

(7) Co-operative Credit Societies in Surat District have not yet commenced work of advancing to cultivators against their produce even at the time of Government dues. It would, therefore, be very helpful to cultivators, if Government starts Agricultural Banks to finance the cultivators' crops.

5142. (31) **Standardization of commercial names.**—In the Surat market, cotton is sold according to various villages where there are gins. No changes are required in gins, but unfortunately gin-owners (in tracts growing better cotton) bring *kapas* of lower quality by rails or carts, which requires to be discouraged by trade.

III.—STATISTICAL.

5143. (33) **Improvement of cotton forecast.**—The cotton forecast is not read nor known in the districts; to interest local merchants and cultivators in this, it is necessary that copies of the forecasts for each district be published in vernaculars and be distributed broadcast amongst farmers and merchants and gin and press-owners. If this is done, the merchants and the farmers will begin to be interested in this forecast and they would criticise the same and the following year they would make suggestions also, if approached by the Agricultural Department, before they send in their returns. Unless the farmers and merchants in the districts are thus interested in this forecast, the value of this forecast will not be fully realised by the trade.

5144. (34) **Improvement of other statistical information.**—The cotton press returns as at present published are incomplete. Very few press-owners send their returns punctually and some sort of a light check or compulsion on them to do this is necessary.

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5145. (35) **Publication of Liverpool and Bombay prices.**—The daily publications of Liverpool quotations in Surat District would be to the advantage of every one here because the Surat District crop is the only cotton closest to the American cotton. Of course, such quotations are necessary only for guidance of the course of market and care should be taken in reflecting in the Liverpool quotation only the normal course of that market and not unnatural or temporary squeezes or depressions.

(2) Regarding Bombay market quotations, "Good Broach" quotation would be desirable for Surat market as—

- (1) There is no regular quotation for Surat cotton.
- (2) The Broach delivery is for April when the Surat crop is marketed.
- (3) Because the Surat and Broach rates have sympathetic fluctuations.

It does, however, so happen that many a time the market in Surat goes up irrespective of dullness in the Bombay market for Good Broach; however, I believe, quotations of "Good Broach" will be some guide in the course of the market to Surat merchants and cultivators.

IV.—MANUFACTURE.

(a) Ginning and pressing.

5146. ((36) **Type and number of gins and presses.**—The class of gins used in our districts is roller gins and presses, steam press of the ordinary type prevalent in India. There are 35 ginning factories and eight press factories in the Surat District.

5147. (37) **Size of bales.**—The size of bales pressed in our factories is the ordinary size measuring about 27 tons per bales 100 (Bombay Chamber scale).

5148. (38) **Saw gins versus roller gins.**—From reports that I have heard, I do not think saw-gins have been tried in our district. There seem to be certain prejudices against saw-gins, but I see no reason why saw-gins should not suit our Surat crop.

5149. (40) **Factory labour.**—During the last ten years, labour for factories is getting more and more dear and difficult to obtain. It is not likely that labour will be appreciably cheaper in the near future and therefore it is necessary that labour-saving appliances should be introduced.

(2) I understand that in America gins are fed automatically from godowns where *kapas* may be stacked. If such an arrangement be introduced in India, it would release a good deal of labour and make ginning considerably cheaper, as gin factories would then be able to run 24 hours which will mean a very great saving in ginning charges thus lowering the same. I feel that this is an improvement that is bound to come on, but the earlier it comes the better will it be for all concerned, viz., buyers, cultivators and even the ordinary public employing labour.

5150. (41) **Condition of cotton.**—The *kapas* that arrives in ginning factories is generally damp and is invariably exposed by the cultivators to the night dews with the intention of gaining in weight. Gin-owners, therefore, are compelled to keep the *kapas* carts waiting outside the gin compound till about 9 A.M. so that the same may get dried by the sun's heat. Some ryots complain about this and the popular impression wrongly is that gin-owners deceive or harass cultivators. But in our districts, cultivators, as a rule, are not only intelligent but verge on the point of shrewdness and sharpness and they are fully able to look after their honest interests.

(2) Then, again, some merchants dealing in *kapas* take *kapas* from lower districts, like Sayan, to ginning factories in better districts like Navsari, which should be exposed and even stopped by Government. I am fully alive that it is not easy to suggest a remedy for stopping this sort of carriage of *kapas* from one village to another without having a staff of officers to supervise carriage of *kapas* generally. I do not believe in any considerable interference in trade by Government officers.

(3) My experience is that Government officers, honest though they may be, are not in good touch with the needs and tricks of traders and therefore they either exaggerate standing evils or remedy them much too strictly and are also liable to be misled by selfish people in the trade who may flatter them (to selfish ends.) Of course, I have come across really capable and well meaning officers of the Agricultural Department of this district who are known to have done real solid good in their own spheres of work, but such officers have not been very many in number.

(4) There is not much to complain regarding the condition in which cotton reaches press factories in the Surat District. The only drawback is mixing of *kapas* in ginning factories as mentioned above, in which case the cotton presents a mixed staple. To control all this, the first thing which we can do is to prohibit import of *kapas* or half-pressed bales of cotton into Surat District by rail. This will ensure that the bales despatched from stations in Surat District contain cotton grown in the Surat District only. Similar imports should be prohibited by sea also; secondly, there should be a small committee of respectable buyers and sellers in Surat to report to the Government through a central committee in Bombay on the conditions prevailing in Surat District from year to year. This committee should supply all necessary information to the Central Committee in Bombay and should also be consulted regarding licensing of factories. I expect these measures to bring about a good deal of improvement without causing any harassment to honest traders.

V.—GENERAL.

5151. (46) **Attitude of buyers to improved cotton.**—In my experience, buyers have shown a great desire to pay adequate premium for long stapled cotton over short stapled cotton. The difference between Navsari and Sayan cotton, which about ten years back was Rs. 7 to 10 per *khandi*, has, during the last two years, been as high as Rs. 40 per *khandi*, mill buyers being keen purchasers of Navsari and buy same even at such an advance over Sayan cotton. There is no doubt that the masters of mill-owners are anxious for genuine long stapled cotton, but in the present conditions there are many temptations and difficulties in the way of practices and customs in upcountry, and when these latter are brought under control, I have no misgivings that mill-owners will continue to be perhaps the best persons to appreciate unadulterated long stapled cotton.

Mr. TRIBHOVANDAS PRANJIVANDAS ROOWALA called and examined.

5152. (President.) I am an agent of the firm of Messrs. Narandas Rajaram & Co., the firm of the Hon'ble Mr. Purushottamdas Thakurdas. I have no personal experience of co-operative credit societies; but I

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understand from cultivators that they do not like these societies. They are rather prejudiced against them as think they are Government institutions. The capital for agricultural banks, proposed in my written evidence is to be subscribed by *sahukars* from districts or from Bombay. If such banks were started, they would get considerable money. Loans could be issued to the cultivators on the security of their crop. When the crop was ready, the banks could immediately recover the money in the same way as arrears of land revenue. When the crop is sold, the money for it is paid instantaneously and then the banks would be repaid. The cultivators would certainly pay the bank back.

5153. The cotton forecasts are sometimes good but they should be distributed largely in the villages in the vernacular. They would be of benefit to the cultivator if full particulars were published in the vernacular. The forecasts should include particulars about prices, trade movements including figures of stocks, etc. The ginning and pressing factory owners and the merchants would then make use of them and could make suggestions in regard to their improvement. The ginning and press returns are not submitted regularly, and their submission should be made compulsory. Failure to submit them ought to be followed by a fine of say half a rupee or rupee.

5154. The only damping of cotton or *kapas* in the Surat district is that which is due to exposure to dew. We have a ginning factory and press. We do not weigh the *kapas* at all until two or three hours after it has been dried in the sun. When the *kapas* is not weighed at once, the ryots grumble and say that the gin owners are making fools of them. They come at 6 o'clock or even earlier in the morning, and knock at our doors to get the factory gates opened for *kapas* weighing.

5155. Navsari cotton should be pressed in a pressing factory in Navsari and not outside. Where there is no press, I would allow the movement of cotton by rail, loose or in half pressed or three-quarter pressed bales but not otherwise. There is no mixing of *kapas* in my firm's ginning factory. People may mix in the presses. In our own ginning factory there is no mixture as we only gin for ourselves. When people bring in *kapas* from other districts then the seed becomes mixed. Some ginning factories get seed from outside. In the Sayan district, they get seed from Broach now. Sayan cotton used to get a good price; it is now Rs. 40 less than Navsari; it was formerly Rs. 10 less.

5156. (Mr. Wadia.) In certain villages of the Surat district, Government gave out specially selected seed and the cotton from that is collected and brought to our factory. We buy the *kapas* at a premium, gin it and then send it down to Bombay. We get orders from the mills for farm *kapas* and we supply it. We buy it on commission. We only sell it to mills. We pay a premium of Rs. 12 per *khandi* for this *kapas*. We cannot pay more as the area is very small but if the cotton were grown over a very large area, a bigger premium would be paid. The outturn is about 200 to 300 *khandis* only that is about 500 bales. The cotton that is coming from the farm and from the villages is uniform in quality. We have been getting uniform quality for the last five years. Our men are there to look after the farm *kapas*; there is a superintendent and there is no trouble. In my own factory I select every bale, press it and send it with my own mark to the mill owners. It is the custom in Surat to select each bale separately. It is then stamped and weighed and the money is paid. Each bale is sampled. If there were a large quantity of this cotton available, say, 5,000 or 10,000 bales, the mill owners would pay a higher premium. There is a big demand for it every year; we have asked the superintendent many a time for more of it.

5157. There are two dates fixed for the payment of Government dues. The first date is generally 1st January to 15th January and the second date is 10th March to 20th March. The *kapas* comes in April. Whether the dates should be fixed later is a question which depends upon the maturing of the crop. If the Government dues were paid later, the cultivators would get the benefit of the market. They have to sell the *kapas* at a low rate in order to meet the Government demand. It is true that the Government dues are very small but it must be remembered that I am talking of the poor farmers.

5158. There is a big demand for long staple cotton and the mills are anxious to get it. The only thing, that prevents a bigger price being paid for long staple cotton, is the mixing in the ginneries. In good and honest factories, the *kapas* is not mixed.

5159. I was offered some farm *kapas* from other persons but I did not take it unless there was some guarantee that the cotton had been grown under the supervision of the Agricultural Department. We only pay a premium when we receive such a guarantee.

5160. (Mr. Hodgkinson.) As regards the remarks in my written evidence regarding saw gins, I may say that after I sent in my evidence I was told by one gin owner that he had used a saw gin but that the results were not satisfactory. Saw gins have not really been tried in Surat. The complaint is that the staple is damaged now and then although the lint comes out very clean. More experiments are required. I have never seen automatic feeders. I have heard that they effect a great saving in labour. If they were introduced into this district, I think they would do very well, and would be popular.

5161. (Mr. Roberts.) We purchase the special variety of cotton grown under the supervision of the Agricultural Department known as I-A. The cultivators bring in the *kapas* grown from farm seed to our factories on any day they like after we have made contracts with the Agricultural Department. We make the contracts first with the farm authorities and the officer of the Agricultural Department makes out a bill in the names of the cultivators. We see the carts and have them made into heaps. I put in copy of the contract. (Annexure.) The premium is not stated in the statement but we pay the ruling rate of the market plus Rs. 12 per *khandi*. We buy the ginned cotton after having the *kapas* ginned in our own factory. When the carts come in, we simply weigh the *kapas* and have nothing to do with the cultivators. If the cultivators want an advance, we give it them on the recommendation of the officer of the Agricultural Department. I have just been asked to pay Rs. 12,000 by Mr. Blimbhai. Our money is safe and the carts will be coming to us. We pay the advance and the accounts are settled when the cotton is weighed and then we pay the full value of the money. The Agricultural Department supervises the ginning. One fieldman from the Agricultural Department remains in the factory for the season. I do not consider that Rs. 12 per *khandi* is a very low premium in present conditions even though the cotton may be worth a little more. The mills demand more farm cotton but there is no more farm cotton to be had. We would buy any amount if we could get it. My personal opinion is that it is worth, at the most, Rs. 18 to Rs. 20 more than the local Surat cotton. The cotton is very good and is much liked in the mill. If there were more officers of the Agricultural Department and they were to ask the cultivators to do so, they would take the seed and grow this cotton. The cultivators have not to wait long for their money. They are paid within a week or ten days. We gin this cotton right through the whole of the season. A cultivator may bring this cotton in at any time; we give him the rate of the day plus Rs. 12 clear premium. I do not know why the cultivation of this cotton is not spreading.

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5162. I am in favour of posting the Bombay prices up country. I think it would help the cultivator here if the prices of "Good Broach" in Bombay were published. "Good Broach" prices regulate the market here. It would not be necessary to convert the Bombay prices to the local standard. Everybody understands them and they could calculate for themselves. If a Central Cotton Committee is formed, local committees would be necessary to supply information to it. One committee would do for Surat and Navsari. Some permanent organization of that kind is essential.

5163. I recommend the licensing of factories to ensure the submission of proper returns and the punishment of the defaulters where necessary. I would not like too rigorous a system of licensing.

5164. (President.) We buy our cotton only from men who have a guarantee that the cotton is grown from seed supplied by the Agricultural Department. Our dealings are carried out through the Divisional Inspector, who certifies that he has seen the crop, has a fieldman watching it and a weighman who settles up the account. The scheme is a very good and I think it could be extended on a very large scale. But the more it is extended, the less security; that is, some people might do mischief. If a man were paid Rs. 30 more per *khandi*, more people would be tempted to take it up, but mills can't afford to pay the premium. At present we are paying Rs. 6 per *khandi* more than for Navsari cotton. The difference between Bardoli and Navsari is Rs. 6, i.e., we are paying Rs. 12 more than for Bardoli cotton. We market all the cotton produced from farm seed as one variety though there are two varieties, one of which has a longer staple than the other. The quantity is very small and the difference in staple is also small so that it is not worth while keeping them separate. We sent some bales to Liverpool three years back and they got a very good price. Last year we sent ten bales. I do not know exactly what price they got but I heard that they obtained a very high price which would be partly due to high freight and insurance charges too.

ANNEXURE.

Copy of contract for purchase of *kapas* grown from seed supplied from the Government Farm, Surat, 1916-17.

(Translation.)

1. Farm *kapas* to be ginned in our own ginning factory at Sania.
2. Ginning rate to be Rs. 4 per *bhar* equal to 24 maunds of *kapas*.
3. If there be ginning association, the rate of ginning will be that of the association.
4. Rent of tare of half pressed bales to be paid by the buyers of cotton.
5. Cart hire from Sania to Surat to be paid by buyers of cotton.
6. Farm cotton to be purchased by us at the rate of Rs. 12 more than the Bardoli cotton of the date.
7. The purchaser is bound to take the cotton from the Farm Committee at any date in the season whenever they wish to sell.
8. Cotton to be weighed at Surat terms.
9. The Committee should insure the *kapas* through us.

CONTRACT OF 1917-18.

1. Ginning rate is fixed at Rs. 5-4-0 per *bhar* of 24 maunds of *kapas*.
2. Other terms are the same as those of the last year.

Mr. A. H. A. SIMCOX, I.C.S., Collector of Sholapur.

EXAMINED AT BILAPUR, FEBRUARY 16TH, 1918.

Written statement.

II.—COMMERCIAL ASPECT.

5165. General.—My efforts as a general administrator, and not a specialist in any department, have always been directed principally to secure clean cotton. I have helped in eradicating pests, introducing new varieties and improving old, and in other ways. But mainly I have tried to see that what was grown came to the market clean. Mine has been work in detail, a prosecution here and a fine there, enquiry into seemingly unimportant matters, but always, with the same object. If I have a theory, it is that Indian cotton will profit less by attention to staple than by attention to dirt. If dirt be defined as matter in the wrong place, it will be seen that I have had to attend to such things as mixing of inferior and superior cottons, unnecessary introduction of seed cotton, cut and whole seed and other things into bales, watering and so forth. The exportation of "fly" from Sholapur, Bombay and Madras mills to Dharwar to be mixed with *kampla* cotton when it was high priced was one matter I reported on in Bombay. The export from Khandesh to Gujarat of seed cotton was another. Foul ginning and foul pressing I have often detected and shown up. Insurance fires in Khandesh went down in any time from Rs. 5,00,000 annual loss to Rs. 25,000. I am prepared to be examined on the above matters.

Mr. A. H. A. SIMCOX, I.C.S., called and examined.

5166. (President.) I was Collector of East Khandesh from 1906 to 1913. It was a newly formed district; it had been cut out of the old district of Khandesh and had been very much neglected, the capital of the old district being at Dhulia, a long way off. I had to get the district more or less into working order and had to make Jalgaon the centre of the new district. A very superficial enquiry was enough to show me that the main staple of the district on which all its prosperity must be based was cotton, of which about a million acres are grown in the district. Up till then, I really had not studied cotton very much but I made myself acquainted with the nature of Khandesh cotton as far as I could. I got into touch with the best of the merchants. At that time, the price of Khandesh cotton was very low indeed. So I set myself up to find out why this was the case and the conclusion I came to was that it was due mostly to the extraordinary filthiness of the

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cotton as it was put on the market. I set myself therefore to see what could be done to improve matters. The result was that I made war on the ginning factory owners as they were the people at fault. My view was that even a good man who came in touch with the cotton trade became foul. The cultivator was served out at the biggest price possible by the Marwari with the worst possible seed out of miscellaneous heaps in the ginning factory so that he did not get a fair start. He sowed his cotton but he was generally too lazy to weed it or clean it himself. He looked to the starving districts of the Deccan to provide him with labour for this purpose. Having grown the cotton some how, he got it picked by imported labour. The cotton in Khandesh was sold exclusively by weight and practically anything that weighed was put into it in quantities that would not be too obviously detected. In fact the cotton was picked as foul as possible. The cultivator was not above watering it on the way to the market. The small buyers bought the *kapas* from the cultivators. It was to their interest to get as much cut seed and even whole seed through the gins as possible and that they did. It is very easy not to smooth the gin rollers. Cotton seed has a very uniform range of size and it is perfectly easy to set gins so that small seeds will pass through. That was done. I found it was impossible to get these people within the pale of the law. The owner of the ginning factory is very seldom the owner of the cotton. The only offence that could be established would be cheating and the question arose who was cheating whom? It was very difficult to get a case sufficiently good to pass a magistrate, let alone the Sessions Court, for this reason. However, I did a lot by threats. I used to take off some gin rollers and say these were impounded by the Court and threatened a prosecution which seldom came to anything. I had the powers of a Factory Inspector which I used to the full. In this way, I found out all sorts of tricks which were resorted to even if the cotton was ginned fairly clean. A man might have a lot of loose cotton seed lying about and he might roll his *docras* over it and thereby collect on each *docra* two or three seers of seed which would look like a pure accident. I once went into a ginnery which had a very good reputation: the price of cotton was up that year. I noticed there was a good deal of seed cotton lying about in odd places apart from the usual heaps. So I pushed my hands into the middle of the *docras* of ginned cotton and pulled out a lot of *kapas*. Of course the gin owner said that the *docras* had been lying about open and that it was impossible to help seed cotton getting into them. I had about thirty *docras* opened. In the middle of each, I found two seers of seed cotton. This was supposed to be a very good ginnery; it was turning out 100 *docras* a day. That meant a very decent profit to the owner on 200 seers of unginned cotton per day. These tricks look small but in bulk they are very large. One man I succeeded in getting on the complaint of Messrs. Rallis' agent who was a European. He said that he had bought *docras* from Mahassawad, twelve miles from Jalgaon. The owner of the ginning factory in question was the biggest landlord in the Bombay Presidency. He is the only man who pays over Rs. 10,000 Government assessment. He was a wealthy man but owing to his luxurious style of living, he was often short of cash. He had sold several hundred *docras* of cotton to Messrs. Ralli Brothers and arranged that delivery should be given when Messrs. Rallis' agent was away on tour for ten days so that the consignment could be taken over by a clerk who did not inspect it very carefully. Unfortunately for him, the Agent came back unexpectedly and he found out that their *docras* were something like mixed pies. There was a coating all round the outside of fair cotton but the inside was "fly," broken seed and husks. After taking the sworn complaint of the agent, I got the engineer of the Khandesh mills and the Mamlatdar who was a Magistrate and sent them out the same night to the factory before any warning could have been received by the owner and told them to annex the whole of the gin rollers. By doing that, I managed to secure a conviction. If the owner had had the least warning, I should not have done so. As a matter of fact, by the time the Mamlatdar and the engineer arrived, they had had time in which to remove some faulty rollers. The Engineer, however, found that they were still hot from running. The factory owner was given six months for deliberately cheating Messrs. Ralli Brothers by selling them what appeared to be cotton but was really something else. I also found cases of false pressing. I held an elaborate enquiry into one case that was reported by Ralli Brothers. In this case, a man had got in his pressing room some small heaps of good cotton. That year there was a great deal of rain soiled cotton. It was in the interest of the people for whom he was pressing to get the rain soiled cotton through as good cotton. So, every time a bale was pressed, a layer of good cotton was spread at the bottom of the press box and another layer of good cotton at the top. The whole of the intervening space was filled with rain soiled cotton so that seven-eighths of the bale consisted of such cotton. The press owner was a Bombay man who knew that bales were usually tested by removing a little of the cotton from the top and the bottom. He was, however, caught in the act and he had to own up. The question arose as to whom he was cheating as he had consigned the cotton to himself in Bombay. However, I had an effective watch kept on him in Bombay. If so happened that year that a great many ships were going from Bombay to Europe and what I understood was that every now and then there would be a case a ship due to sail on the following day and the owners of the ship would give notice that there was accommodation in the ship for a certain number of bales of cotton. This happened soon afterwards and the man used to get rid of the bales in dribbles. I had some of these bales traced to Dunkirk. I got the French police there to make enquiries but could not secure enough evidence for a conviction as the cotton had all been opened, and although it had been noticed that there was a lot of inferior rain soiled cotton, it could not be traced to particular bales. However I disposed of that by offering him a clean slate provided he subscribed Rs 10,000 for the new hospital. The whole district however understood that he has been fined Rs. 10,000 by the Collector.

5167. Another matter that I took up very seriously was the wholesale burning of cotton in Khandesh. Of course, cotton in the form of *docras* burns very easily indeed. *Kapas* won't burn; fire just skims over the heap and singes it. Pressed cotton is impossible to burn by any ordinary means but ginned cotton in the form of *docras* burns very easily. When the news that prices were dropping in Bombay and were likely to continue to drop for some months in Bombay filtered through to Khandesh, fires began at once. The first way I got to know about this was that there was an agent of fire insurance companies in Jalgaon who was a Gujarati and who gathered into his agency most of the big fire insurance companies. He could divide the losses amongst them as he liked. At that time the place was full of sedition. The Collector of Nasik had not long been shot and the police were on the look out. A man was detected at Kalyan station coming up to Jalgaon with a whole box of picric acid. He looked honest. He was detected simply because he was coming to Jalgaon with a ticket only to Kalyan. I told the people that if they wanted to blow up my bungalow, they might give me a chance of getting out of it. A couple of days afterwards, a man came to me accompanied by a police man and asked me to tell him if phosphorus was a suitable chemical for blowing up Collector's or other people's bungalows. I told him it was a highly inflammable substance. He said that a large bottle of phosphorus (which does no harm when kept in water but, directly it is dried, begins to burn

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which he had never ordered had come to him in water by V. P. P. from Treacher and Company and that he had refused the parcel as he had never ordered it. The man had a match factory. Treacher and Company asked what he meant by refusing a parcel he had ordered. So he wrote and got the original post card which he brought to me and it was then found that the man who had ordered it was the insurance agent. I asked how it was proposed to use it and was told that it was a common trick with fakirs and *bairagis* (wandering beggars) to get a little phosphorus, to roll it in wet cotton and to put it in their cheek. The fakir then goes to a village and says that any man who gives an offering will get a blessing on his house and that the houses of those who do not give will be burnt. They spit the cotton containing the phosphorus into the heaps of cowdung cakes in the corner of the houses from which they have been refused food and call down the fury of God. Shortly afterwards the house catches fire. On the strength of this, I raided the house of the insurance agent. He was convicted of being concerned in at least three intentional fires. That is how I first took up the matter, but I got no assistance at all from any of the insurance companies. Every fire I found I reported to the Fire Insurance Association in Bombay. One of the obvious conditions of issuing a policy to a ginning factory is that no temporary huts or workmen's cottages are allowed amongst the heaps of cotton. There was a very large fire at Jamner; it was known to have been caused intentionally. The insurance company after a lot of enquiries decided that they had to pay up, in spite of the fact that I showed them the remains of coolies huts in the middle of the cotton and, on that account, they could have refused to pay a single anna. What can you do with such people?

5168. (Mr. Roberts.) Suppose I own *kapas* in a ginning factory and I insure it for Rs. 50,000. I manage to burn my cotton. I claim the full Rs. 50,000 although there was only Rs. 5,000 worth of cotton. The claim has to be settled by a man sent down by the insurance company in Bombay and the local agent, i.e., the man who bought the phosphorus. I claim Rs. 50,000. The insurance company say that they are going to give only Rs. 30,000. They are pretty glad if they get off with Rs. 20,000. I am delighted to get Rs. 20,000 though I haggle about it. I know perfectly well I have only lost Rs. 5,000. The local agent smooths down the insurance company's representative: he gets a couple of thousands out of that, which pays for the phosphorus. That was roughly how it was done. I threatened these people and reduced the fires from Rs. 5 lakhs a year to about Rs. 25,000, while I was there. The insurance companies are very slack. Of course, they cannot get good agents. What do you think of a case like this? A fire takes place in the middle of the night, say between 12 and 1 A.M. A committee (*panch*) of respectable people is called in the next morning to decide on the probable cause of the fire. If they report the claim to be genuine, it is usually allowed and the amount of damage is settled by survey and so on. In one case, it was solemnly reported by those people that the fire was caused by a spark going up the chimney of the ginning factory and falling into a heap of cotton. A tremendous fire in the chimney would be necessary for that. It was, of course, impossible, as the factory had been closed after 7 A.M. I did not hear of this case till a long time after and then I asked the engineer how there came to be sparks flying about in the middle of the night. He said that that night the boilers were being cleaned out and that they had been cold for days.

5169. There was one case which was a peculiar combination of foul ginning and swindling. The factory was one at Amalner. I went there one morning and found some children which made me rather suspicious. I found the knives not properly sharpened and not bearing on the rollers and passing any amount of cut seed. So I annexed a few rollers and threatened the owner. I then went into the compound which I found paved with seed. I was told that the seeds had been left by a Marwari and that they could not help it. I found a heap of *decas* at some distance from the engine in which there was a lot of oily waste which is always said to cause fire by itself in the hot weather. I had statements taken down in detail in regard to these things which frightened the owners. I then went to my tent and the *chitnavis* went to his tent. The factory owner went to the latter and offered him Rs. 200 in currency notes to pass on to me. The *chitnavis* was careful to have a man within hearing. He said, "I hear something rattling in your pocket." The factory owner produced twenty sovereigns. That was Rs. 500 in all. The *chitnavis* sent the money to the Treasury under the Collector's seal and then accused the man of bribing a public servant. The Magistrate convicted him on several charges under the Factories Act and sent him to jail for bribing a public servant. On the 3rd of April, I met the barrister who had appeared on his behalf before the Sessions Court. He said he had not been able to stay to hear the judgment as he had to catch his train but that he thought the man had a chance of getting off. I replied that even if he did get off, he would require a good big fire to recoup himself. He was acquitted and drove back to Amalner on the 4th of April and on April 5th there was a big fire in his compound in which damage to the extent of Rs. 75,000 was done. Of course I was on to that at once; it was too good to be true. Volkarts were the agents in this case. They got an anonymous letter saying that the fire was a fraudulent one and that they should pay nothing. They wrote to me however, after a fortnight time and said that if I had not completed my enquiries, they proposed to pay. They did pay. About fifteen months afterwards, a man came to me and asked me if I would like to hear about the Amalner fire? He told me that he had been a clerk in the factory but that his brother had been unfairly treated and so he had left it. He gave me enough information to justify me in annexing the books of that ginning factory and also to annex the books of a very big man in Bombay. The case went up as far as the High Court and it was proved that the cotton alleged to have been burnt and which had been paid for had been in Bombay three weeks previous to the date of the fire. The conviction was upheld by the High Court.

5170. (Mr. Wadia.) The Sessions Judge considered that the insurance company ought to have the fine which was several thousand rupees as it had lost so much by the fire. I appealed myself on that. I pointed out that the company had refused to help me; but had deliberately paid up in spite of my warning. The High Court accepted this view and the fine went to Government.

5171. (President.) There is no danger of fires now as the price of cotton is so high.

5172. I have noticed that several witnesses have told you that they would like some regulation of ginning factories. I think that power should be given to Collectors and Assistant Collectors, apart from the professional Factory Inspectors. The Factory Act is no good to prevent abuses of this kind. The Factory Act only prevents children working and puts a stop to dirty latrines and things of that kind. But one would like to be able to blacklist a man for deliberate foul ginning. I have stopped it in Kurduvadi and Barsi, by writing to buyers and warning them that the cotton they were purchasing was foul ginned, but one wants some power to catch the ginners out. The damage they do goes all over the world. I do not think that the Bombay market has time enough to control matters by more discrimination in the matter of buying.

5173. One thing I tried to stop was the deliberate sending of Khandesh *kapas* to Gujarat. It went from Amalner, which is the largest cotton centre north of Dhulia. I stopped it by frightening the station master not refusing any waggons for cotton of this description but that was a rudimentary sort of remedy.

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5174. (Mr. Wadia.) A general prohibition of that sort is not so necessary now as I then thought it would be. Gujarat cotton is a very late in ripening whilst Khandesh cotton is very early. In Ahmadabad, last year, I noticed that Khandesh cotton was growing there, no doubt, as the result of the proceedings I had seen in Khandesh. It bolted, ripened and fell to the ground before the Gujarat cotton was ready so that it was destroying itself to a large extent. The Khandesh cotton had dropped by December; and was all over whereas nobody went to pick the cotton in the fields until March. By that time, the birds would have carried the Khandesh cotton away.

5175. Jamner cotton goes to Malkapur but I don't think the export of Jamner cotton to Malkapur does much harm. If there were total prohibition of the transport of cotton by rail except in fully pressed bales from one station to another by rail, it might help matters but it would be easy to unbalance and rebale. I think that the only remedy is plenty of power and absolute watchfulness. There must be well paid men and good men to see that such things do not go on. Any rules, however good they might be, would be got round. Prohibition of transport by rail might mean that cotton would be taken by carts to Bombay, which is only 200 miles distant. There are presses in Bombay. When I was the Collector of Bombay, I reported at least two peculiar occurrences to the Chamber of Commerce there through my Factory Inspectors. One Inspector reported that he had observed the exportation of seed cotton from Khandesh to Ahmadabad in large quantities. I reported this to the Chamber of Commerce as well as to the Collectors of Ahmadabad and Khandesh, but nothing was done. Another thing that I brought to notice was that when *kumpla* was commanding a good price, "fly" from mills in Bombay, Sholapur and Madras was sent to Dharwar and other places in the Southern Mahratta Country to be sprinkled among fresh cotton from the fields. I spoke to several leading men in the cotton trade about it. One of them said that when *kumpla* was fetching a good price, that was always done; another said that it could not be prevented, as it was a trade custom. The third said that it was the sort of thing to be expected in a year of high prices. I jotted their answers down and put them in the form of a note which I sent to the Chamber of Commerce. The Chamber of Commerce agreed with me that this practice was going on, but did nothing to stop it. I maintain that the Chamber of Commerce ought to have got these people put in jail. If that is not cheating what is? The difficulty about these cases is to prove who is interested, who is causing wrongful loss to whom and who is making wrongful gain. The gin owner himself says that he is not liable as he did his best to keep everything clean, but that the *sahukar* or Marwari must have given Rs. 5 to his fitter to set the gin rollers like that.

5176. I would recommend the licensing of ginneries. I have seen a great many suggestions in the evidence before the Committee and I am strongly in favour of doing something to stop all these evils. Ginning factories ought to be as strictly controlled as liquor shops as they are dealing with far more money. What the exact form of control should be it is not for me to say. The gin owner and his servants should be held responsible whoever else is made liable. It should be a penal act to allow false ginning to go on. The gin owner is not liable at present.

5177. Pools exist almost everywhere where there is more than one ginning factory. I consider them an abomination. Whether it is possible to rule them out by law I do not know. A most glaring instance is at Barsi, where there are more than a dozen ginning factories but only three or four are working. There is not enough cotton for the rest. So it is not profitable to work every factory; working expenses are deducted and the profits are divided between the people who work and the people who do not work. There was one factory close to the dāk bungalow in Jalgaon. The factory chimney was broken in the middle and nothing but *juar* grew in the compound. The factory could never work, the machinery was too rusty. It never attempted to work but towards March at the end of the Khandesh season, the owner used to get about Rs. 4,000 to Rs. 5,000 worth of filthy cotton and set fire to it and thus got a few thousand rupees and that was how he carried on. He did that every year until I stopped him. His factory was broken up and I do not know whether he has set up again. He was afraid to come near it when I was Collector. I mentioned the case of the big landlord whose conviction I secured for foul ginning. He was very angry with Messrs. Moolji Jaitha and Company, the owners of the Khandesh mills, because it was on their Chief Engineer's evidence that he was convicted. While he was in jail, his money accumulated and on coming out, he brought up a ginning factory beside the Khandesh Mills Company's premises which had fallen vacant on the bankruptcy of its owner. The result was that all Messrs. Moolji Jaitha's cotton was set on fire immediately after he had left goal and established himself in this factory.

5178. (Mr. Roberts.) Of course, there must be a good deal of harm done to Broach cotton by getting the Khandesh cotton mixed with it. What I object to is the transport of seed cotton. That means that the sowing of the seed of Khandesh cotton in Gujarat cannot be stopped. But the reputation of the cotton is so bad, that it seems hardly worth while to build it up again. I have been told by merchants, not as an official, but as a private individual, that they do not care so much about staple. What they most want is clean cotton. They say that if they can only get clean cotton, they will look after the staple.

5179. (Mr. Hodgkinson.) I used to test the weights and scales in Khandesh. I standardised all weights in that district. I would not allow merchants to use any except *pukka* cast iron weights made into seers and maunds. I found that horse shoes and such things were extensively used. I got the merchants of the district to give that system up and we agreed that certain standard weights of a certain pattern only should be used. Their action was supposed to be voluntary. Whether such weights are always used, I cannot say. I am strongly of opinion that weights should be standardised. A beginning should be made with Bombay City and not in out-of-the-way districts like Khandesh. I should say that the weighing of cotton is pretty fair in the Bombay Presidency. It has not been brought to my notice that there has been much corruption going on in that line. I would have heard of it if there had been any. I would include as a condition of a license that all weights should be standardised. I think there is a little *dastur* or unlawful handling of money which is not exactly swindling. A full cart is passed over the weighing machine. The question is, how much is to be allowed for the tare. The cart is not always taken back and weighed separately.

5180. People are not so innocent as one might think. I asked a man who had a factory thirty miles from a railway where there was never any fire, how it was that he was so lucky as never to have a fire when everybody else did. He said that the insurance agent did not come so far as his factory and therefore there were no fires.

5181. I have not been in Sholapur long but I tried to start a league against damp cotton in East Khandesh. I did not get very far. There are always one or two people who never damp at all. I think it pays them. I cannot say whether there has been much damping here in the past as I really left all my experience of cotton behind in Khandesh in 1913. Damping used to go on very freely there.

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5182. (Mr. Roberts.) In Khandesh we were supposed to use the standard Indian maund of 82½ pounds. As a matter of fact in every bazaar in the district it was the custom to add a few pounds to the *pulla* of two maunds. The *pulla* ought to be roughly 160 pounds but it was the custom in one bazaar to make it 170 pounds and in another 172 and so on. I should say decidedly that this tends to make it difficult for the local man to understand whether he is getting a fair price or not but the difficulties about cotton are nothing compared to the difficulties about grain and the cultivators were as sharp as a needle about grain. In Khandesh, the measure for grain was absolutely different from that used in Hyderabad to the south, in Nagar and Nasik to the west, Nimar and Berar on the east and Indore on the north and yet grain was constantly going from one to the other. The cultivators knew how many seers of the Nizam's measure ought to go to their *sikka*, and to how many seers of the Khandesh measure it worked out. They worked it out to a few *tolas*. I would not be against standardisation.

5183. The insurance companies are the indirect cause of the fires. The Bombay people are only agents. It is not they who have to pay but the London, Liverpool, Manchester or Glasgow firms. It is, therefore, of no consequence to them. There is not a single firm of principals in Bombay. I think the best remedy would be to get a Bombay Insurance Company to do business on the spot. But such a company would find it difficult to compete against the big European firms. A gentleman I interviewed in London said that though his company had lost in India they had cut their losses because they had done very well in the Continent and in Australia. Their total profit worked out to a very large sum and so they did not mind. It did not pay them to refuse Indian business altogether. This year there are no fires and they are getting their premiums. They did make a fuss after the Bombay fires but then the war came and absorbed everybody's attention. I never got any help and whatever I did, I did myself.

5184. I think clean cotton can best be obtained by more and more penal clauses and by constant watching. I cannot myself see any reason why the Factory Inspector or Collector of the district or a Magistrate going into a factory and finding deliberate foul ginning going on should not have the power to lay a complaint of a criminal offence against the gin owner.

Mr. J. S. ASPDEN, Mill Manager, Hubli Mills, Hubli.

EXAMINED AT HUBLI, FEBRUARY 20TH, 1918.

Written statement.

II.—COMMERCIAL ASPECT.

5185. (30) Local trade customs.—With regard to local trade customs as to the marketing of the cotton crop, I can only speak with respect to the actual buying of cotton either in the market or by forward contract. Forward contracts are made with reputable merchants on ordinary contract forms, stipulating the district or stations from which the cotton must come and conditions of delivery, percentage, guarantee of loss, or, more often than the latter, a clause stipulating that the *kapas* must be passed by the buyer or his representative and ginned and cleaned under his supervision.

(2) With regard to buying in the Hubli market, the *kapas* is bought in by the ryots and handed over to the *dalals* for sale, who in some cases have advanced money against the crop for Government dues, seed, etc., etc., and the custom of selling is rather curious. Buyers sample the market in the earlier part of the day and reserve lots to be taken up at what is called the opening price of the day, which means that, at whatever price the first *dawal* who accepts an offer for his lot closes, all other buyers who have reserved lots must pay the same as per agreement. This is an absurd custom and ought to have been broken by the buyers long ago, but there is no combination amongst the buyers, and so the *dalals* have their own way in the matter.

5186. (31) Standardization of commercial names.—There is a great variety of names of cotton in this district which, except to one conversant with the district, convey no meaning. Too much is implied by the use of station names or districts from which the *kapas* or cotton comes.

(2) Buyers and sellers too, generally, attach too much importance to the name instead of the actual quality of the material. It would be much better if, in each important cotton centre, a committee or Government official were appointed to collect samples from different districts and of different varieties and grade them on the basis of length of staple, colour, hardiness and cleanliness. These standard samples should be set up as the bases of sales, differences from them being allowed for either in reduction or augmentation of price. In this way, the temptation to mix cotton would be lessened as, if the farmers realised that by keeping their good stapled cotton separate, they would be assured of getting a better price, they might be induced to give up the present almost universal practice of mixing different staples. It is not so much the mixing of dirty and clean cotton together as the mixing of long and short stapled cottons, which makes the mischief, and it seems to be a difficult task to convince merchants, and even some buyers, that the same machinery will not spin different lengths of staple at one and the same time.

5187. (32) Buying agencies.—I have no opinion to offer on buying agencies. I do, however, offer the opinion that cotton buyers, whether for agencies or mills, should be men of some practical experience in the working of cotton as they would then set themselves more strongly against some of the ruling practices than I, I am afraid, at present the case.

III.—STATISTICAL.

5188. (35) Publication of Liverpool and Bombay prices.—With regard to the daily publication of Liverpool and Bombay prices in up-country markets, I do not think it would be of much benefit as most of the merchants get the prices now, and I think it would prove more a ground for disputes than benefit.

IV.—MANUFACTURE.

(a) Ginning and pressing.

5189. (36) Type and mark of gins and presses.—We have 29 double roller gins in our ginning factory and two presses (half and finisher press) turning out a bale 50 inches x 18 inches x 23 inches weighing 392 lbs.

5190. (38) Saw gins versus roller gins.—As regards the relative merits of saw-gins and double roller

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[Continued.]

gins, it is generally admitted on all hands that saw-gins damage the staple more than double rollers. The only thing which recommends the saw-gin to a ginner or some merchants is that, with the longer stapled varieties of cotton, the outturn per gin is more than with the double roller, but if the real facts are gone into, it will be found that, from a user's point of view, the extra cost of ginning in roller gins is more than compensated for in quality.

(b) Spining and weaving.

5191. (43) Counts spun and market for yarn or cloth.—In our mills, we have 26,512 spindles and 500 looms. We spin in our mills counts ranging from 8s to 44s mostly for our own consumption in our weaving shed. Our markets for yarn are mostly the local market, Bellary and Bangalore. We sell our cloth in these markets also and in Bombay, Madras, Belgaum, etc.

5192. (45) Effect on cotton market of replacement of short staple cotton by long staple.—With respect to the replacing any large quantity of short stapled cotton with long stapled cotton, it appears to me that this would not be altogether advantageous, but what is a crying necessity is the growing of a fairly large quantity of long stapled cotton in addition to the short varieties and the improvement of the latter.

(2) From all evidences, there will be a demand for short stapled cotton in India for a very long time to come as the cheap goods required for many purposes could not be made out of more expensive cottons, but there is also every appearance of a larger demand for finer goods made in the country and every encouragement should be given to farmers to produce and keep up to a standard cotton that will spin the finer counts which are required for these finer cloths which India is having to produce for herself to-day and to make it possible to produce till finer fabrics, which appears to me to be the lines by which the Indian cotton mills must advance, if they are to be kept up on profitable basis.

Mr. J. S. ASPDEN called and examined.

5193. (President.) The local system of buying is of a very peculiar nature. The opening price is based on the first deal and that has some reference to the Bombay quotation of the day. It has only a very slight reference to that in a very distant way. Nobody buys or sells until towards evening and there is no business done until somebody strikes a price. It is made an instrument of bad practices. The sellers are quite right to hold their *kapas* back as long as they can but it is not done with that object.

5194. We buy our cotton mostly locally. Some of it is bought in this market through the cotton brokers. We buy *kapas* and gin it as far as we can. Mixing is very bad unless one buys ones own *kapas*, and even then one gets mixed *kapas*. We get "fly" and dust in our purchases. I do not think anyone escapes that. Too much importance is paid to the name of the place from which cotton comes rather than to the quality of the cotton. It appears to the cultivator that cotton will fetch a better price if it comes from a certain place, and so the cotton is carried backward and forward to be mixed with the cotton which fetches a higher price. The Bombay Cotton Trade Association carries on business on samples and my idea is that system should be extended to the main cotton districts. The Hubli market is big enough to adopt the principles of the Bombay Cotton Trade Association, i.e., to sell cotton on type samples and to have arbitration on the basis of sealed samples. This would practically mean the localisation of the Bombay Chamber of Commerce. This system would ultimately have a good effect on the general trade.

5195. I have stated in my written evidence (paragraph 5187) that people who buy cotton ought to have some training in the practical part of the subject they are dealing with. In Lancashire, a mill manager must buy his own cotton. I would like to see that system adopted out here. As far as I can make out, buying is often entrusted to inexperienced people. In buying cotton, they, it appears to me, scarcely know for what particular purpose they are buying it. I buy my own cotton but that is not the general system.

5196. I have stated in my written evidence (paragraph 5192) that there should not be any reduction of short staple, for which, of course, there is a special demand but that cultivation of long stapled varieties should be extended wherever possible. It would not be possible to work entirely on long staple because short staple is required or the coarser counts. The policy should be to encourage long staple cotton in the tracts in which it grows. We are gradually going into finer counts now-a-days.

5197. (Mr. Wadia.) Every body knows that "fly" is brought here from other parts of the country and is taken to the different ginning factories. We refuse to sell any "fly" from our mills locally. I use all that I possibly can; anything that I cannot use I send to Bombay. As far as we can, we sell it for shipment. We have accumulated large stocks in consequence of the want of freight owing to the war. We bale it here, we do not send any of it away in *docras*. No one gets "fly" locally here—at least not from us. We do not sell any waste except a few maunds now and again for cleaning purposes but nothing that can be used for mixing. We sell nothing in the way of cotton waste; it is only yarn waste. It would help materially if the Committee were to recommend that no cotton either in the form of *kapas* or loose *docras* should be transported by rail from one place to another except to a port or to a consumer but there might be difficulties in carrying it out. As far as this place is concerned, if it could be carried out, it would practically stop mixing as there is no other means of getting anything to mix. I think it is a very good suggestion that the transport of cotton or cotton "fly" by rail either in the form of *kapas*, *docras* or fully pressed bales should be prohibited except to a port or to a *bona fide* consumer who, in the case of cotton "fly" should have a waste plant.

5198. The next step will be to get pure cotton and to prevent the ginneries from mixing short and long staple together. More care must be taken about the mixing of seed. One thing that makes mixing worse is that *kapas* comes in in a mixed condition and then the seed gets mixed and as a result you get a mixed crop. I have not thought that there should be licenses, but I think that there should be some sort of supervision. It would be a rather difficult job for an inspector to inspect all the ginneries round about here. If licenses are granted, it might be on condition that there should be no malpractices otherwise the factory would be closed. Things are getting worse all the time and perhaps licensing is the only remedy one can see at present. It is the case that the Agricultural Department is giving out seed to enable the cultivators to grow pure cotton on a large scale, and that if the ginneries are allowed to mix, the whole of the Department's activities will be nullified. It is not exactly the ginner who makes the admixture; it is the merchant who sends the cotton to be ginned and has it mixed, who is responsible. The ginner himself is not the mixer as a rule. He only provides facilities; the mixing is done with his knowledge and his connivance. We supervise the ginning of all stuff that we get ginned outside our own factory. We send our own men to look after the ginning. The cotton is never out of their sight from the time the *kapas* is taken in until the lint is brought back to the mill. So we can not speak with any authority in regard to the question of damping. I have never seen

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any done myself. A slight damping of cotton when pressing it, to the extent of say one per cent is not altogether an evil. It is only when it is carried to an excess that the evil commences. Cotton comes away from the gins in a heated condition and if it is pressed in the same dry state and is not damped, there is a risk of damaging the fibre.

5199. In my mills, all the gins are double roller gins. I have no experience of saw gins. Both in single and double roller gins, if the knives are not properly set, a lot of seed can pass through. It is quite true that merchants purposely ask the ginners to set the knives so as to pass seed through. I do not see how this can be stopped. Honesty is the only cure. It would be a hard condition to make that the license of a ginning factory should be withdrawn if crushed seed were found in lint as sometimes it is not done intentionally but is simply due to want of supervision. If it were consistently done and if it were proved that it was being consistently done, then it would be just as bad as the other, but it would be hard to prove whether it was being done wilfully or accidentally. As a rule, only some gins would be found out of order. If all one man's gins were out of order, the passing of crushed seed would obviously be intentional, but if only two were out of order, it might be claimed as accidental. I should be very glad if people were compelled to keep their gins to a larger extent in good order, but I am afraid it is hardly practicable. I know that when I go round in our own factory, I can always find one or two gins out of order owing to bad rollers, bad setting of the knives or blunt knives.

5200. As regards the statement that, owing to the fact that "fly" is mixed with *kapas* before ginning and the outturn per gin per day is reduced on that account the ginners have put up their prices for ginning very considerably, there is some truth in the first part of the statement that the outturn is reduced to a great extent but that ought not to be any reason for putting up the ginning charges to present prices. Three years ago the charge for ginning *kapas* was Rs. 5-8-0 or Rs. 6 per *nag* or Rs. 14 per *khandi* of lint. Last year it was Rs. 7-8-0. This year it is Rs. 9 which is equal to Rs. 21 per *khandi* for lint. I am in the ginning combination and I fought against the increase. The expenses for stores and materials have gone up both for gins and presses.

5201. I think that the practice in this tract is to buy a field of cotton just before the crop is ready or to buy and sell the *kapas* in the market here on commission. If the crop is sold as a standing crop, the ginning and pressing charges make no difference. But if it is not sold as a standing crop, the higher the ginning and pressing charges, the less the cultivator gets because the merchant deducts the extra cost of ginning and pressing. The capital invested in a ginning or pressing factory is not so big that a return of ten or twelve per cent. would give the owner a fair income. Unless he makes fifty per cent., he will not be able to get a decent income from his factory. I am not in favour of controlling ginning or pressing charges. Things are best left to work out themselves. The starting of new factories is the best way of breaking down pools.

5202. (Mr. Hodgkinson.) I am a Lancashire man. I have been in the cotton trade for thirty years. I come from Clitheroe. I was at the Whipp Brothers Mill, now John Mercer and Company Ltd. They used American cotton there and spun from 6s to 60s counts. They had very slight experience of Indian cotton. Some Tinnevely cotton was used at one time but only for mixing for a special case. In Lancashire they make far more trouble about mixed staple and dirty cotton than they do here. Regularity of staple is most important. In the Lancashire mills, all the cotton is bought for each individual purpose with as regular a staple as possible. Two kinds of staple won't do; but we have to put up with it here. In my mill, the evil of mixture of cottons is more accentuated in 44s. than in 8s. For 44s. I use a mixture of Cambodia, Anigeri and *kumpla* cottons. Anigeri cotton is a mixture of *kumpla* and American. It is spun on a 6½ inch bobbin for 44s twist. The cotton that we use here for spinning 44s. they would not use in Lancashire at all. There is no cotton I have seen in India that I should care about for Lancashire. The nearest is saw ginned Dharwar American. I have tried Cambodia bought in the market here, but I could not say from where it came. It does not matter where cotton comes from provided it is of good staple and of good strength. I do not know what are the future prospects of long staple cotton in India but we are feeling that unless we get finer cotton, we cannot get on. We ought to be able to follow Lancashire and to spin the counts that Lancashire is leaving, 44s is not a fine count in Lancashire; but it is a fine count for India. The tendency in Lancashire is to spin finer counts. We are now spinning more of the higher counts but in normal times there is not the same demand for them as there is just at present.

5203. Cotton just after it is ginned is hot; it gets back its normal moisture if it is allowed time to do so but it is often taken off to the press house at once. We do not use humidifiers in our mixing room but I think it might be better if we did.

Mr. DADABHOY DORABJI PUDUMJI, Gin and Press-owner and Merchant, Gadag.

EXAMINED AT GADAG, FEBRUARY 22ND, 1918.

I.—AGRICULTURAL EXPERIENCE.

Written statement.

(b) "Deshi" long staple cotton.

5204. (10) Experience.—I have been stationed at Gadag for several years.

5205. (11) Varieties.—The variety grown is termed *kumpla*.

5206. (14) Rotations and manures.—The rotations followed are *juar* and cotton, wheat and cotton, and cotton after cotton. Manure used is generally farm manure.

5207. (16) Suitability of existing varieties.—In certain tracts, having good black soil, I think Cambodia seed would give better cotton and better yield too.

5208. (18) Uses of seed and seed selection.—The seed is partly sold to merchants, partly reserved for feeding the cattle, and partly for sowing purposes. To my knowledge, no seed selection is practised on a large scale. It is practised in big towns to a small extent where there are seed societies, who sell such seed. The seed selected is not generally hand-ginned.

5209. Suggestions for improvements in cultivation of cotton.—The present system of cultivating cotton is rather defective. The cultivators do not take particular care that the tilling of their land is done properly

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[Continued.]

and at the right time. They merely scratch the surface of the soil just before the seed is sown. This tract is always deficient in rainfall, and if the land is not properly prepared in order to conserve the moisture, the crop is generally deficient. What I would suggest is to prepare the land by ploughing deep before the monsoons set in, so that the soil may be brought in a fit condition to absorb and retain moisture. The seed selection is not carried on as it should be. Government or the seed societies should have depôts in almost all the villages and should encourage the ryots to buy seed from such recognised depôts only by offering it at rates lower than those prevailing in the market. The fertilizers in use are very inadequate and not properly preserved. They lie exposed to sun and rain for months, thus losing much of the manurial properties. The use, therefore, of the chemical manures, if tried and found suitable for the soil, should be encouraged. The quality of cotton has deteriorated for want of proper care on the part of the ryots as mentioned above. The system of picking cotton is also defective. The coolies are paid according to the quantity of cotton picked and consequently it tempts them to pick the cotton indiscriminately with shells. The latter, when they go with the cotton in the double roller gins, accumulate and greatly lower the outturn of the gins, and therefore special coolies have to be employed to remove the shells every five or ten minutes.

(2) Some ryots are in the habit of growing cotton from mixed seeds, e.g., *deshi* long-staple and Dharwar-American. This, in my opinion, is wrong. This makes it very difficult to gin the cotton as the gins, if set for *deshi* long staple, cannot at the same time properly treat Dharwar-American, and consequently the production of the gin is much lowered. Moreover, a mixture of such dissimilar qualities of cotton mentioned above does not produce yarn of good quality.

5210. Prevention of fraudulent practices.—I would suggest that the Government should form a committee of arbitration in each *taluka* consisting of several influential merchants and a Government official at the head—either the Divisional Officer or the Mamlatdar of the district. The committee should be invested with power to punish all irregularities on the part of the cultivators or dealers with a view to discourage the present practice of deliberately allowing shells, seeds, etc., to be mixed with cotton, or otherwise allowing the quality of a good staple cotton to be lowered by being mixed with waste or inferior stuff. This arrangement would at the same time afford facilities to the purchasers to lodge complaints against such cultivators and dealers as are detected of such practices as mentioned above, or to appeal to the committee for arbitration in cases of disputes and fraudulent practices.

5211. Spread of improved implements.—The cultivators may be encouraged to use iron ploughs by supplying them on easy payments. The present seed drills are defective and crude. They are fed by hand and consequently the feed is irregular. It so happens that certain parts of the field get no seeds at all, whereas other parts are much too closely sown. Drills with automatic feed would prove very useful.

(c) Exotic cotton.

5212. (21) Varieties.—The exotic varieties grown are Cambodia and Dharwar-American.

5213. (28) Importation of seed.—It is desirable to experiment on imported seed to ascertain what particular strain is best suited for the district. Before the seeds are recommended to the ryots. It is better to try and improve on the indigenous varieties as these are much hardier plants. As a rule, the exotic varieties do not thrive well on our parts as they are found to be very delicate plants and susceptible to slight changes in the climatic conditions. It is very desirable that experiments should be made in Government farms on such exotic varieties to ascertain the effects of irrigation. If irrigation is found to be successful, the Government should undertake to sink artesian wells on behalf of the cultivators in order to encourage them to grow the exotic varieties.

II.—COMMERCIAL ASPECT.

5214. (30) Local trade customs.—The handling of cotton crop is generally done by the local brokers who advance money to the ryots charging interests at nine to twelve per cent. per annum. The brokers reserve the right to sell the cotton taking brokerage at eight annas per *nag* of 336 lbs., both from the purchaser as well as from the owner.

5215. (31) Standardization of commercial names.—All the different qualities of cotton grown in this district are generally styled as *kumpla* and Dharwar Saw-gin, and are sold in Bombay under those names. I do not think there is any necessity for making any alterations in it.

5216. Standardization of weights.—In our district, the unit of weight on which quotations are based is a *nag* of 336 lbs. This unit is different in each of the cotton-growing districts throughout India. Besides the tare and other allowances are different in different districts. This causes great annoyance to the purchaser, as he cannot compare the prices of cotton of different districts without working out the prices to a common basis. It would be advisable therefore to standardise the unit of weight for quoting prices, throughout the cotton-growing districts of India, as for instance, the Bombay *khandi* of 784 lbs.

III.—STATISTICAL.

5217. (34) Improvement of statistical information.—The cotton press returns are of little value unless each and every one of the presses is made to send the returns systematically.

5218. (35) Publication of Liverpool and Bombay prices.—The daily publication of the Liverpool and Bombay cotton prices would prove very useful, provided they are officially published at the up-country markets on the same day as they are received in Bombay.

IV.—MANUFACTURE.

(a) Ginning and pressing.

5219. (36) Type and number of gins and presses.—We use Platt's double roller gins and American saw-gins.

5220. (37) Size of bale.—The bale weighs 400 lbs. and measures 48 ins. × 17 ins. × 17 ins.

5221. (38) Saw gins versus roller gins.—The saw-gins are economical as they give a comparatively large outturn. A gin of sixty saws can produce about three to four thousand lbs. of ginned cotton (lint) in twelve hours. If these gins are not overspeeded, they are very satisfactory for ginning Dharwar American cotton

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[Continued.]

The capacity of double roller gins is low, but as they give a continuous web of ginned cotton, the cotton acquires a better feel and touch. The roller gins cannot gin efficiently the Dharwar American cotton.

5222. (39) **Effect of saw gins on Indian cotton.**—Saw-gins might prove successful with Indian cottons if the prescribed speed is not exceeded and if the saws are thinner and are set closer than in the gins as imported.

5223. (40) **Factory labour.**—There is no difficulty in obtaining factory labour, but the wages are higher during the season.

5224. (41) **Condition of cotton.**—Raw cotton is invariably received mixed with shells, sand, etc. Also the undesirable mixture of *deshi* and Dharwar American is often received at the factory. The remedy is to depute a committee of merchants as already suggested in paragraph 5210 above.

5225. (42) **Effect on machinery of replacement of short staple cotton by long staple.**—No alterations in machinery are necessary, excepting that the speed of the machinery should be lowered for long staple cotton.

(b) *Spinning and weaving.*

5226. (43) **Counts spun and market for yarn or cloth.**—The counts spun are from 4s to 30s and are consumed locally.

5227. (44) **Condition of cotton.**—*Kumpla* cotton is notorious for its dirt. The cotton is very much adulterated with seed, etc. I have seen some lots losing from 35 to 40 per cent. in the blow room. Ginning by hand should be very much discouraged as now there are ginning factories in almost all the villages to do the work. If, for any reason, hand-ginning is to be kept up, the coolies should be paid on the quantity of the seed turned out and not on the quantity of cotton ginned in order to remove the temptation of allowing the seed to go with the cotton.

5228. (45) **Effect on cotton market of replacement of short staple cotton by long staple.**—If long staple cotton is grown successfully in sufficient quantities, I think the outlook for India will be changed. The cultivators will get a better return for their labours. Several new mills for spinning finer counts will be established and India will become quite independent of the foreign goods which are now imported every year in large quantities.

Mr. DADABHOY DORABJI PUDUMJI called and examined.

5229. (President.) I think there are various ways by which agriculture could be considerably improved, such as proper cultivation, manuring and seed selection. The activities of the Agricultural Department in these directions require to be extended very considerably. For the improvement of seed I would recommend that there should be seed societies in almost every village which could distribute selected seed to the ryots to be grown at the outset under the supervision of the Agricultural Department. If they could be established on a co-operative basis, so much the better but it would be rather a difficult thing for all the people in the villages to co-operate. It could easily be done in towns like Gadag. Assuming these societies were started on a co-operative basis, there should be a committee which would appoint a supervisor to go round and examine the work done by them.

5230. I do not think much admixture takes place in the ginneries in Gadag. But it takes place in the presses. I do not think that much admixture with seed takes place in the ginneries. The different varieties are mostly ginned separately. I both gin and press cotton myself. We practically deal in cotton from the *dala* up to the Bombay Mills. I gin very little cotton for my own use. I gin mostly for outsiders.

5231. The cotton that I buy which is *kumpla* is frequently mixed with Dharwar American. The system of picking cotton is defective. The coolies are paid according to the quantity of cotton picked and consequently it tempts them to pick the cotton indiscriminably with the shells of the bolls and other foreign substances. As a matter of fact, some of the cultivators grow the indigenous variety *kumpla* and Dharwar American together.

5232. Cotton is not deliberately damped: nor is dirt deliberately mixed with it, though seed sometimes is.

5233. I have had some experience of saw gins as I am the agent of one of the firms in America for their sale. I think they are quite good if they are worked properly at the specified speed and the saws are properly set. I do not think they damage the staple. It is all a matter of correct adjustment. In America, the gin-owners use nothing else. The supervision and the mechanical handling of saw gins are simpler than that of roller gins. Everything is automatic. They require very little setting but the saws have to be sharpened every now and then. An ordinary *mistri* (foreman) is capable of doing the setting.

5234. (Mr. Wadia.) People bring "fly" and other things from Bombay and Madras for mixing with cotton. That spoils the name of our cotton. "Fly" should not be allowed to be mixed with cotton. To prevent this I would suggest that people should not be allowed to book "fly" to Gadag and other places. As I have suggested in my written evidence, there should be a committee to prevent mixing. We can always detect such mixed cotton here. If such malpractices came to the knowledge of the committee, they could punish the man who does the mixing. There are only a few merchants here who do it. It is true that people bring short stapled cotton from Bijapur but I do not think that they mix it with long staple cotton. They sell it as a separate class altogether. Bijapur cotton is brought to Gadag simply for the reason that there is a bigger market here and so the sellers can find more customers and get a better price. Bijapur cotton is not mixed with *kumpla*. It would be difficult to stop transport of cotton from one district to another in this tract as there are so many varieties grown here and they are all called *kumpla*. Gadag is a central market for all the surrounding tracts, within a radius of about fifty miles. Khandesh cotton comes here but only in very small quantities as it does not pay to bring cotton here all the way from Khandesh. I would recommend a local committee which should be able to prevent the import of waste and Khandesh cotton. A local committee could manage it better than any one else. In Nurgund Taluka, thirty miles from here, some of the gin owners are themselves merchants. Where gin owners are merchants, they do all this mixing. I have brought a sample in which seed has been mixed to add weight. It contains nothing but seed. It was ginned in a double roller gin. Sometimes some of the gin owners take off the seed guard and allow seed to fall into the ginned cotton. I do not think that it would be any good licensing ginneries in order to prevent this sort of mixing, as most of the gin owners are not merchants themselves and are not themselves responsible. Why should the gin owners be punished for the wrong doings of the merchants? They only do what they are asked to do by their constituents. Licensing might stop such practices but it would be hard on the gin owners as they would lose their constituents. If the merchants get cotton mixed in the presses then the presses should be licensed too. It would be very complicated to insist that bales should be marked with the name of the press and ginning factory. Who would mark the bales and if they were wrongly marked, how would it be

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Mr. DADABHOY DORABJI PUDUMJI.

[Continued.]

detected? If inferior stuff is brought in by the ryots, it could be stopped if they were paid a lower price and the cotton were ginned separately as inferior stuff. The biggest evil is that this continual mixing is spoiling the name of Indian cotton. Why should not the brokers be licensed? It would be possible to prevent the mixing of cotton if there were committees formed in the different districts. I think a central bureau in Bombay would be rather a complicated measure. The local committees would be formed by some of the merchants but there must be some Government official on the committees such as the Mamlatdar or Sub-Divisional Officer who should preside over them.

5235. Cotton is very much adulterated with seed, etc., and some lots lose as much as thirty-five to forty per cent in the blow room. This is not selling cotton but is selling dirt at a good price. On the whole, I think licensing of ginneries and presses to stop such practices is a good idea but it would be difficult to carry out.

5236. A *nag* of *kapas* is 1344 lbs. and a *nag* of lint cotton 336 lbs. I think that the unit of weight for cotton should be standardized all over India. The Bombay *khandi* might be the standard weight but we must have some standard unit. I do not think that the cultivators are cheated in weighing. The scales are correct. The weights and scales are tested every year by all the merchants in Gadag. I do not know about other places, but here they are very particular about correct weights and scales. Most of the cultivators are illiterate, and when their *kapas* is weighed they depend mostly on the brokers. The buyers weigh a *docra* at a time. A *docra* weighs about seven maunds of 28 pounds each. The merchant and the broker decide what tare should be allowed. In the dry season they allowed ten to twelve lbs. but in the monsoon it goes up to eighteen to twenty-two lbs. They do not actually weigh the tare and the merchants gain thereby as the tare is often only ten pounds per *docra*. The allowance for tare should be standardized. The ginneries, etc., generally weigh ten lbs. as in Bombay. It is very difficult to open the *docras* here and to ascertain the actual tare here as they are purchased in the market. They are usually not opened for some days: so the tare cannot be ascertained. Opening the *docras* in the market would be a tedious task. Even if fully pressed bales are opened, the cotton does not drop whereas if *docras* are opened, it is difficult to put the cotton back into them again. Standardization of tare would therefore save trouble.

5237. (Mr. Hodgkinson.) Some people want their Dharwar American cotton ginned in a double roller gin. As far as my experience goes, it is very difficult to gin Dharwar American in a double roller gin because the lint holds the seed very tenaciously. The double roller gin cannot pull off the lint. The seed being very large does not drop through the grid. That, of course, could be altered. As a rule, owners of double roller gins refuse to gin Dharwar American as it does not pay them. The outturn goes down to nearly half the quantity. You have been told by several witnesses that saw gins damage the staple but the proof of the pudding lies in the eating. The owners of saw gins have ginned thousands and thousands of bales of cotton and they have never received a complaint. There are nearly 200 saw gins in Gadag. The number of roller gins must be about 300 to 400 but I cannot give the exact figures. The difficulty arises when the saw gins are overspeeded. The prescribed speed is 400 revolutions which is the speed in America. They are often run 600 revolutions a minute. If they were run slower, they would not damage the staple. I have tried 200 revolutions and have found that it gives a much better quality than 400 revolutions. The slower a saw gin is run, the better the quality. As I have said, I am an agent for the sale of saw gins. When I sell a saw gin, I give instructions to my customers that they should not run them at more than 400 revolutions a minute. I have stated in my evidence that saw gins might prove successful with Indian cottons if the prescribed speed were not exceeded and if the saws were thinner and were set closer than in the gins as imported. My principals in America have suggested that if the saws and grids were changed, the gins might work with the indigenous cottons but I have not yet tried them. I have just got a gin and propose to try the indigenous cotton in it. I am in favour of saw gins for Dharwar American provided they are not overspeeded. I should say that a saw-gin is much better than a double roller gin for Dharwar American provided it is run at the proper speed. Some people have ginned *kumplas* in saw gins but it changed the class and lowered the price. I do not think saw gins improve the appearance of cotton. The double roller gin gives a continuous web of ginned cotton and improves the class a little bit. The cotton acquires a better feel and touch.

5238. (Mr. Roberts.) The fibres lie differently when roller ginned than they do when saw ginned. The trade is used to that sort of cotton and that is why they prefer it. The double roller gin, if properly fitted, turns out about 1,000 lbs of lint a day and a sixty saw gin about 3,000 to 4,000 so that a saw gin is equal to three double roller gins. The factory owners here have got different pools for saw gins and double roller gins. The charge for ginning Dharwar-American in a saw gin is Rs. 7-8 per *nag*. Rs. 9 per *nag* is charged for ginning indigenous cottons. The factory owners sometimes charge Rs. 12 to Rs. 13 for ginning Dharwar American cotton in a double roller gin. Messrs. Marshall and Sons are the Agents for the Eagle saw gins. Our saw gins are mostly of that pattern but there are some Gullett gins. The merchants in Gadag prefer the Gullett gins. They are self feeding and a condenser is attached to them for condensing ginned cotton. All the saw gins here have automatic feeds. A saw gin would cost Rs. 1,200 laid down here (pre-war price). The cost of a double roller has now gone up to Rs. 1,500, but formerly it was Rs. 500. For every ten saws one horse power is considered to be required. A double roller gin requires 3 to 3½ horse power. I do not think that saw gins are disappearing in this tract. On the contrary, the number has gone up. The people are discarding country made saw gins and are using American made. Country made saw gins are however, still in use especially in the small villages.

5239. Small scales are used for weighing at Devaneri and other places but not here. Weighing with small scales is not very common.

5240. Bellary and Sholapur cotton even if it is mixed goes under the name of Gadag cotton. In that respect it tends to deteriorate the value of real Gadag cotton and they realize a less price to some extent for it owing to its being inferior stuff.

5241. (Mr. Wadia.) There are separate pools for saw gins and double roller gins. In the case of saw gins we pay Rs. 2 to the pool and retain Rs. 5-8 for working expenses. For a double roller gin we retain about Rs. 7 as working expenses and the balance goes to the pool. The pool contribution in the case of double roller gins is Rs. 2 per *nag*. The pool profits are divided according to the number of saws and the number of double roller gins each factory has got. There are two different pools. The pool people keep a separate account for the double roller gin pool and for the saw gin pool.

5242. (Mr. Hodgkinson.) As to the comparative cost of saw gins and double roller gins and saving in labour of the former, roughly speaking, ginning one *nag* of *deshi* cotton in a double roller gin would cost Rs. 5 at present, whereas ginning one *nag* of Dharwar American in a saw gin would cost about Rs. 3-8 to Rs. 4. Ginning in the saw gin would therefore save Rs. 1-8 per *nag*.

Bombay.]

Mr. L. McILWRICK.

Mr. L. McILWRICK, Manager, Gokak Mills, Gokak.

THIS WITNESS WAS NOT ORALLY EXAMINED.

Written statement.

II.—COMMERCIAL ASPECT.

5243. (30) **Local trade customs.**—Ryots usually bring their *kapas* and cotton to the markets I am acquainted with, and sell it through their brokers. In some cases, the ryots take advances from the brokers, who lend money at varying rates of interest, according to the stability of the ryot. I have known the interest varying from six per cent. to twenty-four per cent. per annum. Buyers make contracts with reliable brokers and hold these brokers responsible for the proper fulfilment of such contracts. In Gokak, the ryots bring their *kapas* and cotton to the mills direct. It is sampled and paid for according to the quality at the rates ruling in the nearest markets, viz., Saundatti, Bail-Hongal. As co-operative credit loan societies become better known, it might be possible to get in touch with the ryot more closely and lend reliable men money at reasonable rates.

5244. (31) **Standardization of commercial names.**—The commercial names of the various grades of cotton are (1) *Kumplas*. (2) Westerns. (3) Double Roller. (4) *Mungari*. (5) Saw-ginned. (6) Cambodia. (7) Broach. The areas from which long cotton are—

- (1) *Kumplas*.—Tasgaon North; Davangeri South.
- (1) (a) *Kumplas*.—Bijapur and Bagalkot.
- (2) *Westerns*.—Bellary, Adoni, Guntakal, Yardgiri, Raichur.
- (3) *Double Roller*.—Dharwar to Ranibennur and Davangeri.
- (4) *Mungari*.—Gadag to Bellary and Hubli to Davangeri.
- (5) *Sawginned*.—Bagalkot to Bijapur and Hubli to Harihar.
- (6) *Cambodia*.—Tirupur, Bijapur, Gadag and other places.

(2) The various grades are suitably named if they are kept clean and not mixed with foreign cotton.

(3) I would suggest that, in order to keep the cotton cleaner, i.e., free from leaf, pods, dirt, etc., the picking of cotton should be better supervised and systematised. At present, every one tries to pick cotton at the same time with the result that labour becomes difficult to obtain and expensive as well. The result is that the *kapas* is hastily picked and includes unripe and dead pods, leaf and dirt according to the slackness of the supervision. Efforts should be made to organise the labour in villages in the cotton-growing districts and pick over the fields as fast as they become ripe. Unripe bolls should be left to ripen, in order to avoid so much leaf getting into the *kapas*; picking should be begun in the early morning and continued till about 11 o'clock in the morning; after this time the leaves become brittle and fall off the plant easily.

(4) The mixing of cotton is a much more difficult matter to deal with, but much might be done, if cottons were not allowed to be sent from one district to another for sale. The sending of cotton from one place to another should be restricted to cotton going to a place where it is actually consumed. Gin owners should refrain from ginning mixed *kapas* when they may be aware of any mixture.

(5) In Savanur, an experiment was made in picking cotton as described above, the labour was paid a little more to pick clean ripe cotton and when we tested this in our blowroom it lost only five per cent. against twelve to fifteen per cent. in cotton purchased from ordinary merchants in Hubli, Gadag District.

(6) At present sawginned cotton is mixed with *kumplas*. *Bengals* are mixed with sawginned cotton.

(7) In order to standardize commercial names, eliminate mixing of cotton, distribute good seed and teach ryots to bring their soil up to the best condition for the cotton plant. My experience is that cotton grown within a forty miles radius of the mills is more satisfactory and gives better results than cottons we buy from other markets. The *kapas* is cleanly picked and does not contain much foreign matter, as is the case with *kapas* purchased in Hubli, Gadag, where leaf and pods abound and very often cotton of other varieties is mixed. If the cotton is unadulterated, the staple in all these places is much the same. One of the chief causes of mixing is that mixed seed is often sown by the ryots themselves.

5245. (32) **Buying agencies.**—As regards buying agencies, obtain honest men and send them to various districts where they can buy *kapas*; supervise the ginning and pressing. Consumers should buy cotton themselves as far as possible.

III.—STATISTICAL.

5246. (33) **Improvement of cotton forecast.**—We usually collect our own figures and do not bother with Government figures.

5247. (35) **Publication of Liverpool and Bombay prices.**—We consider such quotations might be dangerous to the ryot as the market would most probably receive prices which are speculative rather than actual rates which would represent genuine demand. The ryot then might hold his cotton just a little too long.

IV.—MANUFACTURE.

(a) *Ginning and pressing.*

5248. (36) **Type and number of gins and presses.**—Our gins are Double Roller Macarthy Gins, Platt make. We have 64 at Gokak and 28 at Saundatti. We also have one Commin's Patent Press Horizontal and one Half Press and Finisher.

5249. (38) **Saw gins versus roller gins.**—My opinion is that saw gins are inferior to roller gins except in outturn. Saw gins may be considered successful with Dharwar exotic cotton with regard to outturn, but in every other respect I consider them inferior as they damage the staple. The exotic cotton when passed through the double roller gins certainly turns out better staple though a much reduced outturn; i.e., saw gins get through a much greater quantity of *kapas* per day than do roller gins.

5250. (42) **Effect on machinery of replacement of short staple cotton by long staple.**—Much would depend on what is meant by long staple cotton; if the staple happened to be more than fifteen-sixteenths inch long, some considerable alteration would be necessary.

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(b) *Spinning and weaving.*

5251. (43) **Counts spun and market for yarn or cloth.**—The counts we spin are from 45 to 405 and one principal markets are the Madras Presidency, Bombay and the local market.

5252. (44) **Condition of cotton.**—A good deal of the cotton which reaches our factory is very unsatisfactory, containing too much dirt, leaf, seed, and mixed cotton; for the remedy see paragraph 5244 above.

5253. (45) **Effect on cotton market of replacement of short staple cotton by long staple.**—It is my belief that the markets would benefit if short staple cotton were replaced by long staple, as would Indian manufacture. A better quality of yarn and cloths would be placed on the market.

THE JAPANESE COTTON SHIPPERS' ASSOCIATION OF BOMBAY

THE WITNESSES WERE NOT ORALLY EXAMINED.

Written statement.

5254. **Preamble.**—As buyers of a large quantity of Indian cotton, we, Japanese shippers, are in full sympathy with the object of the Committee in inquiring into means for the general improvement of Indian cotton cultivation and trade, and beg leave to submit our humble opinions and shall feel happy if they may receive consideration.

5255. **Improvement of cotton.**—(i) *Broach*.—It is a well known fact that Broach cotton has lost much of its staple during the past years. From our standpoint, it seems as if the effort of the Government Agricultural Experts to encourage the cultivation of cotton with better yield but inferior staple were rather misdirected. Should the present tendency be allowed to take its course, we are much afraid the demand by Japanese mills, who have so far been the biggest buyers of cotton, will have to be shifted in favour of Dhollera and Punjab-American.

(ii) *Berar and Central Provinces*.—The same tendency is noticeable in Berar and the Central Provinces (especially in Banosa, Arvi, Dhamangaon, Pulgaon and Wardha). Recently there has been a marked fall in the demand from Japan for Hinganghat and Yeotmal, due, in large measure, to be deterioration of staple. The "additional profit of rupees one crore" as referred to in a letter from the Director of Agriculture (*vide* Association Report, p. 12), we presume, disregards the loss resulting from the relative decline of basis value. As a matter of fact, the Central Provinces have recently witnessed a remarkable reduction in the production of cotton, which is presumably brought about by the depreciation in value of Central Provinces cotton and consequent loss to be suffered by the cultivators, as a direct sequence of the encouragement of the cultivation of cotton of less value but with better yield.

(iii) *Cambodia*.—Although the cotton is not appreciated by Japanese mills so much as by the European and Indian mills, owing to its creamy colour, it is nevertheless rapidly finding its way into the Japanese market. The efforts of Government to give the cotton an improved colour and uniformity of quality would mean a great deal. In present conditions, Cambodia is not getting in our opinion, the full price it deserves.

(iv) *Punjab-American cotton* is very hopeful. In this instance also, we should like to request that Government will take steps to establish the uniformity of quality and, at the same time, to take strict measures to suppress the mixing with *deshi* cotton. In the Punjab and Sind, Government being solely responsible for the distribution of canal water for irrigation purposes, it must be comparatively easy for the authorities to control the sowing of only the pure seeds with strict orders against adulteration with *deshi* cotton in the precincts of factories.

(v) *Dharwar*.—This cotton has been very favourably received by the Japanese consumers. It is a pity, however, that it is deteriorating in point of staple, the tendency being precipitated by the universal adoption of *power gins* in the locality. As we understand it, the climate especially rainfall, of Dharwar has much in common with that of the United States Cotton Belt. We are confident that if Government will once set about to work a radical improvement by importing American seeds on a large scale, placing, on the other hand, prohibition on the sowing of inferior cotton for a certain period, the labour will be well repaid.

(vi) *Bengal*.—High class Bengal cotton is indispensable for Japanese mills and will pay the cultivator well if produced. It is a regrettable fact that, being the meeting place of the Bay and Arabian Sea currents of monsoons, the United Provinces are visited by frequent rainfall just at the picking time in September and October. The class of cotton is spoiled much in this way and desirable quality is rendered scarce. With due deference to expert opinion, we would suggest in this connexion that the sowing of United Provinces cotton should be delayed by one month, in, say, the United Provinces canal districts, so that the picking may be commenced in October. If this experiment proves a success, we expect a substantial increase in the demand from Japan for this cotton and higher value will be realized.

5256. **Statistical information.**—In this connection, we regret to have to state that we cannot place much reliance upon the figures published at present as crop forecast and crop production, especially the latter. The publication of correct figures for crop forecast is indispensable for the cultivators as well as for cotton shippers. The returns, we understand, which serve as data for Government to formulate its crop forecasts, do not embrace some of the Native States. It is sometimes stated that, even within the British territories, the system is not a perfect one. Under such circumstances, it is next to impossible to obtain a correct crop forecast. We believe that Indian Chiefs would ever be ready to participate with interest and vigour in the present cotton campaign, which is assuming the importance of an Imperial movement, and to give their assistance to the Government efforts by supplying the necessary statistical information. We suggest that Government should require by legislation all the ginning and pressing factories, both in the British territories and in the Native States, to send in their returns in a certain fixed period to the authorities concerned. It is also suggested that the data should be collected not only from the revenue office alone but from civil sources as well.

5257. **Railway traffic.**—The traffic of cotton ports from up-country by railway is subject to much curtailment at present which, we think, is one of the inevitable consequences of the war conditions. We earnestly hope, however, that when the present world conflict is over, the carrying of the railways will be fully expanded to meet the vast demand of the trade.

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[Continued.]

5258. *Storage accommodation of cotton.*—The storage accommodation of cotton leaves much to be desired. We make our purchases up-country on the supposition that there will be no more rain after the monsoon. If there is rain at all, it is the value of cotton that suffers for no purpose to the loss of those concerned. It would be a good and timely measure for Government to make it compulsory for the factory owners to increase their warehousing capacity.

5259. *Government supervision of factories.*—It often happens that cotton suffers much as a consequence of insufficient supervision of factories. In some places, for instance, they wilfully mix crushed seeds in ginned cotton. In this connection, we would suggest that Government should be invited to create a circuit of inspectors with authority to close down such factories as are found beyond control.

5260. *Fire insurance premium for cotton.*—At present we are required to pay exorbitant rates of premia for fire insurance on cotton lying at Bombay, and up-country, especially in the Bombay Presidency. This goes to make up a heavy item in the cost of Indian cotton and places it very unfavourably in competition with cotton of other growths. We know that there took place some disastrous fires in the years 1914 and 1917. But now that the causes of the fires are brought to light, thanks to the efforts of Government, and proper measures taken by all the concerned to check the recurrence, we think it would be good time for Government to undertake to control the rates of fire insurance. In order to determine whether present rates are justified or not, a Commission should be appointed to look into the financial returns of insurance companies as regards Indian cotton insurance. We also request that Government will demand the compulsory equipment of fire-extinguishing apparatus for factories.

5261. *Methods of marketing up-country.*—With reference to the method of marketing up-country, there are several points which call for improvement. For instance, we urge—

- (a) Compulsory unification of weight units for seed cotton and ginned cotton in India.
- (b) Compulsory unification of weighing methods of cotton up-country. The methods followed in the Bengal districts are the worst examples, being both primitive and irregular, to the great loss of the ryot.

5262. *Methods of picking.*—It seems to us that the method of picking cotton now followed by cultivators is a very rude one, which is chiefly responsible for lowering the merit of cotton. We beg to invite the attention of Government to this point with a view to possible improvement.

5263. *Increased production of cotton.*—We are confident that, with a little more investigation and capital outlay, a substantial increase will be made possible. A few of the questions which may be profitably looked into by the authorities would be application of increased quantity of manures, question of sowing cotton by rotation with other crops, construction of more canals and tanks, scientific investigations to find out species which gives better yields of longer stapled cotton.

5264. *The cotton frauds Act.*—With reference to the above Act, we wish that Government will enforce it with more vigour and strength, so that the practice of false packing and watering of cotton may be efficiently checked. The quality and colour of watered cotton undergo much deterioration during the voyage to speak nothing of the loss in weight when cotton is landed.

5265. *Control of erection of new factories.*—We regret to state that, in this connexion, we cannot share the opinions of the Bombay Cotton Trade Association, Limited, although we admit that the licensing of new factories is conducive to the possibility of getting statistical data and of tracing back the quality to the factory where it was originally baled. We are not blind to the harm done to cotton business by the pools among factory owners, but at the same time we are of opinion that the best way to do away with this would be in the form of anti-pool legislation or to leave it entirely to the advent of free competition. If the pool of a certain place is blessed with a very handsome profit, new factories will naturally make their appearance with the result of dispelling the combination. There may be an instance in which certain new factories, which were set up besides and outside the combined factories, subsequently joined the latter and successfully enhanced the pool rate. But the more common supposition would be that the possibility of new factories coming into the arena will do much to put a check on the profiteering by the combined factories. Put restrictions of control on the building of new factories and we shall have to face much higher rates demanded by the combination.

(2) We cannot think that a central committee consisting of members representing Government and business circles can be the best judges as to the control and regulation of licenses for the establishment of new factories. It seems to us that it is the cotton trade itself that is the best deciding body. On this point we believe in the principle of *laissez-faire*. Supposing, however, there is to be established some central committee for this purpose, it would be necessary for the Government to regulate the maximum rate of ginning and pressing charges. Otherwise all the efforts of Government originally intended for the destruction of pools would only tend to protect their interests and place them on a more secure basis.

5266. *Export duty on cotton.*—The export duty on cotton, it seems to us, would bring upon the trade the following points of disadvantage:—

- (a) In the first place, we are much afraid that the imposition of export duty may result in bringing a certain revenue to the Government from a limited section of the trade at the great and painful expense of the whole. As the reports of the Government of India point out, India cotton has a lot of rivals in the world's market in the form of Chinese, Chosen (Korean) and Annam cotton, of which Chosen Cotton is recently multiplying its production with amazing rapidity. The incidence, then, of an export duty on Indian cotton, which was originally aimed at the exporters and final consumers abroad, would be reflected back to the ryots themselves and this would clearly be against the spirit of Government to give protection to the cotton producers.
- (b) It would give a fresh impetus to growers of cotton in other parts of the world such as above pointed out, i.e., China, Chosen, Annam, thus encouraging rivals.
- (c) Although export duty may be levied only on about one-third to one-half of the crop, the value of the whole crop will be naturally depressed and consequently it may be an additional protection to cotton manufacturing industry in India but loss to ryot.
- (d) It would contribute to accentuate the already existing tendency in Japan for the increased consumption of American cotton, which means the loss to India of the biggest buyer of Indian cotton.

Madras.]

Mr. K. NISHIMURA.

Mr. K. NISHIMURA, Agent, Mitsui Bussan Kaisha, Ltd., Jalgaon.

THIS WITNESS WAS NOT ORALLY EXAMINED.

Written statement.

5267. *Suggested improvements in the present system.*—I beg to state the improvements to be done in the present system as under.

5268. (i) *Improvement of statistical information.*—I think that all traders in cotton have a strong desire to know beforehand the forecast of the coming season, which helps them much to settle their views in the purchase and sale. The Government has arranged to publish the figures of acreage sown, but on experience it has been found that they are not as accurate as are necessary. At present we think these figures are collected from the information or reports of *talatis* who have very little interest or value in it and such figures have been submitted from them on general information. The Revenue Officers should ask the *talatis* to provide these figures twice, i.e., just at the beginning of the rains and alter a month or when the regular monsoon has set in: in such times figures are more reliable because the plants are actually standing. At present, the average yield per acre of the season never tallies with the total crop, considering the acreage figures. So the above mentioned system will be useful in that respect too.

5269. (ii) *Standardization of weights.*—In Khandesh, even in the one district, the standard weights and methods of calculations are different for each place which should be changed and a uniform system introduced. Having different weights the cultivator puzzles himself and is not satisfied with the calculations and also he cannot compare the rates obtained with the rates of neighbouring districts.

5270. (iii) *Improved methods of handling kapas.*—The way of picking the *kapas* from the fields is most dirty. Along with the *kapas*, leaf and mud are collected and thus the class of cotton is lowered by one grade and in ginning factories, the *kapas* heaps are stacked in the open and in such cases whenever there is any rain, all heaps are damaged by rain and though the buyers of cotton are most particular to avoid such stuff, still the damaged stuff is mixed with good cotton and at times it has come to the notice of buyers; many disputes arise thereby; so, if gin-owners erected godowns, it would be advantageous to all. In gin-factories, the necessary care is not taken by the factory owners, thereby the *kapas*, cotton seed and oily cotton go along with the cotton and this being a great loss to the mills, serious complaints are received from Home and at times they charge heavy allowances. The present Platt Brothers' gins are best for Khandesh *kapas* and no other gin will suit. In many places, the *kapas* openers are not used and thus the leaves and dust from the *kapas* go along with the cotton; so if there be a rule that no *kapas* should go on the gin platform unless it is passed through the opener, the outturn will be more and the percentage of the dead cotton and cotton seed will be found less in good stuff.

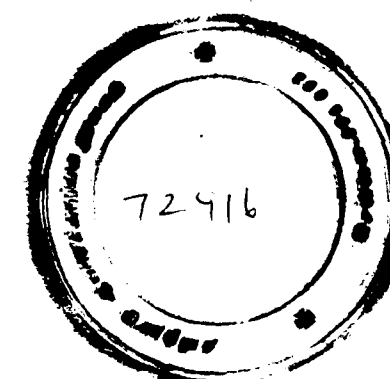
5271. (iv) *Improved picking of ginned cotton.*—The empty *docra* gunnies, i.e., the tare used for packing ginned cotton are used too long and become rotten and thereby the cotton falls through the holes, which is a loss to seller and buyer, and the threads and pieces are mixed with cotton and it being impracticable to separate them, the class of cotton is also reduced. In this respect, many buyers join together and make a rule not to accept the deliveries of such old gunny packing, but there being market authorizing rules according to the market tone, the buyers themselves do not follow the rule and of this many sellers take advantage and follow the same system.

(2) Day by day the labour difficulty is coming in the way of getting work done satisfactorily.

(3) The present presses are good enough and it is not necessary to make any alteration in them.

5272. (v) *Abolition of the jalap system.*—The old system of *jalap* is almost all abolished, but still in some places it is in force. It is not a good one and should be totally stopped. The bargains, which are effected, should be entered in the market register book, so, even if the market goes up or down, the parties will not deny the bargains and will save the trouble of going to the court.

5273. (vi) *Establishment of Market Boards.*—In every big town there should be a Market Board and it should have registered rules and at the end of every season it should publish a report. The Board should consist of some big and reliable cotton buyers, sellers, agriculturists and one Government officer from the Agricultural Department.



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