

Revenue (1897) Department.

MISCELLANEOUS SERIES.

G.O., No. 437

DATED 9th Jan'y/1897

[Despatch Abstract.]

Recording B. P. Comg L. O. on report of the
Land Rec^d & Agri Dept. for 1895-96.

BACK PAPERS.

G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.

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Revenue (1897) Department.

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SUBJECT.

Department of Land Records
and Agriculture.

Communicating Government
Order on Report of
the ——— for 1895-96.

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BACK PAPERS.

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n	701	Rev	8-1-96

FURTHER PAPERS.

G.O.	No.	Department.	Date.

BOARD OF REVENUE (REV. SETT., L. RDS. AND AGRI.), 11TH JAN. 1897, No. 22.

PROCEEDINGS OF THE BOARD OF REVENUE (REVENUE SETTLEMENT, LAND RECORDS AND AGRICULTURE).

READ—the following G.O., Nos. 701, 701A, Revenue, dated 8th December 1896 :—

Read—the following Proceedings of the Board of Revenue (Revenue Settlement, Land Records and Agriculture), dated 2nd September 1896, No. 209 :—

Resolution—dated 2nd September 1896, No. 209.

The Board begs to submit, for the information of Government, its report on the operations of the Department of Land Records and Agriculture during 1895-96.

2. The Hon'ble Mr. H. M. Winterbotham continued to be in charge of the department up to the first week of March 1896, when he was deputed on special duty to Malabar in connection with the Moplah riots. The department was in charge of the Land Revenue Commissioners during the rest of the year.

3 The Deputy Director, Mr. Benson, continued in charge of both the Land Record and the Agricultural Branches during the year, and, except during April, the whole or part of the remaining months of the year was spent by him on tour, during which he visited the districts of Coimbatore, Salem, Chingleput, Cuddapah, Bellary, Kistna, Anantapur, Tinnevely, Tanjore and Madura, in connection with the inspection of the village and taluk accounts and the revision of the existing manuals. At the close of the Christmas holidays he proceeded to Poona and Belgaum to acquaint himself with the Bombay system of working the village cash accounts. He also attended the Pony shows at Tiruppur and Adamancottah and was engaged on the committee appointed for the trial of certain water-lifts. As usual, he discharged, in addition, a certain amount of secretariat work under the Board.

(True Extract.)

(Signed) R. V. SRINIVASAR,
Secretary.

To the Secretary to Government, Revenue Department.

REPORT OF THE DEPARTMENT OF LAND RECORDS AND AGRICULTURE FOR THE YEAR 1895-96.

Introductory.—With a view to arriving at conclusions as to the best manner of utilizing Land Records for obtaining information and giving effect to the recommendations made in Dr. Voelker's report, Sir Edward Buck was deputed by the Government of India during the year to discuss, with such officers as the Local Government might appoint, the proposals of the Simla Conference of 1893, and to submit definite proposals for the consideration of the Local Governments. With this end in view, two committees were appointed; one, consisting of the Director of this Department, the Director of Public Instruction, Mr. F. A. Nicholson, the Deputy Director of Land Records and Agriculture and the Acting Principal of the College of Agricultural Education and Experiment; and the other, consisting of the Director and the Hon'ble Mr. Sturrock, Commissioner of Land Revenue, to discuss with Sir Edward Buck the other suggestions made by the conference alluded to. The recommendations made by these committees, which sat in December 1895, were as follow:—

- (1) That Agriculture should not appear as a separate subject in the curriculum of rural Primary schools, but that the effort should be to impart an elementary knowledge of it in the group "Object Lessons and Elementary Science," which group should be made a compulsory subject;
- (2) that Agriculture should be recognized as a separate optional subject for boys after they have passed the Fourth Standard, and that, until properly qualified teachers become available, the study of a text-book on Agriculture in Lower Secondary schools will be better than nothing;
- (3) that the first necessary step is to provide for the training of the teachers of Lower Secondary and Primary rural schools, and that to this end every training institution, where such teachers are trained, should—
 - (a) have on its staff a master qualified to teach Agriculture, and
 - (b) have attached to it a school-garden;
- (4) that to secure an adequate supply of trained teachers for the rural Primary and Lower Secondary schools, an Agricultural class should be developed in selected educational institutions where the general education will be carried on up to the Upper Secondary Examination and special education in Agriculture up to the Intermediate Standard. Such classes will need a small demonstrational farm for teaching purposes, and a portion of a Government Experimental farm may be utilized for the purpose, if there be one in the vicinity;
- (5) that it is not otherwise expedient to combine a Farm-school for the above purpose, with an Experimental farm, as proposed in the scheme of the Madras Government;
- (6) that the early establishment of Experimental farms, as separate organizations, and designed for carrying on agricultural investigation, is advisable;
- (7) that in Madras adequate provision has been made for the timely reporting of sudden calamities;
- (8) that as regards any serious gradual deterioration, or decline, in a village or tract, the annual ryotwari settlement ensures its being brought to the notice of the Jamabandi officer;
- (9) that a vigilant and intelligent scrutiny of the village registers by the Jamabandi officer, with a view to discovering the cause of any remarkable fluctuations, should continue to be insisted on;
- (10) that, to provide an account whereby the decline, or progress, of a village can be seen at a glance, it is desirable to compress into one page the more important

of the voluminous statistics now embodied in the Revenue Inspector's firka book; and that if this is done the firka book, in its present shape, may be dispensed with;

(11) that it answers no useful purpose to require of Collectors an annual report on the economic condition of their districts as disclosed by a scrutiny of the Land Records, and that in the absence of extraordinary change, such a report cannot be usefully submitted oftener than once in ten years;

(12) that the statistical atlas, now in course of publication, will exhibit a sufficient analysis of each district, in respect of the great agricultural defect, "deficiency of rainfall and absence of irrigation";

(13) that defects in irrigation and in the supply of wood and fuel are being adequately investigated by the Revenue, Public Works and Forest Departments;

(14) that a list of the other principal agricultural defects should be drawn up, and that these should be gradually investigated in the order of their importance;

(15) that Experimental farms are necessary for the ascertainment by agricultural experts of how far defects in agricultural practice are remediable; and that, in Madras, action in this direction is more pressing than in the direction of improving Land Records;

(16) that in view of the extreme importance of securing continuity of expert supervision, in the event of Experimental farms being started, immediate steps should be taken to secure the services of a second agricultural expert, to provide for the contingency of Mr. Benson taking furlough, or retiring;

(17) that if, and when, Mr. Benson leaves the service, the original plan of appointing a Civilian Deputy Director of Land Records may be revived;

(18) that meanwhile, as Mr. Benson has now devoted a year to the study of village and taluk accounts, it is best to leave him in charge of the office of Deputy Director of Land Records, without prejudice to his supervising any agricultural work which may be undertaken;

(19) that with reference to the scheme laid before the Government of India for a permanent staff for the maintenance of survey records, and training of karnams (*vide* G.O., No. 635, Revenue, dated 17th September 1895), it should be considered whether the strength of the establishment may not be gradually increased, as vacancies occur in the posts allotted to eight European officers, by replacing them, at the same cost, by twelve native Deputy Collectors. One superior officer would then be available for every two districts, and with this increase in numbers, it would be possible for them to assist in the supervision of the taluk and village accounts;

(20) that meanwhile, the Board's proposal for the appointment of three officers of the grade of Deputy Collector to assist in inspecting taluk and village accounts (*vide* B. P., dated 1st November 1895, No. 348 (Sett.), may be approved;

(21) that after the Deputy Director, or one of the proposed Assistant Directors, has inspected the Land Records of a district, he should submit his report, not to the Board as hitherto, but to the Collector of the district—the Board to be referred to only when a specific general ruling is called for;

(22) that the Collector should devote a paragraph in his jamabandi report to stating the results of the inspection and the action taken by him thereupon.

2. To these recommendations, which are still before Government, the Board appended certain further suggestions for the working of Land Record Branch of the department, having in view the fact that the work of the Settlement Department will shortly be greatly reduced.

3. At these conferences the form which the annual reports of the department should take was also discussed, but the matter was allowed to stand over, pending the receipt of a communication on the subject from the Government of India, and the form herein adopted is the same as that followed in previous years.

I.—ORGANIZATION AND MAINTENANCE OF VILLAGE RECORDS.

4. *Land Records.*—During April and May the work of the Deputy Director, Mr. Benson, in connection with Land Records was chiefly of a miscellaneous nature, as he remained at head-quarters after his return from tour at the end of the previous month. Towards the latter part of May, however, he proceeded to the Coimbatore district and inspected and reported on the taluk and village accounts of three taluks. Early in July Tirupattur taluk, in Salem, was visited for the purpose of studying the method followed there in keeping the village and taluk cash accounts with a view to the general revision of the same which is pending. The rest of July and part of August were spent in inspection in Chingleput district, as the Deputy Director had to remain near Madras, having been appointed to serve on a committee formed for testing certain water-lifts. After the inspection of the above-mentioned district, he submitted a report on the work done since the institution of the office, and also formulated certain proposals as to its future conduct which are still before Government. The period for which the appointment was sanctioned terminates in November next, and the proposals for the future have already been noted above.

5. The inspection of the accounts in the three taluks of Cuddapah engaged the Deputy Director during September, and with this he completed the inspection of all the recently settled districts. With the exception of a brief halt at head-quarters during part of October, the Deputy Director spent the following months in visiting the District Officers on certain suggestions which he proposed to submit in connection with the revision of the village and taluk accounts. In December he returned to head-quarters to attend the conferences on Agricultural and Land Record matters with Sir Edward Buck, and at the end of the month proceeded to Poona and Belgaum, to acquaint himself with the Bombay system of working the village cash accounts. After his return, he again proceeded to Kistna on an ordinary tour of inspection and inspected the village and taluk accounts in four taluks; the Board having decided that he should inspect all the remaining districts of the Presidency since the maintenance of the survey records had been transferred to a special establishment. He returned early in March and remained at head-quarters during the rest of the year engaged on the work of revising the manual of village accounts.

6. The reports submitted by the Deputy Director regarding the results of his examination of the village and taluk accounts in the several districts referred to above were reviewed in detail and the necessary instructions issued to the Collectors concerned to rectify the defects pointed out. The reports showed generally that the village accounts were fairly well maintained, though they contained many minor errors and omissions; but that the taluk accounts received insufficient attention at the hands of Tahsildars and Taluk Head Accountants, and that far closer supervision from Divisional Officers was required than had been exercised.

7. Reference has already been made to the Deputy Director being engaged on the revision of village and taluk accounts. During the year under report, he submitted proposals for revising village accounts Nos. I and II. His proposals involved a slight change of the present forms for the latter, but considerable alterations in the manner of working it, as well as the abolition of No. I account. These proposals were therefore referred to Collectors for opinion. Since the close of the year proposals for revising most of the other forms of village accounts have also been submitted by the Deputy Director.

8. The question of simplifying the forms of the annual returns of agricultural statistics prescribed by the Government of India was also considered during the year. A joint memorandum drawn up by the Deputy Director and the Secretaries to the Government, which has expressed its concurrence with the suggestions made, and has addressed the Government of India with a view to their adoption.

9. *Training of Karnams.*—A scheme for holding annual survey schools in each taluk of the Presidency was sanctioned by Government during the year. Schools

were accordingly held in 145 out of the 156 taluks of the Presidency, and 13,647 men (including probationers) were instructed.

District.	Taluks.
Trichinopoly ...	Trichinopoly. Kulittalai. Musiri. Udaiyarpalayam. Perambalur. Uttangarai.
Salem ...	Salem. Tiruchengodu. Námakkal. Atur.
Nellore ...	Ongole.

The remaining 11 taluks, which are situated in the Trichinopoly, Salem and Nellore districts, are shown in the margin. Schools could not be held in the Trichinopoly district as the karnams who had been instructed in survey in faslis 1302 and 1303 were engaged on work connected with the revision of settlement and with the jamabandi of fasli 1304, and had also to do other pressing work connected with the re-survey and re-settlement

towards the close of the year. In the five taluks of Salem it was thought unnecessary to hold any survey schools, as the karnams were actually engaged on the work of re-survey, while in the Ongole taluk of the Nellore district, the Head Surveyor fell ill, and no substitute could be sent to take his place before the jamabandi of fasli 1305 was commenced.

10. *Training of Revenue Inspectors.*—Out of the 626 Revenue Inspectors in the Presidency, including those in the Madras district, 592 men, permanent and acting, are reported to have undergone training in survey; while the remaining 34 men are untrained. Two of them are men exempted from passing the test and two more are old men retained on the old scale of pay. Two of the remaining 30 posts were vacant at the end of the year, while the rest were held by acting men untrained in survey.

11. In accordance with the orders of Government sanctioning a scheme for the maintenance of boundary marks and survey records, the Presidency was divided into six divisions each containing from 3 to 4 districts and from 23 to 29 taluks. At the beginning of the year, a Surveyor was sent to each district to work under the orders of the Collector, and as soon afterwards as could be arranged, a Survey Officer took charge of each division. The duties of the Survey Divisional Officers are—

- 1st, to see that all missing boundary marks are replaced;
- 2nd, to see that all changes in occupation are shown in the survey records;
- 3rd, to supervise the survey schools for karnams held every year in each taluk;
- 4th, to supervise any special surveys or re-surveys which may be ordered in their respective divisions.

12. *Re-surveys.*—The re-surveys which were in progress at the beginning of 1895–96 in the Gódvári, Kistna and Salem districts were completed; the total area resurveyed during the year being 1,692 square miles. The work has since the close of the year been undertaken in the two taluks of Guntur and Nandigama, not included in the original forecast and in the Kurnool district. The completed maps and records of more than half the number of villages have been received in the Central Office and those for the rest of the villages are expected to be completed during the current recess—June to September 1896.

II.—ANALYSIS OF DISTRICTS.

13. *Statistical Registers.*—The village statistical registers and the firka books have been written up and checked in all the districts except North Arcot and Madura up to fasli 1303. In 173 villages of Pólur taluk in the former district, these are reported to have been prepared in the old form and checked. The Collector explains that he has issued instructions to the Tahsildar to have them prepared in the new form for these villages and also to bring them up to the latest fasli. In Madura, the registers of 270 villages remained to be prepared, and those of 473 to be checked, but, except for five villages in the Dindigul taluk, no registers for such villages have been prepared. From the information obtained as regards the work done in this direction during fasli 1304 (1894–95), it would appear that the posting and checking have been completed in the Ganjam, Vizagapatam, Cuddapah, Bellary and Anantapur districts, and is approaching completion in Gódvári, Nellore, Kurnool, South Arcot, Salem, Tanjore, Nilgiris and Trichinopoly. Particulars of progress are given in the table below—

Districts.	Number of villages (Government and Islam).				
	In the district.	For which village registers have been		For which firka books have been	
		Prepared.	Checked.	Prepared.	Checked.
Ganjām	1,531	1,392 1,337 921 Complete.	Complete. 1,392 1,337 913 Complete.	1,392 1,164 925 706 Complete.	1,392 1,147 928 654
Vizagapatam	294				
Godāvāri	1,476				
Kistna	1,368				
Nellore	931				
Kurnool	786	1,630 1,496 2,645 3,056 Complete. 47 Complete. 705 705 1,043	1,623 1,496 2,584 3,056 Complete. 29 705 897 879	1,627 1,496 2,547 3,056 1,469 42 2,525 703 663 901	1,627 1,496 1,900 3,056 1,469 17 2,525 703 114 752
Bellary	962				
Anantapur	1,002				
Cuddapah	1,354				
Chingleput	1,782				
North Arcot	1,669				
South Arcot	2,700				
Salem	3,081				
Coimbatore	1,508				
Nilgiris	48				
Tanjore	2,540				
Trichinopoly	730				
Madura	937				
Tinnevely	1,099				

This matter will be further

This matter will be further referred to in the Board's jamabandi report.

14. Reports on the economic condition of the districts, as disclosed by an examination of the village registers and the firka books, were received during the year from the districts noted in the margin, and submitted to Government with brief reviews thereon. During November 1895, the Board issued orders to such of the Collectors as had submitted one or more reports on the economic condition of their districts, suspending the submission of the same in view of the approaching visit of Sir Edward Buck to consult with Provincial Officers as to framing a practical scheme for carrying out the district analysis desired by the Government of India, and at that conference it was agreed that such annual reports were unnecessary. The reports since received from Godāvāri and Tanjore districts have been simply recorded by the Board with reference to the above.

15. The Statistical Atlas has been published and is being issued. It was pronounced by Sir Edward Buck to suffice as an analysis of districts in reference to the chief agricultural defects—deficiency of rainfall and absence of irrigation. It is proposed that this atlas should be revised as soon as a new census is taken and brought up to date. This can easily be done by the District Officers, who will also be able to correct errors and omissions in the present issue.

III.—COLLECTION OF REVENUE IN PRECARIOUS TRACTS.

16. There was generally no difficulty in the collection of revenue due to Government. Owing to the damage caused by floods, however, the collection of revenue had to be suspended in some of the villages of the Gudivāda taluk in the Kistna district and in the Srīvaikuntam, Nāngunēri and Tinnevely taluks in the Tinnevely district. Suspension of collections had also to be ordered in a few villages of the Gudiyāttam taluk of the North Arcot district, on account of the unfavourable character of the season.

With regard to the Board's recommendation for a revision of the kistbandi, or instalments for the payment of revenue, referred to in paragraph 13 of the report for the previous year, the Government decided after the close of the year that no case had been made out for any change in the existing kistbandi except in the district of Tanjore, where it directed that the existing complicated kistbandi of eight instalments should be assimilated to that of four equal instalments obtaining in other districts, beginning from January as in the neighbouring district of South Arcot. Instructions

have been issued to the Collector of Tanjore to notify the change at once as widely as possible and to intimate to the ryots that the new kistbandi will be brought into force from fasli 1306 (1896-97).

IV.—MEASURES OF PROTECTION.

17. *Extensions of Communications.*—The East Coast Railway has been opened for public traffic as far as Kurdu Road, a total length of 491 miles from Bezwada. Work on the Nilgiri Railway (81 miles) has been resumed and is making fair progress. The Madras-Ennore Railway (8.55 miles) was opened on the 22nd February 1896. The Ennore-Bezwada section (254½ miles) of the East Coast Railway has been sanctioned and work is making good progress. A survey has been made for a railway from Arcot Railway station to Arcot town (6 miles).

18. *Irrigation.*—Good progress was made on the Rushikulya works in the Ganjām district and on the Periyār project in the Madura district, the expenditure incurred on them being Rs. 2.26 lakhs and Rs. 5.59 lakhs, respectively, which raises the total capital outlay on those projects up to end of 1895-96 to over Rs. 39.07 lakhs and Rs. 79.15 lakhs, respectively. The Russellkonda reservoir together with its feeder, the Gulleri channel, and the incomplete works of the Rushikulya canal and most of its distributaries were completed. The Periyār main dam and 108 miles of main and branch channels in the Madura district were completed. The Periyār works were formally opened on the 10th October 1895 by His Excellency the Governor of Madras. On improvements to the Kistna Delta system Rs. 5.43 lakhs were spent during the year, raising the total capital expenditure to Rs. 113.77 lakhs.

The Minor Irrigation Works under the charge of the Revenue Department number over 30,000, having an irrigable area of about 1½ million acres. The amount sanctioned for their repairs during the year was Rs. 4.22 lakhs, out of which Rs. 3.97 lakhs were actually expended.

19. *Advances to Agriculturists.*—The loans granted during the year under report, under the Land Improvement and Agriculturists' Loans Acts, amounted to Rs. 2,03,472 against Rs. 2,79,591 advanced in 1894-95 and Rs. 4,50,921 advanced in 1893-94. The great falling off in the demand for State loans, as compared with the preceding years, is due, as explained in the report for the previous year, to the improvement in the season that has taken place since the close of the distress in 1892. Nearly 75 per cent. of the total advances were made in Coimbatore, Tinnevely, North Arcot and South Arcot. The following table shows the amounts advanced under the two Loans Acts during each of the past five years:—

Years.	Budget allotment under both Acts.	Advances made under		Total advances.
		The Land Improvement Loans Act.	The Agriculturists' Loans Act.	
1891-92	Rs. 13,39,000	Rs. 15,28,407	Rs. 1,67,258	Rs. 16,95,665
1892-93	23,00,000	20,41,809	2,33,350	22,75,159
1893-94	10,00,000	4,40,312	10,609	4,50,921
1894-95	7,00,000	2,63,709	15,882	2,79,591
1895-96	3,00,000	1,91,521	11,951	2,03,472

* The increase over the figures entered in the report for 1893-94 is due to adjustments made by the Accountant-General.

V.—AGRICULTURAL EXPERIMENTS.

20. *Agricultural Education.*—The concession allowed by Government to the holders of Agricultural diplomas by permitting them to appear for the Criminal and Revenue Higher Examinations, and thus placing them on a level with graduates, did not produce any appreciable effect in increasing the strength of the College during the year: on the other hand, there appeared a slight decrease below that of the previous year, which was explained by the Principal as due to the fact that Sudra students do not find comfortable homes at Saidapet. Much weight should not be attached to the above explanation; but, as the matter is one of importance, and as it is most desirable to attract Sudra students to study at the College, the Collector of Chingleput has been

requested to report on the facilities available for such students to live at Saidapet. A committee was appointed during the year to revise the syllabuses in "Surveying and Levelling" and in "Agricultural Engineering," and submitted revised ones which were brought to force during the year under report. The syllabus in "Organic Chemistry" also appears to have been revised in consultation with Dr. Leather, and a new one introduced during the same period. Though the results under the revised syllabuses were not favourably viewed by the Principal, yet it appears far too early as yet to form any opinion on the results of the change, especially as the examinations were only held during April last and have not been reported on.

The Assistant Agricultural Chemist delivered a course of 21 lectures at the College during November and December. Some of these lectures were devoted to instructing the students in analytical processes, the others were occupied in going over portions of Agricultural Chemistry. He also held an examination. He has been desired by Government to submit a brief report on his work in the College in future.

21. On a suggestion made by the Director of Public Instruction that the Board of Revenue and District Officers should co-operate with the Educational Department in filling subordinate posts in the Revenue Settlement and Forest Departments with men holding Agricultural diplomas, Collectors were requested to give their favourable consideration to applications for appointments from persons holding such diplomas, and the Principal was also asked to forward to District Officers, every year, a statement showing the general and special qualifications of students who have completed their college course, and are willing to take up appointments in the departments concerned.

22. The College farm continued to be worked during the year chiefly in the interests of the students, and as a dairy farm. The report shows that the management was successful, but it is desired to make the report of more general value and to issue the results obtained in a form of more general use.

23. It was proposed by Government to continue the dairy experiments conducted at Saidapet during 1892, but the Principal was of opinion that it was unnecessary to repeat the purely statistical portion thereof, and as the Farm bailiff, who was ordered to proceed to Poona to learn the use of the modern dairying appliances, did not do so till late in the year, and as there was difficulty in getting a sufficient quantity of milk for experiments, they had to be given up. However, Mr. Collins made certain experiments—

(1) as to the relative merits (from a chemical aspect) of butter from farm cows and local buffaloes made by the native process and that made from cream extracted by a "separator";

(2) as to the best method of separating buffalo's milk by the "Baby Separator." The analyses made showed that the amount of butter fat in the milk of the cows kept on the College farm averaged 4.68 and 3.93 per cent. for the morning and evening milk, respectively, as against 7.31 and 4.82 per cent. for the buffalo's milk. The percentage of butter fat found in the separated milk was as noted on the margin.

	Cows.	Buffaloes.
Morning yield	13	12
Evening "	13	17

In separating the cream, the "Baby Separator" was found to act exceedingly well even with buffalo's milk, the separation, as in the case of cow's milk, being, to all intents and purposes, complete. The butter from "separated" cream made with a native churn was found to contain .24 per cent. curd in the case of that made from cow's milk and .23 per cent. in the case of that made from buffalo's; the amount of water left being, however, large, viz., 21.65 per cent. in the former and 19.66 per cent. in the latter case, the butter not having been sufficiently "worked." Mr. Collins also made some interesting analyses of ground-nut and gingelly-oil cakes, showing that, at present prices, the latter is the cheaper cattle food to use at Saidapet.

24. The Government proposed during the year that the College-farm herd should be increased so as to supply milk and butter to the hospitals and troops in Madras; but, after considerable enquiry, it was found necessary to abandon the idea as impracticable for financial reasons connected with the initial cost of purchasing a herd of about 400 cows, and the difficulty of providing grazing facilities and sheds for about 200 cows in milk and a run for dry cows and heifers; having in view also the difficulty of providing against any sudden interruption in supply of milk in consequence of

an outbreak of disease in the herd. To overcome the difficulties referred to above, it is now being considered whether the supply of milk and butter cannot be restricted to a limited number of hospitals and the matter is still under consideration.

25. *School Farms*.—No definite orders regarding the starting of these institutions have yet been issued, but the committee which conferred with Sir E. Buck in December last was of opinion that there should be no further delay in starting a suitable number of Experimental farms which it considered to be essential to the investigation of agricultural defects and for progress towards agricultural improvements. The committee also expressed the opinion that it was not expedient to combine Experimental farms with Farm schools save under exceptional conditions. The committee also recommended the attaching of instruction farms to all normal schools where teachers for rural schools are trained, and to a certain number of special schools. These proposals are under consideration.

26. *Agricultural Enquiry*.—With a view to collecting detailed information regarding the different varieties of, and the methods of growing, cholum, cotton and indigo, the Sub-Assistant Director was deputed during the year to make full enquiry regarding these crops in the Ceded Districts, Kurnool and Kistna, three Agricultural Inspectors being deputed to work under him during the cultivating season. The enquiry has been made fairly complete, and reports embracing the information collected are in preparation for publication in the form of bulletins. Collections of specimens of the different varieties of cholum (*Sorghum*) grains have been made and sent to the Reporter on Economic Products for specific identification. During the current year, the enquiry is being extended into the chief Tamil cholum-growing districts.

27. *Experimental Cultivation*.—Owing to the want of timely rain in the months of March and April of the year under report, the barley crop was a failure throughout the Nilgiri plateau, and consequently the usual show had to be abandoned for want of exhibits.

An experiment in the cultivation of Cape oats was conducted on the Nilgiris, but was reported to have failed in so far as the ears did not fill. The straw was, however, excellent.

No reports regarding the results of the further experiments with the new varieties of potatoes alluded to in the report for 1893-94 have been received from Nilgiris.

The reports of the Collectors of Nilgiris and Salem on the experimental cultivation of Seoni pissi wheat referred to in the previous year's report were received during the year. In the former district, the experiment was a failure, partly owing to the weevilled condition of the seed, and partly to the want of timely rain and attention on the part of the cultivators. In Salem, however, the results were, on the whole, reported to be satisfactory considering the unfavourable character of the season. Some of the wheat was also sown in a village of the Madura division, where the crop is reported to have grown to the height of a span and then withered owing to the north wind. The Collectors of Madura and Nilgiris applied for a fresh supply of wheat and steps will be taken to supply them.

At the instance of the Reporter on Economic Products some experiments were conducted on the College farm, Saidapet, in the cultivation of three indigenous fibrous plants called *Sida carpinifolia*, *Sida rhombifolia* and *Triumfetta rhomboidea*. The produce was pronounced to be most unsatisfactory by the Principal, and he also expressed the opinion that it would be unnecessary to try to cultivate a common weed in the hopes of its being able to compete with well-established fibre crops. The report was forwarded to the Reporter who has since pointed out reasons for reconsidering this opinion.

28. *Bulletins*.—Only one bulletin, No. 32, embodying the results of experiments with water-lifts, was issued during the year. The vernacular translations of the bulletin No. 31, alluded to in the previous report, have been printed in the form of leaflets and sent to the District Officers for distribution among the chief ryots of their districts.

29. During the year under report, the Agricultural Chemist to the Government of India made certain suggestions regarding the desirability of systematizing the manner of publishing results obtained on Government Experimental Farms in India. The opinions of the Deputy Director, Land Records and Agriculture, and of the Principal of the College of Agriculture were obtained thereon, but no action can

be taken in this Presidency as no Experimental farms exist, and the Saidapet Farm is almost entirely utilized for educational purposes. In this connection, however, the Principal urged the necessity for revising the "Records of the Saidapet Farm" issued several years ago, containing a *resumé* of the various experiments conducted on the farm at Saidapet. The suggestion of the Principal was accepted by Government and the task of revision has been entrusted to Mr. Keess.

30. *Crop Experiments*.—Reports on the experiments made in fasli 1304 by the Divisional Officers and Tahsildars, with a view to ascertain the outturn of important crops grown in the Presidency, were duly received. These reports were reviewed this year by the Collectors of districts and also by the Deputy Director. These reviews show that the manner of conducting these experiments has not, in a great many of the cases, reached a stage where the results can be safely accepted; but on comparison with the experiments made in the previous year, it is clear that the experimenting officers are surmounting the difficulties which beset them in the earlier years. As remarked in the annual report for the previous year, it may be expected that the next set of experiments will show a considerable improvement.

31. *Agricultural Implements and Machines*.—During the year the Sub-Assistant Director held certain ploughing demonstrations in Kurnool district with specimens of the ploughs which have found so much favour in the adjoining district of Bellary. The ryots who attended them were satisfied with the superiority of the Swedish ploughs, and the only difficulty, which is reported to prevent them from purchasing these ploughs, appears to be that of getting them repaired when out of order. This difficulty is to a great extent already being got over in Bellary where the use of heavy iron ploughs increases annually. A bulletin has recently been published on this subject.

32. *Water-lifts*.—The trials made by the committee alluded to in paragraph 27 of the report for the previous year were carried out during August 1895, but Messrs. Sultan and Co. refrained from submitting their lift for trial on the ground that it was still being improved. The committee, therefore, proceeded with the trial of Messrs. Stoney and Subba Rao's water-lifts. The opinion of the committee on these water-lifts as follows:—

"Regarding both the above lifts, the committee is of opinion that, whilst they are much more efficient than the single mhote, and whilst they, in common with the double mhote, cause much less wear and tear on the bullocks employed, it would require more skill to erect and keep them in working order than is usually available in up-country villages, and that, to enable the village blacksmiths to do this work, their training would have to be improved. As to the cost of the lifts, it is not possible to give any definite information; but the committee consider that either might be put up for about Rs. 150, though the charges for Subba Rao's lift would vary greatly according to the materials locally available."

Regarding M.R.Ry. Subba Rao's new lift, the committee said:—

"As regards M.R.Ry. Subba Rao's new lift, wherein the action is the same as in the single mhote, except that the weight of the bucket is counterbalanced, and the bullocks are enabled to reverse at the end of the incline and walk up the slope, the committee is of opinion that, where cattle labour is scarce, the contrivance should prove most valuable, being well within the means of the ryot, and within the capacity of the village artisans to erect. The committee considers that M.R.Ry. Subba Rao is deserving of great commendation for the ingenuity and perseverance displayed in his efforts to devise an improved water-lift, and deems it a matter for regret that he is under the disadvantage of not having been trained as a mechanical engineer."

Certain suggestions as below were also made by it:—

"In conclusion, the committee begs to report that, since the issue of the orders under which it has acted, a considerable amount of public interest has been evinced in the subject of water-lifts generally, and enquiries have been received from diverse persons anxious that their inventions should be tested. The committee would suggest for the consideration of Government whether it would not be advisable to offer a handsome reward, say Rs. 1,000, for a really efficient lift suitable to the needs of the average ryot. A similar but much smaller reward was fruitlessly offered once before, but progress has since been made, and the offer of a substantial reward will direct attention to the subject and may lead to valuable results. The main conditions of the competition might be—

(1) that it should be restricted to lifts adapted to raising water 20 feet or more, and which can be sold at a price not exceeding Rs. 150 each;

(2) that intending competitors should submit working drawings of the essential parts of their machines before a date to be fixed, with an approximate estimate of the price, or cost of construction;

(3) that the plans should be scrutinized by a committee which would select for trial such of the designs as might appear to possess sufficient merit;

(4) that each inventor of a selected design should then, within a fixed date, put up his lift in working order, at some place in the neighbourhood of Madras;

(5) that he should then be entitled to receive from Government the price of the machine as per estimate submitted to the committee;

(6) that the competing machines should then be subjected to experiment; and that the best in respect of novelty, cheapness, simplicity, efficiency, durability, adaptability for being worked with different sorts of animal power, and at different depths, and the ease with which it can be repaired, should receive the prize.

The Government, while agreeing with the suggestion, commended it to the consideration of the Supreme Government, as it thought that the proposal was not one of merely local interest, but affects also the whole of India. The Supreme Government did not, however, approve the proposal of the offer of prizes for the best water-lifts, but desired that the question of various agricultural implements in use in India should be discussed with the Agricultural Chemist to the Government of India who was deputed for the purpose. That officer visited Madras at the close of the year and the decision as to what further action should be taken is still under discussion. In connection with the proposals above referred to, the Government reviewed the general question of agricultural exhibitions and desired that the question should be discussed with Sir E. Buck at the time of his visit. The committee appointed, however, upheld the decision arrived at during 1890 on the subject, but assented to the proposals of Mr. Benson regarding the offer of prizes for cattle in breeding localities, and also to encourage any local body or association that voluntarily came forward to organize a show, by giving a grant-in-aid as well as by helping them with illustrative exhibits. No orders have, as yet, been received on the matter.

33. *Entomology*.—During June 1895, the Collector of Malabar sent in a specimen of caterpillars, which were causing damage to the paddy crop in Chirakkal taluk, with a view to ascertaining how they might be extirpated. These were forwarded through the Superintendent, Central Museum, to the Indian Museum for identification. The report from the Indian Museum states that the specimens being larvæ could not possibly be determined; but that they, however, appeared to be the caterpillars of a "noctues moth" (possibly *Heliothis Armigera*); no remedy for them was suggested. Another specimen of insects was received from the same Collector in September 1895, which were said to have caused considerable damage to paddy in Ponnani taluk. The Superintendent, Indian Museum, identified this to be the common rice hispa (*Hispa cenescentis* Baby). The Deputy Director of Land Records and Agriculture having heard that certain insects were causing damage in some villages near Poonamalli, deputed an Agricultural Inspector to make enquiries regarding them. The Inspector sent eight specimens of the insects which were forwarded to the Indian Museum, but only one has been identified by it to be *Heliothis Armigera*.

34. *Destruction of prickly-pear*.—On a letter from the Sanitary Commissioner to Government suggesting the desirability of requesting the Collectors of districts and other authorities to make enquiries as to whether any animal or vegetable parasites have been anywhere observed or can be found feeding upon the prickly-pear in such a manner as to warrant a hope that it might be used as an agency for destroying the said plant, the Government called for a joint report from this department and the Superintendent, Central Museum, after making the necessary enquiries as suggested. From the reports of the Collectors, the Board and the Superintendent formed the opinion that there are no parasites known in this Presidency which can be relied on to destroy prickly-pear growth, and the joint report was accordingly submitted to Government.

35. *Societies*.—The permanent Director continued to be an *ex-officio* member of the committee of the Madras Agri-Horticultural Society throughout the year. The total income of the society amounted to Rs. 11,318, of which Rs. 4,000 was from Government grants and Rs. 1,763 from subscriptions. The total number of members of the society again fell off by eight, though there were sixteen additions during the year. The usual annual flower-show was held on the 23rd February, and the attendance was larger than on any previous occasion. The library was also strengthened both by gratuitous supply and by the purchase of books. Several new plants were also added to the gardens. The usual system of exchanging seeds and plants was also continued.

36. *Collections for the Imperial Institute*.—During the year under report, the Reporter, Economic Products, called for collections of the following articles:—

(a) Two gallons of—

- (1) Mustard oils of different kinds,
- (2) Oil of *Bassia longifolia* (Elupa),
- (3) Coconut oil of different kinds,
- (4) Cashew-nut oil (*Anacardium occidentale*), and
- (5) Any other edible oils used in the Presidency, except sesamum and ground-nut oils.

Ten pounds of the seed or kernel from which the oil was extracted, and the whole of the oil-cake produced were also required, together with the information regarding the quantity of seed for producing the two gallons.

- (b) (1) *Acampe papillosa* (plant and drug).
- (2) *Dodonaea viscosa* (leaves and wood).
- (3) *Eriodendron anfractuosum* (fibre).
- (4) *Erythroxylon monogynum* (leaves and oil).
- (5) *Gymnema sylvestre* (roots and leaves).
- (6) *Lathyrus sativus* (oil and seeds).
- (7) *Litsaea zeylanica* (do. do.).
- (8) *Macaranga Roxburghii* (gum and plant).
- (9) *Memecylon edule* (leaves, flowers and bark).
- (10) *Lettsomia elliptica*.

All the oils under group (a), except mustard oils, were obtained and forwarded to the Reporter, together with the seeds and oil-cakes. A specimen of the oil extracted from the seeds of Dhup tree (*Vateria Indica*), which was reported by the Collector of South Canara to be used for flavoring food, was also sent. Of the articles mentioned in group (b), No. 2 was departmentally obtained and supplied, while Nos. 4, 5 and 8 were obtained from Collectors and forwarded. Regarding article No. 10, the Reporter was requested to address the British Resident in Mysore. Steps have been taken to collect the rest so far as they are procurable. The collection of these samples imposes a good deal of trouble on the District Officers, to whose assistance it is, in most cases, necessary to have recourse.

VI.—CATTLE BREEDING AND VETERINARY ESTABLISHMENTS.

37. *Civil Veterinary Department*.—The office of Superintendent, Civil Veterinary Department, in Madras was filled by Mr. Harris till the beginning of September, when he proceeded on sick leave. He was succeeded by Mr. Clarke, who reported himself for duty on the 26th September 1895, and continued in charge till the end of March 1896. The former officer spent four days on tour, the latter fifty-two. The small amount of touring done by Mr. Harris, was due to ill-health. Mr. Clarke's work shows an improvement in the direction desired by the Government of India, but it is desirable that the greater part of the time of the Superintendent, when he is not lecturing at Saidapet, should be spent in the districts. Mr. Clarke delivered three courses of lectures on Veterinary Science to the classes in the Agricultural College; they comprised thirty-six lectures and nineteen classes, for which he was detained two and a half months at Madras. Endeavours are being made to improve this state of affairs, so that the Superintendent's time at Saidapet may be more adequately utilized.

38. The arrangements made for carrying on the enquiries required for the Bacteriological Survey were brought into force during the year, and five districts, in several of which pony-breeding is going on, were taken up for more particular investigation, though it is not intended that the enquiries shall be limited to this area when cause for special enquiries arises elsewhere. In fact two such investigations were in progress during the year—one regarding a disease called *Iduga*, found to prevail amongst the cattle that are sent to graze in the Colair Lake, and another regarding the very large number of deaths returned from unspecified causes in several districts. The former enquiry has been closed; the latter is not proceeding as rapidly as could be desired.

Reports appear to have been received by the Superintendent regarding many outbreaks of disease, but the manner in which their enquiries have been conducted by the Stock Inspectors is not noted by him. The reports, as received, also seem to have

been forwarded to the Assistant to the Inspector-General, Civil Veterinary Department, but it does not appear that in any case the diagnosis of his subordinates was checked by the Superintendent. For this it will be necessary for him to be constantly on tour, which will also be necessary in order to enable him to direct and control the work of the Stock Inspectors effectually.

39. Information is reported to have been collected regarding the breeds of cattle found in the five districts more particularly taken up for enquiry. It is hoped that the Superintendent will soon be able to prepare a complete account of the cattle of these districts.

40. Of the thirteen Stock Inspectors, six, eligible for promotion to the grade of Rs. 100, were examined by a special Board appointed by Government, and five of them who were successful were promoted. One more, who became eligible since, was also promoted to Rs. 100 without departmental examination, as he had passed the Bombay course.

41. *Pony-breeding*.—During the year, one stallion died and two were condemned and sold, but six new stallions were purchased. Thus at the end of the year there were ten stallions working in Coimbatore and three in Salem. One stallion has also been provided for a part of the Madura district that adjoins Coimbatore. The new stallions were all purchased by the Inspector-General, Civil Veterinary Department, who visited the Coimbatore and Salem districts during the year to make himself acquainted with the pony stock kept there and submitted a special report thereon. These new stallions are all smaller than those previously obtained and it is hoped that they will be more suitable to this Presidency.

The castration of 134 ponies was performed at Hosur during the year as against 116 in the previous year, and 98 in Coimbatore against none in the previous year. The castration work in the latter district was confined to only one taluk—(Kollegal).

The number of mares covered by Government stallions during the year was 398, which is a smaller number than in either of the two preceding years. The average number covered by each stallion that was working throughout the year was 37.9, which is low. In Salem, the small number must be ascribed to the more strict enforcement of the rule regarding the size of the mares to be accepted for any stallion. In Coimbatore, the smallness of the number of coverings is put down to various causes, none of which appear to apply generally to the uniformly poor work done by most of the stallions; one, however, appears to have been too large for work in Kollegal, and has been replaced there by a smaller stallion.

The results reported of the coverings made during 1894-95 are rather more satisfactory than those for the year preceding. For 455 mares covered, the results are reported in 301 cases, and the inspections of the Deputy Superintendent, Civil Veterinary Department, in 229 cases are stated to generally confirm the reports obtained by the Revenue Department. Of the above 301 mares, 79 dropped foals and 30 aborted, leaving 192 or 64 per cent. empty. In Salem, the percentage of unsuccessful coverings reported was 72, and in Coimbatore 61. The young stock dropped to Government stallions is, as shown in the reports of the recent shows, of good quality in Coimbatore; but in Salem it is very poor.

Two pony-shows were held during the year—one at Tiruppur in June 1895, and the other at Adamancottah during March 1896. The former show was a success, while the latter was not satisfactory.

42. *Mule-breeding*.—With a view to making a commencement in this direction, four donkey stallions were purchased during the year and sent to Babugarh to be trained. They arrived at Hosur shortly before the end of the year, and will be stationed in the Salem and Coimbatore districts.

43. *Cattle Fairs*.—With a view to controlling the spread of cattle disease from the great cattle fairs, the Collectors of all districts were called upon to consider carefully whether the Cattle Disease Act should not be put into force in connection with the chief cattle fairs and markets in their districts. Hitherto, the Act had been put into force only in connection with the two cattle fairs, viz., the Chittrai cattle fair at Madura, and Subramaniya cattle fair in South Canara. But, during the year under report, it was introduced in connection with certain other fairs also held in South Arcot, Salem, Tanjore and Tinnevely districts at the desire of the Collectors of those districts.

44. *Mortality amongst Live-stock.*—The subjoined table compares the mortality reported during the year, with that in the preceding year and with the average for the five years ending 1894-95:—

Causes of death.	Number amongst cattle.			Number amongst horses and ponies.		
	Average for five years ending 1894-95.	In 1894-95.	In 1895-96.	Average for five years ending 1894-95.	In 1894-95.	In 1895-96.
<i>Diseases.</i>						
Rinderpest	14,523	12,974	21,475	..	..	..
Diarrhoea and dysentery	21,435	9,825	11,089	13	4	44
<i>Total</i>	35,958	22,799	32,564	13	4	44
Anthrax	17,980	16,123	17,746	20	13	6
Foot and mouth diseases	6,961	7,545	3,477	..	..	..
Variola	2,103	1,806	2,063	..	..	..
All others	30,793	35,947	36,439	..	..	..
<i>Total from diseases</i>	93,795	85,220	92,289	147	155	163
<i>Other causes.</i>						
Snake-bite	..	..	..	180	172	212
Wild animals	2,257	2,597	2,656	..	..	..
Criminal poisoning	10,427	10,750	10,566	7	16	8
<i>Total from other causes</i>	12,708	13,382	13,243	172	204	119
<i>Grand total</i>	106,503	98,602	105,532	319	259	282

45. *Cattle Disease.*—The total losses of cattle from disease were about 8 per cent. greater than in the previous year, but were below the average by 1.65 per cent. The increase, as compared with the previous year, occurred chiefly under rinderpest, while there was a large decrease under foot and mouth disease. The losses from rinderpest were nowhere very large except in Bellary, in which district one-third of the total losses from this disease reported for the Presidency occurred. In Anantapur, the losses were also considerable and they were noticeable also in South Arcot and South Canara. In Bellary and South Arcot, a considerable number of deaths were put down to diarrhoea and dysentery, some of which may have been actually caused by rinderpest. Taking these causes of death together, it was not until October 1895 that any serious increase in the mortality recorded appeared, and in December it again decreased, only, however, to increase again during the closing months of the year, during which the disease caused very considerable losses in Bellary and Anantapur. The attention of the Superintendent has been specially called to this outbreak.

Anthrax is reported to have caused about 1,600 more deaths than in the preceding year, but not so many as have been recorded on the average. The largest number of deaths reported from this disease occurred in Gódvári, South Arcot, Tanjore and Chingleput, but they were numerous also in Kistna, Kurnool and Bellary. The heaviest mortality occurred during the months from July to November, although in September there was a marked decrease on the number reported in August; as the dry weather set in, the deaths from this disease decreased.

The decrease in the mortality from epizootic apthra occurred principally in the districts of Ganjam and Chingleput, where deaths from this cause were numerous in the previous year; but still the losses in these districts and in Gódvári were considerable. More than half the deaths attributed to variola were reported from three districts—Ganjam, Kistna and Salem and occurred chiefly in the months of July, August and November. A large number of deaths from unspecified diseases has been reported from Gódvári, Kistna, Kurnool, Bellary and Anantapur; and an investigation of the causes for this has been undertaken, but as yet no report has been received.

46. Taking the losses from all diseases together, the death-rate was very high in Bellary, and exceeded 10 per mille in Kurnool and Anantapur, whilst the losses in Gódvári amounted to 9.5 per mille. Special arrangements have been recently made for carrying on an investigation, on the lines required for the Bacteriological Survey, in Bellary and Anantapur, the serious losses in these districts not having attracted the notice of the Board until May last.

The subjoined table compares the total number of deaths recorded amongst horned cattle and horses during the year, and the numbers returned in previous years so far as Government villages are concerned. It shows that the death-rate was below the average for the former, and slightly above it for the latter description of stock. The registration of deaths of sheep and goats from disease has been abandoned:—

Year.	Horned cattle.			Horses and ponies.		
	Number of		Death-rate per mille.	Number of		Death-rate per mille.
	• Stock.	Deaths.		• Stock.	Deaths.	
1890-91	14,959	102,097	6.8	43	199	4.6
1891-92	14,849	87,349	5.9	42	155	3.7
1892-93	14,342	101,990	7.1	40	142	3.5
1893-94	16,192	86,554	5.3	41	226	5.5
1894-95	16,112	82,217	5.1	37	171	4.6
<i>Average</i>	15,291	92,041	6.0	41	179	4.4
1895-96	16,327	† 90,102	5.5	41	† 208	5.1

* Thousands.
† Excludes figures for permanently-settled estates, information regarding agricultural stock in such estates not being available.

47. *Other Causes.*—The attempt to register the deaths caused by natural decay and accidents was discontinued during the year under the orders of Government, and the variations in numbers of deaths appearing under other heads were small and the total losses not severe. Deaths caused by wild animals were, as usual, most numerous in the West Coast districts. Only twenty-one deaths were reported as due to criminal poisoning during the year, or fourteen less than in the previous year. The subjoined statement shows the action taken in these cases:—

District.	Number of cattle poisoned.	Action taken.
Gódvári	3	In two cases the owner did not suspect anybody in particular, and the offender could not be traced. In the third case the accused was sentenced to four months' rigorous imprisonment and a fine of Rs. 10 and in default to one month's additional imprisonment.
Kistna	3	In one case the accused was sentenced to six months' rigorous imprisonment and in the other two cases the accused was tried but discharged.
Anantapur	2	In one case the accused was acquitted for want of sufficient evidence; as regards the other no report has yet been received.
Nellore	7	In three cases the accused were discharged for want of evidence, and in the other four cases no evidence was forthcoming to connect anyone with the offences.
Coimbatore	3	In one case the owner not suspecting any particular person, no steps were taken to detect the offender; in another the Chemical Examiner certified that there was no poison in the viscera of the animal; and in the third the accused was killed by the owner who has since been convicted and punished for murder.
Trichinopoly	1	In this case the offenders were sentenced to three months' rigorous imprisonment.
Tanjore	2	The owner not suspecting any particular person, the offenders could not be detected.
<i>Total</i>	21	

VII.—MISCELLANEOUS.

48. No change was made during the year in the number and dates of issue of crop forecasts prescribed by the Government of India which were all duly published on or about the dates shown in the subjoined statement:—

Crops.	Reports.		
	Sowings.	Forecast (first).	Forecast (second).
Paddy	15th October ..	17th December ..	15th February.
Indigo	14th September ..	15th December ..	..
Gingelly (early)	11th August ..	1st November ..	..
Do. (late)	22nd December ..	18th April ..	..
Cotton	11th August (first) ..	10th December ..	9th February.
	10th October (second).		

49. *Exploration for Minerals.*—Mr. Middlemiss continued his exploration of the corundum areas in Coimbatore during the year, and extended those previously commenced in Salem over a new portion of the district. During the cool season he was assisted by Mr. F. H. Smith, and the Director of the Geological Survey states these officers have largely extended the recorded occurrences of magnetite and hematite beds in the northern taluks of those districts, and have discovered several new corundum localities in the Hosur taluk. Mr. Middlemiss' reports on the magnesite areas near Salem, and on some of the corundum localities in Salem and Coimbatore, were published during the year, and, since its close, he has submitted a supplementary note which is now in course of publication. These reports are being reprinted for the Agricultural Ledger of the Government of India. Mr. Middlemiss has also revised Dr. King's Index of the important minerals found in the Presidency by the addition of information obtained from Revenue Officers, and his own observations. It is hoped that this will serve the purpose of the conspectus required by the Government of India, and the Director of the Geological Survey is being consulted as to the preparation of a working plan for future explorations.

50. *Rail-borne Trade of the Presidency.*—No change was made in the arrangements for the compilation of the quarterly and the annual returns. The latter, which are compiled from the quarterly returns, will be issued shortly with a separate review. They show that the total amount of the rail-borne trade of the Presidency during 1895-96 was the largest recorded since registration began, and was about 6 per cent. more in volume and 6.7 per cent. greater in value than in the preceding year. The increase is chiefly due to the extension of the East Coast lines. The subjoined statement summarises the figures for the last five years:—

Years.	Imports.		Exports.		Internal.		Total.	
	Amount.	Value.	Amount.	Value.	Amount.	Value.	Amount.	Value.
	MDS.	RS.	MDS.	RS.	MDS.	RS.	MDS.	RS.
1891-92 ..	7,027	5,25	4,717	3,61	27,305	19,79	39,049	28,65
1892-93 ..	7,257	5,53	5,399	4,16	24,110	20,44	36,766	30,13
1893-94 ..	7,661	5,64	6,125	4,43	25,021	21,45	38,807	31,55
1894-95 ..	8,645	6,66	6,571	4,65	30,302	27,85	46,018	39,16
1895-96 ..	8,943	6,69	7,330	4,82	32,521	30,27	48,794	41,78

* Thousands of maunds.

† Lakhs of rupees.

The increase as compared with the previous four years occurred under each group, viz., imports, exports and internal. The largest increases occurred in the internal trade, being 21.3 per cent. in volume and 35 per cent. in value. The imports from other provinces amounted to 8.94 millions of maunds, of which about 3,851,000 maunds consisted of coal and coke, almost entirely from the Nizam's Dominions, and 1,611,000 maunds of grain and pulses. Compared with the previous year, there was an increase of nearly 3,00,000 maunds or 3.4 per cent. in the volume, and 3 lakhs or nearly $\frac{1}{2}$ per cent. in the value of this trade. The increase was partly due to the increased imports of coal and partly to larger imports of oil-seeds (chiefly castors). On the other hand, the imports of grain and pulse fell off from 1,876,000 maunds to 1,610,000 maunds in the year, the decrease occurring chiefly in the imports of paddy and ragi from Mysore.

The exports to other provinces increased by nearly 759,000 maunds or 11 $\frac{1}{2}$ per cent. in volume and by 3.6 per cent. in value. The increase occurred in the exports of coal and coke to Mysore (the Kolar gold fields) and in grain and pulse; the Carnatic. The internal trade of the Presidency increased by 1,719,000 maunds or 5.6 per cent. in volume and by 242 lakhs or 8.7 per cent. in value, the increase occurring chiefly under coal and coke, stone and lime, metals, sugar and railway plant and rolling stock.

51. The distribution of the total trade of the Presidency among the different blocks into which it is divided for purposes of registration is shown below:—

Internal blocks of the Presidency.	Imports.								
	1894-95.				1895-96.				
	Foreign.	Internal.	Total.		Foreign.	Internal.	Total.		Per-centage of increase or decrease.
			Quantity.	Per-centage.			Quantity.	Per-centage.	
1	2	3	4	5	6	7	8	9	10
<i>Sea-ports.</i>	I. MDS.	I. MDS.	I. MDS.		I. MDS.	I. MDS.	I. MDS.		
1. Vizagapatam ..	3,323	799,995	803,318	2.0	6,711	1,453,006	1,459,717	3.5	+ 81.7
2. Cocanada ..	569,864	900,221	1,470,085	3.7	744,974	1,077,919	1,822,893	4.1	+ 24.0
3. Madras ..	1,321,702	5,772,914	7,094,616	18.0	1,434,904	6,633,269	8,068,173	19.5	+ 13.7
4. Pondicherry ..	17,113	1,117,211	1,134,324	2.9	6,620	717,240	723,860	1.7	- 36.1
5. Cuddalore ..	3,111	714,598	717,709	1.8	2,562	656,312	658,874	1.6	- 8.2
6. Negapatam ..	11,242	1,342,884	1,354,126	3.4	16,208	1,173,585	1,189,793	2.9	- 12.1
7. Tuticorin ..	22,909	1,187,386	1,210,295	3.1	31,803	1,222,850	1,254,693	3.0	+ 3.6
8. Calicut ..	57,554	812,215	869,769	2.2	53,078	554,228	607,306	1.5	- 30.0
<i>Internal blocks.</i>									
9. Northern Circars ..	239,878	1,257,315	1,497,193	3.8	420,663	1,235,661	1,660,324	4.0	+ 10.9
10. Kistna and Godavari ..	3,512,374	279,894	3,792,268	9.6	3,417,895	313,553	3,731,428	9.0	- 1.6
11. Deccan Districts ..	972,028	1,341,907	2,313,935	5.9	1,133,599	1,466,323	2,599,922	6.3	+ 12.3
12. Chingleput and North Arcot ..	508,411	2,294,559	2,802,970	7.1	464,096	2,295,462	2,759,558	6.7	- 1.5
13. South Arcot and Tanjore ..	78,094	4,069,809	4,147,903	10.5	107,349	3,731,313	3,838,662	9.3	- 7.4
14. Salem, Coimbatore and Trichinopoly ..	1,066,224	3,784,639	4,850,863	12.3	888,519	4,531,424	5,419,943	13.0	+ 11.7
15. Madura and Tinnevely ..	99,939	4,393,689	4,493,628	11.4	89,793	4,647,586	4,737,379	11.4	+ 5.4
16. Malabar ..	161,426	733,023	894,449	2.3	123,993	807,372	931,365	2.2	+ 4.1
Total ..	8,645,192	30,802,259	39,447,451	100.0	8,942,767	32,521,123	41,463,890	100.0	+ 5.1

Internal blocks of the Presidency.	Exports.									
	1894-95.				1895-96.					
	Foreign.	Internal.	Total.		Foreign.	Internal.	Total.		Per-centage of increase or decrease.	
			Quantity.	Per-centage.			Quantity.	Per-centage.		
11	12	13	14	15	16	17	18	19		
<i>Sea-ports.</i>	I. MDS.	I. MDS.	I. MDS.		I. MDS.	I. MDS.	I. MDS.			
1. Vizagapatam ..	8,499.	859,800	868,299	2.3	953	897,485	898,438	2.3	+ 3.4	
2. Cocanada ..	46,966	354,590	401,556	1.1	185,771	317,789	503,560	1.3	+ 25.4	
3. Madras ..	3,033,410	3,705,356	6,738,766	18.0	3,589,863	4,231,019	7,820,882	19.6	+ 16.0	
4. Pondicherry ..	1,482	62,870	64,353	0.2	1,936	44,897	46,833	0.1	- 26.5	
5. Cuddalore ..	1,014	942,977	943,991	2.5	1,643	854,586	856,229	2.1	- 9.2	
6. Negapatam ..	2,779	1,114,206	1,116,985	3.0	1,815	932,514	934,329	2.3	- 16.3	
7. Tuticorin ..	949	1,735,606	1,736,555	4.6	461	2,278,179	2,278,640	5.7	+ 31.2	
8. Calicut ..	49,425	559,715	609,140	1.6	60,031	717,707	777,738	1.9	+ 27.6	
<i>Internal blocks.</i>										
9. Northern Circars ..	33,247	1,322,868	1,356,115	3.6	40,513	2,309,406	2,349,919	5.9	+ 73.2	
10. Kistna and Gôdâ- vari ..	666,384	1,199,614	1,865,998	5.0	888,193	1,188,944	2,077,137	5.2	+ 11.3	
11. Deccan Districts ..	1,022,612	2,188,460	3,211,072	8.6	892,786	2,804,820	3,697,606	9.3	+ 15.1	
12. Chingleput and North Arcot ..	382,428	4,761,416	5,143,844	13.8	400,023	5,318,443	5,718,466	14.3	+ 11.2	
13. South Arcot and Tanjore ..	139,405	5,332,964	5,472,369	14.7	169,073	4,461,874	4,630,947	11.6	- 15.4	
14. Salem, Coimbatore and Trichinopoly ..	867,671	3,553,270	4,420,941	11.8	763,491	3,048,014	3,811,505	9.7	- 11.5	
15. Madura and Tinne- velly ..	6,129	1,886,994	1,893,123	5.1	4,707	1,757,739	1,762,446	4.4	- 6.9	
16. Malabar ..	308,325	1,221,552	1,529,877	4.1	328,327	1,357,707	1,686,034	4.3	+ 10.2	
Total ..	6,570,725	30,802,259	37,372,984	100.0	7,329,586	32,521,123	39,850,709	100.0	+ 6.6	

The marked features are a falling off of the imports into Pondicherry and Calicut, and the development of the imports into the two northern sea-ports; a falling off in the traffic inland from Pondicherry, and the development of that from Cocanada, Tuticorin and Calicut; the enormous increase in the exports from the districts lying north of the Gódvári, but a slackness in those from all the districts lying to the south of Madras.

52. *Road Traffic*.—Out of the twenty-six stations selected during 1894-95, at which traffic was ordered to be registered for a continuous period of three years, the work at seventeen stations was completed for the prescribed period, and fresh stations in their stead were selected during the year. Since the introduction of the above system during 1893-94, registration has been completed for the full period at nineteen stations in all. The registry of traffic at Dáchépalli in Kistna district, one of the seventeen originally selected for registration purposes, was, on the recommendation of the Superintending Engineer, given up in favour of Pidugurella in the same district, as the Collector was of opinion that it would be more useful to have the registration carried on at the latter station.

The table below shows the different roads and stations where traffic was registered during 1895-96:—

District.	Description of the roads.	Registering stations.	Years completed.
Ganjám ..	Aska road ..	(1) Russellkonda .. (2) Purushottapur .. (3) Iyengalli ..	1890-91, 1895-96.
Vizagapatam ..	Vizianagram-Párvatipuram ..	(4) Párvatipuram .. (5) Ramabhadrapuram ..	1890-91, 1894-95 and 1895-96.
Kistna ..	Guntúr and Hyderabad ..	(6) Pidugurella .. (7) Kavali ..	1890-91, 1895-96.
Nellore ..	Cumbum to Ongole ..	(8) Chinnarikutla .. (9) Lingamgunta ..	1893-94 to 1895-96.
Cuddapah ..	Nellore and Badvel ..	(10) Sangam .. (11) Badvel .. (12) Karúr ..	1891-92, 1895-96. 1888-89, 1895-96.
Coimbatore ..	Trichinopoly to Palghat via Kángayam.	(13) Kángayam .. (14) Palladam .. (15) Coimbatore ..	1892-93, 1895-96.
Madura ..	Dindigul-Polláchi ..	(16) Palni ..	1893-94 to 1895-96.
Tinnevely ..	Madura to Tinnevely via Srivilliputtúr.	(17) Tirumangalam .. (18) Rajapalayam .. (19) Sankaranayinarkóvil ..	1890-91, 1895-96. Do. do.
Malabar ..	Malabar and Cochin .. Calicut and South Canara .. To and from South Canara by canal.	(20) Shoranur .. (21) Quilandi .. (22) Sultan Tod ..	1893-94 to 1895-96. Do. do.
South Canara ..	Between Mysore, Wynaad and the coast, up and down the ghat.	(23) Káttaparamba ..	1892-93, 1895-96.
	Mangalore, Coorg and Mysore.	(24) Uppinangadi .. (25) Beltangadi .. (26) Puttúr ..	1893-94 to 1895-96.

APPENDIX I.
STATISTICS OF MORTALITY REPORTED AMONG CATTLE IN THE MADRAS PRESIDENCY DURING THE YEAR 1895-96.

STATISTICS OF MORTALITY REPORTED AMONG CATTLE IN THE MANDAL OF KARIMNAGAR														
Districts.	Total stock by latest census in hundreds.	Deaths due to diseases.						Deaths due to other causes.				Total deaths from all causes.		
		Rinderpest.	Diarrhoea and dysentery.	Anthrax.	Epizootic apthia.	Variola.	All other diseases.	Total.		Snake-bite.	Wild animals.	Criminal poisoning.	Number.	Rate per milles.
								Number.	Rate per milles.					
Ganjām ..	14,703	773	722	647	463	688	1,125	4,408	2.9	64	225	..	4,697	3.2
Vizagapatam ..	11,832	277	132	319	88	33	753	1,602	10.5	56	175	..	1,833	12.0
Gódvári ..	11,683	608	970	8,351	457	192	5,884	11,162	9.5	235	565	3	11,965	10.2
Kistna ..	11,459	229	402	1,036	132	315	2,942	5,056	4.4	175	134	3	5,368	4.7
Kurnool ..	6,297	1,619	156	1,022	87	17	4,578	7,479	11.9	104	501	..	8,084	12.8
Bellary ..	6,241	6,998	2,493	1,071	201	57	3,172	13,992	26.7	29	171	..	14,192	27.1
Anantapur ..	5,787	4,161	541	801	118	5	3,382	8,511	14.7	36	225	..	8,774	15.2
Cuddapah ..	10,223	778	404	664	92	87	2,082	4,107	4.0	93	710	..	4,910	4.8
Nellore ..	6,217	225	233	603	48	16	1,616	2,741	4.4	67	91	7	2,896	4.7
Chingleput ..	6,866	223	734	1,511	159	12	1,021	3,660	6.2	407	26	..	4,093	7.0
South Arcot ..	11,921	2,650	1,356	2,519	395	31	1,791	8,742	7.4	218	128	..	9,088	7.7
North Arcot ..	8,933	176	191	633	81	..	469	1,450	1.6	210	649	..	2,309	2.5
Salem ..	11,050	283	136	126	166	411	483	1,635	1.8	49	210	..	1,894	2.1
Coimbatore ..	6,918	64	133	451	110	39	2,291	3,088	2.8	108	867	3	4,066	3.7
Trichinopoly ..	9,478	57	84	182	28	..	636	897	1.5	51	51	1	1,000	1.7
Tanjore ..	6,091	434	910	1,520	222	4	1,406	4,496	4.7	196	11	2	4,705	5.0
Madura ..	4,893	150	283	1,786	142	109	1,248	2,718	4.5	131	282	..	3,131	5.1
Tinnevely ..	4,893	129	240	324	19	5	460	1,177	2.4	132	148	..	1,457	3.0
Nilgiris ..	6,777	27	22	19	15	..	66	149	2.2	12	493	..	664	9.7
Malabar ..	9,008	157	261	12	125	..	342	902	1.0	132	2,372	..	3,406	3.8
South Canara ..	7,095	1,195	340	51	211	3	330	2,130	3.0	29	2,259	..	4,418	6.2
Total ..	163,273	21,216	10,743	17,058	3,879	2,029	35,677	90,102	5.5	2,524	10,293	21	102,940	6.3
In zemindaris—	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Vizagapatam ..	Not avail- able.	114	307	247	60	34	366	1,128	..	32	57	..	1,217	..
Nellore ..	..	39	1	21	..	..	144	205	..	..	..	..	205	..
North Arcot ..	..	106	88	420	38	..	252	854	..	100	216	..	1,170	..
Total ..	..	259	346	688	98	34	762	2,187	..	132	273	..	2,592	..
Grand Total ..	..	21,475	11,089	17,746	3,477	2,063	36,439	92,289	..	2,656	10,563	21	105,532	..

APPENDIX II.

MONTHLY STATISTICS of Mortality reported among Cattle in the Madras Presidency during the year 1895-96.

Months.	Deaths due to diseases.							Deaths due to other causes.			Total deaths from all causes.
	Rinderpest.	Diarrhoea and dysentery.	Anthrax.	Epizootic apthia.	Varicella.	All other diseases.	Total.	Snake-bite.	Wild animals.	Criminal poisoning.	
April 1895 ..	1,082	759	892	384	150	2,318	5,585	195	761	..	6,541
May ..	1,673	844	1,163	244	104	2,603	6,831	175	793	1	7,800
June ..	1,316	714	1,275	305	172	3,489	7,271	184	730	2	8,187
July ..	1,635	805	2,173	213	332	4,072	9,230	275	939	1	10,445
August ..	1,360	938	2,031	304	229	3,710	8,622	266	967	1	9,856
September ..	1,216	979	1,545	415	191	3,384	7,730	289	1,031	2	9,052
October ..	1,617	992	2,180	289	189	3,784	9,051	298	1,148	1	10,498
November ..	2,581	1,350	2,026	250	291	3,664	10,162	292	1,012	3	11,469
December ..	1,704	1,116	1,556	318	170	3,071	7,935	229	1,020	1	9,185
January 1896 ..	1,995	906	1,156	331	134	2,472	6,994	200	853	..	8,077
February ..	2,375	897	714	246	58	1,832	6,122	142	659	3	6,985
March ..	2,921	789	945	178	43	1,840	6,756	112	623	6	7,497
Total ..	21,475	11,089	17,746	3,477	2,063	36,439	92,289	2,656	10,566	21	105,532

APPENDIX III.

STATISTICS of Mortality reported among Horses and Ponies in the Madras Presidency during the year 1895-96.

Districts.	Total stock by latest census in hundreds.	Deaths due to diseases.				Deaths due to other causes.			Total deaths from all causes.	
		Diarrhoea and dysentery.	Anthrax.	All other diseases.	Total.		Snake-bite.	Wild animals.	Criminal poisoning.	Rate per mille.
					Number.	Rate per mille.				
Ganjám ..	2	2	..	3	5	2.5	..	..	5	2.5
Vizagapatam ..	2	..	1	2	3	1.5	..	..	3	1.5
Gódvári ..	24	3	..	20	23	9.6	1	..	28	11.7
Kistna ..	38	1	2	4	7	1.8	4	..	13	3.4
Kurnool ..	28	1	..	24	25	8.9	1	30	56	20.0
Bellary ..	38	19	..	30	49	12.9	5	..	54	14.2
Anantapur ..	34	..	..	20	20	5.9	7	..	27	7.9
Cuddapah ..	21	..	1	16	17	8.1	9	..	26	12.4
Nellore ..	11	..	..	2	2	1.8	..	..	2	1.8
Chingleput ..	14	16	..	4	20	14.3	1	..	21	15.0
South Arcot ..	27	..	1	6	7	2.6	3	1	11	4.1
North Arcot ..	21	..	..	2	2	1.0	..	1	3	1.4
Salem ..	32	..	..	..	..	..	..	..	..	..
Coimbatore ..	49	..	..	9	9	1.8	..	8	17	3.5
Trichinopoly ..	8	..	..	2	2	2.5	..	..	2	2.5
Tanjore ..	13	..	..	2	2	1.5	..	..	2	1.5
Madura ..	19	..	..	3	3	1.6	1	11	15	7.9
Tinnevely ..	6	1	..	1	1	1.7	..	1	2	3.3
Nilgiris ..	16	..	..	10	10	6.3	..	36	46	28.7
Malabar ..	9	..	..	..	..	..	..	..	..	..
South Canara ..	2	1	..	..	1	5.0	..	..	1	5.0
Total ..	414	44	5	159	208	5.0	8	118	334	8.1
In zemindaris—										
Vizagapatam ..	..	..	..	1	1	..	..	..	1	..
Nellore ..	..	..	..	3	3	..	..	1	4	..
North Arcot ..	..	..	..	4	4	..	..	1	5	..
Total ..	..	..	..	4	4	..	..	1	5	..
Grand Total ..	..	44	5	163	212	..	8	119	339	..

APPENDIX IV.

MONTHLY STATISTICS of Mortality reported among Horses and Ponies in the Madras Presidency during the year 1895-96.

Months.	Number of deaths due to diseases.				Deaths due to other causes.			Total deaths from all causes.
	Diarrhoea and dysentery.	Anthrax.	All other diseases.	Total.	Snake-bite.	Wild animals.	Criminal poisoning.	
April 1895 ..	1	..	8	9	1	11	..	21
May ..	11	2	13	26	1	14	..	41
June ..	..	..	22	22	2	16	..	40
July ..	27	1	18	46	1	6	..	53
August ..	1	1	19	21	..	19	..	40
September ..	1	1	26	28	..	5	..	33
October ..	..	..	13	13	1	10	..	24
November ..	..	..	16	16	1	6	..	32
December ..	9	..	7	16	..	14	..	22
January 1896 ..	3	..	4	7	1	3	..	11
February ..	..	..	8	8	..	14	..	18
March ..	1	..	4	5	..	1	..	16
Total ..	44	5	163	212	8	119	..	339

ORDER—No. 701, Revenue, dated 8th December 1896.

Miscellaneous.

With the Proceedings read above, the Board of Revenue submits its report on the operations of the Department of

Land Records and Agriculture for the year 1895-96.

2. As will appear from the Board's introductory remarks, several important questions having reference to the administration of the Department were under consideration during the year under review, some of which were referred to a Committee of experienced officers specially appointed for the purpose of discussing them at conferences held with Sir Edward Buck during that officer's visit to Madras in November and December 1895. The recommendations of these Committees as well as the conclusions arrived at by His Excellency the Governor in Council in connection therewith have since been placed before the Government of India.

3. *I. Organization and maintenance of village records.*—Of the questions at present engaging the attention of His Excellency in Council, one of the most important is that which relates to the reorganization of the Survey Department in consequence of the fact that initial survey operations have now been almost completed in this Presidency. The Board of Revenue has recently submitted detailed proposals on the subject drawn up in consultation with the Superintendent of Revenue Survey. The chief object of these proposals is to make adequate provision for the maintenance in the future of the land records which have already been prepared with the aid of the Survey Department. Pending the issue of orders on the Board's scheme, the maintenance of these records will continue to devolve partly upon the special staff detached from the regular establishment of the Survey Department for this purpose in 1894-95, which is working under the control of the Superintendent of Survey, and partly upon the Deputy Director of Land Records and Agriculture and the district Revenue officials, whose work is supervised by the Board of Revenue. The work of the special staff of Survey officers has been fully dealt with in the annual administration report of the Survey Department which has been reviewed at length by Government in separate proceedings. The only points which now require notice thus relate to the work of the Deputy Director, Mr. C. Benson, and of the Revenue officers generally throughout the Presidency. The Government notes with satisfaction that Mr. Benson has devoted a large portion of his time to the inspection of village and taluk accounts and that, in addition to performing substantial work in this direction and to advising the Board and

Government on matters in regard to which his opinion as an agricultural expert was required, he has been able to formulate proposals for the revision of the existing forms of village and taluk accounts. Mr. Benson's inspections go to show that Divisional officers, Tahsildars and Taluk Head Accountants should devote closer attention to the maintenance of these important accounts, but the Board has no doubt already issued instructions to Collectors on the subject and there is no necessity for Government to dwell further upon it.

4. *II. Analysis of districts.*—Considerable progress appears to have been made in the preparation and checking of the village statistical registers and firka books; but it is evident that this important work is still behind-hand in the majority of districts. It is however satisfactory to notice that this remark does not apply to the Ceded districts in which the subject of famine analysis is of special importance. Further comment on the matter will be deferred pending the receipt of the Board's Jamabandi report, but it may here be remarked that proposals have recently been made to the Government of India in view to the simplification of the somewhat cumbrous firka books at present in use and that orders have recently been issued directing the discontinuance of the annual reports hitherto submitted regarding the economic condition of the several districts. It has been decided that if one complete report of this description is available for each district, there is no necessity to require the submission of information of this character more frequently than once in every ten years provided that the District officers keep a careful watch for unusual fluctuations in the economic condition of their charges.

5. *III. Collection of Revenue in precarious tracts.*—Elasticity in the collection of land revenue was one of the subjects referred by the Government of India for discussion with Sir Edward Buck. The main conclusion arrived at by the conference and endorsed by His Excellency the Governor in Council was that in the Madras Presidency the remission rules embodied in the Board's Standing Order provide sufficiently for such relaxation in the demand as may from time to time be necessary in special tracts. The working of these rules during the year under review will be dealt with more fully in the Board's Jamabandi report and calls for no comment in this order.

6. *IV. Measures of protection.*—Paragraph 17 of the report which relates to the extension of railway communications describes the Nilgiri Railway as "81 miles" in length; "81" is presumably a printer's mistake for "18."

The progress made with the East Coast Railway and Rushikulya and Periyar Irrigation Works has been separately dealt with by the Public Works Department and the subject of advances to agriculturists will be reviewed when the Board's Jamabandi report is submitted.

7. *V. Agricultural experiments.*—Many of the matters referred to in this section of the report, e.g., those mentioned in paragraphs 23, 24 and 32, have already been discussed in separate proceedings issued from time to time during the year, and such portions as relate to the working of the College of Agriculture have already come in a more detailed form before the Educational Department. But few comments are therefore necessary in these proceedings.

The general question of the future of agricultural education and experiment so far as this Presidency is concerned has been carefully considered by a Committee and the conclusions arrived at by Government in regard to the recommendations made by the Committee have been placed before the Government of India. Orders have also been issued directing the immediate establishment of one experimental farm either at Coimbatore or Bellary upon the success of which will depend the question whether similar institutions should be established in other parts of the Presidency.

It is satisfactory to note that the conduct of crop experiments by Revenue officers was such as to lead the Board to anticipate considerable improvement in the accuracy of the results of the next set of experiments.

The introduction of a superior pattern of plough in Kurnool should continue to engage the attention of the Board and the District officers.

The issue of orders on the question of resuscitating agricultural exhibitions in mufassal districts to which reference is made in paragraph 32 of the report has been held over pending the promulgation of the policy finally decided upon by the Government of India in regard to the extension of agricultural education.

The question of destroying prickly-pear growth by means of the cochineal insect is now under investigation by Dr. Bourne of the Presidency College.

8. *VI. Cattle-breeding and Veterinary establishment.*—The administration of the Civil Veterinary Department has already been separately reviewed by Government, but the Board's report contains further information on the subject of cattle disease and mortality. The year was marked by the discontinuance of the attempt to register the deaths of cattle from natural decay and accidents, while registration was entirely given up in the case of sheep and goats. This was decided upon in view of the great difficulty of obtaining reliable information and the fact that the reports compiled were so materially inaccurate as to be of little value.

9. *VII. Miscellaneous.*—As the Government of India has recently deputed Mr. Holland to assist Mr. Middlemiss, more rapid progress in the localization and examination of valuable mineral deposits may be expected in the future than has been possible in the past.

The variations of trade are scrutinized every quarter by the Director-General of Statistics to the Government of India and call for no criticism in these proceedings. The most striking feature of the year may however be noticed; namely, the enormous increase in the exports from the districts lying north of the Gôdâvari.

(True Extract.)

(Signed) G. STOKES,
Ag. Secretary to Government.

To the Board of Revenue (Revenue Settlement, Land Records and Agriculture).
" the Educational Department.
" the Board of Revenue (Land Revenue).

Endorsement No. 701A.

Copy to the Government of India, Revenue and Agricultural Department.

(Signed) G. STOKES,
Ag. Secretary to Government.

RESOLUTION—dated 11th January 1897, No. 22.

Communicated to the Deputy Director, Land Records and Agriculture, and to all Collectors for information.

2. The attention of Collectors will be drawn to the remarks of Government in the concluding sentence of paragraph 3 of the above order and they are requested to again impress on their Divisional Officers, Tahsildars and Taluk Head Accountants the importance of exercising close supervision in the maintenance of the village and taluk accounts.

3. The remarks in paragraph 7 of the Government Order regarding the introduction of superior ploughs in Kurnool should be noted by the Collector of that district.

4. With reference to paragraph 6 of the Government Order it is observed that the length of the Nilgiri Railway was, by a clerical error, wrongly entered as 81 instead of 16.81 miles.

(True Copy and Extract.)

Secretary.

To the Deputy Director of Land Records and Agriculture.
" all Collectors.

" the Superintendent, Civil Veterinary Department.

Copy to the Secretary to Government, Revenue Department.

Enl. M1. Pahlivan.

REVENUE DEPARTMENT.

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