APPENDIX

TO THE

Appropriation Accounts of the Central Government (Civil) for the year 1929-30

CONTAINING

ACCOUNTS AND REVIEWS OF GOVERNMENT COMMERCIAL CONCERNS.

COMPILED BY
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TO THE

Appropriation Accounts of the Central Government (Civil) for the year 1929-30 containing Accounts and Reviews of Government Commercial Concerns.

CHAPTER I.

SECTION 1.

1. The first Commercial Accounts Appendix to the Appropriation Accounts of the Central Government was prepared for the year 1928-29. It was explained in the opening chapter of that volume that its existence was due to the expressed desire of the Hon'ble the Finance Member that more detailed information about commercial or quasi-commercial concerns of Government should be placed before the Public Accounts Committee. The Finance Member desired that this appendix should contain information of a nature usually communicated to the shareholders of a company in the report of the Directors and in the Chairman's speech when the latter intend to take the former fully into their confidence. The Director of Commercial Audit undertook the preparation of the complete appendix for 1928-29 but under the new arrangement information relating to each concern for the year 1929-30 has been prepared partly by the Superintendents in charge of concerns and partly by the Director of Commercial Audit by whom the volume has been compiled.

2. Section 1 of this opening chapter deals with some general comments relating to the accounts of Government commercial concerns. Section 2 deals with general questions relating to the audit of the accounts of these concerns for the year 1929-30. Chapters (II) to (VI) deal with the working results of Government concerns grouped according to the department of the Government of India which controls the concerns. In every case information is given in the following order :—

(1) Brief history and purpose of the concern.

(2) A review of the working for the year 1929-30 prepared by the Officer in charge of the concern.

(In some cases information relating to (1) and (2) is given in one review).

(3) Remarks of the Director of Commercial Audit on the audit of the accounts of the concern for the year.

(4) Manufacturing and/or Trading and Profit and Loss Accounts and Store Account for the year and Balance Sheet at the end of the year.

This appendix contains reviews only of those Central concerns with the audit of the accounts of which the Commercial Audit Branch is concerned.

3. It is a recognised fact that the Indian Government system of accounts is unsuitable for recording and controlling the transactions, and presenting at any time the true state of affairs, of the Government commercial undertakings. This led to the formation, in March 1928, of the Commercial Audit Branch of the Indian Audit Department. The origin of the Branch and its organisation during the early stages of its work was fully explained in the opening chapter to last year's appendix. There are now six circle offices working under the Director of Commercial Audit with headquarters at Calcutta (2 circles), Madras, Rangoon, Nasik Road and New Delhi.

4. The work has been sub-divided among the several circles on a territorial basis. There are now one hundred and forty concerns under the half-yearly or annual audit of the Commercial Audit Branch. This number includes as one concern some large undertakings where the audit staff had to visit many offices, examples being the Calcutta Port Trust which maintains accounts in fifty offices and the Bombay Government Distillery at Nasik Road which has many warehouses. Arrangements are being made whereby this branch will, in the near future, take over the audit of the accounts of fifty-four Government Presses and about twelve miscellaneous concerns including the Madras Port Trust.

5. Government accounts differ from accounts in commercial form in several important aspects. The most important differences are that Government accounts record only Receipts and Payments. They make no attempt to distinguish between actual Income and Expenditure applicable to a period and they do not, in many cases, incorporate the results of the Government inter-departmental transactions. It is true that commercial accounts for a period can be compiled from Government accounts by taking into consideration the debit and credit outstanding accounts at the beginning and the end of every trading period, increases or decreases in stores and stock at the end as compared with the beginning of the period and indirect charges, under several heads which do not appear in the Government accounts. Although Manufacturing, Trading and Profit and Loss Accounts and Balance Sheets in commercial form can be prepared from the Government accounts, supplemented by records maintained by a concern relating to fixed assets, stores and labour payments, the fact still remains that there are certain difficulties in the way of managing a commercial concern under the Government system of accounts and finance. The first difficulty arises from the nature of the system of budget control which has to be applied to the generality of public transactions, and the second is that all receipts must be credited at once into the Government account at the treasury and may not be utilised to finance expenditure. In the management of a commercial concern it is frequently desirable to take advantage of a favourable market to purchase raw material but this might be quite impossible if the powers of the Superintendent of the concern in regard to expenditure were limited by the ordinary rules of budgetary control. A special system has therefore been devised to give flexibility to financial arrangements for a Government commercial concern and the rules governing it are prescribed in Chapter 2 of the Account Code. It provides for the practically complete emancipation from the ordinary form of budget control of the Superintendent of a Government commercial concern to which the system is applied, for his being given working capital, and for his being allowed to recoup his working capital by utilising receipts. Parliamentary control is provided by certain links between the accounts of the concern and Government accounts, the result being that the Legislature can always control both (1) the investment of capital in the concern, and (2) the general working of the concern itself as the final profit or loss is recorded in the Government accounts, and due provision has to be made for the estimated figure in the budget. Clearly there must be safeguards in the application of such a system and these have not been omitted. The Chapter 2 arrangement is not applied to a Government commercial concern as a matter of course; it is sanctioned by the Auditor General only after careful enquiry and after he is satisfied that (1) Government has prescribed a suitable schedule of powers which the Superintendent of the concern must observe, and (2) a proper system of commercial accounts has been installed.

6. The majority of the Government commercial concerns have not yet been brought under the rules in Chapter 2 of the Account Code. At non-Chapter 2 concerns commercial books to record cash, stores and costing transactions are maintained in addition to the ordinary Government accounts to facilitate the preparation of Manufacturing, Trading and Profit and Loss Accounts and Balance Sheets. In such cases the Commercial Audit Branch audit the commercial accounts only. Non-Chapter 2 concerns prepare and present bills on the treasury for their expenditure like any Government office and they pay their receipts into the treasury. In the commercial accounts of the concern, "Withdrawals from the treasury" and "Remittances into the treasury" are accounted for, and at the close of the year these accounts are closed by credit and debit to "Government Capital Accounts"; for whatever Government pays to a concern increases the capital invested by Government in it and whatever money is returned by the concern decreases the capital invested by Government in the concern. Such concerns cannot be considered to have any specific working capital. When at the end of a year, the Profit and Loss Account is drawn up, the net profit is added to the Government Capital Account and so also are any liabilities of the concern to Government for leave, pension and passage contributions on account of permanent employees, bonus for provident funds, audit fees, interest and depreciation charges.

7. It will therefore be seen that Government Commercial concerns come under two categories—(a) those for which *pro forma* accounts are prepared and (b) those coming under the rules in Chapter 2 of the Account Code. The Central concerns in category (a) are—

1. His Majesty's Mints, Bombay and Calcutta.
2. Imperial Institute of Animal Husbandry and Dairying, Bangalore.
3. Imperial Institute of Animal Husbandry and Dairying, Wellington.
4. Imperial Cattle Breeding Farm, Karnal.
5. Agricultural Research Institute, Pusa.
6. Imperial Institute of Veterinary Research, Muktesar.
7. Government Research Creamery, Anand.
8. Opium Factory (Cost accounts), Ghazipur.

9. Northern India Salt Revenue Department (Manufacturing Department), Delhi.
10. Indian Lighthouse Administration (Headquarters and Lighthouse Districts).
11. Bengal Pilot Service, Calcutta.
12. Mathematical Instrument Office, Calcutta.
13. Photo Litho Office, Calcutta.
14. Map Record and Issue Office, Calcutta.
15. Forest Department, Andamans.
16. Commissariat Department, Andamans (Butchery, Bakery, Dairy, etc.).
17. Marine Department, Andamans.
18. Shipping Office, Andamans.

The following has been brought under the rules in Chapter 2 of the Account Code—category (*b*)—

The Security Printing, India, including the Central Stamp Store, Nasik Road.

8. The Manufacturing and/or Trading and Profit and Loss Accounts and Balance Sheets given in this volume have been prepared on the principles that are adopted in ordinary commercial accounting practice and it is not necessary to explain to the members of the Public Accounts Committee in detail the nature of all the items to be found in them. It is always borne in mind that if such accounts are to be really intelligible each item, however small, should be self explanatory or accompanied by an explanation. It might, however, be useful to offer a few remarks on the more important points to be considered when examining these accounts. It will be seen that in certain respects the accounts differ in form of presentation. It is not possible to prepare forms which would be suitable for the many types of Government commercial concerns. The majority of these concerns are manufacturing concerns. They purchase raw material for conversion, after perhaps going through many processes, into finished articles for issue to other Government Departments or for sale to the public. The raw materials differ so much in nature that no standard form can be laid down as being applicable to all cases.

9. The Manufacturing and Trading and Profit and Loss Accounts are the statements which demand the most careful attention. They present the result of the actual working of a concern for a period as opposed to its financial position at any given date. When examining such accounts the main point is to ascertain if a concern is making all the profit it should after taking into consideration educational and research activities, if any. Where the concerns have an educational and research side, as for example in the Farms, efforts have been made to show as far as possible the financial results of these activities separately from the commercial activities. The indirect charges include interest, leave and pension contributions and provident fund bonuses, audit fees, supervision and direction charges. In special cases and under orders of Government these charges have not been shown in the body of the accounts but in footnotes. Interest is charged at 3·3252 per cent. on all Capital expenditure up to the end of 1916-17 and for subsequent capital expenditure at the average rate at which Government has borrowed money up to the year of account. The supervision and direction charges are calculated on the average estimated time spent on the concern by the supervising officers. For the purposes of calculating leave and pension contributions, the concern is treated as if it were foreign service. Miscellaneous receipts and extraordinary receipts and charges not relating to the period of working are also shown separately in the accounts so that the net result of the year's working may better be exhibited. The costs of production are wherever possible extracted and commented upon. Before, however, a conclusion can be reached as to the efficiency with which a Government concern is working, the results shown have to be considered with reference to the policy of Government in the case of that particular concern.

10. A Manufacturing Account is an account drawn up to ascertain the cost of manufacture and deals with (1) Cost of raw materials, (2) Cost of bringing these materials to the factory, (3) Cost of labour employed in converting these materials into finished goods, (4) Expenses such as rent, rates and upkeep of factory, (5) Repairs to, upkeep of, and depreciation on Buildings, Plant and Machinery *and* (6) Motive Power.

11. A Trading and Profit and Loss Account is a statement prepared for the purpose of showing, firstly, what is the Gross Profit realised on goods sold after charging the cost of rendering such goods marketable and, secondly, the amount of Net Profit earned after charging general administration and office expenses *plus* interest on Capital. Three general questions to be considered are :—

(1) Is the Gross Profit, *i.e.*, the margin between the works cost *plus* selling expenses and selling price sufficient in amount to provide for necessary general expenses and for net profit ?

(2) Are the expenses, taken as a whole, justified by the size of business ?

(3) Are the percentages of Gross Profit and Net Profit on sales sufficiently high and are those percentages fairly constant ?

12. In comparing the gross profit of one year with that of another it is true, theoretically, that the ratio of gross profit to sales is not affected by the amount of these sales. But in practice, the amount of sales does affect the ratio. The explanation is that if a concern is equipped for a given normal output the prime cost per article on a maximum output will be somewhat less than the corresponding prime cost of an output of 75 per cent. of the maximum. This is not a question of standing expenses ; it is one of pure prime cost. When working at full capacity it is usual that the workers work at their best. When, therefore, it is noticed that with slack times the rate of gross profit goes down the explanation is not necessarily that prices have gone down, but it is probable that with slackness has come a falling off in the efficiency of the factory as a whole. Gross profit shows clearly the margin between works cost *plus* selling expenses and selling price but it does not show, and cannot show, how the buying and selling respectively contribute to this result. If the rate is very low this may be due to bad buying or wasteful use of labour or material which are matters affecting the producing side of the accounts or it may be due to selling at too low a price. In practice a small gross profit is often due to all these faults. Directly the accounts for several years are put together and compared, a great deal of additional light is let in upon the concern, and much valuable information obtained.

13. Expenses which appear in the Profit and Loss Account have also some relation to turnover but not that close and direct relation which works cost of manufacture has. For example, rent, salaries and general office expenses are not materially affected by an ordinary increase or diminution in the year's sales. They have to be paid irrespective of the value of the year's receipts. To show therefore the exact proportion which each item in the Profit and Loss Account bears to sales or to purchases or to labour gives little information which leads to useful action. Nevertheless, the various headings in the Profit and Loss account should be compared with corresponding figures for previous years. Where comparative Profit and Loss accounts for two or three years are prepared there is no limit to the questions which may be asked on the accounts. All important fluctuations should be noted and if a question does not always hit the intended mark it sometimes calls forth other information equally valuable.

14. A Balance Sheet is a classified summary of the debit and the credit balances remaining in the ledgers after the Manufacturing and Trading and Profit and Loss Accounts have been prepared. On one side it contains the assets of the concern and on the other the liabilities, capital, reserves and the balance, if any, at the credit of Profit and Loss Account. It might be useful to offer a few remarks on some of the important items special to the Balance Sheets of Government commercial concerns.

Government Capital Account.—When it is decided to introduce commercial accounts in a Government concern the first step taken is to value all its assets and to ascertain all its liabilities on that date. The difference between the aggregate of the values of the assets and the aggregate of the liabilities is taken to the head "Government Capital Account". The commercial books are opened by debiting the several asset accounts and crediting the liability and "Government Capital" accounts. The procedure adopted thereafter with regard to receipts and payments of the concern varies according to whether the concern works under the rules in Chapter 2 of the Account Code or not.

Government (Suspense) Account.—This occurs on the Liability side, of the Balance Sheets of Chapter 2 concerns. The amounts payable by a concern to Government on account of interest on capital, leave, pension and provident fund contributions, audit fees, etc., are taken to this head by debit to the Profit and Loss Account. The concern either discharges this liability by issuing a cheque in favour of Government on its Personal Ledger Account or the Accountant General, on receipt of a copy of the Balance Sheet, withdraws the amount from the Personal Ledger Account and intimates the fact of the withdrawal to the concern so that the necessary account entries in connection with the reduction in the balance of the Personal Ledger Account may be made.

Depreciation Reserve.—In the Balance Sheets included in this Appendix the fixed assets are, as a general rule, shown at their original value or at their value at the time of the inauguration of the commercial accounts in the concerns. The depreciation provided for them is taken to the head "Depreciation Reserve". The depreciation is usually written off on the "Straight line" method, and a register of all the assets, showing the details of the depreciation provided on each asset working up to the total of the reserve in the Balance Sheet, is maintained in the concern. The rates of depreciation have been fixed on the assumption that all ordinary maintenance and repair charges will be debited to revenue and the sanction of competent authority is taken before any amounts are debited to depreciation reserve on renewals and replacements.

Land.—The amounts shown under this head include only amounts actually paid by Government for land and do not include any value for lands for which Government itself had not to pay though such lands may now be worth a considerable amount.

Other Fixed Assets.—As in ordinary commercial practice, the value placed in the Balance Sheets on these assets is the amount ascertained actually to have been spent on them or, where the actual value is not available, an estimate of the amount spent. Where a different basis of valuation, *e.g.*, cost of present replacement with due regard to the condition of the asset, has to be adopted for special reasons, the orders of competent authority are obtained. The market value of these assets at any time will differ from the value at which these assets are shown in the Balance Sheet.

Live Stock.—This is generally valued by a competent technical expert who is not immediately in charge of the concern. Appreciation as well as depreciation is taken into account.

Floating Assets.—Floating Assets such as consumable stores, stock in trade, work in progress, etc., are valued with reference to market price or cost price whichever is less. Stock-taking, as far as possible by an agency independent of the concern, is insisted on and it is seen that orders of competent authority are obtained for writing off the value of unserviceable and lost stores.

15. There is not usually much to comment on in a Balance Sheet. This statement does not show whether or not assets such as buildings are well situated and suitable for their purpose, but in the case of buildings one may form some idea as to whether a rent based on their value is, or is not, too large a charge for the business to bear. It should be ascertained what charge has been made against Revenue in each year by way of depreciation and upkeep of buildings and other fixed assets. General points to consider in a Balance Sheet are :—

(*a*) Are the fixed assets suitable to the business both in character and value ?

(*b*) Does the business justify large additions to fixed assets ?

(*c*) Is the quantity of stores on hand maintained at a proper level and unnecessary accumulations avoided thereby diminishing the necessity for writing off stores which become obsolescent or depreciate in one way or another ?

(*d*) What is the relation between the amount of the Debtors and the amount of the Creditors ? It is generally accepted that book debts should exceed in total the trade liabilities. If credit sales exceed credit purchases (as they generally do) the value of the debtors accounts should exceed the value of the creditors.

SECTION 2.

16. The audited accounts of the following concerns appear in the appendix for the first time :—

(1) Indian Lighthouse Administration which includes the following Lighthouse Districts :—

Karachi, Bombay, Aden, Madras, Rangoon and Calcutta.

(2) Commercial concerns in the Andamans :—

Forest Department,

Marine Department,

Shipping Office,

Commissariat (Bakery, Butchery and Dairy Farm).

17. (*a*) It will be seen that the accounts for the Opium Department for the two years 1928-29 and 1929-30 have been included in this volume. The Opium manufacturing year is from 1st October to 30th September. It was not possible to include the accounts for 1928-29 in the appendix for that year as the audit had not been completed by the time the volume had to go to press.

(*b*) Full details of manufacturing charges of the Northern India Salt Revenue Department have now been given together with the corresponding figures for the previous year (*vide* para. 152).

18. The accounts of the following new concerns were commercialised during the year 1930-31 and the first annual accounts will appear in the 1930-31 appendix :—

1. Currency Note Press, Nasik Road (under the Rules in Chapter 2 of the Account Code).
2. Indian State Broadcasting Service.
3. Indian State Air Service.
4. The Imperial Veterinary Serum Institute, Izatnagar.
5. Office of the Sugarcane Expert, Coimbatore.

19. In respect of practically every concern the accounts for the years 1928-29 and 1929-30 are given in this volume and in many cases comparative figures for earlier years are given in the reviews under the heading " Summary of results ". In paragraph 12 of the report of the Central Public Accounts Committee on the accounts of the year 1928-29 the Committee made it clear that what they want is a comparison of the results of a series of years including those of the latest year for which audited figures can be made available. Provided the Public Accounts Committee meetings are in future held not earlier than August in each year it should be possible to complete the audit of a few of the Government of India concerns for the latest financial year, *viz.*, for the year immediately preceding that during which the Public Accounts Commit ee meets and to furnish the required information in the form of a memorandum to the Public Accounts Committee. As the Appendix containing accounts and reviews is sent to press in the month of Janua y following the year to which the Appendix relates it is not feasible to incorporate the figures for the next financial year in the Appendix. A Memorandum in the following form giving figures in respect of accounts for 1930-31 which have been audited will, however, be furnished to members of the Public Accounts Committee :—

Name of concern.................

Grant No.............

Particulars.	Year 1930-31 (latest financial year).	Year 1929-30 as per Appendix.	Brief notes on important fluctuations.
Turnover			
Gross $\frac{\text{Profit}}{\text{Loss}}$			
Percentage of Gross $\frac{\text{Profit}}{\text{Loss}}$ to turnover.			
Net $\frac{\text{Profit}}{\text{Loss}}$			
Percentage of Net Profit to turnover .			
Cost of Production (of certain important Products).			

20. One of the most noticeable charges appearing in the accounts and referred to in the reviews which follow relates to the important item " Loss on Stores ". This indicates that in the past sufficient attention has not been directed to control over waste and leakage. In every concern it is practicable to maintain a reliable record of stores and stock and to enforce safe control and the Commercial Audit Branch invariably place before Government the indisputable advantage of such a course. Although efforts have been made to improve control over stores and stock it is doubtful if the real importance of watching the stores and transactions thereon very carefully is yet fully realised by some Superintendents in charge of concerns. The importance cannot be overestimated, especially when stocks are very large. In the majority of cases the items written off during 1929-30 represent losses which doubtless might have been spread over several years if stock-taking and general control had been more reliable in the past. A portion of the loss may have been unavoidable but as this question arises in the majority of concerns when accounts are first commercialised and local audits conducted by the Commercial Audit Branch the point deserves comment. Stores losses frequently come under the preventable category. It is known that the value shown against stores in more than one Balance Sheet is still higher than it should be and it is probable that further losses will appear in the accounts for 1930-31. If Stores and Stock are considered as of the same importance as cash and accounted for with equal care there will be fewer debits in the accounts in respect of losses due to theft, breakages, shrinkage, evaporation, obsolescence, over-production or over-purchase.

21. However safe a system of stores accounting may be losses will occur if internal control is not equally sound. Superintendents should make it their business to take a greater personal interest in the stores for which they are responsible. Apart from annual stock-taking and periodical checking by some one—preferably unconnected with the concern—the Superintendents should visit their stores at frequent intervals and make a physical check of a few items. It may not be realised that the accuracy of the quantities and valuation of stores and stock in hand has an important effect on the ascertainment of true trading profits. If stores are over-valued at the end of a trading period profits for the period must be overstated and costs of production will be erroneous. Equally important is the fact that when errors are discovered in a subsequent period the results then disclosed will not fairly represent the profit or loss for that period. The comparison of percentages of Gross Profits to turnover is a general check against fraud and losses in stores and variations in the method of valuation have an important effect on such percentages. These percentages will vary from time to time at every concern but this should be within reasonable limits—period by period—always considering cases where the trade is seasonal.

22. In the majority of Government commercial concerns losses on stores are written off from time to time and attention might be directed to securing greater stores supervision and accuracy in maintaining the records. Purchases should be restricted to actual requirements to avoid locking up stores unnecessarily and above all it must be realised that material is money. The general principles are laid down in the Manual of the Commercial Audit Branch copies of which should be in the office of every Government commercial concern.

23. Closely allied to the question of losses on stores referred to in the preceding paragraphs is that of the annual verification of stores and stocks by an agency unconnected with the concern. The question of the desirability of appointing general stock-verifiers has been engaging attention for some time. Stock-verifiers have been working for one Provincial Government for several years. Departments of Government controlling concerns and Superintendents of concerns were addressed on the matter and almost without exception they did not support the proposal, their reasons being that concerns under the Government of India or Provincial Governments were too scattered and of too varied a nature to justify the adoption of the system. It has also been pointed out that it would be difficult to find men possessing the necessary wide technical knowledge and that Government might not entertain such a proposal because the men would doubtless demand a high salary. In the Province referred to above stock-verifiers work mainly at concerns situated in one locality where they deal with stock at Public Works Department Stores, Dockyards, Dredgers, Quarries, Brickfields, etc. Although there are practical difficulties in the appointment of one or more stock-verifiers such appointments are welcomed by audit. If suitable men could be found it has been suggested that they might be made responsible to the Finance Department of the Government of India but the Director of Commercial Audit could be consulted in regard to their work programmes. It is doubtful, however, whether the right men are available.

24. At certain Government of India commercial concerns stock is taken and valued annually by an official either unconnected with the concern or sent from the office of the Government department controlling the concern, but in other cases the necessary check is made by the Superintendent in charge of the concern or by one of his staff deputed for the purpose. The Commercial Audit Branch now require a certificate from Superintendents stating that all items of stocks and stores of any description whatever have been verified on some date or dates during the period under audit and that the stores and

stock on hand as at the close of business on the last date of the trading period have been valued at cost or market price whichever is lower and that they consist of serviceable stores required for use. It is not part of Auditors' duty to take stock. He is justified in relying upon the certificates granted by experts. Certificates are accepted but not without examination and enquiry and the application of such tests as are available, not merely as a safeguard against dishonesty but to ensure that errors of principle in regard to valuation have not been made. It will be seen that the auditor is to a large extent in the hands of the management but the cost records and the comparison of the percentages shown by the accounts of other trading periods provide an independent check which may lead the auditor to the conclusion that the stock valuations are unsatisfactory. It is not possible to methodise stock-taking owing to great differences in the form of raw material used at the various concerns and in the stores either consumed or otherwise used in converting these raw materials into finished products.

25. Minor losses have also taken place at a few concerns on sale of old Plant, Machinery and Furniture due to the inadequacy of depreciation written off in the past. On the other hand there are instances this year of capital assets having been fully depreciated while these assets will probably have a future working life of several years, meaning, of course, that depreciation has been written off at too high a rate. These points affect profit percentages. It is a difficult matter for auditors to satisfy themselves that depreciation rates on special plant and machinery are suitable and to prevent over or under debits in the accounts in respect of depreciation the Superintendents of concerns have been asked to consider the rates of depreciation adopted for writing down their assets every two years and in consultation with the Commercial Audit Officer obtain the necessary authority for changing the rates where found desirable.

26. An audit certificate in the usual form is ordinarily given by the Audit Officers of this Branch on the Balance Sheet of each concern the accounts of which are audited by them. The certificate is given below and to avoid repetition it has not been printed at the foot of each Balance Sheet in this volume.

"I certify that I have obtained all the information and explanations that I required and that, subject to the remarks in the Audit Report, the Balance Sheet exhibits, in my opinion, the true position of............(name of concern)...................., according to the best of my information and explanations given me and as shown by the books of................(name of concern).

(Sd.)————————

Audit Officer."

27. Any remarks in the several audit reports which have qualified the position shown in the Balance Sheets or are of sufficient importance to be included in this Appendix have been given in the paragraphs relating to the various concerns.

NEW DELHI;
17th March 1931.

D. COLIN CAMPBELL,
Director of Commercial Audit.

28. Statement showing the action taken or proposed to be taken on recommendations made by the Public Accounts Committees (relating to Commercial Undertakings).

No.	Serial No. (reference to Appendix I to P. A. C.'s Report for 1929-30).	Reference to Appendices to last report.	Year of Report.	Para. of Report or Proceedings.	Recommendations, observations or promises.	Action taken or proposed to be taken.
					AUDITOR GENERAL.	
1	1	II-29	1927-28	58 R	That when preparing the accounts of the Dairy Farm and the Slaughter House in the Andamans on a commercial basis, the Auditor General should consider whether any portion of the loss on the working of these undertakings can properly be charged against the Army estimates.	The matter is under the consideration of the Auditor General.
2	4	..	1928-29	109 P	That it would be interesting to have, from the Director of of Commercial Audit in 1931, a general note on the stock-taking system and the methods of inspection.	Attention is invited to paragraphs 23 and 24 of this volume.
					CENTRAL BOARD OF REVENUE.	
3	11	..	1928-29	67 P	That there should be further discussion between the Central Board of Revenue, the Auditor General and the Director of Commercial Audit in order that they might arrive at an agreed calculation of the extra cost involved in maintaining a ledger and journal for the Northern India Salt Revenue Department.	The matter is under consideration. Attention is invited to paragraph 148 of this Appendix.
4	12	..	1928-29	68 P	(a) That in connection with the Northern India Salt Revenue Department, the allocation of the expenditure relating to royalties and compensations to the various salt sources in the commercial accounts should be reviewed in order that an unduly large proportion of it might not be charged to a particular source.	Action is being taken.
					(b) That the payments to Indian States should be reviewed in connection with the recommendations made in the Butler Committee's Report.	The Commissioner, Northern India Salt Revenue Department, has been asked to take the necessary action.

5	13	..	1928-29	60 P	That in future the reports, which would be prepared by the Superintendents of Government Commercial concerns, should contain fuller explanations of variations in the cost of production, etc., *e.g.*, of Salt.	Noted.
6	14	..	1928-29	73 P	That figures relating to losses of opium should be given in future reports for a series of year in order that the Committee might be in a position to see whether the loss was going up or coming down.	Noted. The required information has been given in paragraph 122 of this Appendix.
					COMMERCE.	
7	17	..	1928-29	92 P	That, if the arrangement relating to the Persian Gulf Lighting Service Fund was intended to be one which put upon the Shipping Companies the obligation to pay dues to meet the expenses of the services, then interest on the capital ought to be included in the expenses.	Government orders are awaited.
					EDUCATION, HEALTH AND LANDS.	
8	19	III-21	1926-27	49 R	That the question of keeping Cinchona accounts on a commercial basis in respect of the transactions of the Government of India be taken up as early as possible.	The question of the introduction of the commercial system of accounts has been dropped by the Bengal Government.
..	..	..	1928-29	100 P	That the settlement of the question should be expedited in consultation with the Government of Bengal.	
9	20	III-22	1926-27	50 R	That steps should be taken to place matters in regard to the verification of stocks of cinchona bark at Mungpoo on a satisfactory footing.	Investigation by an officer of the Commercial Audit Branch has been completed and a report will be issued to Government.
..	..	..	1928-29	100 P	That the settlement of the question should be expedited in consultation with the Government of Bengal.	
10	25	..	1928-29	105 P	That the policy of Government in regard to the prices of veterinary products should be reconsidered when the introduction of commercial accounts at Izatnagar had brought out the true financial results.	....
11	26	..	1928-29	106 P	That the question of the introduction of a proper system in the Mathematical Instrument Office at Calcutta should be settled between the Department of Education, Health and Lands and the Director of Commercial Audit.	Action is being taken. Please see paragraph 224 of this Appendix.

No.	Serial No. (reference to Appendix I to P. A. C.'s Report for 1929-30).	Reference to Appendices to last report.	Year of Report.	Para. of Report or Proceedings.	Recommendations, observations or promises.	Action taken or proposed to be taken.
					EDUCATION, HEALTH AND LANDS—*contd.*	
12	27	..	1928-29	107 P	That the differences between the book values and market values of the stores at the Mathematical Instrument Office at Calcutta should be adjusted as soon as possible under proper sanction.	Government orders issued in January, 1931.
					FINANCE.	
13	48	..	1928-29	12 R	That in regard to the reviews of Government Commercial concerns in the Civil Department, the Committee want a comparison of the results of a series of years including those of the latest year for which audited figures can be made available and that the Finance Department should pursue the question of speeding up audited figures for the purpose.	Noted. Attention is invited to paragraph 19 of this Appendix.
14	57	..	1928-29	71 P	That the accounts of the Opium Department for the year ending 30th September 1929 might be circulated with the first Quarterly Statement which would go to the members of the Committee in accordance with the procedure laid down in paragraph 4 of the Finance Department Resolution of the 13th June 1930.	Noted. Please also see paragraphs 154 to 184 of this Appendix.
15	59	..	1928-29	129 P	That a suitable note should be inserted in the Appropriation Accounts in cases in which any change of importance is made.	Noted. Attention is invited to paragraph 18 of this Appendix.
					HOME.	
16	72	III-25	1926-27	59 R	That the question of the form in which the *pro forma* profit and loss accounts in respect of S. S. " Maharaja " should be prepared and the question of placing the Commissariat Department on a commercial basis should be settled early.	Accounts drawn up on commercial lines are given in this Appendix.

CHAPTER II.

Government of India—Finance Department concerns.

SECURITY PRINTING INDIA.

SECTION I.—FINANCIAL REVIEW BY THE MASTER ON THE ACCOUNTS OF THE YEAR 1929-30.

29. As this is the first annual report to be presented a short resumé of the previous history and the scope of the Press will form a useful preface.

30. The Press was built in 1924-25 and the first products were issued in November 1925 less than fourteen months after the ground was first broken. The building and setting to work of the Press have already formed the subject of a report to Government and a communiqué thereon appeared in the Supplement to the Gazette of India, dated the 22nd January 1927.

31. The Press was designed for an output of the manufacturing value (not face value) of from 18 to 20 lakhs of rupees. The data on which this figure was arrived were however faulty and the actual requirements were found to average over Rs. 24 lakhs worth. Thus the annual sales starting with the first year of complete working of the Press have been as follows :—

	Rs. A. P.
1927-28	20,86,837 2 0
1928-29	28,56,283 12 0
1929-30	24,96,470 2 0

These figures of sales are somewhat swollen by extra production to provide reserves not only in the Central Stamp Store which now forms part of the Press but also in all Treasuries in conformity with the latest rules, issued by the Central Board of Revenues, controlling the supply and issue of stamps.

32. Though at the time of writing this report there is a slackening of demand, probably due to financial depression, and possibly to the political situation also, it seems probable that the extra supply now necessary to complete the building up of stocks, will be required in future, and have to be gradually increased, to meet the normal expansion of demand.

33. Security Printing has two distinct sides, the Press and the Central Stamp Store, the former under the Deputy Master and the latter under the Deputy Controller of Stamps, both under the general supervision of the Master. All manufacturing and bulk packing of such products as are manufactured in very large quantities, *e.g.*, postcards and embossed one anna envelopes, are carried out in the Press. The Press is divided into seven main sections :—

(i) Offset Lithography by which process the impressed stamps both court-fee and non-judicial, of which very large quantities are used, are printed. In addition this section prints the paper for registration envelopes, overprints service postage stamps, prints the bulk of the labels used for banding in all the other departments, Treasury bills, post office cash certificates, and when an extra supply is necessary postcards can also be produced.

(ii) Letterpress, in which section the existing postage, adhesive court-fee and other revenue stamps are printed and perforated, and a small amount of typographical printing for labels and forms is carried out, while postcards are also printed in the sheet when necessary to supplement the supply from the sub-section attached which prints, cuts up, and counts automatically ordinary and reply paid postcards.

(iii) The envelope section embosses and manufactures one anna square and commercial envelopes, and registration envelopes in three sizes and in addition makes up one anna and two anna postage stamps received from the letterpress department into booklets.

(iv) The bindery or odd job department makes up waste cuttings into pads and memorandum books for departmental use and rules and binds departmental account books and forms both for Security Printing and for the Currency Note Press.

(v) The photo-engraving department carries out all the work of designing and producing zinc plates for offset lithographic printing, and etched plates for letterpress printing, both for Security Printing and for the Currency Note Press. It will be equipped shortly with a modern electro-typing plant for the production of fine letterpress plates.

(vi) The Workshops, to which is attached a wood working shop for the manufacture of all packing cases, plain and zinc lined, for both the Presses, carries out all repairs to machinery and buildings and also is responsible for the running and maintenance of the electric Power House which provides the current for the machinery and lighting of both Presses including the flood lighting for night protection and for the roads of the Estate and the residential buildings. The Power House is equipped with solid injection oil engines. The whole of this section is common to the two Presses.

(vii) There are the necessary stores for the accommodation of the large quantities of paper of many kinds which the press uses. This ranges from a high quality hand made paper costing perhaps Rs. 3 a pound, used in small quantities, to postcard board in reels costing Rs. 373 a ton of which the annual consumption is in the neighbourhood of 1,500 tons, while large quantities of cheap wrapping papers are also used.

34. The personnel is composed of the administrative staff :—

The Master, also *ex-officio* Controller of Stamps, who is in general charge and also administers the Currency Note Press, the Deputy Master who is directly responsible for Security Printing, and the Deputy Controller of Stamps who is in charge of the Central Stamp Store which receives the products of the Press and distributes them as required to some 1,300 Treasuries and sub-Treasuries throughout India and Burma; the technical staff—Offset and letterpress printers, etc., and the artist engraver with assistants; the Control staff which is responsible for the receipt by the printers, of the necessary quantities of paper and the deliveries and examination of the finished products and the destruction of waste, for the prevention of pilfering and the correctness of the quantities issued to the Central Stamp Store; the clerical and accounting staff with obvious duties; the watch and ward; and lastly, the daily paid operatives, by far the greater part locally recruited from the neighbouring villages, and of whom few if any have ever been employed in a press before. In this connection it is interesting to note that it has been found by experience that men new to the work, trained to the methods and standards required, are far more satisfactory than men who have had previous experience in other presses. While the training takes some time and calls for much patience and sympathy on the part of the supervisors this is all well paid for in the result.

35. The fixed capital account of the Press and Central Stamp Store stands at the end of the year at some Rs. 48 lakhs. Calculation has shown that up to 30th September 1929 the Press has charged less to the Central and Provincial Governments for its products than would have been the cost under the rates ruling in 1924, when the building was started, by almost exactly Rs. 50 lakhs. In addition the total nett profit, after paying interest on the capital found by Government realised from the start of work has been Rs. 7,60,000 very nearly, after deduction of a nett loss of Rs. 1,26,000 in the first year of working (1926-27). India has therefore gained largely by the installation of the Press and if it ceased to function to-morrow it would still have paid for itself handsomely.

36. Turning now from this introductory description, which will not be necessary in future annual reports, the following figures showing the amounts of sundry of the larger items produced at the Press and issued to Treasuries, etc., during the year may be of interest.

Issues during **1929-30.**

	Millions.
Postcards—	
Single	295¼
Reply paid	77
Envelopes—	
Square (one anna)	93½
Impressed Stamps—	
Judicial and Non-Judicial (anna series)	18¼
Madras Copy Stamps	8

These figures for the preceding year 1928-29 were as follows:—

	Millions.
Postcards—	
Single	274¼
Reply paid	93
Envelopes—	
Square (one anna)	109¾
Impressed Stamps—	
Judicial and Non-Judicial (anna series)	19½
Madr Copy Stamps (newly introduced)	4½

37. As will be seen from the audit report the nett profit for the year, after providing for leave and pension charges, interest, depreciation and write off of preliminary expenses, was less by some Rs. 35,000 than that of the preceding year and this is accounted for by the drop of Rs. 3,60,000 in sales. The percentage of profit to sales has however increased from 12·5 to 12·7 in spite of small additions to capital increasing the interest charges, increases in pay due to increments, and of a reduction of about 10 per cent. in the prices charged to consumers in the case of most of the items most largely used. It will be some years yet before the staff of such a new undertaking reaches the point at which retirements and consequent recruitments on lower pay bring the salary bill to a more stable figure. In the meantime there will tend to be a continuous rise in this item of expenditure.

38. From the figures it is clear that the Press was operating on the whole rather more economically in 1929-30 than in previous years. It is not however likely that continued improvement in this respect can be attained as in the earlier years when the concern was in its babyhood and there was much to be learnt and many preliminary difficulties to be discovered and overcome. Whilst it is not contended that perfection has been reached already there is very much less room for the introduction of new economics or cheaper methods. Any further improvement will therefore only be attained by constant close supervision and co-operation of all concerned.

39. The following new items were first issued during the year under report, viz.:—

Air mail stamps of several denominations, and an eight anna air mail envelope complete with the air mail ticket to take communications weighing not more than ½ oz.

A series of local postage stamps for the State of Junagadh with pictorial designs, including a portrait of the Maharaja, in two colours.

A fiscal stamp for Surguja State with a portrait of the Maharaja.

British Indian Stamps both postal and fiscal for various States, including Kuwait, the Feudatory States of Bihar and Orissa and the Central Provinces.

Trust Interest Payment Order forms for the Controller of the Currency.

Post Office Cash Certificates of the 1929 issue.

40. The only notable addition to the machinery of the Press during the year were two duplex envelope making machines to cope with the insatiable demand of the Public for the one anna embossed square envelope, due to its supply at the price of the stamp alone. The output of these machines is nominally 480 envelopes a minute.

41. The policy of housing the personnel in sanitary quarters in the proximity of the Press has fully justified itself, not only in the comfort and excellent general health of the staff and labour, but also in immunity from epidemics raging in the immediate neighbourhood. During 1928-29 cholera was virulent all round. In 1929-30 plague was very common in the near neighbourhood. In neither year did any case of either disease occur in the Press quarters.

42. The audited balance sheet, trading and profit and loss account and the stores account for the year appearing below give a full picture of the finan-

cial position of the Press and call for no special comment. The variations from the similar accounts of the previous year are only such as are to be expected in the case of a manufacturing concern, using raw materials of varying values and producing finished goods into which varying quantities of work have to be put, in proportions which necessarily alter from year to year according to the requirements of consumers. It may be mentioned however that the growing figure for "Ending Balance of Stock" is due to the building up of the reserves which have to be kept under the rules for the storage and distribution of stamps. This reserve will be completed in the year 1930-31 and thereafter under ordinary circumstances this item will remain at or almost the same figure, except for unforeseen circumstances which the reserve is provided to meet.

43. I should like here to acknowledge the kindly help I have received and am receiving from the Commercial Audit Department. With my long previous experience in the Mint of attempting to conduct the accounts of a manufacturing department under an audit designed only for ordinary Government accounts, I am strengthened in my view after four years working under the audit of the new department, that it is greatly in the interests of country that the results of State trading should be thus ascertained. The ordinary system of Government accounts does not provide any accurate financial picture of a manufacturing concern.

SECTION II.—REMARKS BY THE DIRECTOR OF COMMERCIAL AUDIT.

44. Summary of results :—

	1929-30.	Per cent on Sales.	1928-29.	Per cent on Sales.	1927-28.	Per cent on Sales.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Sales . . .	24,96,470	..	28,56,284	..	20,86,837	..
Cost of Goods sold .	19,22,479	..	21,83,671	..	16,73,755	..
Gross Profit . .	5,73,992	23·0	6,72,613	23·5	4,13,082	19·7
Interest on Capital .	2,71,475	10·9	2,83,942	9·9	2,23,909	10·7
General charges (less miscellaneous receipts).	19,433	·8	31,410	1·1	17,934	·9
Net Profit . .	3,21,950	12·9	3,57,261	12·5	2,07,107	9·9
Capital . . .	48,[illegible],058	..	48,03,582	..	43,36,753	..
Percentage of Net Profit on Capital.	6·6	..	7·4	..	4·8	..

45. The cost of production amounted to Rs. 20,39,050 in 1929-30, the details of which are set out below. In 1928-29 the cost of production amounted to Rs. 21,42,324 and in 1927-28 to Rs. 21,09,218.

Item.	1929-30. Amount.	1929-30. Percentage on outturn.	Percentages on outturns. 1928-29.	Percentages on outturns. 1927-28.
	Rs.			
Materials used	13,60,411	50·0	50·6	56·9
Operative wages and salaries	83,640	3·1	2·8	2·5
Control wages	45,284	1·7	1·4	1·6
Packing	1,20,399	4·4	3·8	3·7
Indirect charges	3,93,031	14·5	14·8	17·8
Total	20,02,865	73·7	73·3	83·3
Adhesive stamps transferred to booklets	28,385	1·0	·6	·8
Add opening balance of work in progress.	57,933	2·1	1·3	·9
Total	20,89,183	76·8	75·2	85·0
Less closing balance of work in progress	50,133	1·8	2·0	1·5
Cost of Production	20,39,050	75·0	73·2	83·5
Value of outturn	27,17,449	..	29,26,152	25,22,439

The rate at which the outturn of 1929-30 was valued was approximately 10 per cent. lower than it was in previous years. This reduction has reacted on the cost percentages of 1929-30 which are higher than they were in 1928-29.

46. The sales amounted to Rs. 24,96,470 in 1929-30 and to Rs. 28,56,284 in the previous year.

Department.	Sales in 1929-30.	Sales in 1928-29.
	Rs.	Rs.
Offset	5,57,986	6,32,679
Embossed envelopes	4,98,450	6,03,375
Registration ,,	1,77,062	2,22,174
Post cards	9,48,917	10,67,481
Adhesive stamps	2,61,094	2,74,772
Booklets	52,971	55,803
Total	24,96,470	28,56,284

Actually the sales of 1929-30 are normal. Those of the previous year were higher because in it the smaller output in 1927-28, when the sales amounted to only Rs. 20,86,837, was made good.

47. The gross profit before charging interest amounted to Rs. 5,73,99 in the year under review and to Rs. 6,72,613 in 1928-29. This represents a yield of 22·9 per cent. on the turnover in 1929-30 and 23·5 per cent. in the previous year.

48. The amount of profit or loss made by each Department after charging interest Rs. 2,71,475 is set out below :—

Department.	1929-30. Adjusted profit or loss.	1929-30. Sales.	1929-30. Percentage on sales.	Percentage in 1928-29.
	Rs.	Rs.		
Offset	—52,476	5,57,980	—9·40	7·42
Embossed envelopes	1,30,144	4,98,450	26·11	33·61
Registration envelopes	12,766	1,77,052	7·21	0·62
Post cards	2,23,708	9,48,917	23·57	15·94
Adhesive stamps	—40,471	2,61,094	—15·50	—17·78
Booklets	28,849	52,971	54·46	29·58
Total	3,02,517	24,96,470	12·11	13·61

49. The net profit amounted to Rs. 3,21,950 in 1929-30 and to Rs. 3,57,261 in the previous year. Expressed in terms of the turnover this represents a percentage of 12·9 in the year under review and to 12·5 in 1928-29. The improvement can be traced to the increase in the amount of the miscellaneous receipts and credit adjustments of this period, *vide* the Profit and Loss account.

50. The percentages of waste on the outturn of the departments in this and the previous year were as follows :—

Department.	Percentages of waste. 1929-30.	Percentages of waste. 1928-29.
Offset	1·79	1·07
Registration envelopes	2·78	2·28
Adhesive stamps	1·69	2·09
Booklets	·91	2·02

The increase in the offset waste arose from the large amount of overprinting carried out in the first half of the year under review. The heavier wastage in the Registration envelopes was attributed to the manufacture of large sized envelopes which are more susceptible of damage in process than are those of medium and small size.

51. The following additional assets were purchased in 1929-30 under competent sanction :—

	Rs.
Plant and Machinery—	
Four embossed envelopes making machines and two stamping machines	18,557
One grinding machine	1,428
One automatic saw sharpner	624
	20,609
Furniture—eight tables	240
Total	20,849

52. Minor equipment to the extent of Rs. 20,007 was written off in the year under review.

The details of this write off are :—

	Rs.
Engraved plates written off	18,364
Dandy rolls	626
Other equipment	1,017
Total	20,007

53. The details of the stock and store balances on the 31st March 1930 are :—

	Rs.
Paper, inks, etc.	9,71,338
Packing cases	3,620
Work in progress	50,133
Finished stocks	8,69,577
Total	18,94,668

SECURITY PRINTING, INDIA, NASIK ROAD.

54. Balance Sheet as at 31st March 1930.

Liabilities.	1928-29.	1929-30.	Assets.	1928-29.	1929-30.
	Rs.	Rs.		Rs.	Rs.
Sundry Creditors	4,20,638	5,32,068	*Land and Buildings*	29,27,397	29,27,397
Government Suspense Account	3,26,391	5,07,506	*Electrical Installation*	41,920	41,920
Employees Security Deposits	4,020	4,598	*Plant and Machinery*	8,20,301	8,40,910
Depreciation Reserve	3,19,161	4,33,355	*Minor Equipment*	76,535	56,529
Leave Reserve, etc.	11,844	9,490	*Furniture*	53,026	53,266
Government Capital Account	48,03,582	48,28,058	*Preliminary Expenses*	1,81,825	1,06,477
Profit and Loss Account	3,57,261	4,77,933	*Central Stamp Store Works, Preliminary Expenses.*	20,752	18,94,668
			Stocks and Stores	11,92,905	
			Sundry Debtors	3,96,617	4,29,097
			Currency Note Press	43,326	53,407
			Investment of Security Deposits	3,824	4,597
			Cash in Bank in the Personal Ledger Account	4,76,740	3,78,614
			Cash in hand, and stamps	7,729	6,135
	62,42,897	67,93,017		62,42,897	67,93,017

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SECURITY PRINTING, INDIA, NASIK ROAD.

55. Trading and Profit and Loss Account for the year 1929-30.

	1928-29.	1929-30.		1928-29.	1929-30.
	Rs.	Rs.		Rs.	Rs.
To Opening Balance of Stock	4,74,644	6,76,983	By Issues for Booklets	16,899	28,385
" Cost of Manufacture	21,42,324	20,39,050	" Sales	28,56,284	24,96,470
" Selling Expenses of the Central Stamp Store.	1,11,215	1,04,407	" Ending Balance of Stock	6,76,983	8,69,577
" Returns from Closed Depots	1,49,370	..			
" Gross profit carried down	6,72,613	5,73,992			
Total	35,50,166	33,94,432	Total	35,50,166	33,94,432
To Interest	2,83,942	2,71,475	By Gross Profit brought down	6,72,613	5,73,992
" Value of Store, etc., written off	37,912	..	" Rents Received	7,018	19,433
" Adjustment of charges relating to previous years.	5,171	..	" Miscellaneous Receipts and adjustments	4,655	
" Net profit carried to Balance Sheet	3,57,261	3,21,950			
Total	6,84,286	5,93,425	Total	6,84,286	5,93,425

SECURITY PRINTING, INDIA, NASIK ROAD.

56. Stores Account for the year 1929-30.

Stores.	Opening balance on 1st April 1929.	Value of receipts during the year.	Value utilised during the year.	Closing balance on 31st March 1930.	Results of stock verification or revaluation if any.	Agency employed for verification or revaluation.
	Rs.	Rs.	Rs.	Rs.		
Paper	4,21,607 14 6	18,04,954 14 0	13,25,590 9 1	9,00,972 3 5	Attention is invited to the remarks in paragraph 25 of the Audit Report of the accounts of the half year ended 31st March 1930.	Verification of stores was continuous during the year. It was carried out by assistants unconnected with stores keeping under the orders of the Deputy Master. No regular reports were made by the verifying officers but the accounts in the unpriced stores ledger were initialled by them in token of verification.
Ink	13,038 14 1	30,776 9 4	25,245 10 10	18,569 12 7		
Miscellaneous Stores . .	21,527 13 9	1,52,991 0 0	1,22,722 12 8	51,796 1 1		
Packing Cases . . .	1,814 8 0	1,20,564 8 0	1,18,759 8 0	3,619 8 0		
Total .	4,57,989 2 4	21,09,286 15 4	15,92,318 8 7	9,74,957 9 1		

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HIS MAJESTY'S MINTS, CALCUTTA AND BOMBAY.

General remarks introductory to the reviews of the accounts of the Mints.

57. Indian Mints produce, for circulation in India, silver, bronze, and nickel coins. Besides, they undertake jobs for outside departments and private individuals, the manufacture of medals for the Army department, the manufacture and testing of scales and weights for treasuries and currency offices, etc., and occasionally coinage work for Indian States, foreign countries such as Straits Settlements. Coinage is undertaken under the orders of the Controller of the Currency and all issues of coin are made to the local Currency office from which they are distributed.

58. At the suggestion of Messrs. Price, Waterhouse & Co., the question of the introduction of a suitable system of commercial and costing accounts in the Mint was taken up and investigated by an officer of the Commercial Audit Branch. Commercial accounts were first introduced in both the Calcutta and Bombay Mints in 1926, and after trial of more than one system the present arrangement of maintaining commercial books in addition to the regular Government accounts has been adopted. The commercial accounts are of the *pro formâ* type explained in the introductory paragraphs of this volume. The scheme is, however, still in an experimental stage and the question of the retention of the commercial accounts is still under the consideration of the Government of India.

59. Towards the end of 1928-29 there was a redistribution of work between the two Mints. Calcutta now carries out most of the coinage work while Bombay is largely engaged on melting and refining of gold and silver. A special electrolytic refinery was constructed in the Bombay Mint in 1928-29. As a precautionary measure against possible heavy demands for coinage in future the minting plant of the Bombay Mint is maintained in readiness for work, and a small coinage programme is allotted to this Mint every year. By this means not only is the plant kept in order, but a trained staff is always available to meet any sudden demand for coinage. Until the reorganisation in 1928-29 uncurrent coins withdrawn from circulation in the Bombay Presidency, in the southern part of the Madras Presidency, in the Central Provinces and in the Punjab and North-West Frontier Provinces were remitted to the Bombay Mint. After the reorganisation Bombay deals with the uncurrent nickel and bronze coin collected in the Bombay Presidency only and with all uncurrent silver remittances except from Burma, Assam, and some parts of Bengal and Bihar and Orissa.

60. The following are the main divisions in both Mints :—

(1) Melting Department (including Dross washing Department), in which bullion is alloyed to the correct fineness and cast into bars.

(2) Mechanical Department, in which the various processes of minting are carried out, *i.e.*, rolling, adjusting, cutting out blanks, weighing, annealing, stamping, examining and packing.

(3) General Workshop, whose primary function is the maintenance of the Mint Machinery.

(4) Die and Medal Department.

(5) Electrical Department.

(6) Bullion Department, responsible for the receipt, issue and custody of bullion and coin accurate weighments, and verification of weights and balances, and examination of uncurrent and counterfeit coins.

(7) Stores Department.

In addition at the Bombay Mint there are Gold and Silver Refineries and a Merchants' Melting Department.

61. His Majesty's Assay Office is housed in the Bombay Mint but is an independent department in charge of an Assay Master.

Up to 1st October 1923 there was also an Assay Office at the Calcutta Mint, but this was closed as a measure of economy. Bombay with its gold and silver refining work occupies most of the time of the Assay Office, but assays are also done for the Calcutta Mint and for the public.

62. The commercial accounts as now compiled are intended to bring out (1) the net financial result of the operations of the Mints as a whole in a commercial form, (2) the assets and liabilities of the Mints, the net capital invested by Government in the Mints and the nature and amount of the different forms of assets in which the capital is held, (3) the profit or loss on the various denominations of coins manufactured in the Mints, (4) the results of the working of the workshop, the Medal and Die departments ; the production costs of the various coins as a whole and as analysed under the various processes such as laminating, annealing, stamping, weighing ; the cost of power, etc. All this information is not available in the Government accounts as compiled at present.

63. The following are the more important principles followed in the compilation of these accounts :—

(*a*) The Workshop, and the Medal and Die departments are treated as service departments maintained for the Coinage department, and not as independent productive departments of the Mint. The underlying idea is that, apart from certain miscellaneous items of work executed by the Mint, such as the manufacture of medals for the Army Department, etc., the operations connected with coinage including the examination and recoinage of uncurrent coins constitute the main activities of the Mint and that the workshop and the Medal and Die departments are maintained in the Mint merely for the purpose of serving the coinage department. The fact that during their spare time these departments are allowed to take up work for other departments and private individuals does not affect the operation of this principle. The net financial results of the activities of these two departments are therefore transferred to the account of coinage costs, as part of the general oncost.

(*b*) *Melting Charges.*—Charges incurred in melting and converting silver, nickel, bronze, etc., into bars, are compiled separately for each class of metal melted, from the information contained in the departmental and other initial records kept up in the Mint. The average rate per lakh of tolas of each class of metal melted and cast into bars is then worked out. The amount debitable to the Production Account of coinage is then calculated in accordance with this rate on the weight of bars broken down, *i.e.*, rolled by the laminator for the particular class of coinage. The residue of the unallocated melting charges is treated as the melting cost of the unused bars in the store, and is shown as an asset in the accounts under " Work-in-progress " at the end of the year in the Melting department. The object of this procedure, at present confined to the Calcutta Mint where coinage is the more important function, is to debit a proper share of the melting charges to the coinage operations of a year.

(c) *Oncost* is sub-divided into Factory and General oncost. Factory oncost includes all the indirect charges of a general nature, which can be allocated to a separate department of the Mint, such as salaries, gas, rent, rates and taxes, charges on account of electricity consumed, depreciation on Buildings, Plant and Machinery of the departments. Common charges are allocated to the departments concerned on a suitable basis and distributed amongst the work orders in those departments on the basis of the direct labour charges incurred therein. All other indirect charges, which cannot be allocated to any particular department, are included under " General oncost ". The net general oncost after deducting miscellaneous receipts, has been distributed between Government and the Mint in the ratio of 40 : 60 per cent. in the case of the Calcutta Mint in accordance with the orders issued by the Government of India. In the case of the Bombay Mint the basis of the allocation of charges to Government has been the proportion of idle days to possible working days.

(d) *Standard silver.*—Silver bullion issued for coinage is valued at the rate of Re. 1 per standard tola, for the sake of convenience, as this unit is used in the bullion accounts and other records of the Mint. It is also the rate at which Government actually withdraws rupees from circulation for purposes of recoinage. As the face-value of the coin manufactured is also Re. 1 per tola, the commercial accounts must always show a loss on silver coinage operations ; this loss really represents the cost of the coinage operation apart from the cost of material. Fine silver issued from Currency for the use of the Mint is adjusted in the Mint accounts by credit to the Currency department on the basis of the market price of silver on the date of transfer. Such silver issued by the Mint for the various jobs undertaken in the Medal and Die department is charged at the market rate on the date of issue *plus* 20 per cent. The difference between the rate at which the Mint purchases the silver from Currency and the rate at which it is sold is treated as a miscellaneous profit accruing to the Mint.

(e) *Uncurrent coin.*—The Bullion office deals *inter alia* with the examination of uncurrent coins received from treasuries and currency offices. The loss on account of the withdrawal of uncurrent coins, being the difference between the nominal value and metal value at Re. 1 per standard tola of coins withdrawn from circulation, and a proportionate share of the Bullion office charges on account of their examination, are included in the Profit and Loss Account under the kind of coinage concerned. This procedure which has been accepted by the Government of India, is based on the principle that all gains accruing to the country from exercising the national prerogative of having its own coinage should be brought together as accurately as possible in one set of accounts.

(f) Interest on Capital is not included in the Mint Accounts. Provision for pensionary liabilities has been included with effect from the year 1928-29.

64. A comparison of coinage costs in Calcutta and Bombay might seem to be a necessary part of a review of the accounts of the Mints. It has not been possible to include such a comparison owing to lack of the time that would be necessary to make a thorough investigation into the causes of differences so as to give satisfactory explanations. The Controller of the Currency has always considered that such a comparison is difficult and would not be particularly educative, owing to the different conditions existing at the two Mints. It must be realised that the Mints are part of the currency system of the country, and currency exigencies may have to ignore commercial account considerations, commercialisation is not in all cases necessarily a golden rule.

HIS MAJESTY'S MINT, CALCUTTA.

SECTION I.—FINANCIAL REVIEW BY THE MINT MASTER ON THE ACCOUNTS OF THE YEAR 1929-30.

65. The accounts of the Calcutta Mint for 1929-30 in a summarised form are affixed. Corresponding figures for the year 1928-29 are also given to facilitate comparison of the growth of expenditure as compared with growth of work.

Owing to heavy demands for small coin the Mint worked half overtime five days weekly for the first five months of the year. The outturn was consequently increased by over 60 per cent. as compared with 1928-29.

66. The quantity and cost of coins manufactured during 1929-30 and 1928-29 were as follows :—

	1928-29.		1929-30.	
	Pieces.	Cost.	Pieces.	Cost.
		Rs.		Rs.
Silver coins	80,62,400	39,81,370	7,40,000	1,91,777
Nickel coins	3,56,16,000	4,88,459	5,84,08,000	7,29,762
Bronze coins	4,57,60,000	4,89,622	8,67,84,000	8,31,087
Total .	8,94,38,400	49,59,451	14,59,32,000	17,52,626

As compared with the year 1928-29 the value of coins manufactured during 1929-30 increased or decreased as follows :—

	Value of coins manufactured.		Increased.	Decreased.
	1928-29.	1929-30.		
			Per cent.	Per cent.
Silver	30,27,975	1,86,324	..	94
Nickel	26,04,000	46,63,500	79	..
Bronze	5,88,400	11,38,500	94	..
Total	62,20,375	59,88,424		

67. *Silver Coinage.*—During 1929-30, 20,000 pieces of Bhutan coins and 7,20,000 pieces quarter-rupees were minted against 40,49,500 half-rupees and 40,12,900 quarter-rupees only in 1928-29.

The detailed cost of manufacture per 1,000 pieces during 1929-30 of these two coins was :—

Items.	Cost per 1,000 pieces.	
	Bhutan.	Quarter Re.
Labour	·75	·56
Stores	·13	·22
Metal	271·73	250·01
Dies	1·00	·94
Operative Loss	·50	1·32
Melting charges	1·25	1·32
Departmental overheads	4·15	1·72
General Overheads	2·10	2·44
Total	281·63	258·53

In the case of the Bhutan coins cost of metal is at market rate, instead of at one rupee per standard tola.

The charge at market rate was specially authorised by the Controller of the Currency since the coins were being supplied to an outside party who would normally have tendered sufficient silver for the coinage.

But for this the costs would be comparable with those of the half-rupee, the Bhutan coin being of the same weight and fineness.

The quarter-rupees coined were part of an order for 40 lakhs pieces which was interrupted by the strike in the Mint at the end of the year and remained incomplete.

Owing to this and the small quantity of the Bhutan coins the costs in neither case are representative.

68. *Nickel coinage.*—1,62,08,000 two-anna pieces and 4,22,00,000 one-anna pieces were manufactured during the year 1929-30 against 60,48,000 two-anna

pieces and 2,95,68,000 one-anna pieces respectively in 1928-29. The detailed cost of production is given below :—

	Cost per 1,000 pieces, 1929-30.	
	Two-anna pieces.	One-anna pieces.
Labour	·55	·50
Stores	·24	·13
Metal	9·16	6·30
Dies	·48	·65
Operative Loss	·01	·01
Melting charges	1·83	1·50
Coin boxes	..	·18
Departmental Overheads	1·08	·87
General Overheads	1·66	1·27
Total	15·31	11·41

Against the cost given above the cost of production during 1928-29 was 17·93 and 12·85 respectively. The chief reason for the decrease in costs in 1929-30 was, as in 1928-29 in comparison with 1927-28, larger production.

Melting charges are less than last year but the loss in melting nickel was much higher due partly to use of old copper coin in allegation which caused bad ingots necessitating remelting. Leaky pots also caused higher losses.

In the above costs general overheads as last year have been taken as 60 per cent. of the general charges, the balance of which was to be debited to Government.

During the year however it was decided that the Mint should bear the whole of the general charges and an adjustment has accordingly been made in the accounts *vide* Trading and Profit and Loss Account.

If this adjustment is made in the costs above, the cost of two-annas would have been 16·42 per 1,000 pieces and of annas 12·26.

The costs in 1928-29 (bearing 60 per cent. of general charges only) were 17·93 and 12·85 respectively. Thus in spite of the increase in general on costs there is a reduction in total cost, due to increased production.

The credit taken to Mint Accounts for issues was at the nominal value of the coins and the profit resulting therefrom is set out below :—

	No. of pieces manufactured.	Cost of manufacture.	Nominal value of outturn.	Profit on manufacture.	Cost per 1,000 pieces.	Nominal value per 1,000 pieces.	Profit per 1,000 pieces.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Two-anna pieces	1,62,08,000	2,48,172	20,26,000	17,77,828	15·31	125	109·69
One-anna pieces	4,22,00,000	4,81,590	26,37,500	21,55,910	11·41	62·5	51·09
				39,33,738			

As in the year 1928-29, during the year 1929-30 the same two factors of increased outturn and decreased cost contributed to a profit on nickel coinage of Rs. 39,33,738 against 21,15,541 during 1928-29.

69. *Bronze coinage.*—The quantity of coins manufactured was :—

	1928-29.	1929-30.
	Pieces.	Pieces.
Pice	3,22,43,200	6,40,00,000
Half Pice	54,52,800	76,54,400
Pies	80,64,000	1,51,29,600

The details of the cost per 1,000 pieces are as follows :—

	Single Pice.	Half Pice.	Pie Pieces.
Labour	·48	·44	·37
Stores	·14	·14	·14
Metal	6·11	3·06	2·06
Dies	·58	·67	·52
Operative Loss	·01	·01	·01
Melting cost	·88	·59	·28
Coin boxes for packing	·23	·09	·08
Departmental Overheads	·93	1·00	·80
General Overheads	1·42	1·59	1·24
Total	10·78	7·59	5·5

If the full general charges are debited to the Mint the costs become 11·73, 8·65 and 6·33 for pice, half-pice and pies respectively.

The corresponding costs in 1928-29 (including 60 per cent. of general charges only) were 11·47, 8·17 and 6·82 for pice, half-pice and pie pieces respectively.

Loss in melting bronze was higher than last year when the figure was abnormally good. This year's figure compares satisfactorily with results in past years.

In each case the increase in the outturn during 1929-30 accounts for the decrease in costs. Credit being taken for issues at nominal value the resultant profit or loss works out as below :—

Coinage.	No. of pieces manufactured.	Cost of manufacture.	Nominal value of outturn.	Profit or Loss (—) on manufacture.	Cost per 1,000 pieces.	Nominal value per 1,000 pieces.	Profit per 1,000 pieces.
		Rs.	Rs.	Rs.			
Single Pice	64,000,000	6,89,821	10,00,000	3,10,179	10·78	15·62	4·84
Half Pice	7,654,400	58,065	59,800	1,735	7·59	7·81	0·22
Pie Pieces	15,129,600	83,201	78,800	—4,401	5·5	5·21	—0·29
				3,07,513			

During 1929-30 profit on Bronze coinage amounted to Rs. 3,07,513 against a profit of Rs. 1,18,748 in the year 1928-29. Large increase in outturn and decreased cost account for the better result in 1929-30.

70. *Profit and Loss Account.*—The net profit during 1929-30 amounts to Rs. 35,85,182 against Rs. 17,44,708 in the year 1928-29 as will be clear from the table below :—

Items.	1929-30. Profit or Loss (—) Silver.	1929-30. Profit or Loss (—) Nickel.	1929-30. Profit or Loss (—) Bronze.	1929-30. Profit or Loss (—) Total.	1928-29. Profit or Loss (—) Silver.	1928-29. Profit or Loss (—) Nickel.	1928-29. Profit or Loss (—) Bronze.	1928-29. Profit or Loss (—) Total.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Coinage	—5,453	39,33,738	3,07,513	42,35,798	—53,395	21,15,541	1,18,748	21,80,894
Cost of uncurrent coin work	—19,903	—6,983	—27,606	—54,492	—34,879	—6,014	—28,523	—69,416
Loss on withdrawal of uncurrent coins . .	—1,48,866	—1,78,952	—1,13,179	—4,40,997	—2,78,378	—1,17,400	—1,18,057	—5,13,835
Total .	—1,74,222	37,47,803	1,66,728	37,40,309	—3,66,652	19,92,127	—27,832	15,97,643
Add—Net Miscellaneous Receipts	..	..	..	18,841	..	—	—	1,47,065
				37,59,150				17,44,708
Deduct—Share of 40 per cent. General Charges not debited to Coinage accounts.	..	..	..	—1,73,968	..	—	—	—
Net Profit .				35,85,182				17,44,708

The result of the year's working and the profit obtained may be regarded as very satisfactory. It must however be remembered that the total profit depends largely on the quantity of nickel coin minted, since for this coin the nominal value is so much greater than the cost of manufacture.

The results emphasise also the advantages of working overtime. The normal working hours of the Mint are seven hours Monday to Friday and five hours on Saturday.

When overtime is ordered the hours are 10½ Monday to Friday so that the total hours per week still keep within the maximum of 60 hours prescribed by the Factory Act.

The total capacity of the Calcutta Mint in normal hours is approximately six lakhs pieces in the Silver Mint and five lakhs pieces in the Bronze (and Nickel) Mint.

At present superior staff is only available to work one of the Mints at a time.

The ability to work overtime renders possible an immediate increase of nearly 50 per cent. in the output without engaging additional staff who would take a long time to train in their duties. This is a valuable reserve against urgent demands for coinage.

71. *Government Capital Account.*—The net capital debt due to the Government of India by the Calcutta Mint as at 31st March 1930 exclusive of the balance of Currency Department and the profit of Rs. 35,85,182 which accrued during the year, worked out to Rs. 16,02,028. The corresponding figure at the end of 1928-29 was Rs. 22,09,685.

Reduction in Capital Account is partly due to elimination of buildings from the assets of the Mint. Taking the profit into account as part of the Capital there is an increase of about 12 lakhs over the previous year which is due to large profit derived during the year on account of increased output of nickel coins.

The amount due by the Mint to the Currency Department for the currency reserve held in the Mint on 31st March 1930 was Rs. 2,16,85,534 as against Rs. 1,54,86,785 at the end of the previous year. These balances, as has been explained in the report for 1928-29, fluctuate according to the operations of the Currency Department. There was no balance of Currency Department silver set apart for sale on the 31st March 1930 against Rs. 10,72,922 on 31st March 1929, all orders for shipment having been complied with.

72. *Buildings.*—It was decided during the year that the Mint should pay rent to the Public Works Department for buildings, instead of the buildings being considered as Mint property. The amount was fixed at Rs. 1,56,241 per annum.

As a result of this decision the figure of Rs. 2,71,618 value of buildings shown in Balance Sheet for 1928-29 has been eliminated from the Balance Sheet for 1929-30.

The Depreciation Reserve is also reduced on this account.

In the General Profit and Loss Account, Rent is now Rs. 1,56,241 instead of Rs. 14,369. The latter figure represented rent of land from Port Commissioners which has since been given up.

The item Repairs last year Rs. 23,010 also disappears from the General Profit and Loss Account as the P. W. D. bear cost of repairs in return for rent. The P. W. D. also now bear owner's share of Rates and Taxes and this accounts for the decrease under this head.

73. *Plant and Machinery*.—It will be seen from the Balance Sheet that Plant and Machinery on charge is valued at Rs. 3,29,875 an increase over last year due mainly to the additional electrical plant.

The figure is a very small one compared to the replacement value of machinery in the Mint, due to the fact that nearly all the machinery is over 20 years old, and being fully depreciated is held on the books at scrap value.

The depreciation reserve does not fully cover the past depreciation of plant since it was only started recently with the inauguration of the Commercial Accounts.

Much of the machinery in the Silver Mint is over 60 years old and if regular coinage of silver were required, very heavy expenditure on new presses and other machines would be necessary for efficiency and economy.

At present however the machinery is only required to work for about one month in each year, so that replacement by up-to-date machinery is not justified.

If the Mint were a trading concern it would be prudent to make a large addition to the Depreciation Reserve from Profits to provide for the future liability of expenditure on modernisation of plant and machinery in the Silver Mint.

74. *Bullion Stocks*.—The value of Gold and Silver Bullion at 31st March 1930, including the balance in the Die Department was Rs. 2,33,10,240 and the corresponding figure on 31st March 1929 was Rs. 1,80,41,081. The increase is due to increase of silver in the Currency Chest.

The value of other metal stocks was Rs. 9,61,480 as compared with Rs. 8,23,417 at the end of 1928-29. The increase is due to the transfer to Calcutta of nickel surplus to requirements at the Bombay Mint.

All copper purchased during the year was obtained from the Indian Copper Corporation and was mined and refined in India.

This copper has been found suitable for coinage of bronze and cupro-nickel.

Purchase of copper from this source is estimated to have effected a saving of roughly Rs. 40,000 during the year as compared with imported copper.

75. *Consumable Stores*.—The balance of consumable stores at the end of the year 1929-30 amounted to Rs. 3,23,250 as compared with Rs. 4,12,603 at the end of 1928-29.

The reduction is due mainly to increased consumption, but some unserviceable and surplus stores were disposed of during the year.

The question of revaluation at market rate was taken up during the year and figures worked out and submitted for sanction of the adjustments necessary. Sanction to proceed with this has now been received.

76. *Stock of Medals*.—The amount of Rs. 55,443 shown last year represented balance of medals manufactured for the Army Department but not

taken over by them, their estimates having been in excess of requirements. The item has been eliminated by transfer to the Mint bullion balance.

77. Reference has been made in para. 67 above to the strike of Mint workmen which commenced on 18th March. This resulted in ten working days of the year being lost, there being no output.

The strike has since been happily settled.

The concessions granted will result in increased labour costs next year.

SECTION II.—REMARKS BY THE DIRECTOR OF COMMERCIAL AUDIT.

78. *Paragraphs* **67** *to* **69** *of the Financial Review.*—In the past, as pointed out in paragraph 41 (c) of the Appendix to the Appropriation Accounts of the Central Government (Civil) for the year 1928-29, only 60 per cent. of the " net general oncost " was debited to the Mint commercial accounts ; but in view of the present heavy production in the Calcutta Mint, it has been decided by the Government of India that the entire general charges in Calcutta should be debited to the Mint commercial accounts. These orders have been given effect to in the accounts of the year, but to enable an effective comparison to be made with the previous year's figures, costs of production referred to in the Review do not take account of the new arrangement. The amount of Rs. 1,73,968 representing 40 per cent. of the total General Charges has therefore been shown as a distinct item " Share of General Charges not debited to Production costs " in the Trading and Profit and Loss Account.

79. A comparison of the coinage costs for the year with those for the previous year has been made in the Mint Master's Review. It may be pointed out, however, that the reduction in " Melting Charges " of nickel is partly due to certain changes in the method of accounting.

80. *Paragraph* **70** *of the Review.*—The profit for the whole year 1929-30 with the profit for the three preceding years is shown below :—

	Rs.
1926-27	10,21,302
1927-28	15,53,304
1928-29	17,44,709
1929-30	35,85,182

The reasons for the large profit in 1929-30 are dealt with in paragraph 70 of the Review. As pointed out, however, in paragraph 41 (*f*) of the previous year's Appendix to the Appropriation Accounts, no interest is charged in the Mint accounts on the capital invested.

81. Attention is invited particularly to paragraphs 70, 73 and 74 of the Mint Master's Review dealing with the reasons for the large profit in 1929-30, the state of the machinery in the Silver Mint, and the savings effected in the purchase of copper.

82. *Paragraph* 75 *of the Review.*—The balances of consumable stores at the end of the last three years are set forth below :—

	Rs.
1927-28	4,84,485
1928-29	4,12,603
1929-30	3,22,250

The steady decline during the last three years will indicate the extent of the accumulation of stock three years ago.

Surplus stores to the value of Rs. 15,932 were sold by public auction during the year under review resulting in a loss of Rs. 12,035 which has been written off by the Government of India. Even after this, however, the Mint Master is not in a position to certify that all the stores now in hand are serviceable and not surplus to requirements. It will be seen from the Review that the stores in hand have not yet been revalued on the basis of market rates; it is understood that the value appearing in the books is probably in excess of their market value by over Rs. 25,000.

83. Miscellaneous—

(a) *Paragraph 65 of Review.*—The term "half overtime" means 10¾ hours work on week days and 5 hours work on Saturdays (paragraph 70 of Mint Master's Review).

(b) *Paragraph 66 of Review.*—The cost referred to is the "cost of production".

(c) *Paragraph 74 of Review—Bullion and Metal Stocks.*—These are subjected to an annual verification by the Examiner, Outside Audits, Bengal, in accordance with the rules prescribed by the Government of India.

HIS MAJESTY'S

84. Balance Sheet as at

Liabilities.	1929-30.	1928-29.
	Rs.	Rs.
Sundry Creditors	1,14,096	1,26,253
Northbrook Medal Fund	220	189
Currency Chest	2,16,85,534	1,54,86,785
Treasury Remittances under examination	..	..
Silver for sale	..	10,72,922
Depreciation Reserve	83,035	1,07,990
Reserve for Assay Charges	5,000	4,500
Profit and Loss A/c	35,85,182	17,44,709
Government Capital Account	16,02,028	22,09,685
Total Rs.	2,70,75,095	2,07,53,033

MINT, CALCUTTA.

31st March 1930.

Assets.	1929-30.	1928-29.
	Rs.	Rs.
Buildings	..	2,71,618
Plant and Machinery	3,29,875	2,99,327
Furniture and Fixtures	19,312	22,646
Bullion Stocks—		
Mint—		
Gold	18,024	18,024
Silver	15,94,811	14,50,621
Currency—		
Gold	67,13,820	67,13,820
Silver	1,49,71,714	87,72,965
Silver for sale	..	10,72,022
Die Department—		
Gold	7,173	7,922
Silver	4,698	4,807
Other Metal Stocks—		
Bronze	2,88,294	4,10,887
Nickel	5,73,186	4,12,530
Finished Coin Stock—		
Bronze	86,500	35,400
Nickel	9,36,000	1,59,500
Consumable stores	3,23,259	4,12,603
Stock of Medals	..	55,443
Treasury Remittances under examination	9,73,683	4,93,675
Sundry Debtors	5,586	6,440
Deposits (Security Deposits)	63,960	63,925
Realisation accounts	..	16,039
Work in progress	64,885	50,478
Imprest and Cash in hand	1,224	1,441
Total Rs.	2,70,75,995	2,07,53,033

(Sd.) C. BHASKARAIYA,
Asstt. Director of Commercial Audit,
Calcutta Circle.

(Sd.) M. STAGG,
Lt.-Col., R. E.,
Mint Master, His Majesty's Mint,
Calcutta.

HIS MAJESTY'S MINT, CALCUTTA.

85. Trading and Profit and Loss Account for the year 1929-30.

Dr.	1929-30.	1928-29.	*Cr.*	1929-30.	1928-29.
	Rs.	Rs.		Rs.	Rs.
To Opening Balance of finished coins	1,94,900	10,61,600	By issue of coinage	51,60,824	70,87,075
" cost of coinage	17,52,626	40,39,481	" closing balance of finished coin	10,22,500	1,94,900
" Loss on withdrawal of uncurrent coins	4,25,341	5,13,835			
" Bullion office costs	70,212	69,416			
" Gross profit c/d	37,40,245	15,97,643			
Total	61,83,324	72,81,975	Total	61,83,324	72,81,975
To Share of General charges not debited to Production costs.	1,73,968	..	By Gross profit b/d	37,40,245	15,97,643
" Net profit during the year	35,85,182	17,44,709	" Miscellaneous Mint work	..	690
			" Special Receipts	..	1,46,376
			" Silver sale account	18,905	..
Total	37,59,150	17,44,709	Total	37,59,150	17,44,709

HIS MAJESTY'S MINT, CALCUTTA.

86. Statement of Stores for the year 1929-30 :—

Stores.	Opening balance on 1st April, 1929.	Value of receipts during the year.	Value utilised during the year.		Closing Balance on 31st March, 1930	Results of stock verification and revaluation if any.	Agency employed for revaluation, or verification.
			Sold or disposed of.	Depreciation or write off.			
Consumable Stores—	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.		
Main . . .	3,88,350 7 10	(a) 1,68,815 0 3	(b) 2,56,515 10 8	(c) 5,103 4 0	2,95,546 9 5		The verification of Main Stores started during the later part of the year under review and was completed in July 1930 by one of the Mint Engineers. Small balances of Consumable Stores in the Die Department and G. W. Shop were not verified. Bullion stocks were verified by the Examiner, Outside Audit, in April 1930.
Workshop . .	5,833 13 6	(d) 54,643 8 7	(e) 53,441 15 10	nil	7,035 6 3		
Die Department .	6,074 3 3	(d) 43,385 15 6	(f) 43,577 10 3	nil	5,882 8 6		

(a) Include returns from Sub-Stores.
(b) Include issues to Sub-Stores.
(c) Mainly Loss on Hard Coke and Steam Coal.
(d) Mainly from Main Stores.
(e) Includes Rs. 1,744-15-3 returns to Main Stores.
(f) Includes Rs. 14,885-6-0 returns to Main Stores.

This does not include the value of Dies and Collars and Coin boxes.

N. N. MUKHARJI,
Accountant,
His Majesty's Mint,
Calcutta.

M. STAGG,
Lt.-Col., R.E.,
Master of the Mint,
Calcutta.

C. BHASKARAIYA,
Assistant Director of Commercial Audit,
Calcutta Circle.

HIS MAJESTY'S MINT, BOMBAY.

SECTION I.—FINANCIAL REVIEW BY THE MINT MASTER ON THE ACCOUNTS OF THE YEAR 1929-30.

87. The Bullion and Uncurrent Coin Departments, Gold Melting Department, Gold Refinery, Die Department, General Workshop, Silver Melting Department and Silver Refinery were busy throughout the year. There were no coinage operations, however, till November 1929 when the coinage of British (Hongkong) Dollars was undertaken on behalf of certain Banks and Commercial concerns with the sanction of the Government of India.

88. The Assay Office which is independent though housed in the Mint, was working as usual.

Coinage.—(*a*) No British Indian Government Coinage was carried out during the year.

(*b*) 95,35,075 British (Hongkong) Dollars of the outturn value of 2,16,38,944 standard tolas were coined during the year. Of these 75,00,000 British Dollars of the outturn value of 1,70,21,096 standard tolas were delivered to Banks and Merchants against contracts, made by the Deputy Controller of the Currency, Bombay, under sale of silver on behalf of the Secretary of State for India, London.

Seigniorage was charged at the rate of Rs. 30 per 1,000 pieces and has resulted in a profit, as will be seen from the cost of the coinage (excluding the value of the silver contents) shown below :—

Item.	Cost per 1,000.
	Rs.
Labour	3·11
Stores	1·77
Departmental Oncost	5·44
Cost of Dies used	·78
Cost of Assays made	1·70
General charges	4·04
Copper used as Alloy	·46
Bullion Losses in Manufacture	6·14
Total	23·74

89. *Percentage of good coins of British Dollar coinage.*—The percentage was 58·84 per cent. of good coin on 3,74,53,075·5 tolas of ingots broken down. This percentage is less than the usual average of about 62 to 63 per cent. due to irregularity of coinage work.

90. *Losses on withdrawal of uncurrent coin.*—These losses arise out of the difference between the nominal value of the uncurrent coins withdrawn from circulation and their bullion value calculated on their weight at book rate in the case of nickel and bronze coins and at Re. 1 per standard tola in the case of silver coins.

The details of these losses in 1929-30 were :—

	Rs.
Silver coins	7,64,309
Nickel coins	13,327
Bronze coins	17,750
Total	7,95,386

91. *Bullion Department.*—The Uncurrent Coin Department was mainly engaged on the work of examining uncurrent coins. The Bullion Department in addition to cutting current coins was engaged in weighing standard silver ingots, fine silver bars and pure copper slabs produced by the Silver Refinery, Indian Mines Gold and Gold and Silver received from public for melting and refining, and binding of alligations for meltings. The number of coins of each metal examined in the Uncurrent Coin Department is shown below :—

	No. of coins examined.
Silver	6,42,77,673
Nickel	2,16,701
Bronze	19,72,901
Total	6,64,67,275

92. *General Charges.*—The net General Charges for the year amount to Rs. 5,46,656. This shows an increase of Rs. 2,12,098 over the previous year's charges of Rs. 3,34,558. The increase is mainly due to the following new items :—

	Rs.
General Municipal Tax	11,707
Rent of Buildings	1,77,566
Pensionary charges	34,120
Passage contribution	825
Total	2,24,218

93. *Assay Office.*—The receipts on account of Assays done for the public were Rs. 9,096 against Rs. 6,347 in 1928-29. The net expenditure of the Assay Office after deducting these receipts amounted to Rs. 1,02,565 which was distributed between the Bombay and Calcutta Mints in proportion to the assays carried out for each. The Calcutta Mint's share amounted to Rs. 13,688 and the Bombay Mint's to Rs. 88,877.

94. *Silver Refinery.*—The Refinery was steadily employed on refining Government silver. During the year silver weighing 8,57,400 tolas gross was received from the public for refining.

95. *Medal and Die Departments.*—The excess of expenditure over receipts in this account amounted to Rs. 28,644 against Rs. 14,697 in 1928-29. The increase in loss is due to increase in the share of General Charges and the dies for coinage being priced at a low rate of Rs. 5 each. This will be revised for future accounts.

96. *Gold Melting, Merchants Melting and Refining Departments.*—This account shows a profit amounting to Rs. 62,140 against Rs. 38,011 in 1928-29, an increase of 63·4 per cent. Gold received from Indian Mines, Merchants and Banks is treated in this Department and bars of accurate weight are cast for Banks and Merchants.

The increase in profit is mainly due to larger receipts of gold for melting, refining and casting. During the year gold weighing 5,73,130 tolas was received from Banks and Merchants for melting and assay, the corresponding figure for 1928-29 being Rs. 4,06,693 tolas, an increase of 40·9 per cent. In 1929-30, 13,25,228 tolas of raw gold received from the Indian Mines and Merchants were treated in the Gold Refinery as against 11,34,087 tolas in 1928-29 an increase of 16·8 per cent. Gold weighing 70,366 tolas was received for melting and casting into bars of uniform weight against 86,292 tolas of gold received in 1928-29.

97. *Silver Melting Department.*—This Department was employed in the preparation of bars for Dollar Coinage, and melting for standard and fine silver ingots.

98. *Receipts from sale of exhausted Drosses.*—During the year about 208 tons of gold and silver drosses were sold to Messrs. Derby & Co., Ltd., London and Messrs. Johnson Matthey & Co., Ltd., London and a sum of Rs. 20,744 was recovered as value of gold and silver contents. The cost of packing this dross for shipment amounted to Rs. 1,785.

Owing however to the fall in the price of silver the disposal of low touch drosses by sale will be less advantageous in the near future and these drosses will be further treated in the Mint by amalgamation as far as possible.

99. *General Workshop.*—This Department is maintained primarily for the upkeep in serviceable repair of the Mint Plant and effects, and is in general fairly fully occupied. Outside work is accepted subject to the exigencies of Mint work proper and with the approval of the Master of the Mint.

100. *Profit and loss Account.*—The net loss transferred to the Balance Sheet amounts to Rs. 12,67,121 after deducting profit on Dollar Coinage and other miscellaneous receipts as shown below :—

	Rs.	A.	P.
To Loss on withdrawals of uncurrent coin	7,95,386	7	6
To Bullion Office Costs	1,00,186	0	0
To Melting and Operative Losses, etc.	40,899	5	0
To Standard Melting Costs	1,202	0	0
To Cost of Silver Dross Recoveries	17,730	0	0
To Share of Assay Office Costs	48,477	14	4
To Medal and Die Account	28,643	11	10
To Silver Refinery Costs	3,36,722	9	7
Total	13,69,248	0	3

	Rs.	A.	P.
By Profit on Gold Melting and Refining	62,139	11	6
By Receipts from Sale of Drosses	18,994	8	6
By Miscellaneous Receipts	12,259	7	0
By Profit on coinage of British Dollars	28,733	9	2
By Loss to Balance Sheet	12,67,120	11	7
Total	13,69,248	0	3

The loss is mainly due to loss on withdrawal of uncurrent coins and the cost of silver refining. As these are recurring items this account will always tend to show a loss.

Balance Sheet.

101. *Currency Chest Balance.*—This balance consists of gold of the value of Rs. 5,81,56,875-9-10 and silver of the value of Rs. 1,88,65,625-8-0 held in the Mint on account of the Currency Department.

102. *Assets.*—The following additions to the fixed Assets were made during the year 1929-30 :—

Item.	Mint.			Refinery.			Assay Office.			Total.		
	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.
Buildings	1,560	0	0	1,909	0	0	..			3,469	0	0
Plant and Machinery . .	8,834	1	0	2,48,865	8	0	905	0	0	2,58,604	9	0
Furniture and Fixtures .	11,026	8	0	5,256	8	0	5,942	8	0	22,225	8	0
Total ..	21,420	9	0	2,56,031	0	0	6,847	8	0	2,84,299	1	0

Buildings.

103. *Mint and Refinery.*—A part of the road through the Mint compound was re-surfaced with asphalt at a cost of Rs. 1,560. A teakwood and asbestos sheeting enclosure to the lift in the Silver Refinery and an iron ladder to roof of Silver Refinery Stronghold were purchased at the cost of Rs. 1,909.

Plant and Machinery.

104. *Mint.*—Centrifugal pump, electric paint spray, electric drill and grinder, etc., were purchased at the cost of Rs. 988.

Centrifugal Fan with motor, and 5′ amalgam pan with spares were purchased at a cost of Rs. 7,846 in the year 1927-28 but were accounted for in the Balance Sheet for the year 1929-30.

105. *Silver Refinery.*—The sum of Rs. 2,48,865-8-0 represents the cost of machinery and equipment ordered in connection with the Silver Refinery.

106. *Assay Office.*—The sum of Rs. 905 represents the cost of vacuum pump with motor, draught muffle and Dayton pressure pump fitted in the Assay Office.

Furniture and Fixtures.

107. *Mint.*—2 Bullion Balances to carry 2,000 ounces troy in each pan and a box containing Reference Standard weights were added during the year. These were ordered from England at the cost of Rs. 9,297 and tables, fans, etc., were also purchased at a cost of Rs. 1,729-8-0.

108. *Silver Refinery.*—Miscellaneous equipment such as teakwood drying trucks was added to the stock at a cost of Rs. 5,256-8-0.

109. *Assay Office.*—Verification Balance costing Rs. 5,625 and chairs, tables, etc., costing Rs. 317-8-0 were purchased during the year.

110. *Consumable Stores.*—The stock of stores Rs. 3,35,546 has decreased by over Rs. 30,000 from the last year's balance Rs. 3,65,641. A portion of the stock was verified during the first half of the year by one of the Mint Engineers. As no Engineer could be spared owing to Dollar Coinage no verification could be carr d out in the second half of the year.

The small balances of consumable stores in the Die and the Gold Melting and Refinery Department were not verified during the year. This will however be done from next year.

111. *Bullion Stocks.*—Rs. 17,850.

The bullion stocks were verified by the Examiner, Outside Audit, Bombay, in April 1930.

112. *Sundry Debtors.*—The whole of the outstandings represented by this figure were settled by May 1930.

SECTION II.—REMARKS OF THE DIRECTOR OF COMMERCIAL AUDIT.

113. During the year 1929-30 no Indian Government coins were manufactured. British Dollar coinage was, however, undertaken and a Profit of Rs. 28,734 was made on the year's output of 95,35,084 pieces, as under :—

Costs.	Rs.
Prime cost of production	1,01,219
Cost of dies used	7,345
Cost of Assays	16,159
Share of general charges	38,546
Metal used (silver and copper)	2,16,98,380
Total	2,18,61,649

Realisation, etc.	Rs.
Sales	1,70,17,514
Seignorage	2,55,000
Issues to Pyx, etc.	147
Stock on hand	46,17,722
Total	2,18,90,383
Profit on coinage	28,734

114. The gross cost of refining silver amounted to Rs. 4,32,911 in the year. Recoveries of gold and copper to the value of Rs. 76,188 were made in this period leaving a net cost of Rs. 3,56,723 as shown in the Profit and Loss Account.

115. The transactions of the year on account of melting and refining gold are set out below :—

	Rs.
Cost of melting and refining	40,062
Cost of treating gold drosses	5,589
Total	45,651
Receipts	98,040
Silver recovered from melting, etc.	9,751
Total	1,07,791
Profit	62,140

About 7 tons of gold drosses were treated during the year, and the value of the recoveries therefrom amounted to—

	Rs.
Gold	19,140
Silver	9,125
Total .	28,265

116. Approximately 19 tons of silver drosses were treated during 1929-30 at a cost of Rs. 17,739, and Rs. 1,84,392 worth of silver was recovered.

117. The Assay office costs amounted to Rs. 1,11,661, and Rs. 9,096 were recovered by way of fees leaving a balance of Rs. 1,02,565 which was distributed between the two mints in proportion to the assays carried out for each. The Calcutta Mint was charged with Rs. 13,688 and the balance of Rs. 88,877 was borne by the Bombay Mint. Of the Bombay Mint share the silver refinery was charged with Rs. 24,240, the British dollar coinage with Rs. 16,159, and the balance of Rs. 48,478 is shown in the Profit and Loss Account.

118. The Bombay Mint is, under present conditions of working, a service concern rather than a commercial undertaking, for it is employed mainly on refining silver for the Currency Department. The net result of its transactions during 1929-30 amounted to an excess of expenditure over receipts of Rs. 12,67,121 which has been carried to the Balance Sheet.

119. The following additions were made to the assets during 1929-30 :—

	Rs.
Buildings	3,469
Plant and Machinery	2,58,605
Furniture and fixtures	22,225
Total .	2,84,299

Of the above expenditure Rs. 2,56,031 was incurred on the silver refinery, which brings the total expenditure on this project to Rs. 5,57,670 on the 31st March 1930. The Government of India in the Finance Department accorded administrative approval to the erection of this refinery at an estimated cost of Rs. 5,31,310. Government have been addressed in regard to the excess of Rs. 26,360 over the sanction.

HIS MAJESTY'S MINT, BOMBAY.

120. Balance Sheet as at 31st March 1930.

Liabilities.	31st March 1929.	31st March 1930.
	Rs.	Rs.
Sundry creditors	49,112	54,070
Deposits	85,055	57,814
Currency Chest Balance	10,03,55,586	7,70,22,501
Treasury Remittances awaiting Examination	1,05,69,785	75,56,691
Depreciation Reserve	..	..
Profit and Loss Account	38,981	..
Government Capital Account	24,34,273	97,20,355
	11,35,32,792	9,44,11,431

Assets.			31st March 1929.	31st March 1930.
			Rs.	Rs.
Buildings			4,85,989	4,70,811
Plant and Machinery			3,24,061	5,15,523
Furniture, Fixture and Laboratory apparatus			1,14,177	1,32,691
	Bullion Stocks.			
Mint	Gold		3,801	5,466
	Silver		24,907	63,90,483
Currency	Gold		5,80,84,311	5,81,56,876
	Silver		4,22,71,275	1,88,65,626
	Other Metal Stocks.			
	Nickel		11,00,435	6,43,774
	Bronze		1,00,278	36,129
	German Silver		11	11
Consumable Stores			3,65,641	3,33,546
Uncurrent remittances awaiting Examination			1,05,69,785	75,56,691
Security Deposits			85,055	57,814
Sundry Debtors			3,066	17,8[illegible]0
Profit and Loss Account for the year		12,67,121	..	12,28,140
Less Profit at 1st April 1929		38,981		
			11,35,32,792	9,44,11,431

A. K. PATANKER,
Accountant,
His Majesty's Mint, Bombay.

D. FITZMAURICE,
Major, R. E., (Retd.) Mint Master,
His Majesty's Mint, Bombay.

E. PRICE, A. C. A.,
Assistant Director of Commercial
Audit, Bombay Circle.

HIS MAJESTY'S MINT, BOMBAY.

121. Trading and Profit and Loss account for the year ended 31st March 1930.

—	1929-30.	1928-29.		1929-30.	1928-29.
	Rs.	Rs.		Rs.	Rs.
To opening balance on 1st April	..	4,48,500	By Issue of coinage	1,72,72,660	34,55,660
" Cost of Coinage	2,18,61,649	25,26,191	" Closing balance of finished coins on 31st March	46,17,722	..
" Loss on withdrawal of uncurrent coins	7,95,386	8,25,745	" Gross loss carried down	8,66,839	4,59,204
" Bullion Office costs	1,00,186	1,14,428			
	2,27,57,221	39,14,864		2,27,57,221	39,14,864
To Gross loss brought down	8,66,839	4,59,204	By Profit on gold melting and refining	62,140	38,011
" Share of Assay Office costs	48,478	83,885	" Receipts from sales of drosses	18,995	4,524
" Nickel washing costs	..	7,063	" Miscellaneous receipts and adjustments	12,259	7,555
" Cost of recovery of silver drosses	17,739	7,416	" Net loss carried to Balance Sheet	12,67,121	6,78,833
" Silver Refinery costs	3,56,723	40,456			
" Silver losses in melting	40,890	29,543			
" Standard melting costs	1,202	28,708			
" Die Department costs	28,644	14,697			
" Loss on verification of nickel	..	13,138			
" Loss on sales of nickel	..	28,057			
" " " " " bronze	..	6,766			
	13,60,515	7,28,923		13,60,515	7,28,923

HIS MAJESTY'S MINT, BOMBAY.

122. Statement of Stores, etc., for the year 1929-30.

Stores.	Opening balance on 1st April 1929.	Value of receipts during the year.	Value utilized during the year. Sold or disposed of.	Value utilized during the year. Depreciation or write off.	Closing balance on 31st March 1930.	Results of stock verification and revaluation if any.	Agency employed for revaluation or verification.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.		
Consumable Stores:—							A portion of the main stores was verified during the first half of the year by one of the Mint Engineers. No verification was carried out in the second half of the year as the Mint was working on Dollar coinage and no engineer could be spared. The small balances of the consumable stores in the Die and Gold Departments were not verified during the year, under review. Bullion stocks were verified by the Examiner, Outside Audit in April 1930.
Main	3,52,185 10 0	1,67,364 6 8	1,07,441 1 8	(a) 4,708 9 0	3,17,370 6 0	..	
Workshop	1,331 14 5	21,230 3 8	(b) 20,218 1 11	..	2,344 0 2	..	
Die Department	1,445 4 4	6,677 9 3	6,146 11 4	(c) 841 8 0	(d) 1,134 10 3	..	
Gold Departments	513 6 7	10,019 1 8	9,443 4 8	..	1,089 3 7	..	
Total	3,55,446 3 4	2,05,291 5 3	2,33,249 2 7	5,550 1 0	3,21,938 4 0	..	

(a) Loss in Coal coke and shortages in verification and write back.
(b) Includes Rs. 110 returned to stores.
(c) Write back of the value of stock of medal cases from Rs. 1-12-0 to Rs. 1-1-0 each.
(d) The value of Dies and Collars finished and in progress amounting Rs. 11,607-8-0 is not included.

(Sd.) A. K. PATANKER,
Accountant,
His Majesty's Mint, Bombay.

(Sd). D. FITZMAURICE,
Major, R. E. (Retd.) Mint Master,
His Majesty's Mint, Bombay.

(Sd.) E. PRICE,
Assistant Director of Commercial Audit,
Bombay Circle.

CHAPTER III.

GOVT. OF INDIA—FINANCE DEPARTMENT.

Central Board of Revenue Concerns.

NORTHERN INDIA SALT REVENUE DEPARTMENT.

SECTION I.

Financial Review by the Commissioner on the Commercial Accounts for the year 1929-30.

123. The system of maintaining Commercial Accounts in the Northern India Salt Revenue Department was introduced with effect from the 1st April 1924. These Accounts are prepared from the figures supplied by the Audit Officer, Indian Stores Department, who is the Accounts Officer for the Northern India Salt Revenue Department.

The general control of the Northern India Salt Revenue Department is exercised by the Commissioner with a Headquarters Office in Delhi. The Salt Sources, the accounts of which have been commercialised, fall into two geographical groups, namely (1) the Rajputana Salt Sources, which comprise the works at Sambhar, Didwana and Pachbadra, and where salt is manufactured by solar evaporation of the brine and (2) the Salt Range Division, which comprise the salt mines at Khewra, Warcha and Kalabagh.

124. Under the orders conveyed in the Central Board of Revenue's U. O. C. No. 305-Salt/28, dated the 28th May 1930, the Commercial Accounts for the year 1929-30 have been prepared from the audited figures for March 1930 Final I Batch, as they stood on the 15th June 1930 and not, as was done last year, on figures up to the 1st August. This change has admitted of the preparation of the accounts much earlier than usual and of their audit, which was commenced by the Commercial Audit Department on the 17th July 1930, being completed by the 23rd August 1930.

Any adjustments which are made subsequent to the March 1930 Final I Batch statement will be accounted for in the accounts for 1930-31.

125. Some important changes were made in the method of allocating indirect charges relating to weighment and the Commissioner's Headquarters office, etc., between "Price", "Duty" and "Dispatch" in the year under review.

The important items of expenditure and changes effected in allocation are explained below :—

(a) *Weighment charges.*—In the accounts for 1924-25 weighment charges, except direct dispatch charges, were allocated between price and duty in the ratio of 1 to 5, *i.e.*, in the ratio of the fixed rates of price and duty of salt at Sambhar which were 0-4-0 and 1-4-0 respectively. In subsequent years these charges have been debited to price, but in accordance with the orders conveyed in the Government of India's letter C. No. 117-Salt/29 dated the 15th June 1929 only 1/6th of the weighment charges have this year been debited to "Price", the remaining 5/6th, after deducting 15 per cent. for debit to "dispatch" being borne by Government finally as part of the cost of collection of revenue.

(b) *Commissioner's Headquarters Office charges.*—In 1924-25 and 1925-26 practically the whole of expenditure relating to the Commissioner's Headquarters office was debited to Manufacture. In the accounts for 1926-27 to 1928-29 1/10th of the charges under this head were debited to "Preventive" and the remaining 9/10th to "Price". This 9/10th was distributed amongst the various sources of the Department in the proportion the Revenue Expenditure of each source bore to the total Revenue Expenditure of all the sources combined.

In compliance with the orders conveyed in the Government of India's letter R. Dis. No. 290-Salt/29, dated the 5th June 1930, 12½ per cent of these charges instead of 1/10th have been allocated to "Preventive" (Internal Branch and Kohat divisions only) and the balance, namely 87½ per cent. distributed amongst the various salt sources in proportion to the Revenue Expenditure at each source under the heads Price, Duty and Dispatch.

(c) In previous years the interest and depreciation on the capital expenditure incurred in connection with the transport and storage schemes at Sambhar were wholly debited to "Price". In view, however, of the fact that the introduction of these schemes has resulted in a reduction of the "Dispatch" rate, 7½ per cent. of the interest and depreciation charges in respect of them have this year been debited to "Dispatch." This rate was fixed in consultation with the Director of Commercial Audit and the Audit Officer, Indian Stores Department.

(d) In their U. O. C. No. 305-Salt/28, dated the 28th May 1930 the Central Board of Revenue accepted the proposals of the Auditor General that certain Miscellaneous Receipts which were not previously taken into account when calculating the cost price of salt should in future be deducted from the total cost of production and the cost price calculated on the balance. These orders have been given effect to and the following deductions have been made in calculating the cost price :—

(i) Electric energy supplied to private parties.

(ii) Work done by workshops for private parties.

(iii) Terminal charges recovered from the B. B. & C. I. Railway.

(iv) Petty items such as—

(a) Recovery of rent from officers for occupation of rest houses.

(b) Fees levied on traders on account of changes of destination.

(c) Recoveries on account of hire of departmental locomotives and trucks by contractors.

(d) Recoveries of overpayment on account of excavation and manufacture of salt in previous years.

(e) Recoveries on account of water supplied to priv. e parties.

(f) *Manufacture Charges.*—These charges represent expenditure on establishment employed on the manufacture of salt, payments to miners or manufacturers, cost of electric current, carriage of salt, maintenance of permanent way and rolling stock and other plant and machinery.

(g) *Royalties and Compensations.*—These payments are made in compensation for the following:—

1. The leasing of certain salt sources to Government.
2. The introduction of measures in Indian States to enable the Government to abolish the Inland Customs Line.
3. The suppression of salt manufacture in Indian States.
4. The transfer to the British Government of the right to levy duty on salt consumed by the subjects of these States.

Royalty payable to Jodhpur and Jaipur is debited to the cost of production at Sambhar. Of the other treaty payments and compensations a fixed sum of Rs. 3 lakhs is allocated between Sambhar, Pachbadra and Didwana prorata to the issues during the year.

(h) *Net expenditure on Stores and Workshop establishment.*—Represents expenditure on General Stores, Workshop and Electric Power House at Sambhar and Khewra *minus* recoveries on account of services rendered to other branches of the Department, such as "Manufacture", "Weighment", etc.

(i) *Pensionary charges.*—Calculated at rates applicable to Government servants lent to other employers. These rates are governed by elaborate Government orders issued from the Finance Department.

(j) *Interest on Capital.*—Before 1928-29 interest was calculated on the value of assets such as, land, buildings, other works, plant and machinery, roads and bridges, furniture and fittings, general stores and bags. But from 1928-29 interest is calculated on the value of the fixed *plus* floating assets including the value of the net stock of salt at the beginning of the year, *plus* half the Capital Outlay during the year. The Government of India in their Finance Department (Central Revenue's) letter C. No. 26-Salt/30, dated the 3rd May 1930, have, however, decided that interest should in future be charged on the value of the net capital (all fixed and floating assets less liabilities) at the beginning of the year, and that transactions during the year should be ignored for the purpose of calculation of interest charges. These orders will be given effect to from the year 1930-31.

(k) *Depreciation charges.*—Depreciation is charged annually for a full year on the complete assets in existence at the end of the year and is calculated on the diminishing value method.

The rates of depreciation are :—

	per cent.
Buildings and other works	$2\frac{1}{2}$
Plant and Machinery	10
Sanding of pans	10
Flume at Khewra	15

No depreciation is charged on furniture and fittings, roads and bridges, filling subsidence in the mine hill and new surveys of the mine.

(l) *Cost of Account and Audit Establishment.*—9/10ths of this is debited to Manufacture and 1/10th to Preventive. It also includes the fees paid to the Commercial Audit Staff.

126. The expenditure charged to the Manufacturing branch of the Department for the year under review was Rs. 3,82,788-10-6 less than that for 1928-29. This reduction is due to the changes in the method of allocation of charges mentioned in para. 125 above. The expenditure under manufacture (*i.e.*, direct manufacture charges), leave salary and overseas pay paid in England and net stores and workshop charges have, however, increased this year from Rs. 14,31,880-14-2, Rs. 20,175-12-3 and Rs. 82,267-1-9 to Rs. 14,77,360-3-8, Rs. 54,447-0-0 and Rs. 54,120 respectively. The increase is mainly due to the expenditure of Rs. 34,719-15-2 on protective works and petty construction and repairs necessitated by the floods at Sambhar and under "Leave salary and overseas pay", to Mr. J. C. Fergusson, late Commissioner's leave salary and sterling overseas pay for the year 1928-29 having been debited to the accounts for 1929-30. The increase under net expenditure on stores and workshop is attributable to less recoveries having been effected in the year under review than in the previous year.

127. The working results of the manufacturing branch for the year 1929-30 disclosed a net profit of Rs. 55,750 on the whole (*vide* consolidated trading and profit and loss account) against a loss of Rs. 3,58,006 in 1928-29. The results at the several sources during the two years are compared below :—

Sources.	1929-30.		1928-29.	
	Loss.	Profit.	Loss.	Profit.
	Rs.	Rs.	Rs.	Rs.
Sambhar	1,04,343	..	76,762	..
Didwana	..	18,985	10,059	..
Pachbadra	..	62,491	69,113	..
Khewra	..	27,931	2,11,200	..
Warcha	..	36,238	..	19,972
Kalabagh	..	14,447	10,844	..
Total .	1,04,343	1,60,093	3,77,978	19,972
Net result .	..	55,750	3,58,006	..

128. In the year 1927-28 there was a net loss of Rs. 3,60,904. There was a profit of Rs. 2,31,914 in the Sambhar and Didwana sources and losses of

Rs. 1,04,149 and Rs. 4,88,669 respectively in respect of the Pachbadra source and the Salt Range Division (Khewra, Warcha and Kalabagh sources) the net loss, as stated above, being Rs. 3,60,904.

129. If the credits for 1928-29 of Rs. 50,276 and Rs. 1,98,552 respectively under the heads "Interest on the balance of the depreciation fund" and "other miscellaneous receipts" and of Rs. 68,160 and Rs. 1,73,526 for the year 1929-30 are excluded, the net loss for 1928-29 will be increased to Rs. 6,06,836 while the transactions for 1929-30 will show a loss of Rs. 1,85,936. The following table compares the figures of profit or loss at the individual sources for the two years after excluding the items referred to above :—

	1928-29.		1929-30.	
	Profit.	Loss.	Profit.	Loss.
	Rs.	Rs.	Rs.	Rs.
Sambhar	..	2,76,374	..	2,89,892
Didwana	..	10,282	18,834	..
Pachbadra	..	76,258	56,696	..
Khewra	..	2,49,161	..	17,684
Warcha	17,229	..	33,097	..
Kalabagh	..	12,090	13,013	..
Total	17,229	6,24,165	1,21,640	3,07,576
Net Loss	..	6,06,836	..	1,85,936

130. The results of the activities of the year 1929-30 and 1928-29 analysed under manufacturing and other operations after excluding the net credit under the head "Interest on the balance of depreciation fund" and "other miscellaneous receipts" are as follows :—

	1929-30.	1928-29.
	Rs.	Rs.
Salt—Net loss	1,92,401	8,37,098
Bags—Net profit	7,944	12,811
Dispatch—Net profit	1,33,008	2,14,195
Gypsum—Net profit	3,786	3,256

The details of these results by sources are furnished in the following tables :—

SALT.

Sources.	1929-30.		1928-29.	
	Profit.	Loss.	Profit.	Loss.
	Rs.	Rs.	Rs.	Rs.
Sambhar	..	2,33,315	..	4,08,090
Didwana	18,834	..	..	10,282
Pachbadra	59,875	..	..	82,841
Khewra	..	73,758	..	3,25,673
Warcha	22,768	..	1,878	..
Kalabagh	13,195	..	..	12,090
Total	1,14,672	3,07,073	1,878	8,38,976
Net loss	..	1,92,401	..	8,37,098

BAGS.

Sources.	1929-30. Profit.	1929-30. Loss.	1928-29. Profit.	1928-29. Loss.
	Rs.	Rs.	Rs.	Rs.
Sambhar	10	..	..	962
Pachbadra	..	16	..	3
Khewra	7,950	..	13,776	..
Total	7,960	16	13,776	965
Net profit or loss	7,944	..	12,811	..

DISPATCH.

Sources.	1929-30. Profit.	1928-29. Profit.
	Rs.	Rs.
Sambhar	73,986	1,32,678
Pachbadra	694	6,586
Khewra	47,906	59,480
Warcha	10,442	15,451
Total	1,33,008	2,14,195

131. Sanctioned selling rates as compared with the corresponding average and actual costs of production of salt per maund at each source during the years 1929-30 and 1928-29 are shown in the table given below :—

1929-30.

Sources.	Sanctioned selling price of salt per maund.	Average cost of salt per maund including opening balance.	Actual cost of production of salt per maund.	Difference between selling price and average cost—selling price more + selling price less—	Difference between selling price and actual cost—selling price more + selling price less—
Sambhar	0 4 3 (b)	0 5 6·86	0 5 6·87	—0 1 3·86	—0 1 3·87
	0 5 0			—0 0 6·86	—0 0 6·87
Didwana	0 2 6 (b)	0 2 4·74	0 2 2·40	0 0 1·26	0 0 3·60
	0 3 3			0 0 10·26	0 1 0·60
Pachbadra	0 3 3	0 3 6·88	0 3 1·60	—0 0 3·88	0 0 1·40
	0 4 0 (b)			—0 0 5·12	0 0 10·40
Khewra	0 3 6	0 4 8·89	0 4 8·26	—0 1 2·89	—0 1 2·26
	0 4 6 (b)			0 0 2·89	—0 0 2·26
Warcha	0 3 6 (b)	0 3 5·51	0 3 5·51	0 0 0·49	0 0 0·49
	0 4 6			0 1 0·49	0 1 0·49
Kalabagh	0 3 6	0 3 7·39	0 3 7·34	—0 0 1·39	—0 0 1·34
	0 4 6 (b)			0 0 10·61	0 0 10·66

(b) Selling price raised from 15th July 1929.

1928-29.

Sources.	Sanctioned selling price of salt per maund.	Average cost of salt per maund including opening balance.	Actual cost of production of salt per maund.	Difference between selling price and average cost—selling price more + selling price less—	Difference between selling price and actual cost—selling price more + selling price less—
Sambhar	0 4 3	0 4 11·96	0 5 2·49	—0 0 8·96	—0 0 11·49
Didwana	0 2 0	0 3 3·99	0 3 3·76	—0 1 3·99	—0 1 3·76
	0 2 6 (a)			—0 0 9·99	—0 0 9·76
Pachbadra	0 3 3	0 6 10·19	0 5 8·51	—0 3 7·19	—0 2 5·51
Khewra	0 3 6	0 5 3·56	0 5 2·36	—0 1 9·56	—0 1 8·36
Warcha	0 3 6	0 3 5·45	0 3 5·45	0 0 0·55	0 0 0·55
Kalabagh	0 3 6	0 3 11·39	0 3 11·37	—0 0 5·39	—0 0 5·37

(a) Selling price raised with effect from 27th May 1928.

It will be observed that, with the exception of Sambhar and Khewra, the selling prices now cover the cost of production.

The new selling prices of salt take into account not only the cost of production at each source but also the need for maintaining more or less constant zones of consumption. They have also been so fixed that Government should recover the total cost of production taking the Northern India sources and Kharagodha together. The prices include 1/6th of weighment charges only as explained in para. 125 above.

At Sambhar both the actual cost and the average cost of production in 1929-30 were more than in 1928-29 and they were also higher than the selling price. This is due to the destruction by floods of 10,22,237 Mds. of salt at Nawa and to additional expenditure having to be incurred on flood protective works. In the case of Khewra also the actual cost and the average cost were more than the selling pr ce although the cost of production at this source was 4 pies less per maund under each head than in 1928-29.

132. The figures of output of salt together with the prime cost, overhead cost and total cost per maund at the various salt sources for the year 1928-29 and 1929-30 are furnished below :—

1929-30.

Sources.	Output maunds.	Prime cost per maund.	Overhead cost per maund.	Cost of production per maund.
		Rs. A. P.	Rs. A. P.	Rs. A. P.
Sambhar	49,05,503	0 1 6·68	0 4 0·19	0 5 6·87
Didwana	4,91,820	0 1 5·13	0 0 9·27	0 2 2·40
Pachbadra	14,96,192	0 2 1·82	0 0 11·78	0 3 1·60
Khewra	29,90,078	0 3 2·66	0 1 5·60	0 4 8·26
Warcha	5,27,580	0 2 3·21	0 1 2·30	0 3 5·51
Kalabagh	4,05,687	0 3 0·91	0 0 6·43	0 3 7·34

1928-29.

Sources.	Output maunds.	Prime cost per maunds.	Overhead cost per maund.	Cost of production per maund.
		Rs. A. P.	Rs. A. P.	Rs. A. P.
Sambhar	67,20,424	0 1 1·23	0 4 1·26	0 5 2·49
Didwana	2,87,084	0 1 9·01	0 1 5·75	0 3 2·76
Pachbadra	5,22,796	0 2 10·40	0 2 10·11	0 5 8·51
Khewra	30,56,478	0 3 5·90	0 1 8·46	0 5 2·36
Warcha	6,51,716	0 2 3·26	0 1 2·19	0 3 5·45
Kalabagh	4,32,062	0 3 0·84	0 0 10·53	0 3 11·37

133. The manufacture of salt during 1929-30, apart altogether from bagging and dispatch operations resulted in a total loss of Rs. 1,92,401 against a loss of Rs. 8,37,098 in 1928-29. Of this loss of Rs. 1,92,401 the share of the Rajputana Salt Sources Division was Rs. 1,54,606 and of the Salt Range Division Rs. 37,795. During 1928-29, the losses of the two Divisions namely, Rajputana Salt Sources and Salt Range, amounted to Rs. 5,01,213 and Rs. 3,35,885 respectively.

The following table compares the losses at the several sources during 1929-30 and 1928-29 :—

	1929-30.	1928-29.
	Rs.	Rs.
Sambhar	2,33,315	4,08,090
Didwana	—18,834	10,282
Pachbadra	—59,875	82,841
Khewra	73,758	3,25,673
Warcha	—22,768	—1,878
Kalabagh	—13,195	12,090
Total Salt Range Division	37,795	3,35,885
GRAND TOTAL	1,92,401	8,37,098

134. The value of the stock of salt on 31st March 1930 amounted to Rs. 6,94,588. In the case of Sambhar, Pachbadra and Khewra the value has been calculated on the selling prices ruling at these sources as the average cost of production was higher than the selling price. For the other sources (Didwana, Warcha and Kalabagh) the stock has been valued at the average cost of production, as in the case of these sources, the selling price was higher than the cost of production.

A deficit of Mds. 2,30,369-20 of salt was discovered at Sambhar source during the year 1929-30.

135. Subjoined is a statement showing the cost prices and the issue rates of bags and the profit or loss thereon during the years 1928-29 and 1929-30 :—

1929-30.

	Selling price per bag.	Average cost per bag.	Profit or Loss
	Rs.	Rs.	Rs.
Sambhar	Varying between Rs. 36-8 and Rs. 44-11 per 100 bags.	0 6 10·58	11
Pachbadra	0 8 6	0 8 11·10	—16
Khewra	0 8 6 0 7 6	0 7 2·31	7,950

1928-29.

	Selling price per bag.	Average cost per bag.	Profit or loss
	Rs.	Rs.	Rs.
Sambhar	Varying between Rs. 41 to 44-8 per 100 bags.	0 6 9·62	—982
Pachbadra	0 8 6	0 8 9·91	—3
Khewra	0 10 0 0 8 6	0 8 7·77	13,776

There were no transactions in bags at Didwana, Warcha and Kalabagh. The profit of Rs. 7,950 at Khewra was due to bags having been sold at Re.0-8-6 upto 1st June 1929 and at Rs. 0-7-6 from this date onwards against the average cost price of Re. 0-7-2·31.

The prices of bags at Khewra was reduced from Rs. 0-8-6 to 0-7-6 per bag with effect from 1st June 1929.

136. The dispatch charges account disclosed a profit of Rs. 1,33,008 during 1929-30 as compared with Rs. 2,14,195 during the previous year. A comparative table showing the sanctioned rates of recovery and the actual rate worked out on the basis of the figures incorporated in the accounts for the years 1928-29 and 1929-30 is furnished below :—

Sources.	1929-30. Sanctioned rate of recovery per per maund of salt.	1929-30. Actual cost per maund of salt.	1928-29. Sanctioned rate of recovery per maund of salt.	1928-29. Actual cost per maund of salt.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Sambhar	0 0 6	0 0 3·34	0 0 6	0 0 2·44
Pachbadra	0 0 9	0 0 8·89	0 0 9	0 0 8·19
Khewra	0 0 6	0 0 2·96	0 0 6	0 0 2·31
Warcha	0 0 6	0 0 2·13	0 0 6	0 0 1·40

As a result of the classification of the weighment and other charges explained in para. 125 above indirect charges relating to 'Dispatch' have now been charged to this account. The amounts of indirect dispatch charges are as follows :—

		Rs.
Sambhar		33,693
Pachbadra		10,785
Khewra		12,449
Warcha		2,234
	Total	61,161

137. The total quantity of gypsum excavated and sold during 1929-30 amounted to 6,692 tons 10 cwts. The total charges both direct or indirect incurred on excavation amounted to Rs. 10,854. The sale of gypsum during the year 1929-30 realized Rs. 14,268 including Rs. 44 relating to the previous year. The year closed with Rs. 416 due from purchasers of gypsum and the new profit on this account was Rs. 3,786 compared with Rs. 3,256 in 1928-29.

138. The stock balance of general stores at Warcha at the end of the year under review was a credit balance of Rs. 8,927-12-3 which is unusual and is due to transfers of stores from Khewra to Warcha the values of which had not been taken on to the books. The matter is being regularized by the Audit Officer, Indian Stores Department.

139. A net profit of Rs. 54,120 is shown on stores, workshops and electric power house establishment. Details are as under :—

		Rs.
Khewra	Profit	65,106
Warcha	Do.	224
		65,330
Less loss at Sambhar		11,210
		54,120

The loss at Sambhar is due to recoveries for electric energy supplied to private parties having been credited to Miscellaneous Receipts instead of being accounted for as a deduction from charges as was done prior to 1928-29. At Khewra the total expenditure during 1929-30 under General Workshop amounted to Rs. 63,669 while the value of outturn debitable to other branches and parties and credited to General Workshop Account amounted to Rs. 66,825. There was thus a net profit of Rs. 3,156. The corresponding profit for 1928-29 was Rs. 9,705.

140. The net sum credited during 1929-30 on account of Miscellaneous Receipts amounted to Rs. 1,73,569 the figures for the years 1928-29 and 1927-28 being Rs. 1,98,552 and 2,58,353 respectively. The most important individual item is a sum of Rs. 90,856 received from the B. B. and C. I. Railway as terminal charges for the use of the departmental sidings at Sambhar, Gudha, etc. For 1928-29 the terminal charges recovered from the Railway amounted to Rs. 1,23,757.

SECTION II.—REMARKS BY THE DIRECTOR OF COMMERCIAL AUDIT.

141. The following is a *summary of the working results* of the year 1929-30 as compared with the previous two years :—

	Year 1929-30.	Year 1928-29.	Year. 1927-28.
	Mds.	Mds.	Mds.
Output (Salt)	1,08,16,950	1,16,70,561	1,07,22,159
	Rs.	Rs.	Rs.
Turnover (Salt)	26,45,916	38,50,079	25,61,902
Do. (Gypsum)	14,268	15,919	4,522
Manufacture of Salt—Net Loss	—1,92,402	—8,37,098	—8,44,773
Bags—Net Profit / Loss (—)	7,944	12,811	—2,337
Dispatch—Net Profit	1,33,008	2,14,195	1,90,709
Gypsum—Net Profit	3,786	3,265	1,269
Percentage of Gypsum Profit on its turnover	26·5	20·5	28·06
Net Profit / Loss (—) of the Manufacturing Branch as a whole.	55,750	—3,58,909	—3,60,905
Percentage of Net Profit / Loss (—) on Salt Turnover	2·11	—9·30	—14·08

142. The results of the year 1929-30 show marked improvement as compared with the previous years. This is mainly due to the adoption in the year 1929-30 of a revised method of allocation of some important items of indirect charges (referred to in para. 125 of the Financial Review), and the increase in the selling prices. The benefit on this account approximately amounts to as follows :—

	Rs.
(a) Gain by the increase in selling prices	3,97,910
(b) Decrease in the charges debited to the Manufacturing Branch on account of the revised method of allocation of expenditure.	2,16,305
Total	6,14,215

143. The "overhead cost per maund of salt" given in para. 132 of the Financial Review shows a decrease at all the sources except Warcha. It will be noticed, however, that in spite of the adoption of the revised method of allocating overhead charges, the overhead cost of salt at Warcha showed an increase of 0·11 pies per md. as compared with that of last year. This was the outcome of a considerable fall in production during the year, the value of which was not counterbalanced by the transfer of overhead charges.

The above facts also account for the increase in the "cost of production" at Warcha by 0·06 pies per maund as compared with the year 1928-29. The increased "cost of production" of 4·38 pies per maund at Sambhar as compared with the year 1928-29 is due to the reasons given at end of para. 131 of the Financial Review.

144. From the total amount of Miscellaneous Receipts (less refunds) during the year, *viz.*, Rs. 1,73,468-8-4 a sum of Rs. 1,38,216 has been taken against the cost of production of salt. The balance Rs. 35,252-3-4, owing to lack of details, remains unallocated. Please see para. 140 of the Financial Review.

Whereas "Sundry Miscellaneous Receipts" have been taken into account in working out the cost of production the receipt on account of "Interest on the balance of the Depreciation Fund—Rs. 68,160" during the year 1929-30 has, in the absence of Government orders, not been similarly treated in the accounts. The cost of production of Salt would have been slightly less than what is shown in the accounts under review if such interest had been credited to cost of production.

145. The interest has been worked out in the accounts of the year on the method detailed in para. 125 (j) of the Financial Review. Had interest been calculated in the accounts of the year 1929-30 at the revised method approved by Government the charge would have amounted to an increase of approximately Rs. 45,000 over what is adopted in the accounts, and the figure of *net profit* for the year would have in consequence been reduced to Rs. 10,750 approximately against Rs. 55,750 as shown in the Accounts.

146. The Balance Sheet has not been certified correct by the Commercial Audit Officer owing to the reasons given in para. 67 of the Proceedings of the 1928-29 Report of the Public Accounts Committee (Page 29—Grant 18—Salt). The question of maintaining a Journal and General Ledger is under consideration of the Central Board of Revenue.

NORTHERN INDIA SALT

147. Balance Sheet

Liabilities.		1929-30.		1928-29.	
		Rs.	Rs.	Rs.	Rs.
Sundry Creditors			41,377		2,45,140
Depreciation Reserve		13,84,655		11,35,900	
Additions during the year . .		2,57,582	16,42,237	2,48,755	13,84,655
Government Account		95,53,082		1,02,50,980	
Add—Transactions during the year .		4,81,510		..	
Deduct—Transactions during the year		..	1,00,34,592	6,97,898	95,53,082
Profit and Loss Account—	Rs.				
Profit for 1924-25 . .	9,79,289				
Less Loss for 1925-26 .	3,34,032				
	6,45,257				
Less Loss for 1926-27 .	3,50,841				
Balance of Profit to end of 1926-27.	2,94,416				
Less Loss for 1927-28 .	3,60,904				
Net Loss up to 31st March 1928	66,488				
Add Loss for 1928-29 .	3,58,009				
Balance of Loss up to end of 1928-29.	4,24,497				
Less profit for 1929-30 .	55,750				
Balance Loss *per contra* .	3,68,747				
TOTAL .			1,17,18,206		1,11,80,877

REVENUE DEPARTMENT.

as at 31st March 1930.

Assets.	1929-30.		1928-29.	
	Rs.	Rs.	Rs.	Rs.
Land		1,05,798		1,05,798
Buildings	11,07,332		11,42,102	
Additions during the year . .	80,552		56,512	
	12,77,884		11,98,614	
Deduct—Sales and Transfers . .	83,562	11,94,382	1,282	11,97,332
Roads and Bridges	56,819		55,819	
Additions during the year . .	869	57,688	..	56,819
Plant and Machinery	15,27,042		15,84,454	
Additions during the year . .	39,396		33,867	
	15,66,438		16,18,321	
Deduct—Sales and Transfers . .	30,186	15,36,252	91,279	15,27,042
Other Works	55,12,866		53,59,529	
Additions during the year . .	65,017		1,55,180	
	55,77,883		55,14,709	
Deduct—Sales and Transfer . .	3,068	55,74,815	1,843	55,12,866
Furniture and Fittings . . .		41,317		41,317
General Stores		9,54,711		9,22,882
Depreciation Fund Investment Account		16,42,237		13,84,655
Sundry Debtors		2,42,319		7,669
Profit and Loss Account *per contra* .		3,68,747		4,24,497
Total .		1,17,18,206		1,11,80,877

NORTHERN INDIA SALT

148. Comparative Consolidated Trading and Profit and

Debits.

Particulars.	Sambhar. 1929-30.	Sambhar. 1928-29.	Didwana. 1929-30.	Didwana. 1928-29.	Pachbadra. 1929-30.	Pachbadra. 1928-29.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
	A	(a)	B	(b)	C	(c)
To Salt Stock (at commencement).	5,95,111	6,99,180	15,995	15,705	40,805	75,907
,, Manufacture . .	4,77,338	4,83,217	43,593	31,422	2,01,243	93,674
,, Weighment Charges .	13,795	1,08,839	1,252	6,217	3,843	27,002
,, Share of Commissioner's Head Quarters Office Charges.	37,931	41,505	2,698	2,336	13,680	8,088
,, Medical Charges . .	8,219	8,687	78	120	2,107	2,767
,, Royalties and Salt Compensation.	8,00,505	9,73,715	14,314	11,469	55,159	25,706
,, Pensionary Charges .	24,028	34,090	1,252	2,654	5,391	7,090
,, Leave Salary and overseas pay paid in England.	27,996	11,091	1,096	150	5,559	557
,, Interest on Capital outlay	2,78,934	3,44,428	1,367	1,800	748	11,480
,, Depreciation Charges .	1,41,917	1,62,223	361	488	2,506	3,836
,, Cost of Accounts and Audit Establishment.	18,140	22,894	1,290	1,288	6,542	4,792
,, Stationery and Printing	1,143	3,846	19	22	99	871
,, Contribution of Bonus to Provident Fund.	—	..	—	..	—	..
Other Items.						
To Refunds (Sale proceeds)	15,529	27,092	—	3,805	792	1,738
,, Refunds (Miscellaneous Revenue Receipts).	—	81	—	..	—	..
,, Salt Indents (at commencement).	—	7,05,215	—	—736	—	—4,341
,, Salt Indents (at close)	—	96,368	—	4,549	—	1,36,590
,, Bags Account—Loss .	—	..	—	..	—	..
,, Net Profit . . .	1,04,343	—	18,988	—	62,491	—
Total .	23,34,243	37,03,865	1,02,001	81,289	4,01,065	3,96,447

									Rs.
(a)	Mds. 28,32,905	of Sambhar Salt	valued	at the selling	price Rs.	0-4-3	per maund	=	6,99,180
(b)	,, 1,25,637	,, Didwana	do.	do.	do. ,,	0-2-0	do.	=	15,705
(c)	,, 3,73,697	,, Pachbadra	do.	do.	do. ,,	0-3-3	do.	=	75,907
(d)	,, 3,12,340	,, Khewra	do.	do.	do. ,,	0-3-6	do.	=	68,324
(e)	,, 1,420	,, Kalabagh	do.	do.	do. ,,	0-3-6	do.	=	310

REVENUE DEPARTMENT.

Loss Account for the year ended 31st March 1930.

Khewra.		Warcha.		Kalabagh.		Total.	
1929-30.	1928-29.	1929-30.	1928-29.	1929-30.	1928-29.	1929-30.	1928-29.
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
D	(d)	E	(e)	F	(f)		
62,781	68,324	3	..	1,212	310	7,15,907	8,59,426
6,02,110	6,68,128	74,773	92,528	78,003	82,911	14,77,360	14,31,880
7,694	55,753	952	8,076	899	5,887	28,435	2,11,588
38,440	47,176	5,165	8,187	5,120	6,562	1,03,034	1,14,454
7,942	9,423	2,456	2,994	140	165	18,942	24,156
—	..	—	..	—	..	8,69,978	10,10,890
18,535	24,662	2,392	5,000	1,532	2,919	53,060	76,415
15,619	6,532	2,099	525	2,080	421	34,449	20,178
1,24,315	1,27,101	10,705	9,760	202	2,700	4,16,271	4,97,269
1,08,788	1,14,776	13,358	10,328	1,287	1,658	2,68,307	2,93,309
18,385	26,023	2,471	4,516	2,448	3,620	49,276	63,123
2,018	4,352	38	77	36	62	3,351	9,230
843	1,771	—	..	—	..	843	1,771
2,215	1,638	5,373	602	1,272	1,421	25,481	36,296
58	5	—	..	—	..	58	86
—	62,870	—	—75,593	—	—7,202	—	6,90,112
—	—1,84,122	—	54,398	—	47,075	—	1,55,358
—	..	—	..	—	..	—	..
27,931	—	36,238	—	14,447	—	55,750	—
10,37,694	10,34,412	1,56,221	1,21,398	1,08,678	1,48,109	41,40,502	54,85,520

(A) Mds. 22,40,416 of Sambhar Salt valued at the selling price of Rs. 0-4-3 per md. = Rs. 5,95,111
(B) " 1,02,365 " Didwana " " " " " " " 0-2-6 " = Rs. 15,996
(C) " 2,00,885 " Pachbadra " " " " " " " 0-3-3 " = Rs. 40,805
(D) " 2,87,000 " Khewra " " " " " " " 0-3-6 " = Rs. 62,781
(E) " 16 " Warcha " " average cost of production of Rs. 0-3-5-45 per md. = Rs. 3
(F) " 5,540 " Kalabagh " selling price of Rs. 0-3-6 per md. = Rs. 1,212

NORTHERN INDIA SALT

149. Comparative Consolidated Trading and Profit and Loss

Credits.

Particulars.	Sambhar.		Didwana.		Pachbadra.	
	1929-30.	1928-29.	1929-30.	1928-29.	1929-30.	1928-29.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
By Sale proceeds of Salt	14,50,619	27,12,527	59,396	55,011	2,72,354	2,72,803
„ Salt indents (at close)	55,093	..	—543	..	—1,06,507	..
„ Miscellaneous Revenue Receipts.	1,46,125	1,70,520	30	129	4,901	6,466
„ Interest on Balance of Depreciation Fund.	39,424	29,165	122	93	894	677
„ Stores and Workshops and Electric Power House Estt.	—11,210	—11,945	—	..	—	..
„ Profit on Dispatch Account.	73,966	1,32,687	—	..	694	6,536
„ Profit on Gypsum .	—	..	—	..	—	..
„ Profit on Bags . .	10	—962	—	..	—16	—3
	(f)	(G)	(g)	(H)	(h)	(I)
„ Salt Stock (at close) .	4,83,348	5,95,111	39,048	15,995	92,153	40,805
„ Net Loss . . .	—	76,762	—	10,059	—	69,113
„ Salt indents at commencement.	96,868	—	4,548	—	1,36,590	—
Total .	23,34,243	37,03,865	1,02,601	81,289	4,01,065	3,96,447

Certified that the figures contained in this account have been reconciled with those furnished including March 1929 Supplementary and that the figures for March 1930 final 2nd batch and

F. REID,
Offg: Commissioner,
N. I. S. R.

RAM LABHAYA,
Head Accountant.

(f) Mds. 15,46,714 of Sambhar Salt valued at the selling price of Rs. 0-5-0 per md. = Rs. 4,83,348
(g) „ 2,60,867 „ Didwana „ „ „ average cost of production Rs. 0-2-4·74 per md. = Rs. 39,048.
(h) „ 4,12,633½ „ Pachbadra „ „ „ average cost of production Rs. 0-3-6·88 per md. = Rs. 92,155.
(i) „ 2,84,500 „ Khewra „ „ „ selling price of Rs. 0-4-6 per md. = Rs. 80,016
(k) „ 31 „ Warcha „ „ „ average cost of production Rs. 0-3-5·51 per md. = Rs. 7.
(m) „ 64 „ Kalabagh „ „ „ average cost of production Rs. 0-3-7·39 per md. = Rs. 14.

REVENUE DEPARTMENT.

Account for the year ended 31st March 1930—*contd.*

Khewra.		Warcha.		Kalabagh.		Total.	
1929-30.	1928-29.	1929-30.	1928-29.	1929-30.	1928-29.	1929-30.	1928-29.
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
6,49,724	5,52,963	1,22,914	1,21,067	90,910	1,34,908	26,45,917	38,50,079
3,21,711	..	—34,904	..	—30,755	..	2,04,095	..
21,042	20,016	378	645	1,051	952	1,73,527	1,98,728
24,575	18,048	2,762	1,998	383	293	68,160	50,276
65,106	92,906	224	1,307	—	..	54,120	82,268
47,906	59,466	10,442	15,450	—	..	1,33,908	2,14,189
3,786	3,256	—	..	—	..	3,786	3,256
7,950	13,776	—	..	—	..	7,944	12,811
(I)	(J)	(H)	(N)	(m)	(L)		
80,016	62,781	7	3	14	1,212	6,94,588	7,15,907
—	2,11,200	—	—10,972	—	10,844	—	3,58,006
—1,84,122	—	54,398	—	47,075	—	1,55,357	—
10,37,694	10,34,412	1,56,221	1,21,398	1,08,678	1,48,109	41,40,502	54,85,520

by the Audit Officer, Indian Stores Department for the year 1929-30 (March final 1st batch) Supplementary will be incorporated in the accounts for 1930-31.

S. C. SEN,

Assistant Audit Officer,

Northern India Circle (Commercial).

(G) Mds. 22,40,418 of Sambhar Salt valued at the selling price of Rs. 0-4-3 per md. = Rs. 5,95,111
(H) „ 1,02,365 „ Didwana „ „ „ „ „ „ „ 0-2-6 „ = Rs. 15,995
(I) „ 2,00,885 „ Pachbadra „ „ „ „ „ „ „ 0-3-3 „ = Rs. 40,805
(J) „ 2,87,000 „ Khewra „ „ „ „ „ „ „ 0-3-0 „ = Rs. 62,782
(N) „ 16 „ Warcha „ „ average cost of production of Rs. 0-3-5·45 per md. = Rs. 3
(L) „ 5,540 „ Kalabagh „ selling price of Rs 0-3-6 per md. = Rs. 1,212

NORTHERN INDIA SALT

150. Comparative Special Abstract Trading and Profit and

Dr.

Particulars	Sambhar.		Didwana.		Pachbadra.	
	1929-30.	1928-29.	1929-30.	1928-29.	1929-30.	1928-29.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
To Loss on Bags . .	—	..	—	..	—	..
,, Loss on Salt . .	2,33,315	4,08,090	—18,834	10,282	—59,875	82,841
Total .	2,33,315	4,08,090	18,834	10,282	59,875	82,841

Particulars as above.	Khewra.		Warcha.		Kalabagh.		Total.	
	1929-30.	1928-29.	1929-30.	1928-29.	1929-30.	1928-29.	1929-30.	1928-29.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
	—	..	—	..	—	..	—	..
	73,758	3,25,673	—22,768	—1,878	—13,195	12,090	1,92,402	8,37,098
	73,758	3,25,673	—22,768	—1,878	—13,195	12,090	1,92,402	8,37,098

REVENUE DEPARTMENT.

Loss Account by Products for the year 1929-30.

Cr.

Particulars	Sambhar.		Didwara.		Pachbadra.	
	1929-30.	1928-29.	1929-30.	1928-29.	1929-30.	1928-29.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
By Profit on Dispatch .	73,966	1,32,678	—	..	694	6,586
" Profit on Gypsum .	—	..	—	..	—	..
" Profit on Bags . .	10	—962	—	..	—16	—3
By Miscellaneous Receipts.						
Interest on balances of Depreciation Fund.	39,424	29,165	122	94	894	678
Other net miscellaneous receipts.	15,572	(a) 1,70,447	30	129	1,044	6,466
Net Loss (+) Profit (—)	—1,04,343	+76,762	—18,986	+10,059	—62,491	+69,114
Total .	2,33,315	4,08,090	—18,834	10,282	—59,875	82,841

	Khewra.		Warcha.		Kalabagh.		Total.	
	1929-30.	1928-29.	1929-30.	1928-29.	1929-30.	1928-29.	1929-30.	1928-29.
[Particulars as above.]	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
	47,906	59,490	10,442	15,451	—	..	1,33,008	2,14,195
	3,786	3,256	—	..	—	..	3,786	3,256
	7,900	13,776	—	..	—	..	7,945	12,811
	24,575	18,048	2,763	1,908	383	293	68,160	50,276
	17,472	19,913	265	645	869	952	35,252	1,98,552
	—27,931	2,11,200	—36,238	—19,972	—14,447	10,845	—55,749	3,58,008
	73,758	3,25,673	22,768	—1,878	—13,195	12,090	1,92,402	8,37,098

NORTHERN INDIAN SALT

151. Comparative Cost Sheet of

	Sambhar.		Didwana.		Pachbadra.	
	1929-30.	1928-29.	1929-30.	1928-29.	1929-30.	1928-29.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Opening Balance . .	6,99,664	7,33,453	21,321	28,000	85,994	1,97,223
Charges for the year.						
Manufacturing charges .	4,77,338	4,63,217	43,893	31,422	2,01,243	93,674
Share of Commissioner's headquarters.	37,931	41,505	2,698	2,336	13,680	8,688
Royalties and Compensations.	8,00,505	9,73,715	14,314	11,469	55,159	25,706
Interest on capital . .	2,78,934	3,44,428	1,367	1,800	747	11,480
Depreciation charges .	1,41,917	1,62,223	231	488	2,596	3,836
Weighment charges . .	13,796	1,08,833	1,232	6,218	3,843	27,093
Expenditure on :—Medical, stores and workshops, pensionary charges, leave salaries, bonus to provident fund deposits, cost of audit and accounting and stationery and printing.	88,735	93,456	3,735	4,234	19,608	16,078
Recoveries . . .	—1,30,553	—	—	—	—3,857	—
Total .	24,08,267	29,20,830	88,941	85,967	3,79,013	3,83,778
	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.
Manufactured during the year.	49,05,594	67,20,424	4,91,821	2,87,084	14,96,192	5,22,796
Deduct—Deficits and writes Off.	2,30,370	..	—	..	—	..
Add—Commencing balance	22,40,418	26,32,206	1,02,365	1,25,636	2,00,886	3,73,697
Total mds. .	69,15,642	93,52,630	5,94,186	4,12,720	16,97,078	8,96,493
Average cost per md. .	0-5-6·86	0-4-11·06	0-2-4·74	0-3-3·99	0-3-6·88	0-6-10·19
Issue rate . . .	0-4-3 to 0-5-0	0-4-3	0-2-6 to 0-3-3	0-2-0 to 0-2-6	0-3-3 to 0-4-0	0-3-3
Cost of production per md. for the year.	0-5-6·87	0-5-2·49	0-2-2·40	0-3-2·76	0-3-1·50	0-5-8·51
Prime cost per md. for the year.	0-1-6·68	0-1-1·23	0-1-5·13	0-1-9·01	0-2-1·82	0-2-10·40
Difference (overhead charges).	0-4-0·19	0-4-1·26	0-0-9·27	0-1-5·75	0-0-11·78	0-2-10·11

REVENUE DEPARTMENT.

Salt for the year 1929-30.

Khewra.		Warcha.		Kalabagh.		Total.	
1929-30.	1928-29.	1929-30.	1928-29.	1929-30.	1928-29.	1929-30.	1928-29.
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
95,009	1,22,496	3	..	1,367	381	9,03,358	10,81,553
6,02,110	6,68,128	74,773	92,528	78,003	82,011	14,77,360	14,31,880
38,440	47,176	5,165	8,187	5,190	6,562	1,03,034	1,14,454
—	..	—	..	—	..	8,69,978	10,10,890
1,24,315	1,27,101	10,705	9,760	202	2,700	4,16,270	4,97,269
1,08,788	1,14,776	13,358	10,328	1,287	1,658	2,68,307	2,93,309
7,094	55,753	952	8,076	899	5,586	28,436	2,11,559
—1,745	—20,145	9,230	11,804	6,236	7,186	1,25,799	1,12,613
—3,542	—	—112	—	—182	—	—1,38,216	—
9,71,009	11,15,285	1,14,074	1,40,683	92,932	1,06,984	40,54,326	47,53,627
Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.
29,90,078	30,56,478	5,27,580	6,51,716	4,05,687	4,22,062	1,08,16,952	1,16,70,560
—	..	—	..	—	..	2,30,370	..
2,87,000	3,12,340	16	..	5,540	1,420	28,36,225	34,45,299
32,77,078	33,68,818	5,27,596	6,51,716	4,11,227	4,23,482	1,34,22,807	1,51,15,859
0-4-8·89	0-5-3·56	0-3-5·51	0-3-5·45	0-3-7·39	0-3-11·39	..	..
0-3-6 0-4-6	0-3-6	0-3-6 0-4-6	0-3-6	0-3-6 0-4-6	0-3-6	..	..
0-4-8·26	0-5-2·36	0-3-5·31	0-3-5·45	0-3-7·34	0-3-11·37	..	..
0-3-2·66	0-3-5·90	0-2-3·21	0-2-3·26	0-3-0·91	0-3-0·84	..	..
0-1-5·60	0-1-8·46	0-1-2·30	0-1-2·19	0-0-6·43	0-0-10·53	..	..

NORTHERN INDIA SALT

152. Statement showing the details of the manufacturing

Particulars.	Sambhar.		Didwana.	
	Expenditure during 1928-29.	Expenditure during 1929-30.	Expenditure during 1928-29.	Expenditure during 1929-30.
	1	2	3	4
	Rs.	Rs.	Rs.	Rs.
I. *Manufacture—*				
1. *Pay of Officers*	42,761	39,017	2,100	3,181
2. *Pay of Establishment*	1,04,127	1,11,954	3,277	3,437
3. *Allowances*	4,308	4,877	924	1,087
4. *Supplies and Services—*				
(a) Manufacturing and Excavation Charges.				
(1) Manufacture and Excavation	1,97,474	1,84,439	23,099	35,268
(2) Carriage of Salt	..	..	..	..
(3) Cost of Electric current	37,148	39,240	..	..
(4) Maintenance of air compressor Plant	..	..	..	..
Total of 4(a)	2,34,622	2,23,679	23,099	35,268
(b) Other Charges.				
(1) Maintenance of permanent way and rolling stock.	39,608	28,508	..	..
(2) Petty Construction and ordinary Repairs.	21,300	21,129	1,560	454
(3) Water Supply charges	5,805	5,184	..	..
(4) Maintenance of Tools and Plant	72	6	..	..
(5) Arms and Accoutrements	31	325	..	..
(6) Miscellaneous	395	—900	..	..
(7) Compensation to sufferers	..	..	..	..
(8) Clothing Charges	1,377	..	53	46
(9) Claims for damages on account of subsidence at Khewra.	..	..	..	..
(10) Protective Works and Repairs necessitated by flood.	..	34,720	..	..
(11) Value of unserviceable articles and losses written off.	620	636	..	—
Total of 4 (b)	69,208	89,577	1,613	500
Total supplies and services	3,03,889	3,13,256	24,712	35,768
Total of items 1 to 4	4,55,085	4,69,104	31,013	43,473

(—) Indicates

REVENUE DEPARTMENT.

charges as per cost sheet of salt for 1928-29 and 1929-30.

Pachbadra.		Khewra.		Warcha.		Kalabagh.	
Expenditure during 1928-29.	Expenditure during 1929-30.	Expenditure during 1928-29.	Expenditure during 1929-30.	Expenditure during 1928-29.	Expenditure during 1929-30.	Expenditure during 1928-29.	Expenditure during 1929-30.
5	6	7	8	9	10	11	12
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
3,887	4,962	38,648	29,119	2,587	2,490	2,373	1,856
19,966	20,225	47,725	48,518	7,053	7,449	5,145	5,124
1,053	1,470	3,361	3,505	571	644	188	314
61,917	1,65,433	2,85,418	2,84,341	50,927	40,780	53,593	50,271
..	..	39,493	33,885	6,206	4,569	20,181	18,463
..	..	1,23,618	1,00,286	..	..	..	..
..	..	27,000	23,759	16,991	11,268	..	..
61,917	1,65,433	4,75,529	4,51,271	74,124	56,617	73,774	68,734
2,700	9	23,827	24,480	4,425	2,712	..	..
1,554	2,323	9,560	12,046	2,155	2,235	500	376
1,645	2,536	1,966	2,329	72	920	..	..
..	284	940	48	90	67	35	7
4	7	470	..	8	139	7	5
..	2,748	8,103	—80	905	702	245	470
..	..	2,100	3,400	..	..	..	..
240	215	806	358	..	..	..	..
..	..	..	16,969	..	..	..	..
..	..	..	..	..	..	..	..
..	278	46,868	1,957	..	..	..	..
6,143	8,398	94,650	61,507	7,655	6,775	787	858
68,060	1,73,831	5,70,179	5,12,778	81,779	63,392	74,561	69,592
92,966	2,00,488	6,59,913	5,93,920	91,900	73,975	82,267	76,886

minus figures.

NORTHERN INDIA SALT

152. Statement showing the details of the manufacturing

Particulars.	Sambhar.		Didwana.	
	Expenditure during 1928-29.	Expenditure during 1929-30.	Expenditure during 1928-29.	Expenditure during 1929-30.
	1	2	3	4
	Rs.	Rs.	Rs.	Rs.
5. *Contingencies*—				
(1) Purchase, Repairs and Carriage of tents.	43	10	..	..
(2) Rent, Rates and Taxes . .	1,361	899	20	20
(3) Plague Charges	..	..	..	..
(4) Local Purchase of Stationery	23	1	..	..
(5) Postage and Telegram Charges	1,331	1,394	..	..
(6) Menials' Charges . . .	2,058	2,067	120	120
(7) Office expenses and Miscellaneous.	1,637	1,091	167	148
(8) Hot and Cold weather charges	607	454	102	82
(9) Grain Compensation allowance	32	..	..	..
(10) Circuit House Contingencies .	500	514	..	26
(11) Rent of Telephone Lines .	..	..	..	..
(12) Purchase of Books . .	66	262	..	10
(13) Purchase and Repairs to Furniture.	358	192	..	14
(14) Clothing Charges	..	650	..	..
(15) Charges in connection with the deputation of officer.	216	..	..	..
Total of Contingencies . . .	8,132	8,134	409	420
6. *Contribution for passages of officers transferred to or from other Government.*	..	100	..	..
GRAND TOTAL .	4,63,217	4,77,338	31,422	42,893

REVENUE DEPARTMENT.

charges as per cost sheet of salt for 1928-29 and 1929-30—*contd.*

Pachbadra.		Khewra.		Warcha.		Kalabagh.	
Expenditure during 1928-29.	Expenditure during 1929-30.	Expenditure during 1928-29.	Expenditure during 1929-30.	Expenditure during 1928-29.	Expenditure during 1929-30.	Expenditure during 1928-29.	Expenditure during 1929-30.
5	6	7	8	9	10	11	12
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
..	1	..	6	..	..	..	47
..	..	364	372	..	..	20	32
..	..	136	..	..	..	..	..
..	..	18	4	..	2	..	..
225	200	1,400	1,126	150	250	85	110
120	120	1,221	2,016	96	96	108	109
263	257	2,525	3,390	228	90	343	377
88	108	5	19	54	54	40	45
..	..	..	..	..	..	..	..
1	19	414	180	..	..	..	..
..	..	1,210	777	..	..	..	..
..	17	62	231	..	..	..	..
11	33	161	60	10	26	48	..
..	..	..	..	..	280	..	400
..	..	..	..	..	..	..	..
708	755	8,216	8,190	538	798	644	1,117
..	..	..	..	..	..	..	..
93,674	2,01,243	6,08,129	6,02,110	92,528	74,773	82,911	78,003

(—) Indicates minus figures.

NORTHERN INDIA SALT REVENUE DEPARTMENT.

153. Stores Account for 1929-30.

	Salt Stores.	Bags.	General Stores.
	Quantity.	Quantity.	Amount.
	Mds.	No.	Rs.
Opening balance	28,36,224	24,200	2,14,757
Receipts from all sources (Manufacture, Excavation, Purchase, etc.)	1,16,16,918	2,91,024	1,20,125
Total	1,44,53,142	3,15,224	3,34,882
Issues of all kinds	1,09,17,197	1,87,757	1,27,697
Wastage, etc., written-off by competent authority	(c) 10,31,135	(d) 35	692
Total	1,19,48,332	1,87,792	1,28,389
Closing balance	25,04,810	1,27,432	2,06,493
Value	Rs. (a) 6,94,588	Rs. (b) 57,518	..

		Rs.
(a)	15,46,714 Mds. at As. 5	4,83,348
	2,84,500 „ at As. 4-6	80,016
	64 „ at As. 3-7-39	14
	4,12,634 „ at As. 3-6	92,155
	31 „ at As. 3-5-51	7
	2,60,867 „ at As. 2-4-74	39,048
	Total	6,94,588
(b)	1,11,558 Bags at As. 7-2-31	50,150
	11,040 „ at As. 6-10-57	5,006
	4,234 „ at As. 8-11-1	2,362
	Total	57,518

(c) Includes 10,22,337 Mds. dissolved by floods at Nawa. The value of the quantity written-off = Rs. 3,21,776.

10,22,337 Mds. at As. 5	3,19,480
3,090 „ at As. 4-6	869
5,708 „ at As. 4	1,427
Total	3,21,776

(d) Value of quantity written-off = Rs. 15 at As. 7-2-31 per bag.

NOTES ON STORES ACCOUNT BY THE AUDIT OFFICER, INDIAN STORES DEPARTMENT.

This account represents a consolidated account prepared by the Audit Officer, Indian Stores Department, from statements received from local officers.

No physical verification of salt in stock was made during the year covered by the report, except at Warcha and Kalabagh where the smallness of the balance rendered such a verification easy. This was in pursuance of the decision of the Central Board of Revenue that a periodical verification of salt in stock would be much too expensive and that a check on weighment into store and on periodical clearance of heaps was all that was necessary in the circumstances of the case.

The closing stock of bags was verified by the departmental officers and the verification did not disclose any discrepancy. At Gudha the closing stock was arrived at by deducting the quantity issued from the quantity received. The irregularity was brought to the notice of the Head of the Department and he was requested to issue suitable instructions to the departmental officers to ensure actual verification at the end of each year.

The discrepancies which were noticed as a result of physical verification of General Stores at the end of 1928-29 are still under settlement. The closing balance at the end of 31st March 1930, was Rs. 2,06,493 (in value) as compared with Rs. 2,14,757 at the end of 1928-29.

(Sd.) P. M. RAU,
Audit Officer,
Indian Stores Department.

OPIUM DEPARTMENT.

SECTION I.—FINANCIAL REVIEW BY THE OPIUM AGENT ON THE COST ACCOUNTS FOR THE YEAR ENDED 30TH SEPTEMBER 1929.

154. *Balance Sheet.*—The capital invested by the Government of India in the Opium Department, as on September 30, 1929, amounted to Rs. 65,11,001-13-8, of which Rs. 19,04,857 included charges for interest, cost of audit and accounts, pensionary liabilities, etc., due to Government during the opium year ended September 30, 1929. The net profit realised during the year amounted to Rs. 1,59,45,407-7-0. Including this profit, the aggregate sum due to the Government of India, by the Opium Department amounted to Rs. 2,24,56,409-4-8 against the corresponding figure of Rs. 3,23,28,369 4-0 outstanding at the end of the last year.

The fixed assets amounted to Rs. 16,01,182-1-0 as compared with Rs. 16,54,329-4-0 on September 30, 1928; the details are—

Details of fixed assets.	On September 30, 1928.			On September 30, 1929.		
	Rs.	as.	p.	Rs.	as.	p.
Lands	55,103	0	0	48,971	0	0
Buildings	14,03,061	4	0	13,45,484	4	0
Plant and Machinery	46,165	0	0	1,06,726	13	0
Furniture and fittings	1,50,000	0	0	1,00,000	0	0
Total	16,54,329	4	0	16,01,182	1	0

Notwithstanding the increase under Plant and Machinery, by Rs. 60,561-13-0, there was a decrease of Rs. 53,147-3-0 under the total fixed assets as compared with the corresponding figure shown in the accounts of the last year, due to allowances for depreciation written off, value of assets disposed of, and re-valuation of furniture and fittings during this year.

The floating assets amounted to Rs. 2,03,01,526-5-10 as compared with Rs. 3,01,48,355-12-0 on September 30, 1928. The decrease of Rs. 98,46,829-6-2 under this head as compared with the corresponding amount of last year, occurred mainly under provision opium, raw Benares opium and raw Malwa opium; provision opium accounting for a decrease of about Rs. 42 lakhs and the remaining products of about Rs. 56 lakhs. The bulk of the floating assets consisted of provision opium valued at about Rs. 81 lakhs, and crude opium, Malwa and Benares, valued at about Rs. 112 lakhs.

155. Under " Lands ", the sum of Rs. 6,132, shown as a deduction during the year, represents the value of land occupied by the buildings disposed of during the year by sale or by transfer to other Government departments owing to the contraction of cultivation. The net book value of lands and buildings disposed of during the year amounted to Rs. 61,494. The sale proceeds realized, including the value of the buildings, etc., amounted to Rs. 56,955, resulting in a capital loss of Rs. 4,539. This loss is to be expected as many of the buildings are in remote places and the greatest difficulty is experienced in finding purchasers.

156. The value of sundry stores on hand on September 30, 1929 amounted to Rs. 82,313-15-10. The issue rates of the several articles were adjusted and revised, where necessary, during April 1928 to March 1929 with reference, as far as possible, to the then market rates. The valuation taken in the Balance Sheet as on September 30, 1929, was arrived at on the basis of the issue rates so fixed in the case of the balances on hand in April 1929, and on the figures available in the stores control account as regards subsequent transactions. The following table indicates the progressive reduction made in the value of sundry stores held in the Factory since the introduction of the Cost Accounts :—

Balance of Stores.	Amount.
On	Rs.
1st November 1926	2,14,341
1st October 1927	1,28,752
1st October 1928	1,06,677
1st October 1929	82,314

All surplus and unserviceable stores were written off during the year by the competent authority.

157. The advances outstanding on September 30, 1929 amounted to Rs. 5,70,611-11-4 as against Rs. 5,67,490-7-0 on September 30, 1928. The former amount includes Rs. 90,284-9-4 on account of advances made to the Malwa States and the advances for 1929-30 to those States are being reduced by that amount. The amount shown under "Sundry Debtors" amounted to Rs 1,571-9-0 on September 30, 1929 as against Rs. 299-5-0 on September 30.

1928. The bulk of this amount was due from the Government Medical Stores Depôts, and has since been adjusted.

The reduction of the Permanent advance, by Rs. 200 was due to the abolition, during the year, of two opium divisions, *viz.*, Rae Bareily and Bahraich consequent on the gradual reduction in cultivation.

158. *Sundry Creditors.*—The sum under this head on September 30, 1929 amounted to Rs. 20,482-6-6 as compared with Rs. 14,644-4-0 on September 30, 1928.

159. *Profit and Loss Account.*—The net profit of the year amounted to Rs. 1,59,45,407-7-0 as against Rs. 1,98,79,248 in the previous year. Out of this, provision opium accounts for Rs. 1,52,71,595-7-0 while Blended Excise and Special medical opium contributed Rs. 3,02,299-11-0 and Rs. 3,76,223-4-0, respectively. The decrease in the profit is mainly due to the smaller sales of provision opium during the year, 5985 chests as against 7268 in the previous year, in accordance with the policy of the Government of India for the cessation of this trade at the end of 1935. There was a loss of Rs. 584-3 on sale of Indian Medical Opium (Powder) due to an increase in the production rate per pound on account of the smaller quantity manufactured, and a loss of Rs. 2,146-9-0 on sale of alkaloids due mainly to items of a capital nature having been charged off finally to revenue under the existing procedure. The following statement shows the profit or loss of the year under review for each class of opium, as compared with the corresponding figures of the previous years :—

Particulars.	Year ended October 31, 1926.		Year ended September 30, 1927.		Year ended September 30, 1928.		Year ended September 30, 1929.	
	Profit.	Loss.	Profit.	Loss.	Profit.	Loss.	Profit.	Loss.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Provision Opium	1,06,95,712	..	1,67,88,154	..	1,80,39,067	..	1,52,71,595	..
Excise Opium—Pure—								
Benares	..	..	..	..	178	..	1,592	..
Blended	15,833	..	1,28,843	..	4,04,074	..	3,02,300	..
Special Medical Opium—								
British	..	2,45,416	49,131	..	4,44,127	..	3,76,228	..
Indian Medical Opium—								
Powder	..	1,556	..	723	5,516	..	..	584
Cake	..	1,152	1,213	..	2,504	..	795	..
Alkaloids	1,65,379	..	762	..	28,875	..	..	2,147

160. *Provision Opium.*—(*a*) The following statement compares the production cost, and the selling prices obtained during the year, with those of the previous years :—

Season.	Production cost per chest.	Selling prices.
1924	1,302 1 5	Rs. 4,006 13 0 per chest on an average.
1925	1,475 13 5	
1926	1,382 8 1	
1927 (eleven months)	1,418 2 0	Rs. 4,000 per chest.
1928	1,315 11 7	
1929	1,302 8 0*	

The decrease in the production cost is due to the reduction in stocks which means reduction in interest charges and to the use of opium purchased at cheaper rates since the stock of the drug purchased some years ago at Rs. 13 a seer has now been used up.

(*b*) The output of this class of opium for the year under review and the previous years, is given in the following table. The progressive decrease in the output is due to the policy of Government already mentioned that issues of this class of opium shall cease at the end of 1935.

Output of Provision Opium.

Year.	Cakes.	Chests.
1925-26	2,79,996	10,749
1926-27	2,00,000	7,000
1927-28	1,40,000	4,750
1928-29	1,23,400	2,226

161. *Pure Benares Excise Opium.*—(*a*) The cost of production during the year amounts to Rs. 25-2-8 per seer as against Rs. 25-3-8 in the previous year.

(*b*) The output of this class of opium for the year under report and the previous years is given in the following table :—

Year.	Quantity.
1925-26	488 maunds at 90°
1926-27	596 " "
1927-28	384 " "
1928-29	450 " "

Manufacture was carried out from the opening balance of the unfinished product already in the Opium Factory, *viz.*, 137 maunds valued at Rs. 1,21,861-14-0 as also out of the quantity received during the year. The closing balance on September 30, 1929, consists of 235 maunds valued at Rs.

* Exclusive of packing charges.

2,01,455-0-0 on the basis of the actual cost of the raw materials included in the balance *plus* about 50 per cent. of manufacturing and interest charges.

162. *Blended Excise Opium.*—The cost of production during the year amounts to Rs. 21-10-0 per seer as against Rs. 22-6-10 of the previous year. The decrease in the rate per seer, *viz.*, Rs. 0-12-10, is due to the reduction in interest charges and the manufacture of a larger quantity since overhead charges remained more or less the same.

In working out the above rate of Rs. 21-10-0, the Raw Malwa opium issued for manufacture was priced at the average issue rate of the opium year ended September 30, 1927, *viz.*, Rs. 565-7-3 per maund at a consistence of 70°, as worked out in the accounts of that year, instead of Rs. 523-12-11, which was the average rate at the end of the year under review, since crude Malwa opium received during the season of 1929 was not drawn upon for manufacture of the year under review. There has been a considerable decrease amounting to about Rs. 33,000 in the value of the balances of unfinished products held in the Factory during the year. This indicates careful control in the Factory to secure that manufacture is not in excess of requirements. The profit of Rs. 3,02,299-11-0 shown in this class of opium was due to the fixation of the rates for the financial year on the basis of the actual production costs of the preceding costing year and to the rounding off of pies.

The output of this class of opium for the year under review and for previous years is shown in the following table :—

Years.	Quantity. Maunds.
1925-26	7,384 at 90°
1926-27	7,430 „
1927-28	7,233 „
1928-29	7,498 „

163. *Special Medical Opium.*—The undermentioned table shows the output, production cost and average selling price per chest of special medical opium for the last four years, including the year under review :—

Year ended.	No. of chests produced.	Production cost per chest.	Average selling price per chest.
		Rs. as. p.	Rs.
31st October 1926	538	2,385 5 4	1,951
30th September 1927	443	1,922 12 1	2,293
30th September 1928	480	1,682 11 6	2,694
30th September 1929	480	1,475 7 5	2,381

The decrease in the production cost is due partly to a decrease in interest charges owing to the depletion of the opening stocks and partly to the use in manufacture of a larger quantity of opium purchased at a lower rate.

164. *Indian Medical Opium—Cake and Powder.*—The following statement compares the output, production rates of the year under review with those worked out for the preceding years, and the present selling prices which were fixed by the Government of India, Finance Department in their letter R. Dis. No. 226-E. O/28, dated 8th February 1929.

Indian Medical Opium.

Year.	Output.	Production rates.			Sanctioned selling prices.
	lbs.	Rs.	A.	P.	Powder.
1925-26	1,424	20	0	11	Rs. 20 per lb. for private firms.
1926-27	906	18	6	10	Rs. 12-8 per lb. for Medical Store-Keepers.
1927-28	1,772	14	10	3	Rs. 15-8 per lb. for Indian States and Railways.
1928-29	919	20	5	7	Up to 31st March 1929 rates as above and Rs. 15 per lb. to Medical Store-Keepers, Indian States and Railways and also to private firms with effect from 1st April 1929.
					Cake.
1925-26	418	15	2	7	Rs. 10 per lb. for private firms.
1926-27	706	11	13	10	Rs. 11-8 per lb. for Medical Store-Keepers.
1927-28	892	11	0	9	Rs. 13-12 per lb. for Indian States and Railways.
1928-29	942	12	2	0	Up to 31st March 1929 rates as above and Rs. 11 per lb. to Medical Store-Keepers, Indian States and Railways and also to private firms with effect from 1st April 1929.

There was a loss of Rs. 584-3 on sales of Indian Medical Opium powder and a profit of Rs. 795-4 on sales of Indian Medical Opium Cake. The loss was due to the increase in the production rate per pound. The increase in production cost per lb. for Indian Medical Opium powder is due to the smaller quantity manufactured during the year with more or less the same departmental charges; in the case of Indian Medical Opium Cake, the rate should have fallen seeing that a larger quantity was manufactured, but according to the accounts it has risen. Investigation of this point after the accounts had been prepared shows that the result is due to a wrong classification of expenditure in the Factory.

165. *Alkaloids.*—There was a loss of Rs. 2,146-9-0 on sale of alkaloids as against a profit of Rs. 28,874-10-0 during the previous year; the reason is that there was practically no manufacture during the year, while moreover items of a capital nature having been charged off finally to revenue under the existing procedure. The opening and closing balances were valued at 50 per cent. of the sanctioned selling prices in accordance with the orders of the Government of India on the subject.

166. *Raw Benares Opium.*—The production rate of Raw Benares opium for the year under review amounts to Rs. 506-12-7 as against Rs. 510-2-10 of the previous year. 7,121 maunds at 70° consistence were purchased during the year under review as against 6,981 maunds during the previous year. The reduction in the cost rate per maunds is due to a decrease in Railway freight owing to the smaller quantity of raw opium which was despatched from distant districts and to the adjustment this year of credits of some Rs. 900 on account of Railway freight which related to the previous year. The closing stock of this class of opium on September 30, 1929 amounted to 14,711 maunds as against 16,382 maunds on September 30, 1928.

167. *Raw Opium, Malwa.*—The production rate of Raw Malwa opium per unit (one maund of class A at a consistence of 70°) works out to Rs. 462-13-3 as against Rs. 437-4-1 during the previous year. 1,196 maunds were purchased during the year as against 3,422 maunds in the preceding year. The increase in the yearly production rate is due to an increase in freight charges and to the higher incidence of the cost of the Joint Opium Officer, Malwa States, owing to the smaller outturn. The closing balance of raw opium Malwa at the end of the year amounted to 5,555 maunds as against the opening balance of 12,196 maunds on 1st October 1928.

168. *Inferior Opium.*—The cost rate per maund for the year amounted to Rs. 165-0-4 as against Rs. 237-3-11 for the preceding year. The decrease in the rate per maund was due to a large quantity of opium of 1/5th value of the yearly rate having been received. The closing balance on September 30, 1929 amounted to 189 maunds as against 1,291 maunds at the beginning of the year.

169. *Leaf.*—The total quantity of leaf received during the year amounted to 2,431 maunds compared with 1,376 maunds in the preceding year; the cost rate per maund was Rs. 23-14-4 as against Rs. 28-13-6 in the previous year. The reduction in the cost rate was due to the increase in the quantity purchased.

170. *Trash.*—The total quantity of trash, (expressed in terms of cleaned trash in accordance with standing orders) which was received during the year, amounted to 2,412 maunds, or 21 maunds less than in the previous year, and the cost per maund was Rs. 4-7-4 as against Rs. 5-0-5 in the previous year. The reduction in the rate was due to a decrease in freight, transit and weighment charges.

171. *Chest.*—The undermentioned table shows the number of chests purchased or assembled and the cost rate per chest, for the year under review and also for the previous year :—

Particulars.	Quantity.		Rate per chest.	
	1927-28.	1928-29.	1927-28.	1928-29.
	Number.	Number.	Rs. A. P.	Rs. A. P.
1. Chests and Lids Provision Opium Mango .	2,593	831	7 15 6	12 1 10
2. Chests and Lids Provision Opium 5 Ply .	2,550	530	8 13 4	9 1 5
3. Abkari Opium Mango	3,588	2,024	4 3 7	5 2 0
4. Chests and Lids Abkari 3 Ply . . .	3,808	515	3 5 2	3 14 7
5. Chests and Lids Special Medical Opium .	228	488	5 14 4	4 10 5

The cost rate of items 1-4 rose because a smaller number was purchased and that of item 5 fell for the opposite reason.

172. *Lewa.*—The total quantity of lewa manufactured during the year amounted to 1,204 maunds as against 991 maunds in the preceding year, the cost rate per maund being Rs. 184-10-1 as against Rs. 188-6-10 in the previous year. The slight reduction in the cost rate was due to the reduction in the issue rate of inferior opium used in the manufacture.

173. *Cups.*—3,00,000 cups were purchased during the year, or 1,00,000 more than in the previous year. The cost rate per cup fell from 4·7 pies in 1927-28 to 3·19 pies in 1928-29 owing to the larger number purchased.

174. *General Charges.*—The general charges of the year amounted to Rs. 3,11,113 as against Rs. 3,32,396 in the previous year. The item of establishment plays an important part in these charges. The fluctuations are due to the inclusion of leave charges for the Opium Agent in 1927-28 and to the grant of the Lee Concessions to two officers with retrospective effect. The decrease in the charges for Store-keeping reflects measures of economy and in the electric charges the substitution of worn out and expensive plant by a modern installation.

175. *Interest charges.*—The total interest charges during the year amounted to Rs. 17,90,664 as against Rs. 23,10,130 included in the accounts of the last year. The decrease is due mainly to the reduction in the value of opium stocks, etc., kept in the Factory.

176. *Opium Stocks.*—The undermentioned table shows the shortage of opium (raw and manufactured stock) as disclosed during stock-taking.

Particulars.	Quantity written off.	Rate per Unit.	Total value of write off.	No. and date of order sanctioning write off.
		Rs. a. p.	Rs. a. p.	
Raw Benares Opium at 70°	128 maunds	510 2 10 per maund.	65,302 10 8	G. G. O. No. 149-E. O/29, dated the 21st March 1929.
Inferior Opium at 70°	1 maund	237 3 11 per maund.	237 3 11	
Crude Malwa Opium at 70°—				
Class A	62 maunds	..	..	
B	25 maunds			
C	3 maunds			
	90 maunds Mds. srs. ch. = 89 15 0 in terms of class A at 70°	437 4 1 per maund.	39,079 10 11	
Indian Medical Opium (Unmanufactured) 87·50°	147 lbs.	8 10 6 per lb.	1,272 7 6	G. G. O. No. D. Dis. No. 236-E. O/29, dated the 6th June 1929.
Excise Opium Unmanufactured (Abkari B. M. Blend) at 90°	5 maunds	20 3 11 per seer.	4,048 15 4	

The value of these shortages was estimated at the average issue rates worked out for the preceding year. These losses are due generally to the very great viscosity of opium which adheres to all the receptacles in which it is contained. A loss of Rs. 8,635 occurred on account of rejections of leaf choor, the book value of which amounted to Rs. 9,071 while the sales fetched only Rs. 436. Leaf is liable to destruction by grubs and some loss is an inevitable consequence of storing this commodity and storage is essential in view of the reduction in the number of the divisions producing the article.

177. *Sundry Stores.*—During the year under review surplus and unserviceable articles to the value of Rs. 3,793-15-0 were written off. There was a balance of unserviceable stores brought forward from the previous year valued at Rs. 3,018-13-5. In addition to the above, unserviceable stores to the value of Rs. 6,502 were received from District Opium Officers for disposal. The aggregate value of surplus and unserviceable stores thus amounted to Rs. 13,314-12-5. Stores with a book value of Rs. 12,948-14-5 were sold during the year, and realised only Rs. 2,720-14-0, resulting in a loss of Rs. 10,228-0-5 which requires no explanation. This loss has been written off with the sanction of the competent authority.

Section II.—Remarks of the Director of Commercial Audit.

178. *Paragraph* 162 *of the Financial Review.*—The profit of Rs. 3,02,300 under Blended Excise Opium as against Rs. 4,94,074 of the previous year is due to the fact that the difference between the selling rates and the production costs was greater in the previous year than in the year under review.

179. *Paragraph* 163 *of the Financial Review.*—The profit under Special Medical Opium for the year under review amounted to Rs. 3,76,223 as against Rs. 4,44,127 of the previous year. The decrease is due to a smaller number of chests being sold and to the fact that the difference between the production costs and the selling rates was greater in the previous year than in the year under review.

180. *Paragraph* 164 *of the Financial Review.*—It was pointed out by audit that the production rates for Indian Medical Opium, powder and cake, are in excess of the present sanctioned selling rates, the excess in the case of powder being as high as 33 per cent. The Government of India have however decided to await results for another year before taking further action.

OPIUM DEPARTMENT.

181. Balance Sheet as at 30th September 1929.

Liabilities.	As at 30-9-1929. Rs.		As at 30-9-1928. Rs.	
Sundry Creditors for :—				
Railway freight	18,104		26,504	..
Contractors for Chests	2,378		5,635	..
Refund to Auction purchasers.	..		12,505	..
		20,482		44,644
Govt. of India Capital Account.	1,00,15,249		2,61,38,910	
Adjustments during the year for Interest, Profits, etc.	2,23,11,357		1,73,49,744	
	3,23,26,606		4,34,88,654	
Cash withdrawals from Treasuries and adjustments.	48,72,339		62,11,988	
Deduct—Cash remittances into Treasuries and adjustments	3,71,98,945		4,97,00,642	
	3,25,92,839		3,96,85,393	
	46,06,106		1,00,15,249	
Indirect charges for the year :—				
Interest	17,90,664		23,10,130	
Cost of Audit and Accounts.	22,836		24,270	
Pensionary contribution	91,397		99,464	
Profits for the year	1,59,45,407	2,24,56,410	1,98,79,248	3,23,28,370
Total Rs.		2,24,76,892		3,23,73,014

Assets.	As at 30-9-1929. Rs.		As at 30-9-1928. Rs.	
Lands	55,103		68,194	..
Less disposals during the year.	6,132	48,971	13,091	55,103
Buildings (original value)	15,02,728		16,14,211	
Additions during the year	32,630		28,892	
	15,35,358		16,43,103	
Deduct.—Disposals during the year.	62,350		1,40,375	
Deduct.—Depreciation written off to date.	1,27,524	13,45,484	99,667	14,03,061
Plant and Machinery	67,305		62,761	
Additions during the year	66,630		..	
Add.—Adjustment account revaluation.	..		4,544	
	1,33,935		67,305	
Less—Disposals	270		..	
Deduct—Depreciation written off.	26,938	1,06,727	21,140	46,165
Furniture and Fittings		1,00,000		1,00,000
Stock on hand :—				
Opium, etc., *vide* Store Account		2,02,19,212		3,00,41,679
Sundry Stores		82,314		1,06,677
Sundry Debtors		1,572		290
Advances outstanding		5,70,612		5,67,491
Advances to Labour		..		230
Permanent Advance		2,000		2,200
Total Rs.		2,24,76,892		3,23,73,014

(Sd.) V. G. HARDIE,
Superintendent,
Costing Section, Opium Agent's Office, Ghazipur.

(Sd.) W. GASKELL,
Opium Agent.

(Sd). C. BHASKARAIYA,
Asstt. Director of Commercial Audit,
Calcutta Circle.

OPIUM DEPARTMENT.

182. Profit and Loss Account for the Costing year ended 30th September 1929.

Dr.

	30-9-1929.	30-9-1928.
	Rs.	Rs.
To Opening Balance :—		
Provision Opium	1,23,78,902	1,71,41,317
Excise Opium, Benares (in progress)*	1,21,862	4,70,578*
" " " (Finished stock)	1,51,375	..
" " Blended (in progress)*	63,166	11,81,402*
" " " (Finished stock)	17,942	71,819
Special Medical Opium, British (in progress)	92,016	1,49,639
" " " " (Finished stock)	1,93,513	3,32,637
Indian Medical Opium, Powder (in progress)	1,012	1,092
" " " " (Finished stock)	9,004	3,059
Indian Medical Opium, Cake (in progress)	..	5,935
" " " " (Finished stock)	2,994	1,412
Alkaloids	38,617	48,764
Manufacturing Charges :—		
Provision Opium	32,38,632	37,86,929
Excise Opium, Benares	4,49,353	81,492
" " Blended	57,18,549	44,70,506
Special Medical Opium, British	7,72,884	7,46,145
Indian Medical Opium, Powder	17,120	24,898
" " " Cake	10,989	9,000
Alkaloids	7,724	51,869
General Charges	2,88,277	3,08,116
Cost of audit and accounts	22,836	24,279
Interest	17,90,664	23,10,130
Loss on sale of Buildings	4,539	35,197
Net Profit	1,59,45,407	1,98,79,248
Total	4,13,37,277	5,11,35,463

Cr.

	30-9-1929.	30-9-1928.
	Rs.	Rs.
By Sales :—		
Provision Opium	2,39,37,200	2,90,72,000
Excise Opium, Benares	6,06,000	2,36,340
" " Blended	67,23,730	70,54,311
Special Medical Opium, British	12,02,323	14,49,603
Indian Medical Opium, Powder	20,008	25,515
" " " Cake	11,523	10,776
Alkaloids	17,314	97,463
Issues to other departments in Factory	30,826	1,18,937
By Closing Balance :—		
Provision Opium	81,51,469	1,23,78,902
Excise Opium, Benares (unfinished)	2,01,455	1,21,862
" " " (Finished)	..	1,51,375
" " Blended (unfinished)	29,929	63,166
" " " (Finished)	82,175	17,942
Special Medical Opium (unfinished)	1,40,708	92,016
" " " (Finished)	1,32,792	1,93,513
Indian Medical Opium, Powder (unfinished)	290	1,012
" " " " (Finished)	6,512	9,004
" " " Cake (Finished)	3,636	2,994
Alkaloids	29,566	38,617
Miscellaneous Receipts	150	115
Profit on sale of P. & M.	21	..
Total	4,13,37,277	5,11,35,463

* Finished stock.

OPIUM DEPARTMENT.

183. Statement showing the Output and Production costs of Important Products for three years.

Product.	Unit.	1928-29. Output.	1928-29. Rate. Rs. A. P.	1927-28. Output.	1927-28. Rate. Rs. A. P.	1926-27. 1-11-26 to 30-9-27—11 mths. Output.	1926-27. Rate. Rs. A. P.
Provision Opium Cakes	Each	1,23,400	34 13 0	1,40,000	37 4 8	2,00,000	34 15 3
Ditto Chests	,,	2,226	1,392 8 0	4,750	(a)1,491 10 8	7,000	1,418 2 0
Pure Benares Excise Opium	Maunds @90°	450	25 2 8	384	25 3 8*	596	25 4 2
Blended Excise Opium	@90° Chest	7,498	21 10 0	7,253	22 6 10*	7,430	23 5 1
Special Medical Opium, British	@87·50°	480	1,475 7 5	480	(b)1,682 11 6	443	1,922 12 1*
Indian Medical Opium, Powder	lb. @100°	910	20 5 7	1,772	14 10 3†	900	18 6 10
Ditto Cake	lb. @90°	942	12 2 0	892	11 0 9†	796	11 13 10†
Raw Opium, Benares	Maunds @70°	7,121	506 12 7	6,981	510 2 10	10,747	493 4 8
Ditto Malwa	@70°	1,196	462 13 3	3,422	437 [illegible] 1	7,658	426 14 3
Leaf	Converted to class A Maund	2,431	23 14 4	1,376	28 13 6	1,706	28 2 10
Trash	,,	2,412	4 7 4	2,433	5 0 5	4,460	4 2 4
Chests—Provision Mango	Each	831	12 1 10	2,593	7 15 [illegible]	876	11 8 7
Chests—5 ply Provision Opium (unassembled)	,,	..	..	3,700	8 10 7	2,496	8 10 1
Ditto (assembled)	,,	530	0 1 5	2,550	8 13 4	2,444	8 15 8
Abkari Mango Chests	,,	2,024	5 2 0	3,388	4 3 7	983	5 12 1
3 ply Abkari Opium (unassembled)	,,	..	..	2,055	3 5 3	4,000	2 14 4
Ditto (assembled)	,,	515	3 14 7	3,808	3 5 2	2,801	3 2 2
Chests Medical Opium	,,	480	4 10 5	226	5 14 4	35	53 0 11
Compartments—							
Provision Opium	,,	4,321	0 12 8	6,898	0 10 8	17,550	0 7 2
Abkari	,,	12,816	0 5 3	7,724	0 5 11	21,335	0 2 5
Cups	,,	3,00,000	0 0 4	2,00,000	0 0 4·6	1,10,000	0 0 0·5

REMARKS.

(a) Excludes packing charges. Average selling prices per chest provision opium were:—

1926-27	Rs.	4,000-0-0
1927-28	Rs.	4,000-0-0
1928-29	Rs.	4,000-0-0

*Sales made to local Governments at cost price.

(b) Average selling prices obtained were :—

1926-27	Rs.	2,293-0-0
1927-28	,,	2,694-0-0
1928-29	,,	2,381-0-0

† With effect from 1st April 1929, sales made at prices fixed with reference to the average cost of production over a term of years.

OPIUM DEPARTMENT.

184. Stores account for the Opium year 1928-29.

Particulars.	Raw Opium.			Provision opium.			Excise Opium. Pure Benares.			Excise Opium. Benares-Malwa. Blended.			Excise Opium. Alkaloids.		
	Quantity.	Value.		Quantity.	Value.		Quantity.	Value.		Quantity.	Value.		Quantity.	Value.	
	Mds.	Rs.	A.	Chests.	Rs.	A.	Mds.	Rs.	A.	Mds.	Rs.	A.		Rs.	A.
Opening Balance . .	28,578	1,64,50,683	11	8,552½	1,23,78,901	12	287	2,73,236	14	98	81,107	6	..	38,616	10
Receipts from all sources .	8,333	41,70,484	4	3,085	44,38,171	6	580	5,37,414	4	7,657	64,60,300	1	..	10,410	5
Total .	36,911	2,06,21,167	15	11,637½	1,68,17,073	2	867	8,10,651	2	7,755	65,41,407	7	..	49,026	15
Issues of all kinds . .	16,390	92,97,486	3	5,985	2,39,37,200	0	632	6,10,788	4	7,622	67,31,662	15	..	17,313	14
Wastages written-off	255	1,47,166	9	..	..		..	..		..	..		..	..	
Total .	16,645	94,44,652	12	5,985	2,39,37,200	0	632	6,10,788	4	7,622	67,31,662	15	..	17,313	14
Closing Balance .	20,266	1,11,76,515	3	5,652	81,51,405	9	235	2,01,455	0	133	1,12,104	3	..	29,566	8

OPIUM DEPARTMENT.

184. Stores account for the Opium year 1928-29—*contd.*

Particulars.	MEDICAL OPIUM FOR INDIA. Medical Opium, U. K. Quantity.	Medical Opium, U. K. Value.	Cake. Quantity.	Cake. Value.	Powder. Quantity.	Powder. Value.	Miscellaneous. (a) Quantity.	Miscellaneous. (a) Value.	Remarks.
	lbs.	Rs. A.	lbs.	Rs. A.	lbs.	Rs. A.	..	Rs. A.	
Opening Balance . .	29,030	2,85,528 10	271	2,993 11	697	10,015 12	..	5,19,638 11	
Receipts from all sources .	1,01,052	8,41,149 1	988	11,447 11	856	17,977 7	..	3,80,119 8	
Total .	1,30,082	11,26,677 11	1,259	14,441 6	1,553	27,993 3	..	8,99,758 3	
Issues of all kinds . .	96,796	12,20,400 11	955	11,550 10	1,214	20,607 11	..	6,38,153 5	
Wastages written-off .	..	..	..	..	..	..	..	6,489 8	
Total .	96,796	12,20,400 11	955	11,550 10	1,214	20,607 11	..	6,44,642 13	
Closing Balance . .	33,286	2,82,500 4	304	3,686 0	339	6,801 5	..	2,55,115 6	

(a) Includes following classes of stores :—
Inferior opium, Contraband opium, Dhoi, Lewa, Leaf, Trash, Cups, Chests and compartments.

OPIUM DEPARTMENT.

SECTION I.—FINANCIAL REVIEW BY THE OPIUM AGENT ON THE COST ACCOUNTS FOR THE YEAR ENDED 30TH SEPTEMBER 1930.

185. The following summarised accounts are affixed :—

(a) The Balance Sheets showing the balances as at 30th September 1929 and at 30th September 1930 ;

(b) Consolidated Profit and Loss Account showing the comparative figures of two costing years, *viz.* those ended 30th September 1929 and 30th September 1930 ;

(c) Statement showing the output and production costs of important products for 2 years ;

(d) Stores account for the Opium Year 1929-30.

186. It will be seen from the Balance Sheets that the capital invested by the Government of India as at 30th September 1930 amounts to Rs. 1,67,49,116 including the sum of Rs. 12,81,687 on account of interest charges, cost of audit and accounting and pensionary liabilities for the year under review ; also Rs. 1,37,20,573 on account of the net profit for the year.

The fixed assets amount to Rs. 15,35,409 as against Rs. 16,01,182 in the previous year, the decrease representing reduction under buildings and land.

Buildings.—Owing to the gradual contraction of the activities of the Department no new works were undertaken except the construction of a well costing Rs. 1,390. The building work during the year was confined to repairs and improvements to existing buildings, which were done departmentally.

Seven of the buildings abandoned owing to the abolition of divisions were transferred and sold at a total value of Rs. 23,934. There now remain 10 buildings which are no longer required by this Department and every effort is being made to find purchasers for them.

It will be seen that the book value of the Plant and Machinery was nearly doubled during the year 1928-29 by the addition of machinery costing Rs. 66,630. The additions consisted of :—

Item of Machinery.	Cost.
	Rs.
1. Lancashire Boiler	9,428
2. Boiler and Chimney	38,753
3. New Storage Battery	11,391
4. Experimental Excise tablet making machinery	7,058
	66,630

The additions this year consist of the following items, valuing Rs. 19,630 :—

	Rs.
1. Witton Continuous Boiler	298
2. Vacuum Dryer and Mixer	17,454
3. Kestner Apparatus parts	1,878
	19,630

Floating assets amount to Rs. 1,47,46,481 as against Rs. 2,03,01,526, the decrease being principally under Provision Opium and raw Benares and Malwa Opium, as will be seen from the table in para. 188 below.

187. *Financial results.*—The net profit amounts to Rs. 1,37,20,573 as against Rs. 1,59,45,407 for the previous year. The decrease in profit is mainly due to smaller sales of provision opium during the year—4,931 chests during the year as against 5,985 chests in the previous year—in accordance with the policy of the Government of India for the cessation of this trade at the end of 1935. The decrease in profit of Rs. 22·2 lakhs is made up roughly as under :—

Decrease in profit of :—

	Rs. lakhs.
(1) Provision Opium	28
(2) Special Medical Opium	1·5
Total decrease	29·5

Less increase in profit of :—

	Rs. lakhs.
(1) Excise Opium Pure Benares	0·6
(2) Blended Excise Opium	6·7
	7·3
Net decrease in profit	22·2

The following statement analyses the profit for each class of opium and compares it with the profit of the previous year :—

Particulars.	Year ended September, 1929.	Year ended September, 1930.
	Profit.	Profit.
	Rs.	Rs.
1. Provision Opium	1,52,71,595	1,24,72,503
2. Excise Opium Pure Benares	1,592	60,267
3. Ditto Blended (old)	3,02,360	2,27,854
4. Ditto (new)	..	7,47,722
5. Special Medical Opium British	3,76,223	2,24,890
6. Indian Medical Opium Powder	—584	—372
7. Indian Cake	795	308
8. Alkaloids	—2,147	7,036

188. *Stock Account.*—The progressive reduction of opium stocks and sundry stores during the last three years will be apparent from the following table :—

Particulars of stocks.	On 30th September, 1928.	On 30th September, 1929.	On 30th September, 1930.	Reduction during 1929-30.
Raw Opium—Benares . .	90,89,426	85,90,333	52,21,687	—33,68,646
„ —Malwa . .	84,61,238	25,86,183	20,61,111	—5,25,072
Provision Opium . .	1,23,78,902	81,51,469	60,80,386	—20,71,083
Pure Benares Excise . .	2,73,237	2,01,455	2,21,028	+19,573
Blended Excise (Old) . .	81,107	1,12,104	3,57,046	+2,44,942
Do. (New) . .	..	..	2,56,518	+2,56,518
Special Medical Opium. .	2,85,529	2,82,500	1,23,949	—1,58,551
Miscellaneous . . .	5,72,220	2,95,168	3,52,296	+57,128
Sundry Stores . . .	1,06,677	82,314	72,460	—9,854

The shortages of opium as disclosed during stock-taking amounted roughly to 83 maunds of Raw Benares Opium including Passewa and 99 maunds of crude Malwa Opium, and their write off was sanctioned by the Opium Agent, as the percentage in each case was below the limit up to which power has been delegated to the Opium Agent, by the Government of India. The value of these shortages priced at the average issue rates amounted to about Rs. 96,175. These losses are due generally to the very great viscosity of opium which adheres to all the receptacles in which it is contained. A loss of Rs. 9,185 occurred on account of rejections of leaf choor, the book value of which amounted to Rs. 9,455 while the sales fetched only Rs. 270. Leaf is liable to destruction by maggots, and some loss is an inevitable consequence of storing this commodity.

Sundry Stores Accounts.—During the year under review, surplus and unserviceable stores to the value of Rs. 4,091 were written off. There was a balance of unserviceable stores brought forward from the previous year valued at Rs. 366. In addition to the above, unserviceable stores to the value of Rs. 9,419 were received from District Opium Officers for disposal. The aggregate value of the unserviceable stores thus amounted to Rs. 13,876. Out of this, stores valued at Rs. 13,510 in the books were sold during the year and realized Rs. 1,514 leaving a loss of Rs. 11,996. The write-off of this loss has been sanctioned by the Government of India.

189. *Profit and Loss and Production Accounts.*—The reduction in stocks referred to in paragraph 188 above has brought down the interest charges during the year under review to 11·69 lakhs as against 17·91 and 23·10 lakhs in the two previous years.

The general charges have increased to Rs. 3·23 as against 3·11 of the previous year. The increase is due mainly to the leave salaries of the Opium Agents.

The decrease in the cost rates of raw Benares and Malwa opium purchased during the year together with the decrease in interest charges have brought down the production costs of Provision opium, Pure Benares Excise Opium and Blended Excise Opium (new and old Blend).

During the year under review the proportion of Raw Benares Opium and Raw Malwa Opium issued for the manufacture of Blended Excise Opium was changed from 1/5 Benares and 4/5 Malwa to 2/5 Benares and 3/5 Malwa.

190. *Manufacture of Excise Opium.*—The quantities of Excise Opium manufactured and issued during the year were as follows :—

	Pure Benares.	Blended Excise.		Total.
		Old.	New.	
	Mds.	Mds.	Mds.	Mds.
Opening Balance on 1st October 1929	..	95	..	95
Manufactured during the year	600	1,620	6,013	8,233
Issued during the year	450	1,428	6,013	7,891
Balance on 1st October 1930	150	287	..	437

The cost price of Excise Opium as shown in the Cost Accounts for the year ended 30th September 1930 worked out to Rs. 21-14 per seer for supplies to Burma, Rs. 18-3 per seer for old Blended Excise Opium and Rs. 18-9 per seer for new Blended Excise opium supplied to other Governments and Administration as compared with Rs. 25-3 for Pure Benares Excise and Rs. 21-10 per seer for old Blended Excise for the previous year.

As the issue rates of Excise Opium to Provincial Governments for a financial year are to be calculated on the basis of the actual cost of production for the previous opium year (para. 110 of the Appendix to the Central Civil Appropriation Accounts for 1928-29), the fall in production costs has resulted in an increased profit under Excise Opium during the year under review.

Manufacture of Special Medical Opium.—The number of chests of Special Medical Opium despatched during the year to the High Commissioner for sale in the United Kingdom was 160 chests, or 25,600 lbs. in addition 90 chests previously despatched were awaiting sale on 1st October 1929. The sale accounts of these 250 chests show a realization of Rs. 6,70,912.

No sales were effected after February 1930 owing to there having been no demand for the drug.

The following table shows the output, production costs and selling prices of this class of opium for the last three years including the year under review :—

Year.	No. of chests produced.	Production cost per chest.	Average selling price per chest.
	Rs.	Rs. A. P.	Rs.
1927-28	480	1,682 11 6	2,694
1928-29	480	1,475 7 5	2,381
1929-30	160	1,700 8 6	2,695

Cost of production.—The higher cost of production during the year under review is mainly due to less manufacture while the departmental overhead and interest charges remained almost stationary.

Indian Medical Opium—Cake and Powder.—The following statement compares the output and production rates of the year under review with those worked out for the preceding year, and the present sanctioned selling prices.

Year.	Output.	Production rate per lb.	Sanctioned selling prices per lb.
	lbs.	Rs. A. P.	*Powder*—
1927-28	1,772	14 10 3	Rs. 20 for private firms. Rs. 12-8 for Medical Storekeepers. Rs. 15-8 for Indian States and Railways.
1928-29	919	20 5 7	Up to 31st March 1929 rates as above and Rs. 15 to all since that date.
1929-30	1,146	14 6 8	Rs. 15.
			Cake—
1927-28	802	11 0 9	Rs. 19 to private firms. Rs. 11-8 to Medical Storekeepers. Rs. 13-12 to Indian States and Railways
1928-29	942	12 2 6	Up to 31st March 1929 rates as above and Rs. 11 to all since that date.
1929-30	862	9 11 5	Rs. 11.

191. *Cost of production.*—Reduction in costs of production in both the cases is mainly due to reduction in manufacturing charges. The production rate for the last year was also shown at a higher figure,due to erroneous classification of expenditure in the Factory.

The small loss under powder is due to opening stocks being brought forward from last year at a higher rate than the selling price.

Alkaloids.—There was a profit of Rs. 7,036 under this head during the year as against a loss of Rs. 2,147 for the previous year. The loss in the previous year was due to there being no manufacture during tha t year and also due to expenses of a capital nature being charged to revenue under the existing procedure as pointed out in the last review.

The value of crude morphia included in the closing balance has been taken at an estimated cost rate of Rs. 16-6-8 per lb.

Inferior Opium.—The increase in the cost rate during the year is due to more receipts of opium of better class.

Leaf.—The increase in the cost rate is due to the decrease in the quantity purchased during the year.

Chests.—The reduction in the cost rates of mango chests, provision and abkari is due to purchase on a larger scale.

192. The figures of losses of Opium due to shortages in opium stocks were as follows :—

Opium year.	Losses due to shortages in the stock of—		Total.
	Raw Benares Opium.	Crude Malwa Opium.	
	Mds.	Mds.	Mds.
1925-26	561	155	716
1926-27	..	..	426
1927-28	101	130	231
1928-29	128	90	218
1929-30	83	99	182

Section II.—Remarks by the Director of Commercial Audit.

193. Reference is invited to para. 72 of the P. A. C. Proceedings in the 1928-29 Report and to para. 17(*a*) of this appendix. In addition to the reviews and accounts for the year ended 30th September 1930 the accounts and reviews for the year ended 30th September 1929 are prefixed.

194. *Summary of results.*—A comparative statement of Profits or Losses (by Products, etc.), for four years is given below :—

	1929-30.				1928-29.			
	Manufacture.	Sales.	Profit or Loss (—).	Percentage of Profit or Loss (—) on sales.	Manufacture	Sales.	Profit or Loss (—).	Percentage of Profit or Loss (—) on sales.
	Rs.	Rs.	Rs.		Rs.	Rs.	Rs.	
Provision Opium	50,63,688	1,97,24,000	1,24,72,502	63	42,95,777	2,39,37,200	1,52,71,595	64
Excise Opium Blended—								
Old	11,80,089	12,81,086	2,27,854	18	64,85,664	67,23,730	3,02,300	4
New	44,69,629	52,17,351	7,47,722	14				
Pure Benares Excise	5,24,985	4,54,002	60,267	13	4,53,033	6,06,000	1,592	0·2
Special Medical Opium— British	2,81,684	6,73,715	2,24,899	33	7,08,222	12,02,323	3,76,223	31
Indian Medical Opium—								
Cake	8,375	7,541	308	4	11,420	11,523	796	7
Powder	16,521	21,797	—572	—2	18,700	20,608	—584	—2
Alkaloids	..	17,725	7,036	39	..	17,314	—2,148	—13
		2,73,97,217	1,37,40,016	50·1		3,25,18,698	1,59,49,775	49·05
Rack Materials of Cake	..	..	..	..	..	..	..	..
Misc. Profit/Loss— less Misc.	..	..	..	..	..	..	..	..
Receipts	..		—19,443				—4,368	
Total Sales—Net Profit and percentage of Net Profit on total turnover.	..	2,73,97,217	1,37,20,573	50·08	..	3,25,18,698	1,59,45,407	49·03

	1927-28.				1926-27.			
	Manufacture.	Sales.	Profit or Loss (—).	Percentage of Profit or Loss (—) on sales.	Manufacture.	Sales.	Profit or Loss (—).	Percentage of Profit or Loss (—) on sales.
	Rs.	Rs.	Rs.		Rs.	Rs.	Rs.	
Provision Opium	52,20,834	2,90,72,000	1,89,39,057	65	69,90,831	2,66,04,000	1,67,88,154	63
Excise Opium Blended— Old, New	65,06,361	75,54,312	4,94,074	7	69,24,775	78,32,880	(a)1,28,843	1·6
Pure Benares Excise	3,87,537	2,36,340	178	0·07	6,02,241	6,71,213	(b)	..
Special Medical Opium— British	8,07,804	14,49,603	4,44,127	30·6	8,51,781	8,48,379	49,131	5·8
Indian Medical Opium— Cake	9,854	10,776	2,504	23	9,443	11,187	1,213	11
Powder	25,955	25,516	5,516	21	16,691	22,276	—723	—3
Alkaloids	..	15,509	28,875	186	..	1,57,383	762	0·5
		3,83,64,056	1,90,14,331	51·9		3,61,47,318	1,69,67,380	46·9
Rack Materials of Cake	..	..	..	..	..	..	9,970	..
Misc. Profit/Loss less Misc.	..	..	..	..	..	..	..	..
Receipts	..	..	—35,062	..	..	..	16,368	..
Total Sales—Net Profit and percentage of Net Profit on total turnover.	..	3,83,64,056	1,98,79,249	51·8	..	3,61,47,318	1,69,93,718	47·01

(a) Rs. 7,83,726 (Profit) adjusted in reduction of the value of the closing balance of unfinished stuff.
(b) Rs. 69,186 (Profit) adjusted in reduction of the value of the closing balance of unfinished stuff.

195. The main feature of the accounts of the years under review is the further reduction of opium stocks and other stores which was brought to the special notice of the Public Accounts Committee by the Auditor General in connection with Paragraphs 118 and 124 of the previous Appendix.

	In lakhs of Rs.				
	31st October 1926.	30th September 1927.	30th September 1928.	30th September 1929.	30th September 1930.
	Rs.	Rs.	Rs.	Rs.	Rs.
Opium Stock, etc. . .	469·13	390·92	300·42	202·19	146·74
Sundry Stores . . .	2·14	1·36	1·06	0·82	0·72

In consequence of this, there has been a steady decline in the figure of the Capital invested by Government in the concern:—

	Lakhs of Rs.
31st October 1926	485·82
30th September 1927	456·04
30th September 1928	323·28
30th September 1929	224·56
30th September 1930	167·49

(The figures include also, amounts due to Government on account of charges for interest, cost of audit and accounts, pensionary liabilities, etc. and the net profit realised during the year.)

196. The interest charges have, as a result of this, also come down.

	Interest charges (In lakhs of Rs.)
(For eleven months)	
1926-27	23·53
1927-28	23·10
1928-29	17·91
1929-30	11·69

197. This in turn has helped to bring down the costs of production.

		1927-28.	1928-29.	1929-30.
Provision Opium	Per Chest.	1,491 10 8	1,392 8 0	1,240 6 8
Cost of Packing	"	20 0 0	24 0 11	16 14 3
Pure Benares Opium . . .	Per seer	25 3 8	25 2 8	21 14 0
Blended Excise —Old	"	22 6 10	21 10 0	18 3 4
" —New	"	..	..	18 9 4

(*The "New Blend" of Excise Opium is referred to in Paragraph 189 of the Opium Agent's Review for the year 1929-30.)

198. As pointed out in Paragraph 110 of the previous Appendix, "the issue rate to be charged to Local Governments for Excise Opium during a financial year" is to be "calculated on the basis of the actual cost of production for the previous opium year ending 30th September".

The rates charged to Provincial Governments for the financial year 1931-32 will thus be lower by over Rs. 3 a seer.

199. The production rates of Benares and Malwa Raw Opium for the last three years are shown below :—

Raw Opium per Maund @ 70 deg.	1927-28.	1928-29.	1929-30.
	Rs.	Rs.	Rs.
Benares	510 2 10	506 12 7	495 10 11
Malwa (converted to Class A)	437 4 1	462 13 3	447 3 1

The variations between the first two sets of figures are explained in Paragraphs 166 and 177 of the Opium Agent's Review for the year 1928-29.

200. The profits for the last 3 years in lakhs of Rs. are given below :—

1927-28	198·79
1928-29	159·45
1929-30	137·21

The steady decline notwithstanding the fall in interest charges referred to in paragraph 195 above, is due primarily to the fact that owing to the policy of Government referred to in Paragraph 122(*b*) of the previous Appendix there has been a gradual contraction of the activities of the department (paragraph 186 of Opium Agent's Review for 1929-30).

The "General charges" however do not show the same decline, the figures for the three years in lakhs of Rs. being :—

1927-28	3·08
1928-29	2·88
1929-30	3·00

This aspect of the matter has been brought to the notice of Government. The increase in 1929-30 is explained in Paragraph 189 of the Opium Agent's Review for that year.

201. With reference to the remark about the "higher incidence of the cost of the Joint Opium Officer, Malwa States," in paragraph 167 of the Opium Agent's Review for 1928-29, it may be mentioned that the cost of the Joint Opium Officer and his staff is recoverable from the Malwa States. For this, a flat rate of Re. 0-3-0 per seer is charged on the Opium purchased from them. The Expenditure on this account during 1928-29 was Rs. 26,743 while the recoveries amounted to Rs. 4,253 only. In view of this difference it was suggested by audit for the consideration of Government if the rate of Re. 0-3-0 per seer might not be revised. On this the Government of India observed that the "States" contribution towards the cost of the maintenance of the Joint Opium Offices and his Establishment was exceptionally low during 1928-29 due to small deliveries on account of the failure of the poppy crop and decided to postpone to a later date the question of increasing the rate of the States' contribution. It is being brought to the notice of the Government of India that during 1929-30, the total expenditure on this account was Rs. 31,474-9-0 while the recoveries amounted to Rs. 20,381-14-8

OPIUM DEPARTMENT.

202. Balance Sheet as at 30th September, 1930.

Liabilities.	As at 30th September 1929.		As at 30th September 1930.	
Sundry creditors for—				
Railway freight .	18,104		9,306	
Contractors for chests.	2,378	20,482	8,480	17,786
Government of India Capital Account.	1,00,15,248		46,06,105	
Adjustments during the year for interest, profit, etc.	2,23,13,121		1,78,50,304	
Deduct for corrections	1,764		..	
	3,23,26,605		224,56,409	
Cash withdrawals from Treasuries and adjustments.	48,72,339		67,16,331	
	3,71,98,944		291,72,740	
Deduct cash remittances into Treasuries and adjustments.	3,25,92,839		2,74,25,884	
	46,06,105		17,46,856	
Interest charges for the year :—				
Interest . .	17,90,664		11,69,978	
Cost of Audit and Accounts.	22,836		22,892	
Pensionary contribution.	91,397		89,417	
Profit for the year .	1,59,45,408	2,24,56,410	1,37,20,573	1,67,49,116
Total .		2,24,76,892		1,67,66,902

Assets.	As at 30th September 1929.		As at 30th September 1930.	
Lands . . .	55,103		48,971	
Less disposals during the year.	6,132	48,971	2,073	46,898
Buildings (original value).	15,02,728		14,73,008	
Additions during the year.	32,630		1,419	
	15,35,358		14,74,427	
Deduct disposals during the year.	62,350		44,513	
Deduct depreciations written off to date.	1,27,524	13,45,484	1,54,726	12,75,188
Plant and Machinery .	67,305		1,33,665	
Additions during the year.	66,630		19,630	
	1,33,935		1,53,295	
Deduct disposals during the year.	270		14,387	
Deduct depreciation written off to date.	26,938	1,06,727	25,585	1,13,323
Furniture and Fittings.		1,00,000		1,00,000
Stock on hand—				
Opium, etc. *vide* store account.		2,02,19,212		1,46,74,021
Sundry stores. .		82,314		72,460
Sundry Debtors .		1,572		145
Advances outstanding.		5,70,612		4,82,777
Advances for Labour		..		90
Permanent Advance		2,000		2,000
Total .		2,24,76,892		1,67,66,902

(Sd.) C. BHASKARAIYA.
Asstt. Director of Commercial Audit, Calcutta Circle.

(Sd.) V. G. HARDIE,
Supdt., Costing Section.

(Sd.) G. B. F. MUIR,
Opium Agent.

OPIUM DEPARTMENT.

203. Profit and Loss Account of the Opium Department for the costing years ended 30th September 1929 and 1930.

Particulars.	1928-29. Amount. Rs.	A.	1929-30. Amount. Rs.	A.
To Opening balance—				
Provision Opium	1,23,78,901	12	81,51,468	9
Excise Opium Benares (in progress)	1,21,861	14	2,01,455	0
" (finished stock)	1,51,375	0	..	
" Blended (Old) (in progress).	63,165	11	29,929	3
" (finished stock)	17,941	11	82,175	0
Special Medical Opium (in progress)	92,015	15	1,49,708	8
" (finished stock)	1,93,512	11	1,32,791	12
Indian Medical Opium Powder (in progress).	1,011	12	289	10
Indian Medical Opium Powder (finished stock).	9,004	0	6,511	11
Indian Medical Opium Cake (finished stock).	2,993	11	3,686	0
Alkaloids	38,616	10	29,566	8
Manufacturing charges—				
Provision Opium	32,38,532	6	43,08,655	9
Excise Opium, Benares	4,49,353	4	3,71,709	14
" Blended (Old)	57,18,549	3	11,80,114	1
" " (New)	..		43,17,718	8
Special Medical Opium	7,72,884	1	2,62,352	15
Indian Medical Opium Powder	17,120	7	15,579	11
" Cake	10,989	11	7,961	10
Alkaloids	7,724	5	5,554	5
General charges	2,88,276	14	3,00,278	14
Cost of audit and accounts	22,836	0	22,892	0
Interest charges	17,90,664	0	11,69,378	0
Loss on sales of buildings	4,539	0	16,739	0
Loss on sales of Plant and Machinery	..		3,090	0
Net Profit	1,59,45,407	7	1,37,20,572	12
Total	4,13,37,277	5	3,44,90,179	0

Particulars.	1928-29. Amount. Rs.	A.	1929-30. Amount. Rs.	A.
By sales—				
Provision Opium	2,39,37,200	0	1,97,25,050	0
Excise Opium Benares	6,06,000	0	4,54,002	8
" Blended (Old)	67,23,730	5	12,81,086	7
" " (New)	..		52,17,350	10
Special Medical Opium	12,02,322	10	6,73,714	12
Indian Medical Opium Powder	20,607	11	21,797	5
" Cake	11,523	4	7,541	4
Alkaloids	17,313	14	17,725	1
Interdepartmental issues	30,826	5	20,887	0
By Closing Balance—				
Provision Opium	81,51,468	9	60,80,385	10
Excise Opium Benares (in progress)	2,01,455	0	89,777	15
" (finished stock)	..		1,31,250	0
Excise Opium Blended (Old) (in progress).	29,929	3	1,48,014	3
Excise Opium Blended (Old) (finished stock.)	82,175	0	2,09,031	11
Excise Opium Blended (New) (in progress).	..		2,56,517	8
Excise Opium Blended (New) (finished stock)	..		..	
Special Medical Opium (in progress)	1,49,708	8	1,23,949	7
" (finished stock)	1,32,791	12	..	
Indian Medical Opium Powder (in progress).	289	10	117	1
Indian Medical Opium Powder (finished stock).	6,511	11	663	3
Indian Medical Opium Cake (finished stock).	3,686	0	4,827	10
Alkaloids	29,566	8	26,103	8
Miscellaneous receipts	150	3	386	5
Profit on sale of Plant and Machinery	21	4	..	
Total	4,13,37,277	5	3,44,90,179	0

OPIUM DEPARTMENT.

204. Statement showing the output and production costs of Important Products for two years.

Product.	Unit.	1928-29. Output.	1928-29. Rate.	1929-30. Output.	1929-30. Rate.	Remarks.
			Rs. a. p.		Rs. a. p.	
Provision Opium Cakes	Each	1,23,400	34 13 0	1,63,900	31 0 2	
Ditto Chests	,,	2,226	(a)1,392 8 0	4,566	(a)1,240 6 8	(a) Excludes packing charges.
Pure Benares Excise Opium	Maunds @90°	450	25 2 8	600	21 14 0	
Blended Excise Opium (Old)	@90°	7,498	21 10 0	1,620	18 3 4	
Ditto (New)	@90°	..	..	6,013	18 9 4	
Special Medical Opium British	Chest @87·50°	480	1,475 7 5	160	1,760 8 6	
Indian Medical Opium—Powder	lb. @100°	919	20 5 7	1,146	14 6 8	
Ditto —Cake	lb. @90°	942	12 2 0	862	9 11 5	
Raw Opium—Benares	Maund @70°	7,121	506 12 7	7,098	495 10 11	
Inferior Opium	@70°	169	165 0 4	343	219 11 11	
Raw Opium—Malwa	Converted to class A @70°	1,196	462 13 3	6,021	447 3 1	
Leaf	Maund	2,431	23 14 4	1,655	25 4 7	
Trash	,,	2,412	4 7 4	1,582	4 3 2	
Chests Provision Mango	Each	831	12 1 10	5,722	7 13 4	
Chests 5 ply assembled	,,	530	9 1 5	670	9 11 0	
Abkari mango chests	,,	2,024	5 2 0	7,998	3 14 6	
3 ply Abkari Opium chests assembled	,,	515	3 14 7	..	..	
Chests Medical Opium	,,	486	4 10 5	311	4 14 8	
Compartments—						
Provision Opium	,,	4,521	0 12 8	9,470	0 9 2	
Abkari	,,	12,816	0 5 3	8,442	0 5 0	
Cups	,,	3,00,000	0 0 4	2,52,000	0 0 3·8	

OPIUM DEPARTMENT.

205. Stores account for the Opium Year, 1929-30.

Particulars.	Raw opium.			Provision opium.			EXCISE OPIUM. Pure Benares.			Benares-Malwa, Blended (Old).			Benares-Malwa, Blended (New).		
	Quantity.	Value.		Quantity.	Value.		Quantity.	Value.		Quantity.	Value.		Quantity.	Value.	
	Mds.	Rs.	A.	Chests.	Rs.	A.	Mds.	Rs.	A.	Mds.	Rs.	A.	Mds.	Rs.	A.
Opening balance .	20,266	1,11,76,515	3	5,653	81,51,468	9	235	2,01,455	0	133	1,12,104	3	..	..	
Receipts from all sources.	13,110	62,10,898	11	4,082¼	51,81,464	9	500	4,15,439	14	1,827	12,98,174	1	6,474	47,26,644	6
(A) Total .	33,385	1,73,87,413	14	9,735¼	1,33,32,933	2	735	6,16,894	14	1,960	14,10,278	4	6,474	47,26,644	6
Issues of all kinds .	19,225	99,87,358	5	4,931	1,97,25,050	0	465	4,56,133	14	1,453	12,81,086	7	6,090	52,17,848	9
Wastages written off	243	1,17,257	5	..	..		4	..		..	..		13	..	
(B) Total .	19,468	1,01,04,615	10	4,931	1,97,25,050	0	469	4,56,133	14	1,453	12,81,086	7	6,103	52,17,848	9
(C) Closing balance .	13,917	72,82,798	4	4,804¼	99,60,385	10	266	2,21,027	15	507	3,57,045	14	371	2,56,517	8

OPIUM DEPARTMENT.

205. Stores account for the Opium Year, 1929-30—*contd.*

Particulars.	Alkaloids.		Medical opium U. K.		MEDICAL OPIUM FOR INDIA. Cake.		MEDICAL OPIUM FOR INDIA. Powder.		Miscellaneous. (a)	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
		Rs. A.	lbs.	Rs. A.	lbs.	Rs. A.	lbs.	Rs. A.		Rs. A.
Opening balance	..	29,566 8	33,286	2,82,500 4	304	3,686 0	339	6,801 5	..	2,55,115 6
Receipts from all sources.	..	7,226 5	37,943	3,08,502 15	900	8,394 10	1,137	16,348 11	..	8,12,576 8
(A) Total	..	36,792 13	71,229	5,91,003 3	1,204	12,080 10	1,476	23,150 0	..	10,67,691 14
Issues of all kinds	..	17,725 1	42,624	6,91,952 13	680	7,560 14	1,420	21,797 5	..	7,45,689 4
Wastages written off	..	..	10,171	..	27	..	..	..	..	1,418 1
(B) Total	..	17,725 1	52,795	6,91,952 13	707	7,560 14	1,420	21,797 5	..	7,47,107 5
(C) Closing balance	..	26,103 8	18,434	1,23,949 7	497	4,827 10	56	780 4	..	3,20,584 9

(a) Includes following classes of stores:—
Inferior opium, contraband opium, dhoi, lewa, leaf, trash, cups, chests and compartments.
The difference between A and (B *plus* C) represents profit or loss.

(Sd.) C. BHASKARAIYA,
Asstt. Director of Commercial Audit,
Calcutta Circle.

(Sd.) G. B. F. MUIR,
Opium Agent.

CHAPTER IV.

GOVERNMENT OF INDIA

Education, Health and Lands Department Concerns.

MATHEMATICAL INSTRUMENT OFFICE, CALCUTTA.

SECTION I.—FINANCIAL REVIEW BY THE SUPERINTENDENT ON THE ACCOUNTS OF THE YEAR 1929-30.

206. We anticipated by averages that there would be a fair demand made on the Mathematical Instrument office, and accordingly stores, etc., were indented for; for unfortunately the general trade depression has also affected this office badly. Instead of a normal demand, the sales have dropped over Rs. 1,19,000 which means that our stock has risen accordingly, as all our European Stores take at least 8 months to arrive in India after the indent has been placed. This drop in sales not only means a drop in profit, but also a rise in the overhead charges due to interest on the heavy stock.

207. The workshop also suffered, but not to the same extent. During the first half of the year, demands were fairly brisk, but only in rushes, which meant a lot of overtime had to be expended, and after the rush-jobs were finished, work was slack again.

208. During the latter half of the year, both sales and demands on works dropped considerably. The workshop was fortunate in securing some fairly large orders from the Military Department but at very low prices and in very short time, which also entailed a good deal of overtime.

209. Taking into consideration the trade depression, the Mathematical Instrument Office has perhaps done as well, if not better than most of the local stores and workshops.

210. With regard to the balance sheet presented it will be noticed that a sum of Rs. 36,381 has been debited on account of interest on capital. This is rather a misleading figure, as out of the above, the amount of Rs. 1,049 is for Mobilisation stock and that of Rs. 5,073 for instruments required by Government Departments as no longer required and will, as demands occur, be made serviceable and transferred to our stores. The Mathematical Instrument Office has very little control on the above stock; if an instrument can be made serviceable and there will eventually be a demand for same it must be accepted; if it were not done so, it would have to be sold by auction at terrible sacrifice.

211. The Government of India have recognised the fact and in para. 12 of letter No. 459, dated the 1st September 1925, stated as below :—

"A separate 'Dump or Suspense Account' is maintained by the Mathematical Instrument Office, which includes all repairable stores, mobilisation reserves, obsolescent stock and other items which are not susceptible of Commercial management, but which have to be run by the Mathematical Instrument Office in the general interests of the state. The 'Dump or Suspense Account' should bear its due share of establishment charges, but should be excluded from the Profit and Loss Account of the Stores Section."

212. A "Suspense Account" should be opened for the above two stocks, namely, Mobilisation and Repairable Stores, and no percentage should be shown against these two items in the Profit and Loss Account.

213. If this is accepted it brings down the debit due to interest on capital to about Rs. 30,200. From the detailed calculation given below, it will be observed that the Mathematical Instrument Office has nearly paid its way or in other words has paid Government about 2·6 per cent. for the money borrowed—

	Rs.
Net Debit as per P. and L. Statement	10,17,818
Less—Interest on capital shewn therein	36,382
Net Debit excluding interest .	9,81,436
Net Credit as per P. and L. Statement	9,96,568
Deduct—Debit out of the total credit	9,81,436
	15,132
Add—The value of the Book-keeping machine wrongly issued off as a final charge	2,698
Total .	17,830

Capital on—

	Rs.
1st April 1929	6,71,298
1st October 1929	7,03,774
2	13,75,072
	6,87,536

$\frac{100 \times 17,830}{6,87,536}$ or about 2·6 per cent.

214. The debit has further been reduced by Rs. 2,698 as since writing this review it has been detected that the Book-keeping machine has been erroneously issued to works, instead of to office under head "Plants." The actual corrections will be made in the accounts of the current financial year.

215. It is very difficult to retrench. If the casual labour be retrenched it means revenue will drop still further, which would push up the overhead charges still higher. The only useful retrenchment is reduction of stock, clerical labour, Supervisors or in other words non-earning Units. The latter two cannot be reduced as the office is working on the minimum. Most of the Staff in the Mathematical Instrument Office are working at least two hours daily overtime. Steps have been taken to reduce stock, the minimum amount having been indented for from England.

216. The prospects for the current year are still more gloomy than the one under review. In the first 4 months there was loss of Rs. 32,000, but it is hoped that the outturns of July and August will help in reducing this loss.

217. The total sales for the month of April of the current financial year were only Rs. 20,800 this figure represents the 10 per cent. profit, that is, the cost price of the stores was Rs. 18,950 and the sale value Rs. 20,800, the difference being Rs. 1,850, which has to pay for interest on capital, which alone amounts to Rs. 2,694, direct labour about Rs. 600 and dozen other petty charges such as, clerical labour, adjustment charges, loss in transit, etc.

SECTION II.—REMARKS BY THE DIRECTOR OF COMMERCIAL AUDIT.

218. *Paragraphs* **210** *to* **213** *of the Financial Review.*—The considerations urged in these paragraphs do not affect the comparison of the results of the year under review with those of previous years. Interest has always been charged on the total capital locked up in the concern. The Dump account referred to in paragraph 211 has already been written down to Rs. 100.

219. *Paragraph* **215** *of the Financial Review.*—If the fall in demand is responsible for the drop in profit (as stated in paragraph 206 of the Review) it is hard to see how "the revenue will drop still further" if the "casual labour be retrenched." Attention is invited in this connection to the increase of Rs. 8,096 under "Wages and Salaries," over the previous year's figures and to paragraph 222 below.

220. *Paragraph* **216** *of the Financial Review.*—Attention is invited to the Superintendent's forecast for the year 1930-31.

221. As against profits of Rs. 12,429 and Rs. 1,603 in the two previous years, the net financial result of the transactions of the year under review is a loss of Rs. 21,250.

The amount included in the *pro formâ* accounts towards the rent of office buildings is however not Rs. 35,364 as intimated by the Executive Engineer but only Rs. 20,305. The question of the correct figure to be adopted has been submitted to Government for orders. It may be pointed out, that if Rs. 35,364 is to be taken as the rent, the loss during the year would be increased by Rs. 15,059. On the other hand, a sum of Rs. 600 on account of passage contribution which should have been debited in the previous year's accounts has been debited in this year's account. The loss for the year will, after making allowance for both these factors, be Rs. 35,709.

The loss is due to the fall in the manufacture and sales, as illustrated by the table below, and the matter is dealt with in the Financial Review prepared by the Superintendent, Mathematical Instrument Office :—

	1927-28.	1928-29.	1929-30.
	Rs.	Rs.	Rs.
Manufacture	3,97,618	3,39,871	3,08,334
Instruments sold	5,60,829	5,39,308	4,20,131
Repair charges recovered	1,54,093	2,44,068	2,21,540

222. The summary below of the working results of this and the two previous years brings out the differences :—

Particulars.	1927-28. Rs.	1928-29. Rs.	1929-30. Rs.
Gross profit on repairs and manufacture of instruments	2,97,862	3,31,422	3,22,226
Gross profit on sales of instruments . .	60,104	57,729	46,276
Miscellaneous receipts	2,278	3,576	†2,137
Total .	3,60,244	3,92,727	3,70,639
Deduct—Wages and General Expenses . .	3,58,641	3,80,298	3,91,889
Net Profit .	1,603	12,429	..
Net Loss .	..	..	21,250

It will thus be seen that although the gross profit on Repairs, manufacture and sale of instruments has gone down by Rs. 20,649 compared with last year's figure, the Wages and General Expenses have gone up by Rs. 11,591.

The increases under "Direct and Indirect charges" are shown below :—

	1928-29. Rs.	1929-30. Rs.	Increase. Rs.
Wages and Salaries	2,60,320	2,68,416	8,096
Interest on Capital	35,518	36,382	864
Pensionary charges	27,572	28,472	900
Passage contribution	..	1,200	1,200 (for two years).
Audit fees—			
Commercial Audit	1,000	1,000	500
Other Audit and Accounts Offices . .	..	500	
Police Charges	1,356	1,820	464
Sundry Expenses	22,387	23,034	647

223. The capital invested by Government in this concern at the end of each official year is compared below for three years :—

Years.	Rs.
31st March 1928	6,63,167
31st March 1929	6,71,298
31st March 1930	7,62,099 (after deducting the loss for the year).

It will be seen that the capital is thus on the increase, the increase during the year 1929-30 being Rs. 90,801.

The stores balances for the last three years are given below :—

	1927-28.	1928-29.	1929-30.
Stock of Stores.	Rs.	Rs.	Rs.
Serviceable Stores	2,87,820	3,09,749	4,10,839
Material Stores	2,01,072	2,02,796	2,00,285
Repairable Stores	97,799	96,260	1,06,575
Dump Stores	21,218	21,023	100*
Total	6,07,928	6,29,828	7,17,799

* (Reduced under Government of India orders). Thus even though the Dump Stores were written down to the extent of Rs. 20,923, there has been an increase of Rs. 92,029 over last year's balance.

224. The importance of introducing a proper costing system was dealt with in paragraph 139 of the Appendix to the Appropriation Accounts of the Central Government for the year 1928-29, which stated that "the only way of judging at present of the general adequacy of the prices charged for repair work, etc., is the final result of working for the year, and the Profit of Rs. 12,429 is evidence that prices are fairly correctly gauged. It is believed however that a proper costing system would give the Superintendent increased facilities for control." In view of the loss incurred during the year under review and the further loss expected by the Superintendent in the year 1930-31 the question of the adequacy of the prices charged will no doubt be reviewed and the question of costing will assume an additional importance. It is understood that a system of costing has been drawn up by the Superintendent, Mathematical Instrument Office, but it has not yet been introduced, and that a few experiments made by the Superintendent were not found to be satisfactory.

MATHEMATICAL INSTRUMENT OFFICE, CALCUTTA.

225. Balance Sheet as at 31st March 1930.

Liabilities.	As at 31st March 1929. Details.	As at 31st March 1929. Total.	As at 31st March 1930. Details.	As at 31st March 1930. Total.
	Rs.	Rs.	Rs.	Rs.
Sundry creditors	..	1,595	..	449
Wages accrued and undisbursed	..	22,993	..	22,403
Government Account—				
Opening Balance on 1st April 1928 and 1929	6,63,167		6,71,298	
Add—Receipts during the year	7,86,392		7,94,774	
	14,49,559		14,66,072	
Deduct—Payments during the year	7,90,690	6,58,869	6,82,723	
			7,83,349	
Deduct—Loss	..	..	21,250	7,62,099
Profit for the year	..	12,429	..	..
Total	..	6,95,886	..	7,84,951

Assets.	As at 31st March 1929. Details.	As at 31st March 1929. Total.	As at 31st March 1930. Details.	As at 31st March 1930. Total.
	Rs.	Rs.	Rs.	Rs.
Plant and Machinery—				
Opening Balance on 1st April	27,434		28,174	
Add—Purchases during the year	740		5,144	
	28,174		33,318	
Less—Depreciation	12,483	15,691	18,157	15,161
Furniture—				
Opening Balance	4,866		4,865	
Less—Depreciation	1,999	2,867	2,997	1,868
Stock—				
Serviceable Stores	3,09,749		4,10,839	
Materials Stores	2,02,796		2,00,285	
Repairable Stores	96,260		1,06,575	
Dump Stores	21,023	6,29,828	100	7,17,799
Work in Progress	..	35,969	..	40,808
Repairable instruments in works	..	5,085	..	3,647
Sundry debtors	..	4,941	..	4,224
Customs duty paid in advance	..	..	..	51
Cash on hand	..	1,505	..	1,393
Total	..	6,95,886	..	7,84,951

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Asstt. Director of Commercial Audit,
Calcutta Circle.

SARAT CHANDRA SIRCAR,
Accountant,
Mathematical Instrument Office.

S. WOODHOUSE,
Superintendent,
Mathematical Instrument Office.

MATHEMATICAL INSTRUMENT OFFICE, CALCUTTA.

226. Consolidated Trading and Profit and Loss Account for the year 1929-30.

	31st March 1929.		31st March 1930.	
	Rs.	Rs.	Rs.	Rs.
To Work in progress		32,720		35,969
" Repairable instruments in works		13,282		5,085
" Book value of instruments sold		4,81,579		3,73,856
" Wages (Works and General)		2,60,320		2,68,416
" Repairable stores W. T. components, etc.		2,47,569		2,11,018
" Interest on capital		35,518		36,382
" Depreciation		7,242		6,072
" Pensionary charges		27,572		28,472
" Rents, rates and taxes		22,349		23,285
" Audit fees		1,000		1,500
" Police charges		1,356		1,820
" Passage contribution		..		1,200
" Sundry and other expenses—				
Stationery and Printing	5,029		6,616	
Freight charges	4,416		3,571	
Postage	4,999		4,800	
Miscellaneous	7,943		7,592	
Menials	..	22,387	455	23,034
" Rent of Phone		670		640
" Value of stores written off		1,885		349
" Shortage in stock-taking		..		620
" Net Profit		12,429		..
Total	..	11,67,878		10,17,818

	31st March 1929.	31st March 1930.
	Rs.	Rs.
By Manufacture	3,39,871	3,08,334
" Instruments sold	5,39,308	4,20,131
" Repair charges recovered	2,44,068	2,21,510
" Sale proceeds of condemned stores	2,793	1,312
" Profit on revaluation stock	188	825
" Profit on stock-taking	596	..
" Work-in-progress	35,969	40,808
" Repairable instruments in works	5,085	3,648
" Net loss	..	21,250
Total	11,67,878	10,17,818

227. Stock Account of the Mathematical Instrument Office, Calcutta, for the year 1929-30.

	1928-29.	1929-30.
	Rs.	Rs.
1. To value of stock on 1st April—		
(a) Articles ready for issue for ordinary purposes	2,68,084	2,80,920
(b) Mobilisation stock held for Military purposes	19,755	19,755
(c) Materials in stock for manufacture of instruments	2,01,072	2,02,891
(d) Instruments returned as no longer required	97,799	96,260
2. Adjustment due to revaluation—		
Net increase	188	824
Receipts—		
(a) Imported articles	2,80,107	2,64,339
(b) Articles locally purchased	99,197	81,837
(c) Articles manufactured at workshop	2,53,912	2,34,589
(d) Articles returned by Government departments as no longer required	32,356	44,921
(e) Articles taken from repairable stores and made serviceable after repairs	76,254	67,841
3. Stock-taking surplus	2,661	1,488
4. Miscellaneous receipt	101	316
Total	13,31,486	13,04,981

	1928-29.	1929-30.
	Rs.	Rs.
1. By Government Departments— New works	4,49,874	3,46,312
2. „ Indian States, District Boards and Municipalities— New works	31,705	27,544
3. „ Work-shop for manufacture and repairs	2,37,303	2,04,474
„ Plant, machinery and tools	729	5,144
4. „ Dump and condemned, etc., stores	993	1,718
Stock-taking deficiency	2,065	2,090
Closing balance—Value of stock on 31st March 1930—		
(a) Articles ready for issue for ordinary purposes	2,80,920	3,91,084
(b) Mobilisation stock held for Military purposes	19,755	19,755
(c) Materials in stock for the manufacture of instruments	2,02,891	2,00,285
(d) Instruments returned as no longer required	96,260	1,06,575
Total	13,31,486	13,04,981

Dump and Condemned, etc., stores.

	1928-29.	1929-30.
To Opening balance	31,310	30,810
„ Transfers (as in above account)	993	1,718
Total	32,303	32,528

	1928-29.	1929-30.
By amount realised by sale or otherwise	658	1,331
„ Loss representing difference between book value (as above) and value realised	835	21,256*
„ Closing balance	30,810	9,941
Total	32,303	32,528

* This includes Rs. 20,583 for dump stores transferred to Government account as per Government of India, Education, Health and Lands, letter No. 314-S., dated the 16th October 1929.

SECTION I.—REMARKS BY THE DIRECTOR OF COMMERCIAL AUDIT ON THE STORE ACCOUNTS OF THE PHOTO LITHO OFFICE AND THE MAP RECORD AND ISSUE OFFICE OF THE SURVEY OF INDIA DEPARTMENT ON THE ACCOUNTS OF THE YEAR 1929-30.

228. The proposals for the commercialisation of the accounts having been dropped it was decided that the local audit of the Stores and other existing accounts with effect from the year 1929-30 be transferred to the Commercial Audit Branch. This Branch was given the right to recommend in its audit reports any improvements in accounting and control over cash or Stores which may be considered desirable. The first audit of these concerns' accounts was conducted for the year 1929-30 and reports suggesting minor improvements, etc., were issued.

229. The Officer-in-charge of the Photo Litho Office has, at the instance of audit, agreed to draw up, from the year 1931-32 onwards, for inclusion in this Appendix, a store account showing for the whole year the total value of receipts and issues of stores working from the opening to the closing balance. It has been suggested that such an account might be prepared with effect from the year 1930-31.

230. The preparation of a similar account in values, in the case of the maps in the Map Record and Issue Office, will, it is held, involve additional labour and expenditure which is considered unnecessary. The suggestion made in audit that the accounts should in that case, be prepared, showing the number of maps without their value will be brought into force from the year 1930-31. Owing to the Ledgers not having been maintained for the full period it has not been possible to compile a statement for the year 1929-30.

GENERAL REMARKS INTRODUCTORY TO THE ACCOUNTS OF THE FARMS AND CREAMERY.

BY THE DIRECTOR OF COMMERCIAL AUDIT.

231. Bangalore, Wellington and Karnal Farms and Anand Creamery form a group of *quasi*-commerical concerns under the control of the Imperial Dairy Expert; their primary function is research and education and they were acquired, and are worked by the Government of India for the purpose of providing facilities for education and research in connection with the closely allied and important problems of animal husbandry and dairying. All of these four institutions have a specific part in the system of education, diploma and post-graduate, given by the Imperial Agricultural Department. Students are trained at these four centres, and each centre gives the particular class of teaching and experience for which it is particularly fitted and for which purpose it is maintained. Each institution does produce, however, marketable products, and the commercial side has been developed as a support to the educational side so that the best possible use may be made of revenue producing assets and the final cost of education and research may be as low as possible. The Accounts of the Farms and the Creamery are divided into two sections "Education and Research" and "Commercial" activities to exhibit on the one hand the cost to Government of the training of students and of research into problems of animal husbandry, and on the other of the trading in the produce of the Farms and Creamery. This division of accounts cannot isolate the effects of experiments on the commerical activities of the farm, for not infrequently experiments tend to incapacitate permanently or temporarily the best stock from functioning in a manner most profitable to the commercial side.

232. The reviews in this section deal with these institutions as entirely separate commercial units. The Dairy Expert claims that as these institutions form part of one educational and research scheme they should be judged by the combined results. Further, the financial results of farms are very largely affected by climatic conditions which vary from year to year, and by outbreaks of epizootic diseases which in some years may be prevalent, and in others non-existent, and it is therefore necessary to study results not of one year, but over a series of years. In deference to this view the group results of these institutions for the past three years are given below :—

Year.	Cost of Education and Research.	Commercial activities. Profit or Loss (—).
	Rs.	Rs.
1927-28	1,36,310	27,712
1928-29	1,65,950	30,250
1929-30	1,77,306	30,438
Total	4,79,566	88,400

The average yearly profit for the three years on the commercial side is Rs. 29,467 and the result may be regarded as satisfactory.

233. It may be mentioned that in the commercial accounts of Government Farms indirect charges such as Audit fees, Direction charges, Interest, etc., have not been included. These are given in a footnote to the accounts and the final results inclusive of these charges can be worked out if desired. The decision not to include these charges was taken by the Government of India and acquiesced in by the Auditor General for special reasons (among them those mentioned in paragraph 231) affecting Government Farms.

234. In dealing with the accounts of these institutions certain questions of general interest to the tax-payer were put to the authorities responsible for the control of these farms, and it might save the time of the Committee if the results of the enquiries were recorded here. It may be stated that the reasons given are the explanations of administrative authorities and not of the Commercial Audit Branch, but that the latter has no desire to impugn them.

To the question why milk production cannot be restricted to the demand and the available market the reply was that this is impossible because of the variability in the yield of the cow, her periods of calving, and of the available market. Yield is affected by weather conditions and the health of the animals; demand is affected by the health of the buying public. Supply and demand in milk is difficult to reconcile in any part of the world, and the usual policy followed by milk producers of supplementing their own supply by outside purchase cannot safely be followed by Government farms because of possible contamination of outside sources.

It was suggested that money might be made by the sale to the public of the improved young stock which it is the Farms' business to produce. The difficulty here urged is that there is no market yet in which such young stock will fetch economic prices because of the lack of appreciation of the advantages of improved stock. To create this appreciation is one of the functions of the whole organisation.

It will be noticed in the reviews of the Bangalore and Wellington Farms that selling prices were reduced to rates which do not cover the cost of production and of delivery. These reductions were made in sympathy with a fall in prices of dairy produce all over the world, and were imperative in order to retain the existing custom.

It is noticeable that Farm milk cannot be used for the production of butter at competitive prices. The reason is that the dairies produce cows' milk which contains 4 to 4½ per cent. of fat against the 7½ to 8 per cent. of fat in buffaloes milk. Hence it is impossible for butter made from cows' milk to sell at competitive prices in the open market. Further, milk produced on Government farms from expensive stock must be more expensive than that produced by animals grazing on common lands where there are no labour or overhead charges.

The essential reason for Government Farms not yielding greater profits is that the commercial activities are always influenced by requirements in connection with the primary purpose of education and research. If it were to be laid down that these institutions must pay their way even on the commercial side all research, experimental and educational work would have to cease.

GENERAL REMARKS INTRODUCTORY TO THE ACCOUNTS AND REVIEWS OF THE FARMS AND CREAMERY.

By the Imperial Dairy Expert.

235. *General.*—I concur with the foregoing general introductory remarks of the Director of Commercial Audit.

236. The results of the commercial side of the working of the three farms and Anand Creamery show an increase in profit earned of some Rs. 180 over the profits of the previous year and this in view of the state of trade and general fall in selling prices of all kinds of farm produce during the year must be regarded as satisfactory. The indications at the time of writing are that a further improvement may be looked for in the current year's trading.

237. A review of the accounts or finance of these farms and the creamery is not the place in which the educational and scientific work done can be dealt with, but it may be mentioned that this has been extended and increased in the year under review without curtailing the profits of the commercial side of their activities.

238. The aim of this office as the administrative authority responsible, is to maintain and work the farms and the creamery in the highest possible state of efficiency as educational and research institutions and whilst maintaining this standard to see that everything possible is done to encourage commercial revenues and keep down expenditure.

239. The following reports on the working of the farms and creamery from the trading accounts point of view gives details of the financial position at each of these institutions :—

IMPERIAL INSTITUTE OF ANIMAL HUSBANDRY AND DAIRYING, WELLINGTON.

SECTION I.—FINANCIAL REVIEW BY THE SUPERINTENDENT ON THE ACCOUNTS OF THE YEAR 1929-30.

240. The trading of the year shows a net loss of Rs. 14,700 against a loss of Rs. 19,150 during 1928-29 and a profit of Rs. 7,827 during 1927-28. The loss is chiefly due to the attacks of Foot and Mouth disease in 1928 and again in 1929. Although the immediate effect of this outbreak resulting in heavy casualties was fully reflected in the accounts of the preceding year the after effects of the disease continued to be responsible for the following results during the year under review also—

1. Decrease in the average daily yield of the cows from 13·66 lbs. in 1927-28 to 12·6 lbs. in 1928-29, and 10·74 lbs. during the year under review.
2. Casualties and condemnations.
3. Increase in expenditure under Grain and Fodder.

241. The following other causes also have contributed to the loss in the working of the Farm.—

1. Increase in expenditure under Repairs to buildings, Salaries and Miscellaneous expenses.
2. Increase in the cost of production of milk due to decrease in the yield of cows coupled with a reduction in selling prices.

242. The loss in milk yield is apparent from the following figures :—

	1929-30.	1928-29.	1927-28.
No. of animals milked	17,441	17,115	17,168
Milk yield in lbs.	1,87,266	2,15,710	2,34,532
Milk purchases in lbs.	67,877½	39,953¼	20,540¾
Average yield per animal.	10·74	12·6	13·66
Total herd	25,371	22,709	27,056
Percentage of animals dry to the total herd	31	25	36

The decrease in the yield was noticeable especially in the first six months of the year, when the quantity yielded was 32,469 lbs. less than the yield for the corresponding period of the previous year amounting to a loss of Rs. 5,069.

243. The loss arising from casualties during the year under review was Rs. 2,326 against Rs. 10,485 in 1928-29, and Rs. 2,700 during 1927-28. The total net loss due to casualties, condemnations and valuations during these three years were Rs. 7,555, Rs. 13,263 and Rs. 3,178 respectively.

244. (*a*) The increase under Grain and Fodder is attributable to feed and upkeep of extra animals during the year and also to issue of extra special rations for bringing up the condition of the herd affected by the disease. The cattle are however slowly recovering from the severe effects of the recent outbreaks of disease and as there has been a considerable drop in the cost of feeding stuffs a further improvement in the financial position is looked for in the current year's working.

(*b*) Fencing extra lands taken up and re-roofing, overhauling, etc., of Fodder Shed are responsible for increase under repairs to buildings.

(*c*) The increase under salaries and allowances is due to extra temporary establishment employed for cultivating more lands taken up and the increments to staff.

(*d*) The increase under miscellaneous expenses is on account of the inclusion of charges for Printing, Stationery and supply of Forms, not charged for in previous years.

245. The loss on the working of this Farm has been calculated only after charging 20 per cent. of the expenditure on the feed and keep, etc., to Education and Research, and without taking into consideration the following charges—

	Total.		Share to Education.		Share to Commercial activities.
	Rs.	Per cent.	Rs.	Per cent.	Rs.
Leave and pensionary charges .	1,656	20	331	80	1,325
Share of direction charges . .	900	50	450	50	450
Audit fee	600	20	120	80	480
Interest charges	14,196	50	7,098	50	7,098
	17,352		7,999		9,353

246. These charges have however been included in working out the all-in costs of Dairy Products, and in the following table, the all-in costs are compared with the selling prices—

	1929-1930.		1928-1929.		1927-1928.	
	All-in costs per lb.	Average selling price per lb.	All-in costs per lb.	Average selling price per lb.	All-in costs per lb.	Average selling price per lb.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Milk production	0 5 9·408		0 5 8·025		0 3 5·68	
Milk delivery charges	0 0 1·505		0 0 1·54		0 0 1·53	
	0 5 10·913	0 3 1·6	0 5 9·565	0 3 2·5	0 3 7·21	0 3 3·6
Butter production	1 2 7·6		1 4 4·52		1 3 11·68	
Butter delivery charges	0 0 1·549		0 0 1·51		0 0 1·46	
	1 2 9·149	1 7 10·4	1 4 6·03	1 8 2·2	1 4 1·12	1 8 7·2
Cream production	3 10 0·4		3 15 1·1		2 6 3·9	
Cream delivery charges	0 0 1·19		0 0 1·31		0 0 1·25	
	3 10 1·59	1 12 0	3 15 2·41	1 12 0	2 6 5·15	1 12 0

The increase in the cost of production is explained in paragraphs 240 to 244 above. It does not pay to convert Farm milk into Cream, but a certain quantity has to be converted to meet the demands of Hospitals and regular customers, and a loss has to be faced on this account.

247. The following Herd and Milk Statistics are of interest :—

	1929-30.	1928-29.	1927-28.
Closing stock of milking herd on 31st March	72	64	73
No. of cows milked during the period	17,441	17,115	17,168
No. of cows dry	7,930	5,684	9,888
Yield of milk during the year in lbs.	1,87,266	2,15,710	2,34,532
Average quantity available for sale including local purchase of milk in lbs.	2,46,170·5	2,48,145·6	2,42,125·13
Average yield per animal	10·74	12·6	13·66
Quantity sold in lbs.	2,39,865·6	2,34,230·6	2,27,901·13
Issues to Cream and Butter in lbs.	6,273	13,553	12,688

The variations in the milking herd were as follows :—

	Cows.
Sale of cattle	20
Deaths	5
	25
Total vacancies were filled up by purchases	16
Transfers from other farms	6
	22
The number of young stock transferred to Adult stock during the year was	10

248. The following figures will show the steady increase in the sales of Dairy Produce, etc., during the last few years :—

Dairy Produce Sales.	1929-1930.		1928-1929.		1927-1928.	
	Lbs.	Rs.	Lbs.	Rs.	Lbs.	Rs.
Milk	2,39,865	40,525	2,34,230	46,071	2,27,902	47,071
Butter	19,286	28,271	19,179	28,986	18,268	29,085
Cream	619	1,084	785	1,374	916	1,604
Cheese	85	146	75	131	232	406
Butter Milk	2,613	41	1,314	23	783	12
Separated Milk	101	6	36	2	145	9
		70,073		77,497		77,187
Miscellaneous Receipts—						
Potato sales		3,942		1,866		2,924
Other receipts		1,801		2,453		1,611
		5,743		4,319		4,535

In spite of the increased sales of Rs. 5,635 lbs. milk and 107 lbs. butter during the year under report, the sale proceeds will be found decreased owing to reduction in the selling rates sanctioned by Government from 1st November, 1928.

249. Balance Sheet : Property and Assets.

1. *Lands.*—The expenditure for clearing and excavation of land during the year amounted to Rs. 250 which was capitalised under improvements as usual.

2. *Buildings.*—The additions made during the year amounted to Rs. 3,559 as detailed below :—

	Rs.
Addition to milk recording room	29
Addition to New Model Cattle Shed	1,937
Addition to calf shed	851
Water tank	466
Drains	275

Depreciation has been written off on buildings and plant and machinery at rates approved of by Government.

250. *Live Stock.*—The live stock was valued on 21st March 1930 by the Director of Agricultural Research Institute, Pusa, and his valuation has been adopted. The following additions were made to the herd during the year :—

16 Hariana Cows at an average of Rs. 482 each.

6 Cross bred cows at an average cost of Rs. 313-8 each.

1 Billy Goat at an average cost of Rs. 7.

The following is the summary of the live stock carried in the Balance Sheet :—

		Rs.
15 cows pure bred		20,760
57 cows half bred		18,817
56 Young Stock female		6,700
18 Young stock male		1,235
5 Bulls		4,175
	Total milking herd	51,687
Draught Cattle.		
18 bullocks		2,490
2 horses		410
1 Goat (Other item)		7
172	Grand Total	54,594

251. The Blue gum trees at the Plantation and on Farm lands have not been appreciated this year as they have not sufficiently matured, and they stand practically at the same valuation as on 31st March 1929.

252. *Capital and Liabilities.*—In this section of the Balance Sheet, there are no items calling for remarks.

IMPERIAL INSTITUTE OF ANIMAL HUSBANDRY AND DAIRYING, WELLINGTON.

253. Summarised Balance Sheet as at 31st March 1930.

1928-1929.	Capital and Liabilities.	1929-30.	1928-1929.	Property and Assets.	1929-1930.
Rs.		Rs.	Rs.	Fixed Assets.	Rs.
10,246	Sundry Creditors	9,939	10,669	Land at cost	10,919
1,78,767	Government of India Capital Account	1,79,867	85,622	Buildings (Depreciated value)	88,059
			13,519	Plant and Machinery (Depreciated value)	11,644
				Floating Assets.	
			54,125	Live Stock at valuation	54,594
			9,918	Plantations	9,564
			10,578	Consumable Stores, Spare Parts, Dairy Produce, etc.	9,247
			4,440	Sundry Debtors	5,669
			142	Cash	110
1,89,013		1,89,806	1,89,013		1,89,806

C. L. V. NAIDOO,
Accountant, Imperial Institute of Animal Husbandry and Dairying, Wellington.

E. G. WHITTICK,
Superintendent, Imperial Institute of Animal Husbandry and Dairying, Wellington.

A. RENGASWAMI IYER,
Assistant Director of Commercial Audit, Madras.

IMPERIAL INSTITUTE OF ANIMAL HUSBANDRY AND DAIRYING, WELLINGTON.

254. Summarised Trading and Profit and Loss Account for the year ending 31st March 1930.

Total Expenditure for the year 1928-1929.	Particulars of Expenditure.	Net Expenditure.	1929-30 Education and Research.	Commercial Activities.
Rs.		Rs.	Rs.	Rs.
42,748	Feed of Cattle, Rent of Land, Cultivation. Ice, Salt, Fuel, Contingencies, Refunds, etc.	39,643	7,892	31,751
1,978	Rail charges	1,333	267	1,066
20,313	Salaries of Establishment	22,559	4,512	18,047
1,073	Travelling and other allowances	690	138	552
912	Rent and repairs to buildings	1,624	325	1,299
2,026	Repairs to Plant and Machinery	1,082	216	866
	Depreciation, etc., on—			
1,976	Buildings	1,122	..	1,122
14,430	Cattle including casualties, and condemnations, etc.	9,131	..	9,131
2,042	Plant and Machinery including Transfers, sales, etc.	1,875	..	1,875
28,789	Purchase of Dairy Produce including freight.	33,000	..	33,000
1,16,284	Total	1,12,149	13,350	98,799
	Overhead and interest charges.			
1,565	Leave and Pension . 20% & 80%	1,656	331	1,325
900	Share of Direction charges 50% each.	900	450	450
600	Audit Fee . 20% & 80%	600	120	480
12,078	Interest . 50% each	14,196	7,098	7,098
15,143	Total	17,352	7,999	9,353

1928-29.	Particulars of Receipts.	1929-30.
Rs.		Rs.
77,709	Sale of Dairy Produce	76,223
185	Sale of grain and fodder	557
4,319	Miscellaneous Receipts	5,743
1,167	Sale and transfer of dairy and Draught Cattle.	1,576
..	Appreciation on Cattle	..
13,754	Net amount charged to Education and Research.	13,350
19,150	Loss on commercial activities	14,700
1,16,284	Total	1,12,149

255. Store Accounts for the Animals belonging to the Imperial Institute of Animal Husbandry and Dairying, Wellington for 1929-30.

Statement I.—Balances.

	Rs.	a.	p.
To Balance on 1st April 1929	54,125	0	0
Add—Receipts (Statement II)	14,430	4	0
	68,555	4	0
Deduct—Issues (Statement III)	13,961	4	0
	54,594	0	0

Statement II.—Receipts.

	Rs.	a.	p.
By Cash Purchase	7,718	4	0
„ Transfer from Other Farms	1,882	0	0
„ Increase in value through revaluation	4,830	0	0
	14,430	4	0

Statement III.—Issues.

	Rs.	a.	p.
To Sales (Value of Animals condemned and sold)	6,315	0	0
„ Deaths	2,325	14	6
„ Decrease due to Revaluation	5,320	0	0
„ Elimination of Fractions of a Rupee	0	5	6
	13,961	4	0

Name of the Agency employed for the Verification and Revaluation.

W. H. HARRISON, D.Sc.,

Officiating Director, Imperial Institute of Agricultural Research, Pusa.

C. L. F. NAIDU,

Accountant.

E. G. WHITTICK,

Superintendent, Imperial Institute of Animal Husbandry and Dairying, Wellington.

A. RENGASWAMI IYER,

Assistant Director of Commerical Audit, Madras Circle.

IMPERIAL INSTITUTE OF ANIMAL HUSBANDRY AND DAIRYING, BANGALORE.

SECTION I – FINANCIAL REVIEW BY THE SUPERINTENDENT ON THE ACCOUNTS OF THE YEAR 1929-30.

256. The working of the year showed a net loss of Rs. 12,765 under Commercial activities as against a loss of Rs. 3,557 in 1928-29. This is due to various factors, *i.e.*,—

(1) Decrease in valuation of livestock at end of year and loss due to condemnation and deaths of cattle.

(2) Reduction in the selling prices of milk which had its full effect during the whole year.

(3) The year under review being a rest year for cocoanut trees the receipts for the period under miscellaneous income were less than previous year by Rs. 4,500 which is the normal amount realised when the trees are leased.

257. The quantity of milk available for disposal during the year was 38,922 lbs. more than that of 1928-29 and 75,633 lbs. over that of 1927-28. Of the increase over 1928-29, 13,136 lbs. went to increase the sales in milk and 23,237 lbs. went to increase the issue for separation. The sale of dairy milk as such is more economical than its conversion and the increase in the quantity of milk converted also accounts to some extent for the increase in the loss of the year. More separated milk was actually fed to calves. This extra quantity was fed during the months of December 1929 to March 1930 when surplus milk was being produced and for which there was no sale. During the previous 8 months milk was being purchased for feeding the calves in order to meet the demands for dairy milk. The number of animals milked daily and the average yield per animal are the important factors in meeting the demand for milk and the following figures are of interest in this connection :—

	Cows.			
	1929-30.	1928-29.	1927-28.	1926-27.
	No.	No	No.	No.
Strength of milking herd at close of year	184	168	128	110
Number of animals milked during the year	39,443	36,243	32,016	32,525
Milk yield for the year . . .	519,774	490,123	423,065	435,851
Average yield per animal per day . .	13·2	13·5	13·2	13·4

258. The quantity of milk available for sale, the quantity sold, and the quantities issued for conversion are given in the table below :—

	1929-30. lbs.	1928-29. lbs.
Net quantity available for sale	502,731	463,827
Quantity sold	363,276	350,140
Percentage sold to that available for sale . .	72·26%	75·49%
Issues to cream and butter	1,24,269	1,01,032
Percentage to that available for sale . . .	24·72%	21·78%
Issues to cheese manufacture	14,615	12,000
Percentage to that available for sale . . .	2·90%	2·59%

As the aim of the dairy is to dispose of whole milk if possible, after due regard is given to the fact that calves require a certain quantity of fresh or separated milk, the increase in quantity of milk converted into cream, etc., was due to the increased quantity of milk received from the herd in the last 4 months, without any outlet for its sale. In consequence for those months (December to March) 23,000 lbs. of separated milk surplus to the ration requirements of calves were either fed to stock, sold, or wasted, although the average monthly number of milk fed calves had risen from 57 in the **2nd** half of 1928-29 to 65 for the whole year 1929-30.

259. The following are details of the condemnations and casualties :—

	Condemnations and sales.			Deaths.	
	No.	Value.		No.	Value.
		Rs.			Rs.
Cows	26	7,728		6	900
Buffaloes	1	350		..	..
Cattle young stock and calves—					
Male	52	1,580	Including 51 young animals of no book value.	23	30
Female	7	110		31	180
Buffalo young stock—					
Bulls	1	..		..	..
Female	1	50		2	..
Cow bulls	1	150		1 Ayrshire	1,000
Buffalo bulls	1	310		..	..
Bullocks	3	296		2	150
Ponies	..	..		1	30
		10,574			2,890

The sales of cattle invariably resulted in heavy losses but this is due to unprofitable animals sold being cast for faults such as physical deformity, blind teats, old age, etc.

260. The total expenditure for the year under review is almost the same as that of the preceding year, but is Rs. 9,655 over that for the year 1927-28. The expenditure under feed and upkeep of cattle which is the principal item, has increased to the extent of Rs. 5,327 over that of 1928-29 and Rs. 10,792 over that of the year 1927-28. It is explained that the increase in the number of livestock carried during the greater portion of the year under report was responsible for the increased expenditure under this head. The increase under salaries of officers was due to the payment of arrears to the Superintendent on account of the revision of his pay with retrospective effect.

The decrease under Establishment salaries is due to the transfer of senior incumbents to other offices whose places are now occupied by juniors in the early stages of time scales of pay.

The decrease under repairs and depreciation of buildings is due to the fact that in 1928-29, some special items of expenditure were included under this head.

The depreciation on Plant and Machinery also shows a decrease due to the fact that the values of some items of Plant and Machinery had been completely written off the books in the last year.

261. The loss of Rs. 12,765 does not take into account the following charges :—

	Total.	Education and Research.		Commercial activities.	
	Rs.	Per cent.	Rs.	Per cent.	Rs.
Audit fee	1,000	20	200	80	800
Direction charges	1,800	20	360	80	1,440
Leave and pensionary charges—					
Officer	2,527	60	1,516	40	1,011
Establishment	1,366	40	546	60	820
Interest	23,291	40	9,316	60	13,975
	29,984		11,938		18,046

262. Allowance has however been made for these charges in working out the all-in-costs of the dairy products. The following table compiled by the Director of Commercial Audit shows the cost and selling prices for the current and previous years :—

1928-29. Selling price.			1928-29. Cost per lb.				1929-30. Cost price.			1929-30. Selling price.		
Rs.	A.	P.	Rs.	A.	P.		Rs.	A.	P.	Rs.	A.	P.
0	2	11·9	0	3	5·6	Farm milk including delivery charges.	0	3	7·3	0	2	11·0
1	8	2·3	1	13	2·8	Butter including delivery charges.	2	0	0·6	1	7	10·4
1	12	0	2	10	6·7	Cream including delivery charges and cost of cups.	2	13	10·5	1	12	0
1	4	10·9	3	5	9·9	Cheese	3	7	1·44	1	4	9·5

The increase in production cost of milk is due mainly to the increase under the heads "feed and keep of cattle" and "condemnations and casualties of cattle." Owing to more favourable contracts for food stuffs for cattle since April 1930 there is every indication of a decrease in the production rate for milk this year.

The cost of cream has increased due to the increase in cost of milk and poorer outturn of cream, which again is due to the larger quantity of cows' milk separated when it was surplus.

The butter cost has also increased due to the increase in cost of cream and also due to poorer outturn during the year. During the year also the quantity of butter and cream purchased from other sources at favourable prices was less and this also contributed towards the increase in the average cost.

High cost of milk and the poorer outturn resulted in an increase in the cost of cheese.

Cheese is manufactured only for instructional purposes.

263. The following milk and herd statistics are of interest :—

	Year ending 31st March 1930.		Year ending 31st March 1929.	
	Cows.	Buffaloes.	Cows.	Buffaloes.
Closing stock of milking herd . .	184	9	168	9
Number of animals milked during the year.	39,443	1,993	36,243	1,912
Yield of milk during the year lbs. .	5,19,774	29,041	4,90,123	22,026
Average yield per animal per day . .	13·2	14·6	13·5	11·5
Issues to farm stock	68,671	..	65,674	..
Loss in handling	8,308·10	..	8,491·5	..
Percentage of loss in handling, etc., to total opening balance receipts and purchases.	1·43	..	1·58	..
Quantity available for sale—				
Milk and purchases	..	5,02,730	..	4,63,827
Quantity sold	..	3,63,275	..	3,50,140
Issue to cream, butter and cheese .	..	1,38,884	..	1,13,032

264. The statistics relating to cows and milk production and sales have been dealt with in the preceding paragraphs. The average yield of cows has decreased to some extent as compared with the preceding year. A larger number of dry cows during the year increased the unproductive expenditure on account of their feed and keep. Although the average yield of Buffaloes increased by 3·1 lbs. per animal per day over that of the preceding year, the total quantity of outturn was only 7,015 lbs. more than the preceding year because the number of Buffalo s is small. Hence, the financial effect of the increase in the yield of Buffaloes was not perceptible.

265. The following is a review of the Balance sheet, property and assets.

The additions of Rs. 1,319-15 represent mainly further expenditure on the cattle shed which was partly completed in the previous year and the cost of electric installation in the new quarters for the supervisor. The increase under plant and machinery is chiefly due to the purchase of a new milk cart, electric pumping set, Milwaukee Bottle Filler and Capper and a 25 gallon cheddar cheese vat. Depreciation has been written off at rates approved by the Government of India.

The livestock was verified and valued on 19th March 1930 by the Director of the Imperial Institute of Agricultural Research, Pusa, who is the administrative head of the Institute. There was a net increase of 13 cows to the milking herd.

266. *Sundry debtors.*—A sum of Rs. 47-10 was written off under the sanction conveyed by the Government of India. The Book debits shown here have all been recovered subsequently except three items amounting to Rs. 29-0-3 of which Rs. 15 is due from a student and is outstanding since December 1928. A credit balance of Rs. 5-5-2 is being carried forward in the account with the Controller of Military Accounts, Madras District. This represents the total of sundry balances as a result of rounding off.

267. *Liabilities.*—Unredeemed coupons with customers Rs. 1,091-0-3 the amount represents the balance of coupons with the customers awaiting redemption. Included in this figure is an amount of Rs. 99-12-6 representing the value of coupons issued prior to 1st January 1927 and are thus over three years old now. At present there is no limit of time within which a coupon can be presented. At the recent audit it was pointed out for consideration whether a period cannot be fixed up to which the coupons may be held to be current, say three years or any less period. If this is done, it will facilitate the closing and reconciliation of the coupon accounts. Out of the increase in the capital during the year, *i.e.*, Rs. 14,301 was due to the purchase of live stock.

SECTION II.—REMARKS BY THE DIRECTOR OF COMMERCIAL AUDIT.

268. It was noticed that a share of travelling allowance and other allowances incurred entirely on account of educational activities had in some cases been debited to the commercial activities. Receipts and expenditure relating solely to one class of activity should be correctly classified as pertaining to that class and accounted for accordingly.

269. The sales of adult stocks in certain cases during the year realized prices far below the book values and the point has been specially brought to the notice of the authorities concerned for consideration whether the present annual valuations of livestock by the Director of Agricultural Institute, Pusa are not generally above market rates.

270. Summary of working results of three years 1927-28, 1928-29 and 1929-30 of the Imperial Institute of Animal Husbandry and Dairying, Bangalore.

Details.	1929-30. Education and Research.	1929-30. Commercial.	1929-30. Combined effect.	1928-29. Education and Research.	1928-29. Commercial.	1928-29. Combined effect.	1927-28. Education and Research.	1927-28. Commercial.	1927-28. Combined effect.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Total sales	..	1,03,545	1,03,719	..	1,03,963	1,04,144	..	1,02,974	1,03,133
Net $\frac{\text{Profit or Loss (—)}}{\text{Cost of Education and Research}}$ (excluding * indirect charges).	37,704	—12,765	—50,469	38,364	—3,557	—41,921	34,504	—1,098	—35,602
Net $\frac{\text{Profit or Loss (—)}}{\text{Cost of Education and Research}}$ (including * indirect charges).	49,642	—30,811	80,453	48,709	—19,485	—68,194	43,552	—15,252	—58,804
Capital	..	..	3,17,009	..	..	3,16,204	..	..	2,97,730
Percentage of $\frac{\text{Net Profit or Loss (—)}}{\text{Cost of Education and Research}}$ (excluding * indirect charges) on Capital.	11·86	—4·02	—15·88	12·13	—1·12	—13·25	11·58	—·36	—11·95
Percentage of $\frac{\text{Net Profit or Loss (—)}}{\text{Cost of Education and Research}}$ (including *indirect charges) on Capital.	15·62	—9·70	—25·32	15·40	—6·16	—21·56	14·62	—5·12	19·75

*Audit Fees.
Direction charges.
Leave and Pensionary charges.
Interest.

IMPERIAL INSTITUTE OF ANIMAL HUSBANDRY AND DAIRYING, BANGALORE.

271. Summarised Balance Sheet as at 31st March 1930.

1928-29.	Capital and Liabilities.	1929-30.
Rs.		Rs.
16,521	Sundry Creditors . . .	14,493
3,16,204	Government of India Capital Account.	3,17,669
3,32,725	Total .	3,32,162

1928-29.	Property and Assets.	1929-30 Analysis. Total.	Education and Research.	Commercial activities.
Rs.	Fixed Assets.	Rs.	Rs.	Rs.
22,953	Land at cost	22,953	..	22,953
1,67,547	Buildings (depreciated value) . .	1,61,620	66,657	94,963
36,931	Plant and machinery (depreciated value).	35,166	21,627	13,539
	Floating Assets.			
79,496	Livestock at Valuation . .	86,775	16,932	69,843
16,199	Consumable stores, spare parts and dairy produce.	17,232	..	17,232
	Sundry Debtors.			
6,953	Considered good	6,023	..	6,023
48	Considered bad	..	..	..
2,598	Cash	2,393	..	2,393
3,32,725	Total .	3,32,162	1,05,216	2,26,946

A. D. MANICKAVELU, Accountant,
Imperial Institute of Animal Husbandry and Dairying,
Bangalore.

A. LAMB, Superintendent,
Imperial Institute of Animal Husbandry and Dairying,
Bangalore.

A. RENGASWAMI IYER,
Assistant Director of Commercial Audit.

IMPERIAL INSTITUTE OF ANIMAL HUSBANDRY AND DAIRYING, BANGALORE.

272. Summarised Trading and Profit and Loss Account for the year ending 31st March 1930.

1928-29.	Particulars of Expenditure.	Net Expenditure. 1929-30.	Analysis. Education and Research.	Commercial Activities.
Rs.		Rs.	Rs.	Rs.
1,065	Opening Stock of Dairy Produce	1,412	..	1,412
25,727	Purchase of Dairy Produce including freight.	24,848	..	24,848
73,177	Feed of Cattle, Rent of Land and cultivation Ice, salt, fuel, light, contingencies, etc.	77,053	15,410	61,643
8,280	Pay of officers	9,129	5,477	3,652
27,808	Pay of Establishment	26,837	10,735	16,102
2,945	Travelling Allowance and other allowances.	2,377	1,426	951
4,584	Rent and repairs to Buildings	2,589	1,036	1,553
2,512	Repairs to Plant and Machinery	3,086	1,852	1,234
	Depreciation.			
8,007	Buildings	7,247	2,899	4,348
14,237	Cattle including casualties, condemnations, etc.	19,437	3,887	15,550
4,395	Plant and Machinery including transfers, sales, etc.	3,670	2,202	1,468
..	Bad debts written off	48	..	..
..	Book value of Plant and Machinery sold.	278	..	..
1,72,737	Total	1,78,011	44,924	1,32,761

1928-29.	Particulars of Receipts.	Net Receipts. 1929-30.	Analysis. Education and Research.	Commercial activities.
Rs.		Rs.	Rs.	Rs.
1,03,238	Sale of Dairy Produce	1,02,848	..	1,02,848
907	Sale of grain and fodder	871	174	697
7,302	Miscellaneous Receipts	3,653	731	2,922
3,619	Fees from students	3,478	3,478	..
1,770	Sale and transfer of Dairy Cattle.	3,105	621	2,484
107	Sale and transfer of Draught Cattle.	79	..	79
..	Sale of Machinery	13	13	..
12,461	Appreciation on Cattle	12,415	2,483	9,932
1,412	Closing Stock of Dairy Produce	1,080	..	1,080
	Loss as detailed below.			
38,304	Net charges to Education and Research.	50,469	37,704	12,765
3,557	Loss on commercial activities			
1,72,737	Total	1,78,011	45,204	1,32,807

Details of Indirect Charges not included in the above accounts.

1928-29		1929-30				
Rs.		Rs.	Per cent.	Rs.	Per cent.	Rs.
1,000	Audit fee	1,000	20	200	80	800
1,800	Direction charges	1,800	..	360	80	1,440
	Leave and Pension Contribution—					
1,977	Officers	2,527	60	1,516	40	1,011
1,321	Establishment	1,366	40	546	60	820
20,175	Interest	23,291	..	9,316	..	13,975
26,273		29,984		11,938		18,046

273. Stores account for the animals belonging to the Imperial Dairy Institute, Bangalore for 1929-30.

Statement I.—Balances.

	Rs. a. p.
Balance on 1st April 1929	79,496 0 0
Receipts (Statement II)	26,715 15 0
Total	1,06,211 15 0
Issues (Statement III)	19,436 15 0
Balance on 31st March 1930	86,775 0 0

Statement II.—Receipts.

To cash purchase	14,300 15 0
To increase in value through revaluation	12,415 0 0
Total	26,715 15 0

Statement III.—Issues.

By sales	10,574 0 0
By deaths	2,890 0 0
By decrease in value through revaluation	5,972 15 0
Total	19,436 15 0

Name of agency employed for verification and revaluation :—
The Director, Imperial Institute of Agricultural Research, Pusa.

A. D. MANICKAVELU,
Accountant.

A. LAMB, Superintendent,
Imperial Institute of Animal Husbandry and Dairying,
Bangalore.

A. RENGASWAMI IYER,
Assistant Director of Commercial Audit,
Madras.

IMPERIAL CATTLE BREEDING FARM, KARNAL.

Section I.—Financial Review by the Superintendent on the accounts of the year 1929-30.

274. The accounts maintained on the farm continue to be kept largely on the commercial system followed by the Military Dairy Farms prior to the taking over of the farm by this Department. The figures appearing in the books of the farm have been duly reconciled with those appearing in the books of the Pay and Accounts Officer, Survey of India, Calcutta.

275. The activities of the farm are two-fold, *viz.*, (1) Cattle Breeding and Dairying and (2) Cultivation. All activities relating to Cattle Breeding and Dairying are "Educational and Research," while those relating to cultivation are wholly commercial. In the compilation of the accounts of the two activities, actual expenses have been shown under the corresponding heads of activities, and other expenses which cannot be directly allocated have been distributed generally in the proportion of "Feed" charges of the two branches.

276. The gross and net profits relating to the commercial side (Cultivation) for the year 1929-30 compare with those for 1928-29, as shown below :—

	1929-30.	1928-29.	Percentage of decrease.
	Rs.	Rs.	
Gross Profit	65,220	77,466	16
Net Profit	42,460	51,402	17

This small decrease both under gross and net profits in 1929-30 as compared with the figures for 1928-29, is attributable to a rise in direct charges, which although compensated by a rise in sales, is further supplemented by a small fall in the value of standing crops on 31st March 1930. It may however be added that as compared with the results for the year 1927-28 the increase both under gross and net profits during the year under report, is appreciable.

The percentage of total indirect charges on gross profit on the cultivation side for 1929-30 was 42 against 33 in 1928-29.

277. Sales of grain and fodder during 1929-30 and 1928-29 and the value of standing crops at the end of each year were as below :—

	1929-30.	1928-29.
	Rs.	Rs.
Sales	53,428	44,571
Value of standing crops	47,125	50,333

The increase on the aggregate under these heads during 1929-30 as compared with 1928-29 is due to a better outturn of crops in 1929-30.

278. Grain and fodder produced by the cultivation side and milk yielded by the Dairy are both used for feeding cattle whether draught or dairy cattle. Credit has been afforded in the Departmental Trading and Profit and Loss account to the respective sides for the total of these commodities supplied for feed purposes and the actual consumption has been charged off against the activities concerned. The credits and debits to the respective sides during the years 1929-30 and 1928-29 in connection with feed of cattle are set out in the following table :—

	1929-30.		1928-29.	
	Commercial.	Education and Research.	Commercial.	Education and Research.
Credits (Receipts).	Rs.	Rs.	Rs.	Rs.
Grain and Fodder	80,473	..	64,649	..
Milk, etc.	..	16,745	..	15,551
Total	80,473	16,745	64,649	15,551
Debits (Consumption).				
Grain and Fodder	13,019	67,454	11,655	52,995
Milk, etc.	..	16,745	..	15,551
Total	13,019	84,199	11,655	68,546

279. The ratio of the feed on the dairy side to feed on the cultivation side during 1929-30 remained approximately the same as in 1928-29, *viz.*, 6 : 1. The cost of feeding under Cattle Breeding and Dairying during 1929-30 was Rs. 84,199 as against Rs. 68,546 in 1928-29. The substantial increase in the cost of feeding was mainly due to :—

(1) Increase in the number of animals.

(2) Want of grazing grass due to shortage of rains. The animals had to be stall fed.

(3) Outbreak of Foot and Mouth disease which necessitated the issue of rations at a scale higher than the normal.

(4) Paying higher rates for contracted purchases of grains although the market rates were lower in some cases.

280. The ratio of "feed" charges referred to in paragraph 275 above was 10 : 1 approximately during 1929-30 as against 9 : 1 approximately in 1928-29 ; the working out of this ratio is given below :—

	Cattle Breeding and Dairying.						Cultivation.
	Cows.	Young Stock.	Calves.	Bulls.	Sheep Goats.	Sheep dog.	Draught animals.
On 31st March 1929	190	191	163	6	163	1	73
On 31st March 1930	205	275	125	11	200	1	73
Total	395	466	288	17	363	2	146
Mean	198	233	144	8	181	1	73
	785						73

281. The selling rates of the dairy produce during the year 1929-30 were as follows :—

Milk from Rs. 0-1-0 to Rs. 0-1-6 per lb.

Butter from Rs. 0-14-0 to Rs. 1-6-0 per lb.

Cream at Rs. 1-0-0 per lb.

Ghee at Rs. 0-14-0 per lb.

Separated milk at Rs. 0-0-6 per lb.

Cheese from Rs. 1-4-0 to Rs. 1-8-0 per lb.

282. During the year ended 31st March 1930 the total yield of milk from cows and buffaloes amounted to 4,83,007 lb. The average yield per cow per day was 5 lb. 13 oz. ; while that per buffalo was 10 lb. 14 oz. The percentage of sales of fresh milk to the total yield was about 10. It is realised that the sale of fresh milk is the most profitable method of disposing of the products of the dairy, but repeated endeavours to find a market for the sale of fresh milk as such at the sale rate sanctioned by Government, *viz.*, Rs. 0-1-0 per lb. have brought no results. The question of proposing to Government a reduced sale rate, of the fresh milk, surplus to the exigencies of Education and Research, during the next years, *viz.*, 1931-32, is being gone into. The substantial portion of the total yield of milk is separated not for cream making, but for exigencies of Research and Education.

The ratio of milk to cream remained unchanged at about 11 : 1.

283. Sales of surplus and condemned animals during the two years 1929-30 and 1928-29 were as follows :—

	Year ended 31st March			
	1930.		1929.	
	Condemned.	Surplus.	Condemned.	Surplus.
	Rs.	Rs.	Rs.	Rs.
Book value	7,527	2,080	10,158	5,580
Value realised	1,559	2,607	2,278	10,197
Difference being profit or loss (—).	—5,968	+527	—7,880	+4,617

Balance Sheet.

284. *Buildings*.—The value of the buildings on 1st April 1929 was Rs. 96,298. Additions during the year 1929-30 amounted to Rs. 13,203 ; and depreciation written off the asset account amounting to Rs. 1,157 has been credited to the asset account and charged to the profit and loss account.

285. *Plant and Machinery*.—The value of Plant and Machinery on 1st April, 1929 was Rs. 50,553. The following items were added :—

(1) Erection of Cattle-weighing bridge	155
(2) H-3 Climax Chaffcutter	1,452
(3) L. H-2 Horse shoe mower bullock draught	372
(4) Water supply with overhead tank	8,143
(5) Steam Engine with D. C. Motor complete	4,068
(6) Marshall's thrasher with straw braising attachment complete	8,284
(7) "Rushton" Tractor complete with accessories	7,731
Total	30,205

The total depreciation for the year amounted to Rs. 5,055 and the amount written off the asset account on account of Plant and Machinery condemned during the year was Rs. 998. The balance value of Plant and Machinery on the farm on 31st March 1930 therefore amounted to Rs. 74,705.

286. *Livestock*.—The value of Livestock on the farm on the 1st April, 1929 was Rs. 82,641. Purchases during the year 1929-30 amounted to Rs. 7,146. Seven cows valued at Rs. 1,909, three young animals and 85 calves valued at Rs. 380, 15 sheep and goat valued at Rs. 51 died of natural causes. One bullock valued at Rs. 50, and one calf were destroyed, the former for "Hoven" and the later for broken leg. The total loss due to casualties amounted to Rs. 2,390, sales of condemned livestock worth Rs. 7,527 realized Rs. 1,559, resulting in a loss of Rs. 5,968, while the sales of breeding stock worth Rs. 2,080 realized Rs. 2,607 giving a profit of Rs. 527. The livestock were revalued towards the end of January 1930, by the Officiating Director, Imperial Institute of Agricultural Research, Pusa, and this revaluation resulted in a net appreciation of Rs. 7,673 in respect of Dairy Cattle and a depreciation of Rs. 1,799 in respect of draught cattle.

287. *Sundry Stores.*—The details of the closing stock on 31st March, 1930, relating to (*a*) Cattle Breeding and (*b*) Cultivation were as below :—

Particulars.	Total.	Cattle Breeding and Dairying.	Cultivation.
	Rs.	Rs.	Rs.
Grain and Fodder	12,587	..	12,587
Dairy Produce	2,544	2,544	..
Ice, Salt, etc.	2,175	2,175	..
Cultivation Stores	288	..	288
Miscellaneous	10,428	9,480	948
Total	28,022	14,199	13,823

The surpluses and deficits revealed during the course of verification of stores, carried out by the Audit Assistant to the Director, Imperial Institute of Agricultural Research, Pusa, were duly brought to account during the year 1929-30 under the orders of the Imperial Dairy Expert. The book values as certified by the Superintendent of the farm, have been incorporated in the accounts.

288. *Standing Crops.*—The value of crops standing on 31st March, 1930 was calculated on the basis of actual realizations in the case of crops which were harvested in May and June 1930 ; and on the basis of market sale rate, which was lower than the cost of production, in case of crops which although harvested were not yet sold. Necessary deductions were made to get at their value on 31st March, 1930.

289. *Sundry debtors.*—The balance outstanding against a certain company on 31st March, 1929 was Rs. 916-7. During the year 1929-30 Rs. 200 were paid towards liquidation of this debt leaving a balance of Rs. 716-7 on 31st March, 1930, still payable by the company. The sum of Rs. 907-9-9, which was due since long from another debtor company has been sanctioned to be written off the books as a bad debt by the Government of India, in November, 1929. The rest of the debtors are considered good.

290. *Government Capital Account.*—This account is built up as follows :—

		Rs.
(*a*) Balance on 1st April, 1929		5,05,885
(*b*) Cash receipts from Government during 1929-30		1,55,879
(*c*) Book transfers and Credit adjustments during 1929-30		10,256
		6,72,020
Less—		
(*d*) Remittance to Treasury during the year	67,143	
(*e*) Book transfers and debit adjustments	19,280	86,423
Balance on 31st March, 1930		5,85,597

The amount of capital invested in the concern has therefore risen by Rs. 79,712. This increased capital has been employed mainly in increasing the value of buildings (Rs. 13,203), and of Plant and Machinery (Rs. 30,205); and partly in financing the deficit on the whole working of the farm including the Education and Research side.

SECTION II.—REMARKS BY THE DIRECTOR OF COMMERCIAL AUDIT.

291. Supplies of milk were made to certain persons not borne on the students' roll at the concession rate of Re. 0-1-3 per lb. permissible only to students. This irregularity was pointed out in audit and short recoveries were made and credited to Government.

292. A comparative statement of the outturn of the Farm under "Home" and "Batai" systems is given below :—

Comparative statement showing outturn of grain and green fodder under the Home and Batai systems for the years 1928-29 and 1929-30.

	1928-1929.							
	Juar.	Acreage.	Wheat.	Acreage.	Barley.	Acreage.	Gram.	Acreage.
			Mds.				Mds.	
Home	3,153,110 lbs.	165·25	2,620·20	129·5	..	..	2,790·20	170 acres
Average per acre	19,080 per acre	..	20·2 mds. per acre		..	..	16·4 mds. per acre	
Batai	2,780,680 lbs.	126 acres	4,129·20	256·5	..	..	2,370·20	222·5
Average per acre	22,068 lbs. per acre		16·1 mds. per acre				10·6 mds. per acre	

	1929-1930.								1928-29.		1929-30.	
	Juar.	Acreage.	Wheat.	Acreage.	Barley.	Acreage.	Gram.	Acreage.	Rice only.			
			Mds.		Mds.				Mds.	Acreage.	Mds.	Acreage.
Home . . .	6,018,140	273·5	3,949·0	173·5	209	9·5	2,492	142·0	..	..	..	..
Average per acre.	22,004 lbs. per acre		22·7 mds. per acre		22 mds. per acre		17·5 mds. per acre					
Batai . . .	..	..	6,645	374	..	..	2,004	125·8	9,402	355·6	8,474	365·0
Average per acre	..	..	17·7 mds. per acre		..	..	15·8 mds. per acre		26·4 mds. per acre		23·2 mds. per acre	

The above shows that the outturn of grain under "Batai" system is generally much less than that under "Home". The Superintendent of the Farm agreed with the Audit Officer that some cases of illicit removal of produce before division had come to notice and that steps were being taken to prevent their recurrence. With the recent purchase of machinery like steam tractors and thrashers at considerable cost it has been recommended in audit for consideration if the whole of the land could not be cultivated "home" and the "batai" system given up.

NOTE.—The land at this Farm is cultivated under three system, "Home," "Batai" and "Lease to Contractors". Cultivation of land by daily labour of the farm is "Home". Cultivation by tenants on the basis of the division of the actual produce between the Farm and the tenants is "Batai".

293. A large number of fuel and timber trees grow on the roads of the Farm and in the compound, but no value is shown in the Balance Sheet for them and no record is maintained. The necessity of maintaining proper accounts has been emphasised in audit.

294. For purposes of working out charges for Depreciation the life of the following buildings has been taken into account as 200 years :—

1. Cook Houses.
2. New Milking Shed.
3. Milk recording room.
4. New Stores Godown.

In these cases the assumption of a life of 75 to 100 years would appear to be more suitable and the point has been referred by Audit for consideration.

COMPILATION REGISTER OF DAIRY PRODUCE.

295. The following statement shows the average yield of milk of a cow and of a buffalo per day during half year under review as compared with the preceding half year ended 30th September 1929 and the corresponding half year ended 31st March 1929 :—

Half year ended.	No. of home cows in milk during the half year.	No. of home buffaloes in milk during the half year.	Total quantity of home cows milk received during the year.	Total quantity of home buffaloes milk received during the half year.	Total receipts of milk during the half year.	Average yield of milk per cow per day.	per buffalo per day.
31st March 1930 . . .	22,134	4,145	1,91,283	56,748	2,48,031	8·6	13·7
30th September 1929 . .	18,344	3,623	1,85,877	49,099	2,34,976	10·13	13·19
31st March 1929 . . .	17,007	3,294	1,39,109	47,213	1,86,322	8·17	14·33

From the above it will be noticed that the average yield of cows milk has decreased by about 1·5 lb. when compared with that of last half year whereas there has been a slight increase in the yield as compared with that of corresponding half year of the previous year. But the average yield of a buffalo has been steadily decreasing. The matter has been brought to the notice of the Superintendent of the Farm and the Imperial Dairy Expert for investigation.

296. Summary of working results of three years 1927-28, 1928-29 and 1929-30 of the Imperial Cattle Breeding Farm, Karnal.

Details.	1929-30. Education and Research.	1929-30. Cultivation / Commercial.	1929-30. Combined effect.	1928-29. Education and Research.	1928-29. Cultivation / Commercial.	1928-29. Combined effect.	1927-28. Education and Research.	1927-28. Cultivation / Commercial.	1927-28. Combined effect.
Total Sales	20,074	53,428	73,502	14,113	44,572	58,685	10,626	37,106	47,732
Gross Profit or Loss (—) / Cost of Education and Research.	46,335	65,220	18,885	36,929	77,467	40,538	25,155	31,709	6,554
Percentage of gross profit or Loss(—) / gross cost of Education and Research on turnover.	230·80	122·07	25·69	261·66	173·80	69·07	236·73	85·45	13·73
Net profit or Loss(—) / cost of Education and Research (excluding indirect* charges).	94,791	42,460	52,331	82,127	51,402	—30,725	68,454	17,223	—51,231
Net Profit or Loss(—) / cost of Education and Research (including indirect* charges).	116,029	27,846	—88,183	100,046	38,945	—61,101	86,400	5,268	—81,132
Capital	..	..	585,597	..	..	505,885	..	..	424,449
Percentage of Net Profit or Loss (—) / cost of Education and Research (excluding indirect* charges) on Capital.	16·18	7·23	8·93	16·23	10·16	6·07	16·12	4·05	12·07
Percentage of Net Profit or Loss(—) / cost of Education and Research (including indirect* charges) on capital.	19·81	4·76	15·05	19·77	7·70	12·07	20·45	1·24	19·11

* Supervision charges, Leave and Pensionary charges, Audit fees, Interest on capital.

IMPERIAL CATTLE BREE

297. BALANCE SHEET AS

Liabilities.	1929-30.		1928-29.	
Sundries Creditors—	Rs.	Rs.	Rs.	Rs.
For salaries, wages, etc. . .	3,975	..	3,441	..
" Travelling allowances . .	277	..	..	..
" Purchases of stores . . .	7,383	..	4,443	..
" " Livestock . .	..	..	49	..
" Advance payments, etc. . .	..	..	7	..
" Sales Ledger credit balances .	249	..	..	..
" Water dues	3,441	..	..	..
		15,325		7,940
Reserve for Bad and doubtful debts .	..	..	..	908
Permanent Advance	..	2,000	..	2,000
Government Capital	..	4,85,598	..	5,05,885
Total .	..	6,02,923	..	5,16,733

(Sd.) S. COX, Superintendent,
Imperial Cattle Breeding Farm, Karnal.

(Sd.) ANUP CHAND, Accountant,
Imperial Cattle Breeding Farm,
Karnal.

DING FARM, KARNAL.

AT 31ST MARCH 1930.

Assets.	1929-30.		1928-29.	
	Rs.	Rs.	Rs.	Rs.
Land	..	89,359	..	89,359
Buildings	96,298		77,333	
Additions during the year	13,203		19,935	
	1,09,501		97,268	
Less—Depreciation written-off	1,157	1,08,344	970	96,298
Plant and Machinery	50,553		53,502	
Additions during the year	30,205		3,926	
	80,758		57,428	
Deduct—depreciation written-off and sales, etc.	6,053	74,705	6,875	50,553
Livestock	..	83,663	..	82,649
Milk Cans	5,659		9,515	
Less—Depreciation written-off	—3,685		3,856	
Less—Issues	—337	1,637	..	5,659
Sundry stores	..	28,022		22,568
Standing Crops	..	47,125		50,333
Sundry Debtors	..	8,882		10,629
Cash in hand	..	282		122
Balance cash in hand—Imprest	716		1,504	
Add—Expenditure to be recouped	1,284	2,000	496	2,000
Profit and Loss Account— Net accumulated deficiency to 31st March 1929 and 31st March 1930.	1,06,573		75,622	
Cost of Education and Research	94,791		82,127	
Deduct—Profit on Commercial	—42,460		—51,402	
Add—Adjustment for 1927-28	..	1,58,904	225	1,06,572
Total	..	6,02,923	..	5,16,733

(Sd.) R. SIVARAMAKRISHNAN, Assistant Audit Officer,
Commercial Audit Branch.

IMPERIAL CATTLE BREE

298. Comparative Departmental Trading and Profit and Loss Account
March,

—	For the year ended 31st March 1930.		For the year ended 31st March 1929.	
	Cattle Breeding and Dairying.	Cultivation.	Cattle Breeding and Dairying.	Cultivation.
	Education and Research.	Commercial.	Education and Research.	Commercial.
To Commencing Stock	11,939	10,627	8,965	7,033
„ Value of Standing crops on 1st April	..	50,333	..	27,114
„ Purchase of—				
Grain and Fodder	..	37,564	..	31,632
Ice, Salt, etc.	1,216	..	1,024	..
„ Cultivation Charges	..	18,086	..	15,280
„ Feed and Upkeep of Cattle	84,199	13,019	68,546	11,655
	97,354	1,29,629	78,535	92,714
„ Gross profit carried down	..	65,220	..	77,467
	97,354	1,94,849	78,535	1,70,181
To cost of Education and Research brought down.	46,335	..	36,929	..
„ Salaries and Wages	20,576	21,231	16,906	19,813
„ Repairs to Buildings	4,081	510	4,971	621
„ Repairs to Plant and Machinery	3,400	567	5,558	926
„ Plant and Machinery written-off	547	451	..	..
„ Heating and Lighting	7,784	779	6,285	699
„ Medical Stores	1,551	155	766	85
„ Travelling Allowances	1,603	261	3,034	409
„ Freight	665	..	1,935	188
„ Sundry Expenses	1,351	1,081	1,174	939
„ Casualties of livestock	2,340	50	2,175	718
„ Condemnation of livestock	5,939	30	7,635	246
„ Value of milk cans issued	337	..	..	..
„ Depreciation on Buildings	1,028	129	863	107
„ Depreciation on Plant and Machinery.	4,333	722	5,700	950
„ Depreciation on milk cans	3,684	..	3,856	..
„ Depreciation on livestock during the year.	..	1,799	..	563
	1,05,554	27,765	97,877	26,263
„ Net profit on Commercial	..	42,460	..	51,402
	1,05,554	70,225	97,877	77,665
Indirect charges not included in the accounts are :—				
Supervision charges	900	..	900	..
Leave and Pensionary charges	2,342	2,417	2,193	2,372
Audit fees	600	600	600	600
Interest on Capital	17,396	11,597	14,226	9,485
	21,238	14,614	17,919	12,457

DING FARM, KARNAL.

for the year ended 31st March, 1930, as compared with the year ended 31st 1929.

—	For the year ended 31st March 1930.		For the year ended 31st March 1929.	
	Cattle Breeding and Dairying.	Cultivation.	Cattle Breeding and Dairying.	Cultivation.
	Education and Research.	Commercial.	Education and Research.	Commercial.
By Sales	20,074	53,428	14,113	44,572
,, Issues for feed and upkeep of cattle.	16,745	80,473	15,552	64,649
,, Ending Stocks	14,200	13,823	11,941	10,627
,, Value of standing crops on 31st March.	..	47,125	..	50,333
	51,019	1,94,849	41,606	1,70,181
,, Cost of Education and Research carried down.	46,335	..	36,929	..
	97,354	1,94,849	78,535	1,70,181
By Gross profit on Cultivation brought down.	..	65,220	..	77,467
,, Miscellaneous receipts	2,563	5,005	3,304	198
,, Profit on sale of young stock .	527	..	4,617	..
,, Appreciation in livestock during the year.	7,673	..	7,829	..
	10,763	70,225	15,750	77,665
By net cost of Education and Research during the year.	94,791	..	82,127	..
	1,05,554	70,225	97,877	77,665

IMPERIAL CATTLE BREED

299. Comparative Trading and Profit and Loss Account for the year ended

—	Year ended 31st March 1930.	Year ended 31st March 1929.
To Commencing Stocks	22,566	15,998
,, Value of standing crops on 1st April	50,333	27,114
,, Purchases of—		
Grain and Fodder	37,584	31,632
Ice, Salt, etc.	1,216	1,024
,, Cultivation Charges	18,086	15,280
,, Gross profit carried down	18,885	40,538
	1,48,650	1,31,586
To Salaries, Wages, etc.	41,807	36,809
,, Repairs to Buildings	4,591	5,592
,, Repairs to Plant and Machinery	3,967	6,484
,, Heating and Lighting	8,563	6,984
,, Medical Stores	1,706	851
,, Travelling Allowances	1,864	3,443
,, Freight on Stores	665	2,123
,, Plant and Machinery written-off	997	..
,, Sundry Expenses	2,432	2,113
,, Casualties of Livestock	2,390	2,803
,, Condemnation of Livestock	5,969	7,880
,, Value of milk cans issued to Dairy	338	..
,, Depreciation of Buildings	1,157	970
,, ,, Plant and Machinery	5,055	6,650
,, ,, Milk Cans	3,684	3,856
	85,185	86,648

Indirect charges not included in the accounts are :—

Supervision charges	900	900
Leave and Pensionary charges	4,759	4,565
Audit fees	1,200	1,200
Interest on capital	28,993	23,711
	35,852	30,376

* Included in "Sales of Grain and Fodder".

ING FARM, KARNAL.

31st March 1929 as compared with the year ended 31st March, 1930.

—	Year ended 31st March 1930.	Year ended 31st March 1929.
By Sales of—		
Grain and Fodder	49,793	44,571
Dairy Produce	20,015	14,033
Skins	60	81
„ Rent of land leased for cultivation	3,635	*
„ Ending Stocks	28,022	22,568
„ Value of standing crops on 31st March	47,125	50,333
	1,48,650	1,31,586
By Gross profit brought down	18,885	40,538
„ Miscellaneous Receipts	7,568	3,502
„ Profit on Sale of young stock	527	4,617
„ Net appreciation of livestock during the year . . .	5,874	7,266
„ Net deficiency for the year carried to Balance Sheet .	52,331	30,725
	85,185	86,548

300. Summary of Store Account of the Animals belonging to the Imperial Cattle Breeding Farm, Karnal, for the period 1st April 1929 to 31st March 1930.

Item No.	Particulars.	Amount.		
		Rs.	A.	P.
1	Balance on 1st April 1929 as per statement No. I .	82,641	2	3
2	*Add* receipts as per statement No. II	14,819	0	5
3	Total	97,460	2	8
4	*Deduct* disposed off as per statement No. III .	13,797	0	8
5	Balance on 1st April 1930	83,663	2	0

Statement No. II.

6	To purchases	7,145	14	0
7	To purchases from Government Farms (Book Transfer).	..		
8	To increase in value through revaluation . .	7,673	2	5
9	Total	14,819	0	5

Statement No. III.

10	By sales	9,607	6	0
11	By deaths	2,390	3	8
12	By decrease in value through revaluation . .	1,799	7	0
		13,797	0	8

Name of Agency employed for the verification and revaluation. "Officiating Director, Imperial Institute of Agricultural Research, Pusa."

(Sd.) S. C. SEN, Asst. Audit Officer,
N. I. Circle (Commercial).

(Sd.) F. E. TRAYNOR, Superintendent,
Imperial Cattle Breeding Farm, Karnal.

(Sd.) ANUP CHAND, Accountant,
Imperial Cattle Breeding Farm, Karnal.

GOVERNMENT RESEARCH CREAMERY, ANAND.

SECTION I.—FINANCIAL REVIEW BY THE SUPERINTENDENT ON THE ACCOUNTS OF THE YEAR 1929-30.

301. Throughout the year 1929-30, the Creamery continued performing its two fold functions of trade and Education and Research. Great attention was directed towards the business activities so much so that the Creamery besides supplying their products both in Southern and Upper India, to several private individuals, secured custom from the Military Department. Just at the close of the period this Creamery was supplying butter on regular indents to several Military Dairy Farms and various Depots of the Supply and Transport Department. The Commercial activities during the year on the whole resulted in a profit of Rs. 15,441-10-9 against a profit of Rs. 1,555 in the previous year.

302. The great rise in the sales of the different Dairy Products during the year is shown below and is compared with the previous year's sales :—

	1928-29. Lbs.		1929-30. Lbs.	
Butter	71,073	5	80,340	12
Separated Milk	3,37,796	0	4,45,625	0
Yellow Ghee	2,331	7	5,690	4
White Ghee	845	6	785	14
Casein	15,746	4	13,915	4
Cream	273	10	44	7
Cheese	*Nil*		38	12
Milk	415	0	300	0
Butter "C"	605	0	55	0

The improvement in the final figures may be attributed to the increased turnover of the dairy, to lower rates for milk and improved methods of purchase by short term contracts. In addition to the usual practice of selling butter, the Creamery dealt with profit in all their bye-products. There was a great demand for separated milk and Casein and large quantities of them were sold to public.

303. Experiments in the manufacture of Condensed Milk and in making of Casein in different forms by different processes were carried out for educating the Diploma and Post-graduate students who visited the institution during the year.

304. To keep pace with the ever increasing improvements and modernisation in the manufacture and handling of Dairy products, various old pieces of Machinery which existed and which were unfit for further use were replaced during the year by new ones of the most modern type. And as a side show, it has been possible thereby to impart lessons and educate in a scientific and practical way to Dairy students and the general public the far reaching benefits that a Butter Factory installed on recent lines and worked under ideal hygienic conditions, which can be run if required both economically and profitably to the manufacturer and consumer, would offer by way of providing a marketable product which would be excellently pure, fresh, free from bacteria or parasites and at the same time consisting of the best of Vitamine products useful for growth, and encouragement of such products, will be promoting nothing but health and prosperity to the nation at large.

BALANCE SHEET.

305. Additions to Assets.—The assets were increased by the following amounts during the year under review :—

	Rs.	A.	P.
Plant and Machinery	9,067	9	3
Office equipments	135	3	6
Total .	9,202	12	9

Besides certain stores amounting to Rs. 2,893-9-10 were also transferred during the year to office equipment. This was simply an adjustment transaction as the addition to office equipment was set off by a corresponding reduction of miscellaneous stores.

306. *Writes-off of assets.*—The only writes-off represent depreciation and no other item of asset was condemned or sold away during the year.

307. *Stores and Stock.*—A separate statement showing the different transactions on consumable stores is affixed. The all-round reduction in the ending stock of stores on 31st March 1930 was due to the transfer of certain stores to office equipment amounting to Rs. 2,893-9-10, as mentioned above. The details of ending balances of Dairy Products on 31st March 1930 are set out below :—

Balance on 31st March 1930.

Item.	Quantity.		Rate.				Value.		
	Lbs.	Ozs.	Rs.	A.	P.		Rs.	A.	P.
Butter "A" Grade	353	8	1	0	0	per lb.	353	8	0
Cream	400	0	1	0	0	„	400	0	0
Casein	4,824	0	11	0	0	per 41 lb.	1,294	4	0
Ghee yellow	218	8	0	12	0	per lb.	163	14	0
Total .	..			....			2,220	10	0

Stock taking was carried out by the Audit Inspector of the Director of Imperial Institute of Agricultural Research and the balances on 31st March 1930 were also verified by the Superintendent.

308. *Sundry Debtors.*—These amounted to Rs. 8,784-1-2 and all debts have since been recovered.

309. *Liabilities.*—All outstanding liabilities for salaries, expenses and purchases have been duly accounted for in the account.

310. *Government Capital Account.*—Rs. 1,70,903-6-5. Besides the monthly figures of cheques cashed and remittances to Treasury, it also includes the adjustments through the Pay and Accounts Officer, Survey of India, Calcutta.

SECTION II.—REMARKS BY THE DIRECTOR OF COMMERCIAL AUDIT.

311. A change in the method of presentation of the accounts of the Anand Creamery has been approved by the Government of India and the accounts of the year under review have been drawn up on the revised lines. Previous to this the whole of the expenditure of the Creamery after deducting the share allocable to Research was taken as incurred on the manufacture of butter although part of it related to casein and ghee making.

312. The cost of manufacturing 76,758·4 lbs. of "A" grade butter in 1929-30 was as follows :—

	Amount.	Rate per lb.
	Rs.	Rs. A. P.
Direct Charges—		
Dairy Produce used	49,907	0 10 4·7
Stores and Chemicals	3,272	0 0 8·2
Coal consumed	3,717	0 0 9·3
Wages	1,425	0 0 3·6
Repairs and depreciation of machinery	3,619	0 0 9·0
Total	61,940	0 12 10·8
Indirect Charges—		
Salaries and allowances	8,078	0 1 8·3
Miscellaneous charges	2,193	0 0 5·4
		0 2 1·7
Gross Cost of Production	72,211	0 15 0·5

313. The trading transactions relating to "A" grade butter are set out below :—

	Rs.
Opening Stock	10,102
Cost of Production	72,211
Gross Profit	19,160
	1,01,473

	Rs.
Sales of butter	78,412
Sales of separated milk	7,875
Butter issued for ghee making	6,436
Separated milk issued for casein making	8,397
Closing stock	353
	1,01,473

314. Receipts from the sale of separated milk and adjustments on account of separated milk issued for conversion into casein have been credited in the above statement. The net cost of butter if these recoveries had been set off against the costs of manufacture would have amounted to Rs. 0-11-7·8 in the year 1929-30. There was a gross profit of Rs. 19,160 on the trade in butter during 1929-30. The selling rate varied between Rs. 0-15-6 and Rs. 1-2-0 per lb.

315. The cost of the manufacture of 18,153·4 lbs. of casein during 1929-30 is tabulated below :—

	Amount. Rs.	Rate per lb. Rs.
Materials used—		
Separated milk	8,398	0 7 4·5
Labour	408	0 0 4·3
Depreciation	96	0 0 1·0
Indirect charges	400	0 0 4·2
	9,302	0 8 2·3

If casein were not manufactured, the surplus separated milk would be wasted. The costs of manufacture apart from the charge for the separated milk used do not amount to much, and as long as these are within the realizations the manufacture of casein would appear to be justified. The average selling rate of casein for the year 1929-30 was Rs. 0-3-6·3 per lb. Sales of casein amounted to Rs. 3,075 and after taking into account a closing stock of Rs. 1,294 the gross loss for the year amounted to Rs. 5,093.

316. *Ghee manufacture.*—6,403·7 lbs. of ghee was manufactured during the year. The cost of the outturn is detailed below :—

	Amount. Rs.	Cost per lb. Rs.
Butter used "A" grade	6,436	1 0 1·0
" " "C" "	260	0 0 7·8
Coal	63	0 0 1·8
Depreciation	54	0 0 1·6
Indirect charges	48	0 0 1·5
	6,861	1 1 1·7

The selling rates of ghee varied between Rs. 0-12-0 and Re. 1 per lb. and Rs. 5,099 was realised thereon. A gross loss of Rs. 1,869 however was incurred on this account.

317. Thirty per cent. of all revenue expenditure incurred has been allocated to research and the receipts on account of institute fees have been credited to that head. This resulted in a net charge of Rs. 31,461 in 1929-30 as against Rs. 31,705 in 1928-29. The *gross and net profits* for the year 1929-30 on the whole of the Creamery's commercial transactions are set out below and compared with the results of the previous year :—

		Gross Profit.	Net Profit.
1929-30		13,799	15,442
1928-29	loss	223	1,555

The increased profits in 1929-30 arose from a larger output and increased sales as well as from improved conditions of trading. The adverse results of the year 1928-29 were due to the fact that there were excessive stocks on hand at the beginning of that year which had to be disposed of at a loss. The final result, however, after taking the cost of research into account was a deficiency of Rs. 16,019 in 1929-30. The deficiency in the two previous years was :—

	Rs.
1927-28	19,216
1928-29	30,150

318. *Sundry Debtors.*—These amounted to Rs. 8,784 on 31st March 1930 against Rs. 27,996 (net) on 31st March 1929; this marked improvement is satisfactory. The sundry debtors on 31st March 1930 represent an outstanding of 9·28 on the sales of the year 1929-30 as against 59·65 on those of the year 1928-29.

319. Summary of working results of three years 1927-28, 1928-29 and 1929-30 of the Government Research Creamery, Anand.

Details.	1929-30.			1928-29.			1927-28.		
	Research.	Commercial.	Combined effect.	Research.	Commercial.	Combined effect.	Research.	Commercial.	Combined effect.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Total Sales	..	94,647	94,647	..	83,188	83,188	..	38,850	38,850
Net $\frac{\text{Profit or Loss (—)}}{\text{Cost of Research and Education}}$ (excluding *indirect charges).	31,461	15,442	—16,019	30,475	325	—30,150	23,813	4,597	—19,216
Net Profit or Loss (including *indirect charges).	..	..	—28,904	..	..	—43,862	..	..	—26,450
Capital	..	..	1,70,903	..	..	1,79,143	..	..	1,40,496
Percentage of $\frac{\text{net profit or loss (—)}}{\text{cost of Research}}$ (excluding *indirect charges) on capital.	18·40	9·03	—9·37	17·01	·18	—16·83	16·94	3·27	—13·67
Percentage of $\frac{\text{net profit or loss (—)}}{\text{(including *indirect charges)}}$ on Capital.	..	..	—16·91	..	..	—24·48	..	..	—18·82

*Leave and Pension contribution
Interest . . . .
Audit Fees . . . .
Direction charges . . .

GOVERNMENT RESEARCH CREAMERY, ANAND.

320. Balance Sheet as at 31st March 1930.

Liabilities.	1929-30.	Corresponding balances on 31st March 1929.	Assets.	1929-30.	Corresponding balances on 31st March 1929.
	Rs.	Rs.		Rs.	Rs.
Sundry creditors and credit balances	1,885	2,673	Land	24,000	24,000
Government Capital Account	1,70,903	1,79,143	Buildings	28,336	28,368
			Plant and Machinery	53,979	49,012
			Office equipment	3,808	837
			Stores and stock	7,158	19,766
			Sundry debtors	8,784	27,996
			Cash and stamps	554	1,487
			Cost of education and research: 1929-30. 31,461; 1928-29. 31,705		
			Deduct.—Net profit on commercial: 1929-30. 15,442; 1928-29. 1,555	46,169	30,150
			Net loss: 1929-30. 16,019; 1928-29. 30,150		
			Add Loss of previous year: 1929-30. 30,150		
			Total: 1929-30. 46,169		
	1,72,788	1,81,816		1,72,788	1,81,816

(Sd.) MAHARAJ KISHEN,
Accountant,
G. R. C. Anand.

(Sd.) M. C. RANGASWAMI,
Superintendent, Government Research
Creamery, Anand.

(Sd.) E. PRICE,
Assistant Director of
Commercial Audit.

GOVERNMENT RESEARCH CREAMERY, ANAND.

321. Trading and Profit and Loss account for the year ended 31st March 1930.

—		1929-30.	Corresponding figures for 1928-29.
		Rs.	Rs.
To Opening stock of Cheese		62	Not available
„ Trading loss in Casein	5,092	Rs.	
„ „ Ghee	1,869		
		6,961	Do.
„ Gross profit		13,800	
		20,823	
To Gross loss carried down		..	225
„ Expenditure on research		32,091	31,705
„ Net profit on trading carried down		15,442	325
		47,533	32,255
To Net loss of research brought down		31,461	30,475
		31,461	30,475
Excluded charges—			
Leave and Pensionary contribution		1,481	1,724
Interest		9,504	10,088
Audit fees		1,000	1,000
Direction charges		900	900
		12,885	13,712

—	1929-30.	Corresponding figures for 1928-29.
	Rs.	Rs.
By sale of cheese	57	Not available
„ Trading profit in "A" butter	19,160	Do.
„ „ „ "C" „	7	Do.
„ Recoveries in packing	1,599	Do.
	20,823	
„ Gross profit brought down	13,800	..
„ Miscellaneous receipts	1,042	550
„ Institute fees (research)	630	1,230
„ Net cost of research c/d	31,461	30,475
	47,533	32,255
„ Net profit on trading b/d	15,442	325
„ Net deficiency carried to Balance sheet	16,019	30,150
	31,461	30,475

GOVERNMENT RESEARCH CREAMERY, ANAND.

322. Statement of Stores for the year 1929-30.

Stores.	Opening Balance on 1st April 1929.	Value of receipts during the year.	Value sold or disposed of during the year.	Closing Balance on 31st March 1930.	Result of stock verification and revaluation, if any.	Agency employed for revaluation or Verification.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.		
Consumable Stores	7,357 8 0	9,306 4 3	12,377 2 2	4,286 10 1	..	Stock-taking was carried out by the Audit Inspector of the* Agricultural Adviser to the Government of India and the balances on 31st March 1930 were certified by the Superintendent of the Creamery.
Chemicals	477 2 7	1,089 3 4	1,167 4 4	399 1 7	..	
Coal	839 6 3	4,812 1 9	5,399 8 0	252 0 0	..	
Total	8,674 0 10	15,207 9 4	18,943 14 6	4,937 11 8	..	*Now designated as Director of Imperial Institute of Agricultural Research, Pusa.

(Sd.) MAHARAJ KISHEN,
Accountant,
Government Research Creamery, Anand.

(Sd.) M. C. RANGASWAMY,
Superintendent,
Government Research Creamery,
Anand.

(Sd.) E. PRICE,
Assistant Director of Commercial Audit,
Bombay Circle.

IMPERIAL INSTITUTE OF AGRICULTURAL RESEARCH, PUSA.

SECTION I.—FINANCIAL REVIEW BY THE DIRECTOR ON THE ACCOUNTS OF THE YEAR 1929-30.

323. The Institute consists of the following sections:—

1. The Central Office—under the immediate supervision of the Joint Director and the Director.
2. The Estate Office (including the Kitchen Garden).
3. The Power House.
4 and 5. The Agricultural Section—Cultivation Experiments and the Cattle-Breeding Experiments.
6. The Economic Botanist's Section.
7. The Imperial Bacteriologist's Section.
8. The Imperial Mycologist's Section.
9. The Imperial Chemist's Section.
10. The Imperial Entomologist's Section.
11. The Sugar Bureau (including the Sugar Cable Service).

Every section maintains some account books and stores ledgers, but the Central Office is the channel of communication with the treasury and the Pay and Accounts Officer and the sections hold their imprest from and render their detailed accounts to the Central Office.

A *quasi*-commercial system of accounts has been introduced with effect from 1st April 1928 in the case of the Agricultural Section—Cultivation Experiments and the Cattle-Breeding Experiments, and a similar system in the Sugar Cable Service and the Kitchen Garden. In commercializing the accounts of the Sugar Cable Service, the reservation was made that no charge should be debited for the present to this service for the work done by the Secretary and the Superintendent of the Office of Sugar Bureau or on account of leave and pension charges. It has been decided further that no commercial or *quasi*-commercial accounts require to be introduced in the case of the other sections of the Institute, including the Estate Office, the Power House, and the Hospital. The acceptance of the principle of keeping the accounts of the Institute on a commercial basis, wherever possible, is subject to the condition that the fulfilment of the specific objects for which the Institute is established is not thereby impeded. It has been specially laid down by the Government of India that the introduction of these accounts does not necessarily imply that the concerns should be run as profit-earning or business ones as the Imperial Institute of Agricultural Research, Pusa, has been established primarily for the promotion of Research and the provision of Educational facilities. Further, as the present activities of the Farm and the Dairy at Pusa which have been brought within the scope of the commercial system of accounts are being substantially curtailed and as further schemes of Educational and Research activities are likely to materialize in the immediate future, the Government of India do not think it possible in the existing unsettled conditions to lay down, with any degree of accuracy, a criterion for the allocation of expenditure of the "cultivation" and "cattle Breeding" experiments between "Commercial" and "Research and Educational" activities and they therefore do not at present consider it desirable to attempt such a division. Although it has been decided not to apportion expenditure between "Commercial' and 'Research and Educational' activities, the Government of India have recognized that the commercial accounts will still be of some use in indicating the possibility of improving the working of cultivation and cattle breeding operations or of reducing the working expenses. As regards the loss in these experiments, the Government of India have agreed with the Auditor-General that throughout it should be read as meaning 'cost to Government of the Commercial, Education and Research activities in the respective branches of the Institute'.

The financial results of the working of the various sections are reviewed briefly in the following paragraphs giving comparative figures for the years 1928-29 and 1929-30.

Agricultural Section.

324. The Agricultural Section is the largest section in the Institute and involves the highest expenditure. It consists of two main departments which deal with cultivation and cattle breeding experiments.

(i) *Cultivation Experiments.*

The Farm consists of about 800 acres and experimental work connected with the cultivation of crops is conducted in an area of about 70 acres while in the land outside this area, farming on a large scale involving the use of rotation is being carried on. Green fodder is grown on a part of the land and sugarcane is also cultivated. The other chief crops are maize, oats, *Arhar*, wheat, gram, beans, cow peas and *meth*. The fodder may be divided into dry bhusa, green fodder and silage. Most of the gram and fodder produced on the farm is utilized for the maintenance of working cattle and the breeding herd. Sales to outsiders are comparatively small.

The net financial results of the operations of the cultivation experiments during the year 1929-30 show a loss of Rs. 34,814-6-9 excluding indirect charges, as against Rs. 14,385 in the year 1928-29, and Rs. 58,049 including such charges as against Rs. 37,850 in the year 1928-29. The expenditure booked in these accounts includes the portion spent on agricultural research, experiments and training of students. As already decided by the Government of India in concurrence with the Auditor-General, the loss may be taken roughly to represent the net cost to the Government of running this Section. The increase in the total loss over the last year's figures is due to the fact that the value of *rabi* crops, for the years 1927-28 and 1928-29 was accounted for in the year 1928-29, as the *rabi* crops of 1927-28 came into store in the year 1928-29 after the introduction of the system of commercial accounting.

Expenditure.

The total expenditure for the year 1929-30 is Rs. 1,50,591 as against Rs. 1,19,021 for the year 1928-29, thereby showing an increase in expenditure of Rs. 31,570 which may be explained as follows :—

(1) *Rs. 27,168 Increase.*—This is due to the reduction in the expenditure during the year 1928-29 as no provision was made for the standing *Rabi* crops on 31st March 1928.

(2) *Rs. 2,217 Increase.*—This is due to feeding more green fodder to the work cattle, which was available in abundance during the year and also to the addition of 6 new Malvi bullocks which were purchased during the year under review.

(3) *Rs. 6,872 Increase.*—This represents the increased expenditure under the head "Other Stores consumed and wages." This is due to handling of a larger volume of farm produce worth Rs. 11,140-11-0, *vide* Production and Profit and Loss account.

(4) *Rs. 4,418 Decrease.*—Under "pay of officers" is due to the transfer of the Imperial Agriculturist, Mr. G. S. Henderson to Bihar and Orissa during the month of November, 1929, and to the transfer of one-third pay of A. I. A. to Breeding Herd Section and one-third to Research and education.

(5) *Rs. 1,240 Increase.*—Under "Pay of Establishment" is due to annual increments in the salary of the members of the staff.

(6) *Rs. 612 Decrease.*—Under "Overseas pay and Passage" is due to the transfer of Mr. G. S. Henderson to Bihar and Orissa.

(7) *Rs. 3,126 Decrease.*—Under "Sundry Expenses" is due to less expenditure on electric charges and no charging off on death of cattle.

(8) *Rs. 1,024 Increase.*—Under "Depreciation of Plant and Machinery" is due to depreciation on new machinery purchased last year.

The expenditure on the other items during both the years is practically equal.

Receipts.

The total receipts amounted to Rs. 1,15,776-11-0 as against Rs. 1,04,636 in the year 1928-29 showing an increase of Rs. 11,140-11-0.

Balance Sheet.

1. *Plant and Machinery.*—Addition—Rs. 785-6-0. This represents the value of one Ransomes tractor disc harrow purchased during the year.

2. *Buildings.*—Addition—Rs. 2,094-6-0. This represents the cost of renewal of a second implement shed.

	Rs.		
3. *Live-Stock.*—Opening Balance	7,305	0	0
Add value of 8 Malvi Bullocks Purchased . .	1,958	5	6
	9,263	5	6
Less value of 2 Malvi bullocks transferred to Breeding Herd.	390	0	0
	8,873	5	6
Valuation on 31st March 1930	7,684	5	6

Stores.—The store transactions during the year are detailed below :—

	Rs. A. P.	Rs. A. P.
Opening Balance		32,882 0 0
Add Farm Produce . . .	74,123 13 9	
Stores Purchased	31,879 14 6	
		106,003 12 3
Total .		138,885 12 3
Less issues		121,368 10 9
Book Balance		17,517 1 6
Value of stock at hand		26,484 7 6
Profit on Store Transactions		8,967 6 0

This profit is due to the inclusion of freight on stores (under Sundry Expenses) in the accounts. The 10 per cent. supervision charges recovered from sundry customers and other departments in respect of issues of the stores also account to a certain extent for this profit.

(5) *Cattle Breeding Experiment.*

It will be seen that the last year's loss of Rs. 55,223 including all charges, has this year been increased by about Rs. 10,100 and stands at a total of Rs. 65,331. This figure may be taken roughly to represent the net expenditure which is chargeable to experimental work and educational activities. The various items which have brought about the increased loss are discussed below :—

The figures in the Production account show that the expenditure has practically remained the same as there is only a small increase of Rs. 492-15-0 which includes a sum of Rs. 106 provided as a reserve for Bad and Doubtful debts. The loss is mainly due to a fall in income under :—

(1) Sale of milk and its products by Rs. 4,026-0-3.

(2) Sale of cattle by Rs. 4,637-0-0.

(3) Appreciation on live stock by Rs. 2,892-10-0.

Item (1).—The total quantity of milk available for sale and manufacture was 3,32,974¼ lb. as against 3,78,323¼ lb. during last year, as per statement III showing yield and disposal of milk. There were thus 45,349 lb. less milk to sell which resulted in a decreased income of Rs. 4,026-0-3 on this account. This was due to the fact that two very heavy milkers were lost in the year and another remained standing off. These three cows were responsible for reduction in the yield by about 30,000 lb. and the remainder was due to seasonal fluctuation in the herd.

Item (2).—Sale of Cattle.

1929-30.	1928-29.
Rs. A. P.	Rs. A. P.
7,251 14 0 (Valuation 8,469 14 0)	9,572 0 0 (Valuation 6,153 0 0)

The stock sold in 1928-29 was valued at Rs. 6,153-0-0 and that sold in 1929-30 at Rs. 8,469-14-0 with the result that the 1928-29 sale showed a profit over valuation of Rs. 3,419-0-0 while the 1929-30 sale showed a loss of Rs. 1,218-0-0. This was entirely due to the fact that in 1929-30 there was no demand for young Montgomery bulls and those which were put up for sale had to be disposed of at figures below valuation as it is not economical to keep surplus bulls over a certain age. This lack of demand may be attributed to stringency of funds and is quite beyond control.

Item No. (3).—Refers to a drop in the appreciation of the herd of Rs. 2,892-10-0, *i.e.*, the appreciation of the herd was Rs. 8,783-0-0 in 1928-29 and only Rs. 5,890-6-0 this year. This fall is due to—

(*a*) The death of some good cows in the year under review,

(*b*) The fact that the valuation of the young Montgomery male stock had to be based on their sale value at the last sale when prices were very low.

The balance sheet shews that the capital due to the Government of India from this branch was Rs. 1,68,805-0-0 on 31st March 1930 as against Rs. 1,66,401-0-0 on 31st March 1929.

The two main headings concerned are :—

	1929-30. Rs.	1928-29. Rs.
(*a*) Fixed assets including Tools and Implements.	58,002 11 2	59·074
(*b*) Live stock	40,888 8 0	44,493

The drop of about Rs. 1,000 on fixed assets is due to depreciation of Buildings and Plant and Machinery.

The decrease in the live stock assets has already been explained above.

325. The following milk and herd statistics may be of interest.

(I) *Strength of the Herd on 31st March.*

	1928-29.	1929-30.
No. of cows in milk	71	84
" " dry	41	47
Bulls	9	7
Bullocks	8	8
Bull calves	89	83
Heifers	136	119
Sheep	99	76
Total .	453	423

(II) *Milk Statistics.*

	1928-29.	1929-30.
No. of animals milked during the year .	25,710	24,607
No. of animals dry during the year . .	16,320	19,984
Total milk yield for the year . . .	4,07,260 lbs.	4,21,368 lbs.
Average yield per animal per day . .	18·17 lbs.	17·017 lbs.

(III) *Statement showing yield and disposal of milk.*

	1928-29.	1929-30.	1928-29.	1929-30.
	Lbs.	Lbs.	Lbs.	Lbs.
Total yield for the year			467,269	421,365
Deduct—				
Handling loss	249	355½		
Spoiled	2,050½	2,085		
Loss in distribution at Pusa . . .	1,301½	1,664½		
Loss at Muzaffarpur depot . . .	372	322		
Issued to animals for medicine . .	78	226½		
Issued for analysis	925½	858		
Fed to calves	83,369	82,869		
Total deduction .			88,945¼	88,390½
Net quantity to be accounted for			378,323½	332,974½
Sold at Pusa			190,343½	187,537
Sold outside Pusa			131,706	107,996
Issued for manufacture of cream			56,274	37,441½
Total .			378,323½	332,974½

Although the number of cows in milk at the end of the year under review exceeded the number at the end of the previous year, the average number of cows that remained in milk throughout the year under review was 67·3 against 71·5 in the preceding year and therefore the number of animals milked and the milk obtained during the year were less by 4 per cent. and 9·8 per cent. respectively. The average yield per animal per day was also less during the year under review. This is due to the death of 2 of the heaviest milkers in the herd and further, as the Cross-Breeding Experiment proceeds from half-breds to other crosses, the average milk yield is bound to fall off as no other crosses could be bred as good in milk yield as the half breds.

It will appear from statement (III) above, that the loss in handling and distribution at Pusa increased by 42 per cent. and 28 per cent. respectively over the last year's figures. This was mainly due to increase in the number of small customers leading to additional handling and also to accidental spilling. The issue to animals for medicinal purposes was also nearly three times as great due to 3 valuable sick cows remaining on milk diet for several days. However, the total loss in handling and distribution comes to about ·5 per cent. only of the total milk production which is negligible.

The quantity of spoiled milk shows a slight increase of ·1 per cent. over the previous year's figure which is negligible. The quantity fed to calves shows a decrease of 500 lbs., though it represents 19·7 per cent. of the total quantity produced as against 17·8 per cent. in the last year.

It would not be out of place to point out in this connection that for the following reasons it is impossible to run a commercial dairy business alongside cattle breeding work on the same herd.

For a dairy business the aim should be to have one heifer coming in yearly for every six cows in the herd and to allow for 50 per cent. margin for heifers turning out bad or proving casualities—say one heifer per three cows in the herd. In the breeding herd 88 heifers are, however, actually maintained against 131 cows or just over 100 per cent. more than the economic figures for dairying.

In the same way, in order to do the selective breeding by families, in the Sahiwal herd, 50 per cent. more bulls are maintained than is commercially necessary.

The amount of milk fed to calves, *i.e.*, 19·7 per cent. is far above what would be used in a commercial dairy herd where bull calves would not be reared and fewer heifers brought in.

All these charges are inextricably mixed up with the *quasi*-commercial costs of the dairy side but they would not exist in a Herd maintained solely for commercial dairy purposes.

326. *Sugar Cable Service.*—The function of the Sugar Cable Service attached to the Sugar Bureau of the Imperial Institute of Agricultural Research, Pusa, consists in obtaining regular and up-to-date information regarding the sugar crops of the world and market reports from the chief centres of the sugar trade and in classifying and circulating this information to the principal sugar firms in India. This service enables the Sugar Bureau to be in possession of accurate and up-to-date crop reports and statistics; to remain in constant touch with those interested in the imports and manufacture of sugar; and to publish regularly in the Indian Trade Journal quotations for various grades of sugar and stocks of sugar in the principal markets. It also enables the Sugar Bureau to supply much valuable information on sugar to the Director General of Commercial Intelligence and to the Government of India.

The receipts of the Sugar Cable Service consist of subscriptions realised from sugar firms in India and amounts received from foreign agents on account of the cost of cablegrams and other services rendered to them. The expenditure consists of the pay of temporary establishments specially engaged for the work, cost of telegrams to members and Indian Agents, cost of cables to and from foreign countries, cost of stationery and of—other ordinary contingent items.

The receipts of this service during the year 1929-30 amounted to Rs. 22,403 according to the books maintained in the Sugar Bureau of the Institute and the expenditure including the decrease in the opening balance of stamps amounted to Rs. 21,253-10-0. The result is a surplus of Rs. 1,149-6-0.

The receipts of the year 1929-30 fall short by Rs. 1,780 compared with the receipts of the preceding year and this is due to the fall in the membership of the service on account of the depression in the world's sugar trade during the year. The expenditure is also less by Rs. 1,239 than the year 1928-29 and this is due to less purchase of the service postage stamps, small expenditure on travelling allowances, and adoption of economy in contingent expenditure.

The expenditure in the year 1929-30 under the head "cost of cables and telegrams" increased by Rs. 523. This increase was due to the fact that the service had to incur expenditure throughout the year 1929-30 for the cost of cables received from two Agents in New York which it had not to do in the preceding year on account of the temporary dropping out of one Agent in New York in the middle of the year 1928-29.

327. *Kitchen Garden.*—In the Kitchen Garden fruits and vegetables are grown and sold to the employees of the Estate. Certain additional temporary establishments are engaged for the purpose and some contingent charges are also incurred. It has been decided that this garden should be run, as far as possible on a self-supporting basis, as it is maintained mainly for the benefit of the employees, and not for the requirements of the Institute. The prices of the produce are regulated with reference to local market rates.

The Expenditure on the garden for the year 1929-30 amounted to Rs. 1,038 as against Rs. 1,269 in the year 1928-29, while the receipts amounted to Rs. 1,051 as against Rs. 1,242 in the last year resulting in a small surplus of Rs. 13 as against a small deficit of Rs. 27 in the year 1928-29. Attempt has been made to curtail the contingent expenditure in order to make it self-supporting. The decrease in income is mainly due to untimely rains during the year under review which affected the output.

SECTION II.—REMARKS BY THE DIRECTOR OF COMMERCIAL AUDIT.

328. The net "cost to Government of the Commercial, Educational and Research activities" during the year under review and the previous year, in the Cultivation and Cattle Breeding sub-sections of the Agricultural Section of the Institute, is shown below :—

	1929-30.	1928-29.	Increase during 1929-30.
	Rs.	Rs.	Rs.
Cultivation	58,049	37,850	20,199
Cattle Breeding	65,331	55,233	10,098
Total .	1,23,380	93,083	30,297

The increase of the net cost during the year on the cultivation side is due to the fact that the accounts for 1928-29 did not show the debit on account of the opening balance of the "Standing Crop" resulting in an under-statement of the "Loss" for that year.

On the Cattle Breeding Experiments side, the increase is due to the smaller yield of milk and the loss on the year's sale of cattle and the consequent writing down of the value of the live-stock in the dairy.

The losses are commented on and explained in the Financial Review.

329. The Government of India have decided that it is desirable that early action should be taken to curtail the cattle breeding operations of this Institute in order that more land may be available for other purposes of the Institute, more especially for growing staple crops and improved strains evolved by the Imperial Economic Botanist. They have therefore authorised the Director to take steps at once to discontinue the cross-breeding experiments that were being carried on and to make every effort to place the animals on such farms, whether military or civil, as are in a position to make the best use of them. They have further ordered that the pure bred herd should be limited to meet the milk requirements of the staff of the Institute and to admit of research work into the manufacture of important milk products should it be decided to conduct such work at Pusa.

In view of this and the increase in the loss on the dairy, it was suggested in audit for the consideration of the Director if the present selling rate for milk at Pusa of anna 1 per lb., might not be revised, specially as it dates back several years. The Director is of opinion, however, that there is no case for the revision of the existing sale rate of milk. The matter has been submitted to Government for orders.

330. It was pointed out in audit that the accounts of this concern as at present drawn up are not of such value as they would be if commercial activities were separted from cost of education and research. The Government of India are, however, not in favour of making any allocation of expenditure, as suggested, their reason being as follows :—

"The Imperial Institute of Agricultural Research at Pusa has been established primarily for the promotion of research and the provision of educational facilities. The present activities of the Farm and the Dairy at Pusa, which have been brought within the scope of the commercial system of accounts, are being substantially curtailed and further schemes of educational and research activities are likely to materialise in the immediate future. It does not therefore appear to be possible in the existing unsettled conditions to lay down with any degree of accuracy a basis for the allocation of expenditure of the Institute between "Commercial" and "Research and Educational activities."

THE AGRICULTURAL RESEARCH INSTITUTE, PUSA.

331. Balance Sheet of the Agricultural Section—Cattle Breeding Experiments as at 31st March 1930.

Liabilities.	Year 1928-29. Rs.	Rs.	Year 1929-30. Rs.	Rs.
Expenditure from Imprest awaiting clearance.		27		52
Transport charges outstanding .		23		25
Government of India Capital Account—				
Balance at credit. . .	1,08,895		1,66,401	
Add—Receipts from Treasury (Central Office) and adjustments.	86,583		87,891	
	1,95,478		2,54,292	
Deduct—payments into Treasury (Central Office) and adjustments.	40,486		41,162	
Capital debt due . . .	1,54,992		2,13,130	
Add—Indirect charges due to Government.	11,409		10,908	
Deduct—Loss during 1928-29 .			—55,233	
Total debt due to Government .		1,66,401		1,68,805
Total .		1,66,451		1,68,882

Assets.	Year 1928-29. Rs.	Rs.	Year 1929-30. Rs.	Rs.
Buildings at cost, less depreciation.	55,258	..	53,330	..
Less depreciation during the year.	1,928	..	—1,939	..
Additions during the year .	—	..	+1,295	..
		53,330		52,686
Plant and Machinery at cost, less depreciation.	5,686		4,361	
Add—Additions during the year	300		120	
	5,986		4,481	
Less transferred to Farm .	520		200	
	5,466		4,281	
Less depreciation . . .	1,104		965	
		4,362		3,317
Tools and Implements as per valuation.	..	1,382	..	2,000
Livestock as per valuation .	42,330		44,493	
Less casualties . . .	467		1,415	
Less sold . . .	6,153		8,470	
Add—Additions during the year.	..		390	
	35,710		34,998	
Add—Appreciation . . .	8,783		5,890	
		44,493		40,888
Furniture and Fittings . .		818		818
Dairy produce . . .		75		97
Sundry Debtors (considered good).		6,683		3,702
Sale proceeds on hand . .		75		43
Loss during the year . .		55,233		65,331
Total .		1,66,451		1,68,882

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Offg. Head Assistant, Accounts Branch,
Agricultural Research Institute, Pusa.

(Sd.) W. McRAE,
for Offg. Director, Agricultural
Research Institute, Pusa.

(Sd.) C. BHASKARAIYA,
Assistant Director of Commercial Audit,
Calcutta Circle.

THE AGRICULTURAL RESEARCH INSTITUTE, PUSA.

Agricultural Section—Cattle Breeding Experiments.

332. Production and profit and loss account for the year ended 31st March 1930.

Dr.	Year 1928-29.	Year 1929-30.
	Rs.	Rs.
To Grain and Fodder	37,024	36,051
" Stores consumed	1,639	2,200
" Wages	6,110	5,961
" Grazing	10,733	7,087
" Pay of officers	11,916	13,671
" Establishment	9,942	9,277
" Overseas pay and passage	1,800	1,188
" Allowances and honoraria	455	1,009
" Repairs to buildings	1,170	1,360
" Other expenses	2,193	3,716
" Depreciation on buildings	1,928	1,939
" Plant and Machinery	432	276
" Tools and Implements	346	676
" Cost of transport of milk, etc., to Muzaffarpur:—		
by (a) Rail	660	484
" (b) Motor	3,582	4,201
" Selling and other expenses	791	807
" Cost of transport of milk to—		
Samastipur	125	62
Laheria Serai	320	364
Reserve for bad and doubtful debts	..	106
Loss on sale of cattle	..	1,218
Total	91,166	91,659
To Loss brought forward	43,824	54,423
" Pensionary liabilities	3,525	3,201
" Direction charges	1,200	1,200
" Audit fees	950	950
" Interest on Capital	5,734	5,557
Total	55,233	65,331

	Year 1928-29.	Year 1929-30. *Cr.*
	Rs.	Rs.
By sale proceeds of milk and its by-products:—		
(a) Local	14,199	13,140
(b) Muzaffarpur	14,406	11,450
(c) Samastipur	571	263
(d) Laheria Serai	1,825	2,121
" Miscellaneous Receipts	4,064	4,274
" Appreciation on livestock	8,783	5,890
" Profit on sales of cattle	3,419	..
" Stock of cream and ghee	75	98
" Loss carried down	43,824	54,423
Total	91,166	91,659
By Total loss	55,233	65,331
Total	55,233	65,331

THE AGRICULTURAL RESEARCH INSTITUTE, PUSA.

333. Balance Sheet of the Agricultural Section—Cultivation Experiments as at 31st March 1930.

Liabilities.	Year 1928-29. Rs.	Rs.	Year 1929-30. Rs.	Rs.
Expenditure from imprest awaiting recoupment.		124		117
Sundry Creditors . . .		1,346		3,545
Government of India Capital Account.				
Balance at credit . . .	2,80,676		3,48,262	
Add—receipts from Treasury (Central Office) and adjustments.	1,17,233		1,09,046	
	3,97,909		4,57,309	
Deduct—payments into Treasury (Central Office) and adjustments.	73,113		87,213	
	3,24,796		3,70,096	
Add—Indirect charges due to Government.	23,466		23,234	
Deduct—Loss during year 1928-1929.			—37,850	
Total debt due to Government.		3,48,262		3,55,480
Total . . .		3,49,732		3,59,142

Assets.	Year 1928-29. Rs.	Rs.	Year 1929-30. Rs.	Rs.
Land at cost	1,12,125		..	
Add—addition	1,200		..	
		1,13,325		1,13,325
Buildings at cost less depreciation.	54,652		56,034	
Add—additions	2,841		2,094	
	57,493		58,128	
Less depreciation . . .	1,459		1,530	
		56,034		56,598
Plant and Machinery at cost less depreciation.	57,888		64,004	
Add—additions . . .	10,647		785	
	65,535		64,789	
Less transferred to Tools and Implements register.	200			
Less depreciation . . .	4,331		5,355	
		61,004		59,434
Total of Fixed Assets . .	..	2,30,363		2,29,357
Tools and Implements as per valuation.		7,143		8,932
Furniture and Fittings . .		2,600		2,600
Livestock as per valuation .	8,355		7,305	
Add—additions . . .	175		1,958	
	8,530		9,263	
Deduct—casualties and transfers.	330		390	
Deduct—depreciation . .	895		1,189	
As per valuation . . .		7,305		7,684
Stores		32,882		26,485
Standing crops at valuation .		27,168		24,274
Sundry Debtors (considered good).		1,410		1,553
Sale proceeds on hand . .		11		207
Loss during the year . .		37,850		38,049
Total . .	..	3,49,732		3,59,142

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Assistant Director of Commercial Audit,
Calcutta Circle.

THE AGRICULTURAL RESEARCH INSTITUTE, PUSA.

Agricultural Section—Cultivation Experiments.

334. Production and profit and loss account for the year ended 31st March 1930.

Dr.	Year 1928-29.	Year 1929-30.	*Cr.*	Year 1928-29.	Year 1929-30.
	Rs.	Rs.		Rs.	Rs.
To Standing Crop	..	27,160	By Oats produced	16,594	18,451
„ Feed of Cattle	13,509	15,723	„ Sugarcane	5,692	7,122
„ Other stores consumed	22,117	26,983	„ Maize	11,947	24,410
„ Wages	17,076	19,082	„ Arhar	2,664	4,092
„ Manure	6,132	6,442	„ Other produce	19,399	19,261
„ Pay of officers	11,391	6,073	„ Grazing	10,733	7,087
„ „ establishment	28,131	29,371	„ Miscellaneous receipts	10,469	11,078
„ Overseas pay, etc.	1,800	1,188	„ Standing crops	27,168	24,274
„ Allowances and honoraria	1,832	2,086	„ Loss carried forward	14,385	34,815
„ Repairs to buildings	309	795			
„ Sundry expenses	8,310	5,184	Total	1,19,021	1,50,591
„ Depreciation on buildings	1,459	1,330			
„ Plant and machinery	4,331	5,355			
„ Livestock	1,225	1,189			
„ Tools and implements	1,399	1,518	By total loss	37,850	58,049
Total	1,19,021	1,50,591			
To Loss brought forward	14,384	34,814			
„ Pensionary charges	6,018	4,909			
„ Direction charges	1,200	1,200			
„ Audit fees	1,850	1,850			
„ Interest on capital	14,398	15,276			
Total	37,850	58,049	Total	37,850	58,049

SUGAR CABLE SERVICE.

335. Statement showing the receipts and expenditure for the years 1928-29 and 1929-30.

Receipts.	1928-29.	1929-30.	Expenditure.	1928-29.		1929-30.	
	Rs.	Rs.		Rs.	Rs.	Rs.	Rs.
Surplus in 1928-29	..	1,690	Opening Balance—				
Subscription	21,590	20,375	Stamps	2,119		815	
Miscellaneous Receipts	2,593	2,028	Less Closing Balance	815	1,304	410	405
			Pay and Allowances		3,628		3,381
			Cost of Cables and Telegrams		15,582		16,105
			Stationery and Office Expenses		1,979		1,363
Total	24,183	24,093	Surplus		1,690		2,839
			Total		24,183		24,093

336. Statement showing the receipts and payments account of the Kitchen Garden with the comparative figures for the years 1928-29 and 1929-30.

Receipts.	1928-29. Amount.	1929-30. Amount.	Payments.	1928-29. Amount.	1929-30. Amount.
	Rs.	Rs.		Rs.	Rs.
To Cash Sales	1,173	1,024	By pay and grain compensation allowances of malies, etc.	1,023	880
" Supplies to Hospital	32	10	" Cost of manure	76	4
" Supplies to other Departments	37	17	" Cost of seeds	74	69
" Deficit	27	..	" Miscellaneous Expenses	97	95
			" Surplus	..	13
Total	1,269	1,051	Total	1,269	1,051

IMPERIAL INSTITUTE OF VETERINARY RESEARCH, MUKTESAR.

SECTION I.—FINANCIAL REVIEW BY THE DIRECTOR FOR THE YEAR 1929-30.

337. The main functions of the Imperial Institute of Veterinary Research are the investigation of the diseases of domesticated animals in all provinces of India and the institution of suitable measures for the prevention and cure of such diseases by means of biological research in the laboratory and at the place of attack. The course of such biological research tended very early in the history of this Institute to the manufacture of certain sera and vaccines that could be used for the effective control of the diseases of domesticated animals. The r markable success of these products and the increasing confidence with which they were used by Veterinary workers in different parts of India resulted in an ever growing demand for them, and with the limited staff available the Institute has tended to become a factory. Research work has been mainly directed to the perfection of the original products and the discovery of new ones. Still, every endeavour has been made to improve methods of diagnosis and control as the result of laboratory experiment, to extend advanced instruction to the higher Veterinary Officers as well as Veterinary graduates, and to advise and prescribe in complicated cases baffling the skill of veterinary workers in different parts of the field. In order to undertake regular and systematic research in important types of animal diseases, to tackle which only sporadic attempts have so far been made, the assistance of the Imperial Council of Agricultural Research has been invoked and thanks to their generous help it will soon be possible to enlist the undivided attention of certain highly trained officers purely for Research. As this Review is intended to be published as one of the annexures to the Report on the Appropriation Accounts of the Central Government for the year 1929-30, only those activities of the Institute which have a financial bearing can be noticed here. A full and comprehensive record of the other activities of the Institute will be found in the Annual Report.

338. The following statement of the total number of doses of the principal products issued during the year under review and the two preceding years will indicate the heavy manufacturing work that has to be done. Total number of doses of the principal products issued during the last 3 years.

Name of product.	1927-28. Doses.	1928-29. Doses.	1929-30. Doses.
Anti-Rinderpest Serum	4,860,758	4,932,954	6,068,051
Hæmorrhagic Septicæmia Serum	467,072	480,648	706,989
Hæmorrhagic Septicæmia Vaccine	448,163	490,780	385,057
Black-quarter serum	58,669	82,953	83,179
Black-quarter aggressin	133,401	222,419	218,026
Mallein	90,129	34,309	45,576
Anti-Anthrax Serum	48,165	40,033	43,901

It is gratifying to note that this Institute is the chief source of supply of veterinary products to all parts of India, and also to a small extent to other countries of Western and Southern Asia from Baghdad to Hongkong.

The issue of Anti-rinderpest serum, Hæmorrhagic septicæmia serum and Black-quarter serum shows a progressive increase. Anti-rinderpest serum which is the chief product has yielded Rs. 10,67,967-6 out of a total income of Rs. 15,60,237 for the year, but as there is an indication of the subsidence of Rinderpest in India the issue of this serum in the next few years may decline. Experiments on the perparation of a rinderpest vaccine have been in progress and it is hoped that they will soon bear fruit. Considerable difficulty has been experienced this year in manufacturing a sufficiently potent Anti-rinderpest serum for use in Serum-Simultaneous inoculations as well as for boosting up the deteriorated products of last year, but it is hoped that as a result of the research work, which is being done on this subject, this difficulty will soon be overcome. Some complaints have been received about the rapid deterioration of mallein issued in the previous years but we have succeeded in producing a more potent product, which it is hoped, will resist the influence of time and climate more successfully. In pursuance of the recommendation of the Royal Commission on Agriculture to distinguish as fully as possible between expenditure on Research and that on production it has been decided to transfer all production to the branch Institute at Izatnagar and as the necessary plant and buildings are provided at Izatnagar the entire manufacturing and distributing processes will be concentrated there. A beginning has been made this year by bottling and issuing from Izatnagar itself most of the products already manufactured there.

339. The different items making up the receipt and expenditure of the Institute for the year under review and for the two preceding years are tabulated below:—

Statement of Receipts and expenditure for three years.

Receipts.	1929-30.	1928-29.	1927-28.
	Rs.	Rs.	Rs.
Sale of Sera, Vaccines and other products	15,20,793	14,22,482	11,98,358
Sale of animals	23,784	25,022	15,612
Sale of Garden products and reserved forests	1,162	156	184
Miscellaneous including Dairy receipts	14,498	20,781	11,396
Total	15,60,237	14,68,421	12,25,550

Expenditure.	1929-30.	1928-29.	1927-28.
	Rs.	Rs.	Rs.
Salaries and travelling allowances	2,51,297	2,30,227	2,11,635
Purchase of animals	1,19,741	1,07,195	1,06,473
Feed and Keep of animals	2,29,524	2,23,688	2,10,183
Cost of chemicals	34,347	37,868	34,955
Other Supplies and Services and Contingencies.	1,43,145	1,29,818	1,28,070
Total	7,78,054	7,28,796	6,92,316
Net excess of receipt over expenditure	7,82,183	7,39,625	5,33,234
Percentage of expenditure to receipts	49·86	49·63	56·50

It will be noticed that the expenditure on salaries and allowances has not increased in the same proportion as that on the purchase of animals or on other supplies and contingencies which are in a large measure due to the greater demand for our products this year. Owing to greater care in purchase and economy in use the cost of chemicals has been reduced in the year under review and it will be further reduced next year. But from 1931-32 the expenditure on chemicals and apparatus is bound to go up as a result of the stimulation of research activities. The increased expenditure on salaries and travelling allowances is mainly due to the operation of time scales of pay. But as a few posts mostly of a minor character will be added in the next two years to enable the smooth and efficient functioning of the Institute a slight increase in this item is to be expected in the next two years.

340. The above figures disclose a progressive increase in the surplus or excess of receipts over expenditure as well as in the gross receipts. Though the surplus has exceeded the expenditure in this year as in the last it cannot, as pointed out in the last year's review, be regarded as the true profit of the Institute in the commercial sense since the expenditure does not include interest on capital, depreciation on wasting assets, pensionary contribution, audit fee, etc. It is, however, clear that the sale prices of the products of the Institute are higher than the cost of their production warrants. The Government of India are in general agreement with the suggestion of the Royal Commission that the Factory side of the activities of the Institute should be regarded as an All-India Institution maintained to supply the different local Governments, Indian States, etc., with Veterinary products at cost price, and they have agreed to introduce early next year the system of cost accounts at the Branch Institute at Izatnagar. The products now manufactured therein account for 94 per cent. of the receipts, though some of the products have to be tested and stored at Muktesar. When the manufacture of all the products is concentrated at Izatnagar it will be possible to arrive accurately at the cost price of each of them.

341. In the following paragraphs an attempt will be made to present a comparative account of the most noteworthy features of the running of this Institute, *viz.*, the purchase and feed of animals, the results of cultivation and the commercial accounts of the small Dairy at Muktesar.

Owing to increased production in the year under review 2,033 bulls and 2,209 buffaloes were purchased as compared with 1,344 bulls and 1,847 buffaloes last year. Because of defective rainfall in the last year the prices at which grain, hay and grass were purchased this year were much higher than those of the preceding year. But owing to careful supervision and avoidance of waste only 8,005 maunds of grain were utilised at Muktesar and 9,760 maunds at Izatnagar as against 9,162 maunds at Muktesar and 10,605 maunds at Izatnagar in the last year. The average price of buffaloes purchased fell to Rs. 29-8-0 as compared with average price of Rs. 34-1 in 1928-29. The average price at which buffaloes were sold after the period of protective manufacture was Rs. 14-10-0 as compared with Rs. 14-1 last year. The average price at which bulls were purchased at Muktesar in the year under review was Rs. 22-4-0 as compared with Rs. 23-0-0 last year. Special measures have been taken to acquire a better class of bulls in future and though the average price of bulls may go up it is expected that those bulls will live longer, prove better subject for experiment and cheaper in the long run. The mortality among bulls before they are brought under experiment has been progressively reduced from 371 in 1927-28 to 250 in 1928-29 and to 100 in the year under review. By better feed and greater care it is hoped to reduce the figure still further in the ensuing years. The scarcity of hay both at Muktesar and Izatnagar has been a source of anxiety throughout the year and hay had to be purchased at high rates to supply the minimum requirements. A considerable part of the expenditure on hay will have to be met next year. If the monsoon is satisfactory next year we hope to reap a good yield of fodder from the cultivation areas at both the places and build up a Reserve therefrom thus avoiding the present hand-to-mouth existence, which has compelled us to pay such extortionate prices for hay.

342. The income from the Farms at Izatnagar and Muktesar worked out to Rs. 24,438 and Rs. 16,722 respectively as against last year's figures of Rs. 34,549 and Rs. 27,150, while the expenditure on the Farms at Izatnagar and Muktesar amounted to Rs. 38,276 and Rs. 23,974 respectively as compared with last year's figures of Rs. 33,216 and Rs. 29,196. As against a decrease of Rs. 5,282 this year in the expenditure on the Farms at Muktesar there was an increase of expenditure on the Farms at Izatnagar by Rs. 5,060, which was due to the employment of about 30 more coolies on an average each month to prepare and manure the land in a better manner for cultivation, and to the purchase of new implements. Owing to the grave scarcity of water and the partial failure of Rabi crop at Izatnagar and the partial failure of the Kharif crop in one of the estates at Muktesar and the locust invasion of another this year's cultivation receipts fell far below our expectations. As the land has been neglected for years intensive manuring has to be done for a few years longer before all the plots of land can yield a remunerative return. Special irrigation facilities have to be provided at Izatnagar if we are not to depend entirely on the monsoon for watering the crops. The Muktesar Forest, however, continues to produce the entire supply of wood fuel and charcoal required at the station and under the present careful policy of conservation there is no fear that it will soon be used up as a source of fuel supply. The regeneration of the Forest is proceeding according to plan and if all the Deodar plantings are successful they will develop into valuable timber.

343. In the year under review commercial accounts have been maintained only for the Dairy. In accordance with the orders of Government of India in the Department of Education, Health and Lands conveyed in their letter No. 342-Agri., dated 28th February 1929, the cows forming the experimental and dairy herds were brought into one herd with effect from 1st April 1929 and a credit for Rs. 2,696, representing 30 per cent. of the total expenditure on the combined herd, was afforded to the Dairy account in respect of charges relating to research and experiment. A Balance Sheet showing the financial position of the Dairy on the 31st March 1930 and the production and Profit and Loss Account for the year 1929-30 are enclosed.

The working of the year showed a loss of Rs. 1,163 as compared with a profit of Rs. 1,301 for the last year and a profit of Rs. 1,056 for the period of nine months ending 31st March 1928. The loss is due to the following causes:—

(a) While in the preceding years only the expenditure on cows in milk was debited to the Dairy accounts, since 1st April 1929 70 per cent. of the total expenditure on the combined herd, including dry cows and stud bulls, has been debited to the Dairy accounts.

(b) In this year the pay, leave and pensionary charges on the full pay of the Dairy Overseer have been charged instead of on half his pay as heretofore.

(c) Owing to an outbreak of parasitic gastritis two valuable cows died this year and special diet had to be provided for others, which were in a poor state of health. Steps have to be taken next year to replace these losses and overcome the evils of in-breeding, from which the herd is at present suffering, by purchasing two more cows and a new stud bull.

The reasons adduced above have led to a rise in the average cost of milk in the year under review. The average cost of production per seer of milk for

	Rs.
1927-28 figures at . .	0-2-7·7
1928-29 figures at . .	0-2-10·25
1929-30 figures at . .	0-6-2·28

A comparative statement showing the quantity of milk produced, the quantity available for sale, and the surplus during the nine months ending on 31st March 1928, for 1928-29 and for the year under review is given below:—

	1927-28. (nine months.) Seers.	1928-29. Seers.	1929-30. Seers.
Total milk yield	13,223¼	16,648¼	16,433¾
Loss in handling	267¼	371	222¾
Percentage of loss to total yield. . . .	2·02%	2·23%	1·35%
Quantity available for sale	12,956	16,277¼	16,211
Quantity sold	12,555¼	15,778¼	15,702¾
Percentage of quantity sold to quantity available for sale.	96·91%	96·93%	96·86%
Surplus fed to calves	400¾	499	508¼
Percentage of surplus fed to calves to quantity available for sale.	3·09%	3·07%	3·14%

SECTION II.—REMARKS BY THE DIRECTOR OF COMMERCIAL AUDIT.

344. *Paragraph* 340 *of the Financial Review.*—Attention is invited to the remark that, even this year, the surplus cannot be regarded as the true profit of the Institute since the accounts are not on a commercial basis. As pointed out last year, the large surplus would seem to indicate that the sale prices of the products of the Institute are higher than the cost of their production warrants. The results of the introduction of cost accounts at the Izatnagar Branch Institute where the manufacture of all the products is proposed to be concentrated are awaited (please see also paragraph 338 of Director's Review).

345. *Paragraph 342 of the Financial Review.*—(a) The following statement giving the details of the income and expenditure during the year from cultivation on the various farms of the Institute may be of interest :—

	Expenditure.	Overheads.	Total.	Receipts from the Farm.	Profit or Loss(—).
	Rs.	Rs.	Rs.	Rs.	Rs.
Muktesar area—					
Station Farm	2,135	287	2,422	3,691	1,269
Ritani Garden	1,721	563	2,284	1,814	—470
Surmani Farm	4,938	287	5,225	2,256	—2,969
Latoli Farm	13,589	394	13,983	8,861	—5,122
Total .	22,383	1,531	23,914	16,722	—7,192
Izatnagar area	35,006	3,270	38,276	24,438	—13,838

The products of the Farm are valued at rates approved of by the Director. In the Izatnagar Branch, credit has been taken for value of fodder which the animals are presumed to have consumed while grazing, and the loss is about 36 per cent. In the Muktesar area, the loss under Ritani, Surmani and Latoli amounts to 20 per cent., 57 per cent. and 36 per cent. of the total expenditure, although the overheads charged are less than Rs. 128 a month, representing roughly only one-eighth of the Farm Manager's pay and one-fourth of the pay of the Farm Overseer, while the following officials are employed in the Farm Section :—

Farm Manager,

Farm Overseer,

Farm Office clerk,

Cultivation Jemadar.

Besides, no debit has been included in these accounts in respect of the value of manure obtained from the droppings of animals of the dairy and of the veterinary section, the former of which alone amounted to Rs. 600 during the current year. A full system of costing would require also a share of the following charges to be included :—

Direction and Supervision, being a share of the salary of the Director and the Administrative officer,

Interest on Capital,

Depreciation on implements and live-stock,

Cost of accountancy work done in the Central Office,

Rent of Farm Buildings,

Audit Fee and

Leave and Pensionary contribution.

Even without taking any of the overheads at all, the produce in the Latoli Farm amounts to only 65 per cent. of the labour and other direct expenses, while the corresponding figure at Surmani is as low as 45 per cent. This would seem to indicate that the rates at which the produce is valued, need revision.

The revised rates can then be compared with the rates at which supplies can be purchased at the spot when required.

(*b*) *Forest produce.*—The Muktesar Forest is under the administration of the Institute and the produce therefrom during the year consisted of 15,189¾ maunds of fuel wood, 1,258¼ maunds of charcoal and 2,140 maunds of fodder for animals, besides other minor produce.

During the year, 568 deodar seedlings were planted in the forests as against 296 in previous year. 10 lbs. of oak and 20 lbs. of Pine chir seeds were also obtained and sown in certain compartments. It is impossible, under the present arrangement of accounts to gauge the precise financial effects of these operations.

346. *Paragraph* 343 *of the Financial Review.*—As the dairy accounts disclose a loss of Rs. 1,163-5-10 as against a profit of Rs. 1,300-13-9 during the previous year, the question of raising the selling prices of milk has been referred for orders to Government in view of their orders of 28th February 1929 reducing selling prices slightly in consequence of the profit made last year (paragraph 256 (page 145) of the Appendix to the Appropriation Accounts for the year 1928-29).

General.

347. It will be seen from the cases mentioned below how delays and defects in contracts lead to losses of Government money :—

(i) The contract for the supply of hay to the Institute for the period 1st November 1928 to 31st March 1929 was given out to a certain contractor. On the 13th December 1928, that is, after the supply had commenced, the contract deed was sent to the contractor for execution, but he refused to subscribe to all the clauses set forth in the agreement, and later failed to supply the stipulated quality of hay. The contract was never executed, and as a consequence, the earnest money deposited by the contractor was forfeited to Government. The question of the levy of further penalty in the shape of forfeiture of security deposit held by Government from the contractor was referred to the Solicitor to the Government of India whose remarks are reproduced below—

"The contract form is not too clearly worded and contains no express provision for terminating it on default. Moreover the contract was never signed and Government have prejudiced their position by forfeiting the earnest money before claiming the right to forfeit the security deposit." The security deposit was then refunded to the contractor according to the advice of the Government Solicitor.

Fresh tenders were called for and the order for further supplies was given out to another contractor at a much higher rate—the resulting loss to Government being roughly Rs. 2,850.

(ii) The contract for the supply of hay for the year 1929-30 up to an approximate quantity of 14,000 maunds was given out to a certain contractor who was able to supply only 10,258 maunds. The question of levying the penalty stipulated in the agreement is under consideration.

It may be pointed out, however, that arrangements have now been made to standardise all the future contracts and the form of notice inviting tenders, in consultation with the Solicitor to the Government of India.

348. The verification of the stores in hand at Muktesar disclosed a shortage of Rs. 6,920 and a surplus of Rs. 12,276 as detailed below—

	Surplus.	Shortages.
	Rs.	Rs.
Chemicals	419	857
Apparatus	9,192	679
Miscellaneous	2,665	5,384
Total	12,276	6,920

The important shortages under "Miscellaneous" are—

	Rs.
Pint bottles (empty)	1,420
Beer bottles (empty)	467
Planks	2,000
Ballies	346

The chief items of surplus under "Apparatus" are—

App. Projection	2,600
Microscopes	1,052

It is explained that the discrepancies in stock were due to one or other of the following causes—

(i) That the stock-taking on previous occasions was not satisfactory and consequently did not disclose all the shortages and deficits which could have been dealt with earlier as they arose.

(ii) Errors in accounting due to one variety of articles being wrongly entered in the accounts under another variety of the same description of article resulting in a surplus in one and a deficit in another.

(iii) Loss of oil and other liquids due to leakage of tins and other containers, and due to spillage while issuing, etc.

(iv) Decay of planks and ballies due to their age and the action of the elements of nature.

In the case of ballies and planks particularly, it has been pointed out to Government that they have been in stock for several years and that the original purchase was thus apparently considerably in excess of the immediate needs. It is also understood that a considerable amount of stores surplus to the immediate needs of the Institute are now in hand, while stores no longer serviceable (particularly among the chemicals) also exist; if this is so, it has been suggested that arrangements be made for their early disposal.

The value of stores in hand at Muktesar on the 31st March 1930 is stated to be as below—

	Rs.
Cost of grain, fodder, etc.	12,050
Miscellaneous stores and chemicals	59,937
Total	71,987
or	72,000

As no priced stores ledgers have yet been introduced in the Izatnagar Branch, the value of stores there cannot be ascertained.

349. The loss during the year 1929-30 resulting from the sale, death and transfer of livestock as shown in the Profit and Loss account was Rs. 1,285 arrived at as follows :—

	No. of cows.	Book value.	Value realized.	Loss.
		Rs.	Rs.	Rs.
Sale	6	990	210	780
Transfer	2	260	80	180
Death	2	325	..	325
Total	..	..	..	1,285

The strength of the milking herd at the commencement of the year 1929-30 was 12 and at the close of the year 18, the additions and disposals during the year being 16 and 10 respectively.

The following comparative statistics may be of interest :—

	1929-30.	1928-29.	1927-28.
Strength of milking herd at close of year	18	12	11 Cows.
No. of animals milked	4,039	4,416	3,609 ,,
Milk yield	16,433¾	16,648¾	13,223¼ Srs.
Average yield per day per cow	4 Srs. 0·78 ch.	3 Srs. 12¾ ch.	3 Srs. 10½ ch.

350. It was decided that Rs. 100 per annum being the charges for Direction, Supervision and Accountancy work will be charged from the year 1929-30, but in the accounts for the year 1929-30 these charges have not been included and hence the real loss for the year has been understated.

In this connection it may be mentioned that a charge of Rs. 50 being the cost of audit as charged in the accounts is quite inadequate and that the correct charge is estimated at Rs. 125 per annum.

351. Interest has been calculated on the mean of the balance at the credit of the Capital account at commencement and at end prior to the debit of the 30 per cent. share of expenses for experiment and research.

DAIRY ATTACHED TO THE IMPERIAL INSTITUTE OF VETERINARY RESEARCH INSTITUTE, MUKTESAR.

352. Balance Sheet as at 31st March 1930.

Liabilities.	1928-29.	1929-30.
	Rs.	Rs.
Reserve for indirect charges due to Government	268	509
Government Capital account	2,466	6,220
Net Profit as per Profit and Loss account	1,301	..
Total	4,035	6,729

Assets.	1928-29.		1929-30.	
	Rs.	Rs.	Rs.	Rs.
Buildings	1,469		1,345	
Less transfers	124		...	
	1,345		1,345	
Less depreciation	572	773	606	739
Plant and Machinery	875		85	
Less transfers	790			
	85			
Less depreciation	66	19	74	11
Furniture and Utensils	97		113	
Additions	43		32	
	140		145	
Disposals	15		17	
	125		128	
Depreciation	12	113	13	115
Livestock	..	2,725		4,333
Debtors less Reserve for Doubtful debts.	..	*425		368
Net loss as per Profit and Loss account.	..			1,163
Total	..	4,035		6,729

* Reserve for doubtful debts was shown in last accounts on the Liabilities side.

P. N. RAJAGOPAL,
Personal Assistant to the Director, Imperial Institute of Veterinary Research, Muktesar.

F. WARE, F. R. C. V. S., I. V. S.,
Director, Imperial Institute of Veterinary Research, Muktesar.

C. BHASKARAIYA,
Assistant Director of Commercial Audit, Calcutta Circle.

353. Production and Profit and Loss account of the Dairy attached to the Imperial Institute of Veterinary Research, Muktesar, for the year ended 31st March 1930.

Dr. | Cr.

	1928-29.	1929-30.		1928-29.	1929-30.
	Rs.	Rs.		Rs.	Rs.
To Feeding Charges—Grain and Fodder	2,603	5,815	By sale of milk	5,035	4,923
„ Wages and Salary of staff	1,007	1,763	„ Milk fed to calves	187	191
„ Lighting and Heating	84	119	„ Manure utilised	200	600
„ Sundry Expenses	138	193	„ Value of calves born	..	383
„ Furniture and utensils written off	15	..	„ Appreciation in livestock	63	..
„ Loss of Livestock	..	1,285	„ Miscellaneous receipts	..	19
„ *Overheads—*			„ 30 per cent. share of expenses debitable to Research and Experiment.	..	2,696
Audit Fee	50	50	„ Net loss	..	1,163
Leave and Pensionary contributions	63	156			
Interest on capital	155	303			
„ *Depreciation—*					
Buildings	33	34			
Plant and Machinery	9	9			
Furniture and Utensils	12	13			
Livestock	..	235			
„ Reserve for Doubtful debts	15	..			
„ Net Profit	1,301	..			
Total	5,485	9,975	Total	5,485	9,975

FOREST DEPARTMENT, ANDAMANS.

SECTION I.—REVIEW BY THE CHIEF FOREST OFFICER, ANDAMANS, ON THE ACCOUNTS OF THE YEAR 1929-30.

354. This review is prepared in compliance with the orders in Government of India, Finance Department, No. D/1360-F, dated 26th February 1930 with the object of presenting to the Legislature and the public a general account of the business conducted. As it is the first such review, it is pertinent to record a brief history of the Andamans Forest Department. The penal settlement was started in 1858 but the earliest figures available relating to forest receipts and expenditure date from 1869-70. Operations, at first confined to the immediate vicinity of Port Blair in the South Andamans, were gradually extended to the Middle Andamans and were practically limited to the exploitation of one species, now the well known Andaman padauk ("Pterocarpus Dalbergeoides"). A connection with the London market was established at an early date, logs being exported thereto and two other species, Koko and Pyinma, were introduced later.

In fact this market was the main one in the earlier years. Local needs of sawn timber necessitated the erection of a sawmill in Port Blair which used several other species of timber. This led to the gradual introduction of small quantities of such in the Calcutta market. Development on these lines underwent a decided change owing to conditions arising from the Great War. Demands arose for timber of all species during the years 1916-17 to 1918-19 and this served to establish many of them.

A London agency with Messrs. Howard Brothers was established in 1916 and a Calcutta agency with Messrs. Martin and Company in 1918. The former was terminated in 1928 and sales in the London market are now arranged through the Timber Adviser to the High Commissioner in London.

The improvement in demands for several species was preceded by a fall in demands for padauk which is attributed to the fact that large sales in the past destined for America began to drop owing to the substitution of iron for padauk in the manufacture of Pullman railway carriages. This rendered it the more necessary to find a market for other species. In fact this would have been necessary in any case, as padauk forests of the South Andaman had all been worked over as well as the more accessible portions of the Middle Andaman. Padauk however continued to be in demand in India and supplies available in the North Andaman led to entry into that area about 1920-21 and the erection of a mill there (at Stewart Sound) was decided upon not only in order to convert timber nearer the extraction camps rather than incur the large cost involved in transport to the South Andaman Mill but also to supplement the output from the latter in view of the increasing demands for sawn timber generally. Divergent opinions appear to have been held as to the kind of mill most suitable. An American band mill was ultimately erected. The forest colony established at Bonington on Stewart Sound was made the headquarters of the New North Andaman Division and owing to changes in the administration of the Andamans as a penal settlement, the policy was adopted of limiting the employment of convicts as labourers to the South Andaman Division. This fact has materially affected costs of working. In fact, the reduction in the number of convicts now sent to Port Blair has necessitated partial employment of free labour in the South Andaman Division also. Convicts employed are paid the rates fixed by the Administration, but free labour is obviously more expensive, involving recruiting and travelling expenses both ways. Such labour, originally engaged only for 8 months but now work for a year. These terms are expected to be improved gradually from the Department's point of view as labour is established on the land. Some Karen villages have already been formed. The North Andaman Mill experienced many vicissitudes which raised doubts as to whether it is entirely suitable to deal with the hardwoods of these forests as a common feature of the outturn was irregular cutting. The problem is not entirely solved yet but the sawing and outturn have improved.

The next change was the demand for match logs, first made by an Indian Company in Rangoon. This arose in 1925-26 since when the exports of such have increased from 212 tons to 15,924 tons in 1929-30. This change is revolutionary in that timber which was formerly used as floaters (as bamboos are used elsewhere) to facilitate extraction of hardwoods (mostly sinkers) and subsequently discarded, is now an important asset. In fact, one of the species (White Dhup) is reported by the biggest Match Company buyer to be the best for the purpose of all softwoods available in India or Burma. Another species (Papita) is not quite so good, but is suitable and purchased in considerable quantities. Large supplies of both are avilable in the Andamans and has led to the establishment of a match box veneer and splint factory in Port Blair by one of the Companies. This Company also installed new machinery in their factory at Calcutta in order to take larger logs and so obtain more supplies, while their new factory in Madras requires regular supplies. They are anxious to place orders totalling 30,000 tons annually if a sustained supply can be guaranteed. The original large buyer in Burma who also similarly installed new machinery, has yearly increased his purchase notwithstanding local supplies of inferior woods at lower prices. It is reasonable therefore to hope that this demand has arisen to stay.

355. The steady increase in activities and the complicated accounting involved led to the examination of the system by the Assistant Director of Commercial Audit, Madras, in 1929 with the result that the introduction of commercial accounts was decided upon. That officer drew up a Balance Sheet as on 31st March 1928 in which it was shown that the Capital invested by Government as on that date was Rs. 26,55,417. It is not possible to compare the profit arrived at for that year with any preceding period owing to the absence of similar accounts, but it is apparent that the surplus of Revenue over Expenditure prior thereto *plus* the Capital available on 31st March 1928 was the total surplus in favour of Government from operations since figures are available. The surplus from 1869-70 to 31st March 1928 was Rs. 18,67,999 hence Rs. 45,23,416 represents such net return. *En passant,* it may be noted that the budget for the current year (1930-31) for the whole of the administration is as under—

		Rs.
Receipts—		
Settlement Authorities		3,13,600
Forest Department		19,99,800
	Total	23,13,400
Expenditure—		
Settlement Authorities		34,03,900 (a)
Expenditure on Forest Department		17,35,100 (b)
	Total	51,39,000

(a) Includes Rs. 9 lakhs for dredging operations.

(b) Includes Capital of Rs. 3,70,300.

These figures illustrate the importance to the administration of the forests in the Andamans.

356. The commercial accounts for 1928-29 were not audited in time for incorporation in the Appendix to the Appropriation accounts for that year hence this review is the first for publication therein. It should be recorded therefore that the profit earned during that year was Rs. 49,780-12-1. This comparatively small figure was due to the adjustment of stocks after overhauling balances on the books from previous years which were partly ineffective.

357. This brings us to the year 1929-30. Before reviewing the accounts for this year, it may be stated that no leases have been granted at any time to trading companies. Apart from petty extraction on permits for local consumption, all extraction is dealt with departmentally. The extent of such petty extraction is indicated by the following figures in Part II of the Profit and Loss account—

		Rs.	A.	P.
Receipts—				
Royalty on timber		656	3	0
Fuel		142	12	0
Bamboos		24	14	0
Miscellaneous Produce		3,128	13	0
	Total	3,952	10	0
Less—				
Expenditure on Revenue Range in supervision thereof		2,527	4	7
	Net Profit	1,425	5	5

The receipts from timber have been falling as consumers find it more convenient to purchase timber ready sawn from our mills. The receipts on account of miscellaneous produce is chiefly the sale of the right to collect "pan" leaves. The departmental operations are divided into the following main stages :—

(a) Felling and logging, (b) Dragging to Ghat Depots, (c) Transportation from Ghat Depots to Headquarters Depot, (d) Milling and (e) Export.

Cost sheets are prepared to arrive at the rate per ton for each of these stages. Though understood, the term "depot" as applied to (b) is somewhat of a misnomer, as there are no regular depots other than at headquarters. Logs are dragged from the felling areas to the nearest part of the coast or tidal creek and collected when required for stage (c). A comparatively sheltered locality during one monsoon becomes exposed and difficult to work in during the other, as all transportation is by sea. Failure of the camp water or elephant fodder supply are other factors which have influenced operations, so that in the past it has sometimes been found necessary to abandon camps while some logs remain unremoved and it was not found economical to return thereto next season for relatively small quantities, most of which decay rapidly. These circumstances have led to the adoption of the quantity transported to the headquarters depot as the divisor for costs, as such quantity is the initial effective asset. The quantities in felling areas and ghat depots are, however, controlled and reviewed in quantity accounts.

The rapid increase in the demand for match logs led to supplementing departmental extraction by the employment of contractors who deliver at ghats-stage (b) above. The employment of contractors has led to some ex-convicts importing their families and buffaloes instead of leaving the Andamans on expiry of their sentence. The advantage of this is obvious.

358. We come now to a consideration of the accounts for 1929-30. The accounts published are the Trading and Profit and Loss accounts and the Balance Sheet.

359. *Extraction of logs.*—(a) The figures are as follows :—

	Quantity transported to headquarters.			
	1929-30.		1928-29.	
	North Andaman.	South Andaman.	North Andaman.	South Andaman.
	Tons.	Tons.	Tons.	Tons.
Departmental	15,193	15,118	19,058	14,837
Contractors	2,191	10,052	..	3,236
Total	17,384	25,170	19,058	18,073
	42,554		37,131	

The decrease in the North Andaman was due partly to large stocks on hand on 31st March 1929 and partly to mill trouble. The increase in the South Andaman was in order to cope with the demand for match logs. Our transport facilities were employed to the limit of their capacity. The acquisition of a new barge now in use should enable more timber to be brought in.

(b) The all in cost of extraction for both North and South Andamans has improved as compared to that of 1928-29. The cost is higher in the South Andaman Division because of the employment of the Steamer "Rosamond" for transport from the Middle Andamans to Port Blair, whereas the North Andaman Division have been working in virgin forests nearer headquarters, and transportation was confined to towage of rafts in creeks by launches. The conditions there are now changing, and the necessity for working on Interview Island off the west coast has resulted in the purchase of the "Montagu Douglas" for that Division, hence the transport costs will not be so disproportionate in future.

360. *Disposal of logs.*—The following are the figures :—

	1929-30.			1928-29.		
	North Andaman.	South Andaman.	Calcutta.	North Andaman.	South Andaman.	Calcutta.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Opening Balance . . .	2,527	923	330	5,646	2,875	656
Rough Hewn Squares wrongly shown as mill sawn.	147	..	..	..	..	..
Transported during the year.	17,384	25,170	..	19,058	18,073	..
Sent from the Andamans .	..	..	6,300	..	..	3,979
Transfers between Divisions.	..	200	..	..	139	..
Found surplus . .	183	128	3	20	50	12
Total .	20,241	26,421	6,633	24,724	21,137	4,647
Exported	6,547	9,692	..	2,625	6,497	..
Into Mill . . .	11,958	13,690	..	13,386	13,468	..
Transfers between divisions.	200	..	..	139	..	..
Used Departmentally .	..	400	..	..	191	..
Sales	..	467	5,836	..	10	4,104
Written off . .	774	159	297	5,047	48	120
Transferred to squares account.	..	..	..	..	..	72
Sawn into scantlings .	..	..	..	..	..	21
Total issues .	19,479	24,408	6,133	22,197	20,214	4,317
Closing balance . .	762	2,013	500*	2,527	923	330

* In transit on 31st March 1930 for delivery ex-ship. The exports which consisted of 15,924 tons of match logs and 315 tons of other timbers, are dealt with in further detail in para. 363 below. The increase in exports is due to the match log trade. The mill intake is dealt with later under milling. The write off of 774 tons in the North Andaman Division is made up as under—

	Tons.
(a) Losses from rafts caught in storms or heavy seas . .	176·73
(b) Remeasurement during the year	305·70
(c) Adjustment of short measurements in previous years .	292·72
Total .	774·15

Against (*b*) must be set remeasurement gains of 168·94 tons included in the figure of 183 tons shown as found surplus. The net loss of 136·76 tons represents a very small percentage of the total transported. The differences occur as the ghat measurements are made by low-paid agency.

Item (*c*) was due to the opening book balance being greater than it should have been owing to short measurements of issues in previous years. The stocks are now effective and the arrangements for measurement improved.

As regards the South Andaman Division, the value of the timber used departmentally is adjusted in the financial accounts. The improvement in sales will continue owing to the establishment of a local match factory. The write off of 159 tons includes a shortage of 117·35 tons which is counterbalanced by an excess of 113·97 tons included in the figure of 128 tons shown as found surplus. These differences were due to confusion between different species, remedied at stock-taking. The balance of the write off was due to losses from rafts and slight differences on remeasurement.

The closing stocks are not excessive. The position in Calcutta has been improved by the sale of all logs ex-ship.

361. *Milling.*—(*a*) The quantity accounts are as follows :—

	1929-30.		1928-29.	
	North Andaman.	South Andaman.	North Andaman.	South Andaman.
	Tons.	Tons.	Tons.	Tons.
Intake	11,958·25	13,689·86	13,385·83	13,467·90
Outturn—				
Squares	1,684·97	1,388·05	2,784·00	1,304·41
Scantlings	2,809·81	5,065·45	3,285·74	4,793·21
Total	4,494·78	6,453·50	6,069·74	6,097·62
Wastage	7,463·47	7,236·36	7,316·09	7,370·28
Percentage of intake	62·41%	52·86%	54·66%	54·72%
Products of Wastage—				
Defective scantlings	166·74	..	..	..
Shingles	65,800 Nos.	4,36,450 Nos.	1,22,200	6,42,650
	cords.	cords.	cords.	cords.
Firewood	3,749¾	3,716¼	2,565¼	3,761
Total outturn in terms of scantlings only	3,820·79	5,898·28	4,956·14	5,575·85
Wastage	8,137·46	7,791·58	8,429·69	7,892·05
Percentage of intake	68·05%	56·91%	62·97%	58·60%

North Andaman Mill.—The decreased intake compared with 1928-29 was due to the mill being closed for repairs throughout April 1929. The drop in the outturn of squares was due to the demands for timber in this form. The percentage of wastage for the 2 years can be fairly compared only when the outturn is reduced to a common denominator. This is done in terms of scantlings in order to arrive at the cost divisor for the financial accounts. It was found by experiment that the same quantity of timber yielded 5 tons of squares or 3 tons of scantlings and this ratio is adopted. On this basis, the percentage of wastage of intake in 1929-30 was 68·05 per cent. against 62·97 per cent. in 1928-29. This is due to the stricter classification of outturn. The outturn of defective scantlings (*i.e.*, those sawn irregularly) is now shown separately and excluded from the cost divisor with the result that the cost of production is distributed over effective timber only. Sales of defective scantlings at a reduced rate will thus be clear profit. Including the defective outturn of 166·74 tons during 1929-30 for comparison with 1928-29 the percentage of wastage works out to 66·65 per cent. against 62·97 per cent. The difference is due to stricter rejections on account of sapwood content.

South Andaman Mill.—The improvement during 1929-30 is satisfactory. It is not easy to compare the 2 divisions as the mills are of different types That in the South Andaman is an English Circular Saw Mill while that in the North Andaman is an American Band Saw Mill. The question of reduction of wastage by the use of a resaw in the North Andaman is receiving attention.

(*b*) The cost per ton of scantlings in the North Andaman has increased while in the South Andaman it has been reduced.

The increase in the cost rate per ton in the North Andaman is wholly due to the reduction in the outturn divisor from 4,956 tons in 1928-29 to 3,821 tons in 1929-30, as the actual expenditure on milling was Rs. 20,411 less than the previous year. The divisor has already been dealt with under sub-para. (*a*) above.

The improvement in the South Andaman is due largely to the reduction in the cost of the log—para. 359. (*b*) above—and partly to the better outturn divisor.

The Chief reasons for the difference in cost between the 2 mills are (1) the need for an Expert European Filer on high wages for the band mill in the North Andaman, (2) the employment of free labour in the North Andaman Division and (3) the higher capital cost of that mill which results in heavier charges for interest and depreciation. It is considered that the capital cost adopted when the commercial accounts were started is excessive, as the figure then on record appears to have included a share of preliminary expenses incidental to the establishment of a colony in virgin forests. Proposals for a reconsideration of this figure will be submitted to Government.

In view of the disparity in costs in both mills, it is interesting to consider the results on trading in sawn timber this year, shown in Part I of the Profit and Loss Account. The figures are as follows :—

	Profit. Rs.	Loss. Rs.	Net Profit. Rs.
North Andaman—			
Squares	1,09,133 7 4	..	64,292 5 11
Scantlings	..	44,841 1 5	
South Andaman—			
Squares	14,083 13 4	..	52,314 6 2
Scantlings	38,230 8 10	..	

The explanation is that the North Andaman Division supplies most of the Padauk which is the best paying timber produced in considerable quantities in the Andamans. It is hardly equitable to consider scantlings alone, as the ratio of squares to scantlings influences the cost divisor very considerably as under :—

Let X=Expenditure on milling *plus* cost of logs

Then the cost of production is—

	Outturn of	
	7 Tons Squares and 1 Ton Scantlings.	1 Ton Squares and 7 Tons Scantlings.
Squares	$\frac{3X}{26}$	$\frac{3X}{38}$
Scantlings	$\frac{5X}{26}$	$\frac{5X}{38}$

Thus, the denominator in the above fractions increases by 2 from 26 to 38 according as 1 ton is decreased under squares and increased under scantlings. The following table shows this :—

	Outturn in Tons.								
Squares	0	1	2	3	4	5	6	7	8
Scantlings	8	7	6	5	4	3	2	1	0
Outturn in terms of scantlings on adopted ratio	8	$7\frac{3}{5}$	$7\frac{1}{5}$	$6\frac{4}{5}$	$6\frac{2}{5}$	6	$5\frac{3}{5}$	$5\frac{1}{5}$	$4\frac{4}{5}$
or	40	38	36	34	32	30	28	26	24

The loss of Rs. 44,841 represents approximately Rs. 16 per ton on the outturn of 2,810 tons of scantlings. The question requires consideration in the following aspects :—

(*a*) Economy in expenditure.

(*b*) Increased outturn to lower cost per ton.

(*c*) Closing the Mill.

Reduction was effected this year as already indicated and a further reduction of about Rs. 8,000 per annum has occurred in 1930-31 owing to the engagement of a Mill Engineer on a lower pay in place of the former Engineer who resigned in June 1930. The latter combined the duties of Manager and Engineer, but better results have been attained since by putting the new Engineer under the Filer whose expert duties are pivotal.

As regards (*b*), the suspension of work due to repairs has now been reduced and a better outturn is expected in the current year.

In view of the net profit on sawn timber, the question of the closing of the mill does not arise immediately. The answer to the possible enquiry why the South Andaman Mill cannot cut up the timber instead, is that not only is its capacity less than the total available for sawing, but the cost would increase there also, in view of the greater distance for transport.

The forests consist of mixed species and to limit extraction to employ only the South Andaman mill would reduce the quantity transported and therefore, by increasing the cost of the log, reduce the profit on sale of logs.

It is not possible to increase production of match logs under such conditions, as a proportion of floaters must be left standing to facilitate extraction later of hardwoods (sinkers) not taken out, hence the maintenance of even the existing outturn of match logs would necessitate extraction over a larger area, involving additional labour and elephants. Closing the mill would inevitably result in the write off of practically the whole capital cost, as even if it could be sold, which is extremely doubtful, the small price that would be obtained would be diminished by the cost of dismantlement, export and freight. The interest and depreciation during 1929-30 amounted to Rs. 46,611 hence even an annual loss on sawn timber to this extent till the capital cost is reduced to *nil* and thereafter an annual loss of a sum equal to the interest of Rs. 22,746 would be a better economic proposition, as not only would the production cost of match logs be kept down but additional cargo would be provided to fill the Andaman Chartered Steamers. The opening up of the North Andaman is also an indirect advantage.

362. *Disposal of sawn timber.*—The following figures show the position in regard to this:—

	1929-30. North Andaman.		1929-30. South Andaman.		Calcutta.		1928-29. North Andaman.		1928-29. South Andaman.		Calcutta.	
	Squares.	Scantlings.	Squares.	Scantlings.	Squares.	Scantlings.	Squares.	Scantlings.	Squares.	Scantlings.	Squares.	Scantlings.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Opening stocks	964	646	133	1,228	970	413	498	1,302	25	1,280	1,379	1,253
Mill Outturn	1,685	2,810	1,388	5,065	..	..	2,784	3,286	1,304	4,793	..	..
Found surplus	6	1	1	..	..	45	1	27	1	11	31	40
Transferred between Division	..	..	..	30	..	..	..	..	..	..	..	..
Transferred from the Logs Account	..	..	..	..	..	..	..	..	..	..	72	..
Sent from the Andamans	..	..	..	..	2,420	2,408	..	..	..	..	2,961	3,063
Sent from Dehra Dun	..		..	..	..	..	..	..	..	..	..	71
Sawn from logs and squares	..	..	..	..	..	..	..	..	..	..	..	48
Total	2,655	3,457	1,522	6,323	3,390	2,866	3,283	4,615	1,330	6,084	4,443	4,475
Exported	2,281	1,830	1,321	3,503	..	..	2,052	3,053	1,036	3,770	..	..
Sales	..	46	8	933	2,843	2,770	..	38	161	634	3,281	4,051
Used departmentally	69	204	99	460	..	..	254	631	..	407	..	3
Free grants	..	..	..	11	..	..	..	6	..	..	..	1
Written off	12	12	..	9	197	..	13	241	..	45	98	7
Classified as defective	..	122	..	..	..	..	..	..	..	..	..	..
To Logs account see para. 360	147	..	..	..	..	..	..	..	..	..	..	..
Transfers between Dns.	..	30	..	..	..	..	..	..	..	..	..	..
Sawn into scantlings	..	..	..	..	..	..	..	..	..	..	94	..
Total issues	2,510	2,244	1,428	4,916	3,040	2,770	2,319	3,969	1,197	4,856	3,473	4,062
Closing stocks	145	1,213	94	1,407	(a) 350	96	964	646	133	1,228	970	413

(a) Includes 50 tons in transit on 31st March 1930.

The exports are dealt with in para. 363 below. The value of timber used departmentally is adjusted in the financial accounts.

The figure of 122 tons against North Andaman issues represents defective scantlings included in the opening stock of the year, *vide* remarks in para. 361(*a*). The value of this quantity (*viz.*, Rs. 9,985-11-0) has been written off by debit to the Profit and Loss account (Part III) this year in order to render the valuation of closing stock effective. An account is kept of such and any sales will accrue as miscellaneous receipts.

The closing stocks are as under :—

	1929-30.		1928-29.	
	Squares. Tons.	Scantlings. Tons.	Squares. Tons.	Scantlings. Tons.
North Andaman	145	1,213	964	646
South Andaman	94	1,407	133	1,228
Calcutta	350	96	970	413
Total .	589	2,716	2,067	2,287

The fall in sales in the Calcutta market has caused the increase in stocks of scantlings. The question of disposal there is dealt with in para. 363 below.

363. The details of the exports are as follows :—

	1929-30.			1928-29.		
	Logs.	Squares.	Scantlings.	Logs.	Squares.	Scantlings.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Calcutta	6,300	2,420	2,408	3,979	2,961	3,063
Rangoon	6,023	..	45	5,281	..	46
Madras	1,629	..	1,609	317	..	2,555
London	313	..	1,208	528	..	1,134
Bombay	1,029	974	..	..	..	..
Dehra Dun for research .	34	..	..	8	..	..
Other Ports	8	208	62	9	128	24
From North Andaman to South Andaman . ..	53	147	71	..	..	..
Total .	16,291	3,749	5,403	10,122	3,089	6,822
		25,443			20,033	

Scantlings alone show a falling off. Severe competition is experienced in Calcutta due to imports from Burma which are sold at lower prices. A large exporter from Burma assured the writer that his Calcutta trade is a loss to him, but necessary to dispose of inferior timber which he must extract. Such losses are made up on trading in superior timbers. Our Calcutta Agents (Messrs. Martin and Company) assure us that if our prices can be reduced, a much larger volume of business can ordinarily be done. The present trade depression, which, it is anticipated, is only a temporary matter, does not necessitate immediate action, but steps are being taken against a revisal to increase the outturn of the mills and the London trade at better prices to enable us to reduce such in Calcutta.

Provided all can be sold, an increased outturn will lower costs and thereby improve the net receipts on sawn timber. The fall in exports to Madras was due to a smaller number of sailings to that port in 1929-30.

364. *Profit and Loss Account.*—This is divided into three parts :—

Part I shows the results of trading in timber during the year,

Part II the miscellaneous transactions of the year, and

Part III transactions during the year relating to trading of previous years.

The results in Part I are :—

	Logs.	Squares.	Scantlings.	
	Profit.	Profit.	Profit.	Loss.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
North Andaman .	1,03,748 15 9	1,09,133 7 4	..	44,841 1 5
South Andaman .	1,48,120 10 3	14,083 13 4	38,230 8 10	..
Total .	2,51,869 10 0	1,23,217 4 8	38,230 8 10	44,841 1 5
			1,16,606 12 1	

Larger exports from the South Andaman account for the difference under logs. The prices for logs in Rangoon are less than elsewhere, but this is due to competition with local supplies. Sailings to that port are necessary for administrative purposes and for export of cocoanuts by local producers.

The results on sawn timber are dealt with in the remarks in para. 361 (*b*) above.

The principal items in Part II are—

(1) Loss on fuel account . . . . Rs. 6,101-6-1.

(2) Expenses on idle plant . . . . Rs. 17,286-5-7.

Item (1) is more than accounted for by the debit of Rs. 6,708 to the fuel account, being the book value of logs and deteriorated scantlings used in preparation of rafts for removal of fuel. Logs available for export are sometimes not loaded for want of further space on steamers. Those that were liable to rapid deterioration were used in rafting fuel, and deteriorated scantlings were sometimes used to bind the rafts. If a charge lower than the book value had been adjusted, the difference would have appeared as a loss elsewhere, *i.e.*, under log and sawn timber trading.

Item (2) relates to the new sawmill in the South Andaman Division the erection of which was completed but could not be used pending the erection of an electric gantry to handle the output. This was completed in April 1930 and the mill is now in use. The new mill was obtained cheap from the Burma Government who disposed of it before unpacking on delivery by makers, owing to objections regarding departmental operations in competition with private concerns. By a partial dismantlement of a few benches in the old mill it is possible to run both with only a slight increase over the labour necessary for the old mill. The new mill was acquired with the object of cutting sizes in demand which it was not possible to deal with in the old mill without considerably slowing down the output.

The principal items in Part III are—

	Rs.	A.	P.
(1) *Profit*—Sales of old stocks and refund of expenses relating to the London Agency (now closed)	27,476	14	0
(2) *Loss*—Write off of value of defective scantlings North Andaman	9,985	11	0
(3) *Loss*—Adjustment of book balances of logs North Andaman	4,174	12	9

Regarding (1) The London Agency has been terminated and sales are now effected through the Timber Adviser to the High Commissioner for India.

An audit was conducted in London prior to the closing of that agency.

Item (2) represents the value of defective scantlings in stock on 1st April 1929. This is dealt with in para. 361 (a) above.

Item (3) is the effect of the adjustment referred to in para. 360 (c) above.

The net profit for the year of Rs. 3,32,426-6-6 has accrued after adjusting as interest on capital the sum of Rs. 1,28,167 which sum is calculated on the total due to Government on 1st April 1929 as shown in the previous years' Balance Sheet *plus* half the difference between the withdrawals from and payments into the Treasury during the year. Such capital figure amounted to Rs. 24,98,717-3-4. Thus the total of net profit and interest or Rs. 4,60,593-6-6 represents a return of 18·43 per cent.

365. *Assets.*—The fixed assets on 31st March 1930 total Rs. 20,81,813-10-5 against Rs. 18,21,974-15-10 on 31st March 1929.

The principal new items are—

	Rs.
(1) Construction of the S. L. "Montagu Douglas" for the North Andaman Division	1,53,633
(2) Travelling Steam Crane for the North Andaman Division	23,064
(3) Electric Gantry for the new mill South Andaman Division	48,221
(4) Plantations	24,251
(5) Working Plan Enumerations	26,206
(6) Steel barge for the South Andaman Division	57,538
(7) Buildings at North Andaman.—Chiefly a new Forest rest house	8,854
(8) Buildings at South Andaman.—Chiefly a new rest house and quarters for the Assistant Mill Manager for the new mill	12,183
(9) New machinery for South Andaman mill	5,297
(10) New machinery for North Andaman mill	9,742
(11) Miscellaneous items	12,333
	3,81,422
Less Depreciation written off during the year	1,21,583
Net increase	2,59,839

The reasons for item (1) are referred to in para. 359 (*b*) above. Item (2) is to facilitate loading from the jetty at the North Andaman.

Item (3) is an adjunct of the new mill—*vide* remarks in para. 364 above.

Items (4) and (5) include interest capitalised. They will be charged off to production costs as the plantations concerned are exploited or as operations are introduced in the areas enumerated.

Item (6) is to enable more timber to be transported in the South Andaman Division.

Item (11) includes the extension of the sea wall at the North Andaman, acquisition of more boats required in connection with the increased extraction, provision of necessary forest roads, etc.

Floating assets, *viz.*, Stores and Stocks of timber are effective.

As regards the future, the sanctioned budget for the year 1930-31, includes a provision of Rs. 1,84,600 for the introduction of mechanical means (skidding operations) for extraction of logs. Exploitation further from the coast line is becoming urgent. This would have increased costs of extraction owing to longer drags by elephants from felling areas to creeks, while there was the probability of being unable to work at all with elephants in several areas, not only on account of the broken contours, but also the scattering of camps which would render protection against hostile aborigines (Jarawas) very expensive.

This led to an investigation by an Expert Logging Engineer whose report in favour of the introduction of mechanical means was adopted by the Government of India and operations will start shortly. Another large purchase in 1930-31 will be a tug for about Rs. 50,000. This will replace an old launch now worn out and will facilitate transport of increased quantities in the South Andaman Division. The main future requirement is the replacement of the S. V. "Rosamond". This vessel has been the sole means of transporting logs in the South Andamans for the past 19 years. The engines were transferred from its predecessor. It has almost reached the end of its career. The depreciated value on 31st March 1930 is Rs. 78,041 and write off of depreciation at the existing rate will reduce such value to Rs. 17,715 on 31st March 1932 by which date it is hoped the new vessel asked for should be ready. Provision for Rs. 2,00,000 has been made in the Budget for 1931-32 for payments by instalments during construction and the balance of Rs. 1,50,000 will be asked for in 1932-33 payable on delivery of the completed vessel. If the residual value of Rs. 17,715 is not realised by the sale of the old vessel it will be necessary to write this sum off. It is considered that the depreciation now allowed for is already excessive, owing to the absence of Commercial Accounts in earlier years and the difficulty of valuing the vessel exactly on the date of commercialisation of the accounts.

SECTION II.—REMARKS BY THE DIRECTOR OF COMMERCIAL AUDIT.

366. The Forest Department, Andamans, is working under ordinary budget control but *pro-formâ* commercial accounts have been prepared to show the working results of the department on a commercial basis. In preparing these accounts the necessary adjustments have been made for the outstanding liabilities, stock and other balances at the beginning and at the end of the year and the following indirect charges :—

(i) Interest on Capital.

(ii) Contribution for leave and passage.

(iii) Contribution for pension and

(iv) Audit Fees.

The working of the year resulted in a net profit of Rs. 3,32,426 against a profit of Rs. 49,781 in 1928-29 without taking into account any charge for royalty on logs extracted from the Forests. The progressive total of the profits earned during the three years for which *pro-formâ* commercial accounts have been prepared is given below :—

		Rs.
Profit for 1927-28	. . . .	2,53,200
„ 1928-29	. . . .	49,781
„ 1929-30	. . . .	3,32,426
	Total .	6,35,407

From a commercial standpoint the inclusion of royalty in the accounts of the concern will give more correct working results. It may be that large expenditure has not been incurred in raising the forests now felled. Exploitation by Departmental Agency may be considered to be justifiable only if it is more economical than leasing out the forest to private agency on the basis of a royalty on trees extracted or a lump sum payment. The commercial accounts might therefore be debited with royalty at rates similar to those recovered from contractors and it has been suggested for the consideration of Government.

367. The results of trading in the various Indian and foreign markets for the two years 1929-30 and 1928-29 are compared below :—

	Trading profits in 1929-30.			Trading profits in 1928-29.		
	Logs.	Squares.	Scantlings	Logs.	Squares.	Scantlings.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Messrs. Martin & Co., Agency at Calcutta .	1,11,676	39,500	—34,303	51,073	33,182	—82,677
Madras Market . .	32,335	..	—2,290	7,543	..	—21,547
Rangoon Market . .	69,932	..	—656	31,201	..	—194
Bombay Market . .	27,013	61,409	..	(no separate account was prepared; included in other markets.)		
Local Market . . .	7,835	772	11,111	435	610	—9,001
London Market . .	6,805	..	37,219	—1,001	..	13,542
Other Markets . .	299	22,083	225	296	9,804	—677
Total .	2,55,895	1,23,764	11,200	88,022	43,596	—1,01,154

NOTE.—Minus figures represent losses.

The improvement in the Trading results was due to the following causes :—

(i) Low average cost of production on account of the greater quantity of effective output and low mortality of elephants during the year,

(ii) Better prices obtained during the year,

(iii) Larger turnover of logs and squares where sales always resulted in a profit ; and

(iv) Smaller turnover of scantlings in the Indian markets where sales did not cover the cost *plus* expenses.

(v) Small rejections in shipments sent abroad.

In arriving at the cost of production, the quantity transported to the Sale Depots has been taken as the effective output irrespective of the quantity felled and logged at the Forests, as the logs left behind in and near the felling areas are sometimes abandoned if they are not worth bringing out at the extra expense that would be involved.

368. The value of the timber stock at the end of the year 1929-30 amounted to Rs. 2,59,291 against Rs. 3,42,072 at the end of the previous year. As mentioned above, this stock does not include the logs left in the felling areas and at the Ghat Depots along the sea front. Of these stocks, the logs in North Andamans Division worth Rs. 10,760 has been verified by the Divisional Forest Officer by actual measurement and those with Messrs. Martin and Co., Calcutta, worth Rs. 25,481 certified by them as correct. The other stock figures have been taken from the stock books. The stock have been valued at cost or market price whichever was less.

369. There has been an improvement in the Trading results of the transaction through Messrs. Martin & Co., during the year which was mainly due to :—

(i) Lower cost of production

(ii) Larger turnover of logs and squares resulting in greater profit,

(iii) Smaller turnover of scantlings resulting in a reduction of loss thereon,

(iv) Slightly better prices obtained during the year and,

(v) Sales being effected mostly on "Ex-ship" terms, thereby reducing considerably the delivery and other charges.

370. *Para* **355** *of the Chief Forest Officer's review.*—The balance of Government Capital as on the date the accounts were drawn up by this Branch is merely the difference between the various assets and liabilities of the Department. In other words it is the net outlay by Government in the forest scheme consisting of the various assets. It is incorrect to couple this item with the surplus of revenue over expenditure of the previous years and deduce that the sum of the two items represents the net return to Government.

371. *Para* **364** *of Chief Forest Officer's review.*—The actual profit pertaining to the years transactions after charging interest amounts to Rs. 3,14,447. The capital at the beginning of the year including reserves for interest, indirect charges and profits due to Government was Rs. 26,81,971. The percentage of profit on capital outlay would, therefore, work to 11·37 per cent.

372. *Para* **365** *of the Chief Forest Officer's review.*—The fixed assets (less depreciation) on 31st March 1930 according to the Balance Sheet drawn up amount to Rs. 20,69,435 against Rs. 18,14,811, the net increase being Rs. 2,54,624. The net increase as per the review amounts to Rs. 2,59,839, the difference of Rs. 5,215 is presumably due to capital expenditure on certain items carried under suspense in the Balance Sheet but allocated to the respective assets by the Chief Forest Officer after the accounts were closed.

FOREST DEPARTMENT, ANDAMANS.

373. Balance Sheet as at 31st March 1930 and 31st March 1929.

Capital and Liabilities.

31st March 1929.		31st March 1930.
Rs.		Rs.
20,72,823	Government of India Capital Account . .	17,08,856
2,56,168	Reserve for expenses due to Government .	4,31,127
1,78,071	Other Liabilities	1,52,368
3,52,981	Profit and Loss Account	6,85,407
28,60,043		29,77,758

Property and Assets.

31st March 1929.		31st March 1930.
Rs.		Rs.
	Fixed Assets.	
2,35,405	Buildings	2,43,280
55,786	Calcutta Timber Yard	50,728
90,933	Roads, Sea-walls and Jetties . . .	89,852
5,87,867	Saw-mills	5,74,853
26,752	Other plant and Machinery:—Drying and Charcoal Kilns, Creosoting and Water tanks, Cranes and Electric Gantry . .	96,039
4,28,737	Launches, Lighters, Boats, etc. . . .	5,07,066
3,11,204	Live stock	2,99,406
3,239	Rolling stock, trucks, Carts and Wagons .	3,043
1,957	Furniture	2,030
72,871	Plantations and Working Plans . . .	1,23,329
18,14,811		20,69,435
	Floating Assets.	
1,96,901	Sundry Stores and Instruments . . .	2,28,306
3,42,072	Stock of timber and fuel	2,73,741
4,98,411	Book Debts	3,88,095
5,171	Deferred Revenue Expenditure . . .	12,724
2,677	Sundry Items	5,457
28,60,043		29,77,758

(Sd.) W. B. STEVENS,
Accounts Officer, Forest Department, Andamans.

(Sd.) H. K. MALLIK,
Assistant Director of Commercial Audit, Burma Circle.

FOREST DEPARTMENT, ANDAMANS.

374. Trading and Profit and Loss Account for the years 1929-30 and 1928-29.

1928-29. Rs.		Rs.	1929-30. Rs.
	To Opening Stock—		
3,34,968	On hand	2,49,236	
1,91,364	With Messrs. Martin & Co., Calcutta	92,836	
			3,42,072
	To Cost of Departmental Extraction—		
	Direct charges—		
3,05,829	Labour	2,96,114	
71,160	Stores	67,787	
43,101	Live stock maintenance	44,876	
83,912	Launches, upkeep of	87,085	
..	Miscellaneous	6,708	
			5,03,470
3,20,977	„ Direct Overheads		3,34,820
1,80,495	„ General Overheads		1,71,652
42,215	„ Supplies by contractors		95,623
	„ Charges on timber sold or consigned—		
3,39,002	Freight, insurance, etc.	3,75,462	
	Home brokers' commission	4,261	
44,380	Martin & Co.'s commission	46,781	
37,925	Sundry Charges	9,136	
			4,35,640
2,669	„ Charges on timber received by Messrs. Martin & Co. from Dehra Dun.		..
22,718	„ Other Charges		68,180
49,781	„ Profit		3,32,418
20,70,616			22,83,875

1928-29. Rs.		Rs.	1929-30. Rs.
15,08,330	By Gross sale proceeds of timber	18,63,895	
1,11,529	„ Sale of old stock at London not included in Opening stock	22,172	
		18,86,067	
	Less Rebates	4,477	18,81,590
6,206	„ Sale of fuel		11,877
83,843	„ Timber and fuel used departmentally		96,039
758	„ Royalty		3,953
2,364	„ Profit on Cocoanut plantation		2,382
9,956	„ Refunds of rebates, discount and other charges, etc., of previous years		12,757
5,559	„ Miscellaneous Receipts		5,624
	„ Closing Stock—		
	Timber—		
2,49,236	On hand	2,13,224	
92,836	With Messrs. Martin & Co., Calcutta	25,481	
	In transit, etc.	16,499	2,55,204
	Fuel		14,449
20,70,616			22,83,875

FOREST DEPARTMENT, ANDAMANS.

375. Messrs. Martin & Co.'s Government Timber Agency at Calcutta. Consignment Trading and Profit and Loss Account for the years 1929-30 and 1928-29.

1928-29.		1929-30. Logs.	1929-30. Squares.	1929-30. Scantlings.	1929-30. Total.
Rs.		Rs.	Rs.	Rs.	Rs.
1,91,304	To Opening Stock	4,745	57,056	31,035	92,836
4,73,838	" Shipments during the year at F.O.B. (Port Blair) rates	1,09,137	1,14,607	1,85,185	4,08,929
9,064	" Other consignments	..	..	..	..
1,22,114	" Freight	72,084	31,402	25,869	1,29,355
36,794	" Landing charges, River dues, etc.	2,055	8,053	1,231	11,339
23,927	" Depot charges	..	16,848	1,121	17,969
5,348	" Interest and Depreciation on Calcutta Timber Yard	..	5,701	325	6,026
18,657	" Delivery charges	164	8,153	643	8,960
35,343	" Commission	13,596	11,900	9,265	34,761
5,806	" Expenses due to tidal bore	..	..	..	..
1,582	" Profit	1,11,676	39,500	..	1,16,873
9,23,837		3,13,457	2,93,220	2,54,674	8,27,048

1928-29.		1929-30. Logs.	1929-30. Squares.	1929-30. Scantlings.	1929-30. Total.
Rs.		Rs.	Rs.	Rs.	Rs.
8,31,001	By Sales of Timber	3,13,457	2,75,622	2,13,597	8,02,676
..	Less Rebate on sales of previous years	..	1,100	..	1,109
..		3,13,457	2,74,513	2,13,597	8,01,567
92,836	" Closing stock at cost or market rates whichever was less	..	18,707	6,774	25,481
..					
..	" Loss	..	..	34,303	..
..	..	..	..	..	..
..	..	..	..	..	..
..	..	..	..	..	..
..	..	..	..	..	..
9,23,837		3,13,457	2,93,220	2,54,674	8,27,048

FOREST DEPARTMENT, ANDAMANS.

376. Summary of Stock Account for the years 1929-30 and 1928-29.

1928-29. Logs. Tons.	1928-29. Squares. Tons.	1928-29. Scantlings. Tons.		1929-30. Logs. Tons.	1929-30. Squares. Tons.	1929-30. Scantlings. Tons.
			Receipts :—			
8,727	524	2,581	Opening stock on hand	6,090	1,097	1,751 / 123
656	1,379	1,263	Opening stock with Messrs. Martin & Co., Calcutta	330	971	413
37,131	..	..	Departmental extractions and contractors' supplies delivered at Sale Depots	42,555	..	..
..	4,088	8,079	Sawn Timber outturn during the year	..	3,073	7,875 (good) 167 (defective)
216	104	197	Surpluses, Remeasurement gains and other sundry receipts	312	15	47
46,730	6,095	12,110	Total	49,287	5,156	10,376
			Disposals :—			
26,854	..	..	Issues to Mill for conversion	25,648	..	..
317	..	2,555	Sales at Madras	1,629	..	1,609
5,281	..	46	Sales at Rangoon	6,025	..	45
..	..	..	Sales at Bombay	1,929	974	..
4,104	3,281	4,051	Sales by Messrs. Martin & Co., Calcutta	5,836	2,843	2,770
528	..	1,138	Sales at London	312	..	1,208
9	128	24	Sales at other markets	8	208	62
10	11	661	Local sales	468	8	1,010
192	404	1,039	Timber used departmentally	401	168	668
8	..	7	Free grants, samples sent to Dehra Dun, etc.	34	..	15
2,648	109	295	Losses written off on account of deterioration, shortages and remeasurement losses	3,874	70	21
359	94	11	Other adjustments	..	147	2
			Closing Stock :—			
6,090	1,097	1,751 (good) 123 (defective)	On hand	2,627	387	2,630 (good) 250 (defective)
330	971	413	With Messrs. Martin & Co., Calcutta	..	300	96
..	..	..	In Transit	495	51	..
46,730	6,095	12,110		49,287	5,156	10,376

CHAPTER V.

GOVERNMENT OF INDIA

Commerce Department Concerns.

BENGAL PILOT SERVICE.

FINANCIAL REVIEW BY THE PAY AND ACCOUNTS OFFICER, MISCELLANEOUS CENTRAL DEPARTMENT (COUNTERSIGNED BY THE PRINCIPAL OFFICER, MERCANTILE MARINE DEPARTMENT, CALCUTTA DISTRICT) ON THE COMMERCIAL ACCOUNTS FOR THE YEAR 1929-30.

Preliminary.

377. The Bengal Pilot Service is the only Pilot Service in India which is under Government management. A commercial system of accounting, in addition to the ordinary Government accounts, has been introduced with effect from the beginning of the year 1928-29 with a view to ascertain whether the pilotage fees realised from the Shipping Companies are sufficient to defray the expenses of the pilot establishment.

The report for 1928-29 was based on provisional figures pending receipt of Government orders on certain points. These have been recently received and necessary adjustments have been carried out. The accounts now submitted show the revised figures for both years.

Financial result.

378. The net financial result for the year 1929-30 is a surplus of Rs. 8,541-0-8.

The year shows a fall in the gross surplus by Rs. 47,249-14-8 as compared with that for the preceding year. Although the income for the year under review, as shown in the Income and Expenditure Account does not show any appreciable diminution, the expenditure during the year was considerably in excess of that for the preceding year, due chiefly to increased pay and allowances drawn by pilots and adjusted under the head "salaries and allowances of Pilots, etc." and to certain special charges included in "Miscellaneous expenditure including contingencies."

Income and Expenditure Account.

379. Pilotage Receipts Rs. 18,83,104-4-0.

The amount represents Government dues in respect of pilotage fees, Night navigation fees, Leadsmen's fees and detention allowances to Pilots for the year 1929-30 billed for by the Commissioners for the Port of Calcutta, who are responsible for collecting these dues with reference to the pilotage certificates, etc., furnished by the Principal Officer, Mercantile Marine Department, Calcutta. The figures are based on the monthly statements forwarded to the Pay and Accounts Officer by the Commissioners for the Port of Calcutta.

Form No. 7 List of Sundry Debtors, as prescribed in Rule 9 of the Accounting Rules of the Bengal Pilot Service could not suitably be applied for the preparation of the statements of pilotage dues and a reference has been made to the Government of India (Commerce Department) to consider whether rule 9 should not be modified (*vide* Pay and Accounts Officer's letter No. P. M. Com. Acct. 2250, dated 7th August 1930) in view of the fact that the original documents on which the calculation of the dues should be based are not available in the Pay and Accounts Office. A check of one month's bills prepared by the Port Commissioners was, however, conducted by the accountant of the Pay and Accounts Office with reference to the original pilotage certificates and found correct. The pilotage receipts for the year includes a refund of Rs. 3,200-1 in respect of collections made in past years.

380. Miscellaneous Receipts Rs. 22,301-11-3.

Recoveries made from the pay and allowances of the pilots towards the pilot's family pension fund amount to Rs. 12,915-14-0 and the balance, *viz.*, Rs. 9,385-13-3 is on account of miscellaneous recoveries, the bulk of which represents the difference between the guaranteed pay of the pilots of the Rangoon Mail Steamers and the pilotage fees levied on the basis of the draft of the vessels.

381. Interest Account Rs. 225-8-2.

The amount of interest has been arrived at in the following manner :—

	Rs. A. P.	Rs. A. P.
Interest charged to Government on the realised surplus for the year 1928-29 as laid down in rule 15 of the Account Rules at 5·31 per cent the rate of interest prescribed in the Auditor General's letter No. 223 K. W. 33-30, dated 1st August 1930		7,018 0 0
Less—Amount of interest charged to the service (*a*) on the balance of Depreciation Reserve	2,367 13 5	
(*b*) on the mean between the opening and closing balances of Heavy Repairs Reserve	4,345 0 0	
(*c*) on the capital expenditure of Rs. 1,500 incurred during 1928-29 for the purchase of a wireless apparatus from the Telegraphic Department	79 10 5	6,792 7 10
		225 8 2

In the Director of Commercial Audit letter No. 3722 Com. 14-1-29, dated 1st November 1930, it is stated that the Government will allow interest only on the excess of receipts over expenditure actually paid into a Government Treasury and therefore available for its use or *vice versa*. The interest chargeable to Government has accordingly been calculated in the following way :—

	Rs. A. P.	Rs. A. P.
Remittances into treasury during 1928-29		18,71,124 12 0
Less—		
Remittances from Treasury	12,01,737 7 4	
Payments made in England (Central)	3,61,517 4 5	
Payments made in England (Provincial)	1,26,076 14 3	
Payments by A. G. Bengal for Marine pension	558 1 0	
Actual cost of passage paid by Government	49,066 10 0	
		17,38,956 5 0
Accumulated realised surplus		1,32,168 7 0

Interest on realised surplus at 5·31 per cent Rs. 7,018 0 0 (approximately).

It will be seen from the above statement that for the purpose of calculating surplus, only the actual expenditure incurred both in India and England on account of pay, leave salary, deputation and other allowances, pension and other miscellaneous charges, etc., have been shown as payments by Government. Charges on account of pensionary contribution of the staff employed in the Principal Officer's establishment and in the Principal Officer's launch, cost of stationery and printing, the indirect charges in respect of Leadsmen's quarters and the proportionate cost of the Principal Officer's clerical establishment and the maintenance of his Launch, which have been charged in the Profit and Loss Account, have been excluded, as they are not adjusted in the Government account as direct charges of the Bengal Pilot Service but are only adjusted *pro formâ* in the commercial account. It may be considered whether these indirect charges should also be treated as expenditure of the Pilot Service for the purpose of computing the surplus. Moreover the actual cost of passage adjusted in Government accounts and the pensions actually paid have been taken into account in calculating the surplus, instead of the amount of passage contribution, calculated on the basis of Rs. 50 per mensem in respect of each officer entitled to passage concession as charged in the Commercial accounts (*vide* para. 14 of the Report for 1928-29) and of the amount of pensionary contribution of officers as fixed by the Government of India in their Commerce Department letter No. 207 P. and L. (9)/30, dated 13th December 1930 which have been charged in the Profit and Loss Accounts. It may therefore be considered whether the actual payments of the assumed cost should be taken into account.

882. Stores consumed Rs. 1,43,490-2-6.

The figure has been arrived at as shown below :—

	Coal.	Provision.	Other stores.
	Rs. A. P.	Rs. A. P.	Rs. A. P.
Opening balance	8,947 8 0	1,385 3 6	10,167 0 0
Purchases	68,727 13 0	23,226 7 6	50,893 4 4
	77,675 5 0	24,611 11 2	61,060 4 4
Less closing balance	8,929 2 0	428 0 0	10,500 0 0
Stores consumed	68,746 3 0	24,183 11 2	50,560 4 4

The store books are being posted regularly with effect from the year 1929-30. Stores paid for during the year have been checked into these books by the Accountant of the Pay and Accounts Office and the result communicated to the Principal Officer, Calcutta.

The Account Rules do not prescribe any detailed method which should be followed in keeping the stores accounts. Para. 2 of the Rule 25, however, prescribes that the registers and the monthly list of stores issued, which are maintained in the Pilot Vessels, will be checked monthly by the Commercial Accountant. But as the books are posted quarterly, monthly check has not been possible. In the concluding portion of that para. it is laid down that with the help of the schedule of prices and the purchase bills, the Commercial Accountant will be able to value the stores balances. This has not been found practicable as the accountant is not attached to the Port Office as originally intended and was apparently in view when the rules were framed. The valuation of the "Stores balances" was accordingly made by the Principal Mercantile Officer at their marketable rate from information available in his office.

It may perhaps be considered whether rule 25 should be suitably revised and amplified so as to make it workable.

383. Salaries and allowances of Pilots Rs. 7,47,586-9-0.

The expenditure of the previous year was Rs. 7,25,869-7-0. The increase is chiefly due to increments of pay of Pilots and to night fees.

384. Salaries and Allowances of Establishment Rs. 68,711-8-6.

The amount includes Rs. 9,486-5-6 representing one half of the cost of the establishment of the Port Office as prescribed under Rule 8-B of the Account Rules.

The figure under this head also includes leave salaries paid to Establishment on leave. It may be pointed out that Rule 8-B(*a*) and (*b*) contemplate the calculation of leave contribution on account of officers and establishment other than Pilots and the incorporation of this figure in the accounts. As the actual figures for leave salary are included in the Government accounts, it is suggested that the rules referred to above may be suitably amended.

385. Miscellaneous Expenditure including contingencies Rs. 36,773-1-7.

This amount includes—

(*a*) Rs. 2,862-15-0 on account of ½ share of running expenses of the Principal Officer's launch;

(*b*) Rent of Leadsmen's Quarters Rs. 2,085.

This charge is made up as follows in accordance with Government of India, Com. Dept., letter No. 207-P. & L. (9)/30, dated 13th December 1930.

	Rs.
Owners' taxes (actual)	1,333
Cost of repairs (actual)	603
Contribution to the Depreciation Fund	149
	2,085

The actual figures shown above were communicated in letter No. 212, dated 14th January 1931, by the Principal Officer, Mercantile Marine Department, Calcutta District.

The figure for rent of Leadsmen's quarters in the accounts for 1928-29 has also been revised in accordance with the letters quoted above, the details of which are :—

	Rs.
Owners' taxes (actual)	1,351
Cost of repairs (actual)	3,882
Contribution to the Depreciation Fund	149
Total	5,382

(c) Rs. 2,795-4-0 on account of rent of accommodation provided in the Port and Shipping Buildings as intimated by the Principal Officer, Mercantile Marine Department, Calcutta District, in his letter No. 4375, dated 7th July 1930, under Government of India, Commerce Department, letter No. 60-M-1 (2)-29, dated 29th January 1930.

(d) Rs. 231-15-0 being the charges for signals hoisted by Pilots of vessels, as intimated by the Principal Officer in his letter No. 5833, dated 13th September 1930, which have been taken as a charge against the Bengal Pilot Service in the *pro formâ* accounts with effect from 1929-30 under Government of Bengal orders conveyed in their Marine Department letter No. 3590-Mne., dated 12th December 1929.

(e) Rs. 1,154-10-11 equivalent of (£86 at 1*s.* 5¾*d.*) incurred in England on account of expenses connected with recruitment (Central) and Rs. 22-2-5 (£1-13-0) regarding travelling expenses of an officer attending Medical Board (Provincial) paid in England as intimated by the Chief Accounting Officer to the High Commissioner for India in his letters No. A. R. 16904-R, dated 1st May 1930 and A. R. 19867-R, dated 28th November 1930, respectively.

(f) Rs. 4,393-15-3, a special charge on account of reimbursement of the cost of a law suit incurred by a Pilot.

386. Stationery and Printing Rs. 382-5-0.

This represents value of stationery supplied and printing work done by other Government Departments chargeable to Bengal Pilot Service but not adjusted in the Government accounts.

	Rs.	A.	P.
Cost of stationery & forms	82	5	0
Cost of Printing and binding	300	0	0
Total	382	5	0

387. Leave and deputation salaries Rs 1,32,199-7-11 ; Overseas pay Rs. 1,53,620-8-7. Pension of widows and families of Bengal Pilot Service Rs. 50,806-6-11.

The expenditure represents payments made in England during 1929-30 in respect of Bengal Pilot Service as intimated by the High Commissioner for India in his letters No. A. R. 16904-R, dated 1st May 1930 and No. A. R. 19867-R, dated 28th November 1930, converted at 1*s*. 5⅞*d*. in accordance with instructions laid down in the Government of India, Finance Department, letter No. D-201 Ex. II-30, dated 7th January 1930. The details of Rs. 1,32,199-7-11 are as follows :—

Leave and deputation salaries (Central) £8,515-18-1 or Rs. 1,14,339-6-7.
Do. (Provincial) £1,330-4-1 or Rs. 17,860-1-4.

388. Pensions of officers of the Bengal Pilot Service Rs. 1,73,820-0-0.

The amount represents the actuarial liability in respect of the pensionary charges of the Pilotage Establishment and in respect of those of the Non-Pilotage Establishment worked out on the basis of Foreign Service Contribution debited to the *pro formâ* account of the Bengal Pilot Service in accordance with the instructions laid down in the Government of India, Commerce Department, letter No. 207-P. & L. (9)-30, dated 13th December 1930.

389. Contribution towards Depreciation Reserve Rs. 59,196-0-0.
Do. towards Heavy Repairs Reserve Rs. 63,000-0-0.

The amounts have been adjusted under instructions from the Government of India contained in their Commerce Department letters No. 207 M. II-29, dated 17th December 1929 and No. 207 P. & L. (9)-30, dated 12th December 1930.

390. Pensionary contribution in respect of the Port Office, etc., staff Rs. 1,777-7-5.

This figure has been calculated on the share of the pay-charges of the staff of the Port Office and of steam launch "Isabel" chargeable to the Bengal Pilot Service under Rule 8 B(*a*) 5 and 6 of the Account Rule.

391. Passage Contribution Rs. 26,685-3-5.

This amount represents passage contribution at Rs. 50 per mensem in respect of each officer of the Bengal Pilot Service entitled to Passage Concessions. The actual payments for passage during the year under review amounted to Rs. 30,817-10-0.

The corresponding figures for the preceding years are as follow :—

	Rs.	A.	P.
Cost of passages actually paid	49,066	10	8
Contribution for passages calculated at Rs. 50 per month and charged in the account.	27,606	10	0

Balance Sheet.

392. Pilot vessels and launch Rs. 7,35,000.

The replacement value of the two Pilot vessels and S. L. "Aid" as on 1st April 1928 has been fixed by the Government of India at Rs. 7,35,000 as shown below (*vide* their Commerce Department letter No. 207 P. & L. (1)-29, dated 12th December 1930).

		Rs.
"Andrew"		2,20,000
"Lady Fraser"		4,27,000
S. L. "Aid"		88,000
	Total	7,35,000

Plant, machinery and equipment on board the vessels as on 1st April 1928, a separate valuation of which had been approved by the Government of Bengal for a total sum of Rs. 1,11,125-8-0 and which was shown as a separate item of asset in the Balance Sheet as on 31st March 1929 (*vide* para. 16 of the last year's report) have now been omitted as according to the Principal Officer, Mercantile Marine Department, Calcutta District, they are included in the value of the vessels as approved by the Government of India.

393. Consumable stores 19,857-2-0.

The valuation was made at market rate by the Principal Officer, Mercantile Marine Department, Calcutta District, Calcutta. The details are as follow :—

	On Board the S. P. V. Lady Fraser.			On board the S. P. V. Andrew.			On board the S. L. Aid.
	Rs.	A.	P.	Rs.	A.	P.	
Coal	7,562	7	0	1,344	6	0	*Nil.*
Provision	231	13	0	196	3	6	*Nil.*
Stores	7,210	0	0	3,290	0	0	*Nil.*

The actual verification of the balance of these stores as on 31st March 1930 was not made. The Principal Officer, Mercantile Marine Department, has been requested to verify in future the stores on the last day of each year.

394. Sundry Debtors Rs. 1,83,954-15-0.

This represents pilotage dues outstanding on 31st March 1930. The Port Commissioners have intimated that the amount has been realised and credited to Government in the following year.

395. Sundry Creditors Rs. 85,596-7-0.

The amount includes pay of pilots, etc., and cost of stores supplied which has been paid in the next year.

396. Depreciation Reserve Rs. 1,20,759-13-5.

The amount has been arrived at by adding to the opening balance, *viz.*, Rs. 59,196, the contribution for the year Rs. 59,196 and the interest on the opening balance, *viz.*, Rs. 2,367-13-5, calculated at Rs. 4 per cent. in accordance with the instructions from the Government of India contained in their Commerce Department letter No. 207 M. II-29, dated the 17th December 1929.

In the instructions laid down in the concluding portion of Rule 17 of the Account Rules it is stated that interest should be allowed on the mean between the opening and closing balances of the depreciation account, whereas the annual rate for contribution prescribed by the Government of India in the above quoted letter appears to have been computed by charging off interest on the opening balance and not on the mean between the opening and closing balances. This view is also shared by the Director of Commercial Audit (*vide* his letter No. 3722 Com.-29, dated 1st November 1930). It is for consideration whether the rule should be modified so as to conform to the existing practice followed in accounting.

397. Heavy Repairs Reserve Rs. 1,00,642-7-5.

The figure has been arrived at in the following manner.

	Rs.	A.	P.
Opening balance	63,000	0	0
Less expenditure for Heavy Repairs during the year	29,702	8	7
	33,297	7	5
Add contribution for the year	63,000	0	0
" interest	4,345	0	0
Total	1,00,642	7	5

Interest has been allowed at 5·31 per cent. on the mean between the opening and closing balances under rule 18 of the Account Rules. As no rate for interest has been prescribed, the rate provisionally adopted is on the basis of "Average rate of interest applicable to Capital Expenditure" prescribed in the Auditor General's letter No. 223-Camp. K. W. 33-30, dated the 1st August 1930.

398. Balance Sheet of the Bengal

Liabilities.	As on 1st April 1928.		As on 31st March 1929.		As on 31st March 1930.	
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Sundry Creditors—						
for Stores	10,027		2,599		4,209	
for Salaries, etc., outstanding	79,339	89,366	76,185	78,784	81,387	85,596
Depreciation Reserve—						
Opening Balance					59,196	
Interest					2,368	
Contribution for the year				59,196	59,196	1,20,760
Heavy Repairs Reserve				63,000		1,00,642
Government of India—						
Capital Account.						
Opening Balance	..	7,90,013	7,90,012		6,91,866	
Less—Excess of over payments into withdrawals from Treasury including adjustments			98,146		1,21,082	
			6,91,866		5,70,784	
Add—Surplus for the year						
1928-29			55,791		55,791	
1929-30			..	7,47,657	8,541	6,35,116
Total		8,79,379		9,48,637		9,42,114

Certified that the figures for 1929-30 have been reconciled with those in the Government accounts.

C. BHASKARAIYA,
Assistant Director of Commercial Audit, Calcutta Circle.

A. N. GREEN,
Pay and Accounts Officer, Miscellaneous Central Departments.

Pilot Service as on 31st March 1930.

Assets.	As on 1st April 1928.		As on 31st March 1929.		As on 31st March 1930.	
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Pilot Vessels and Launch (including Plant, Machinery & Equipment) .		7,35,000		7,35,000		7,35,000
Additions to Plant, Machinery and Equipment .				1,500		1,500
Furniture		1,802		1,802		1,802
Consumable Stores—						
Coal	9,240		8,948		8,929	
Provision	687		1,385		428	
Other Stores . . .	1,443	11,370	10,167	20,500	10,500	19,857
Sundry Debtors—						
Chief Accountant, Port Commissioners, Calcutta . . .		1,31,807	1,89,834			1,83,955
Mess Money . .			1	1,89,835		
		8,79,979		9,48,637		9,42,114

C. A. SCOTT,

Principal Officer, Mercantile Marine Departments, Calcutta District.

399. Income and Expenditure Account for the year ending 31st March 1930.

Expenditure.		For the year 1928-29.		For the year 1929-30.	Income.	For the year 1928-29.	For the year 1929-30.
	Rs.	Rs.	Rs.	Rs.		Rs.	Rs.
To Stores consumed—							
Coal	71,240		68,746		By Pilotage Receipts	18,87,218	18,83,104
Provisions	24,581		24,184				
Other Stores	44,827		50,560				
		1,40,657		1,43,490			
" Salaries and allowances of Pilots		7,25,869		7,47,587	" Miscellaneous	20,768	22,302
" " " " " Officers		1,05,219		1,11,437	" Interest		225
" Allowances to Leadsmen		42,965		48,327			
" Salaries and Allowances of Establishment		67,598		68,712			
" Allowances to Port Commissioners for collecting Pilotage bills		4,700		4,700			
" Victualling allowances of officers and men afloat		9,053		10,651			
" Miscellaneous Expenditure including contingencies		25,442		33,421			
" Ordinary Repairs to and maintenance of pilot vessels		55,736		62,279			
" Stationery and Printing		487		382			
" Leave and Deputation Salaries		1,51,037		1,32,199			
" Overseas pay		1,37,126		1,53,621			
" Recruitment Expenses		4,809		..			
" Pensions of officers of the Bengal Pilot Service		1,73,820		1,73,820			
" Pensions of widows and families of Bengal Pilot Service		51,160		50,806			
Indirect Charge.							
" Audit Fees		5,000		5,000			
" Contribution towards Depreciation Reserve		59,196		59,196			
" Contribution towards Heavy Repairs Reserve		63,000		63,000			
" Pensionary contributions in respect of the Port Office, etc., staff		1,714		1,777			
" Passage Contributions		27,607		26,685			
" Surplus		55,791		8,541			
Total		19,07,986		19,05,631		19,07,986	19,05,631

LIGHTHOUSE DEPARTMENT.

SECTION I.—FINANCIAL REVIEW BY THE ASSISTANT SECRETARY TO THE GOVERNMENT OF INDIA, COMMERCE DEPARTMENT, ON THE ACCOUNTS OF THE YEAR 1929-30.

400. Prior to 1929-30 the method of financing lighthouses and lightships in India differed from province to province. While the cost of the Burma, Sind, Perim and Orissa (False Point and Shortt's Island) lights was wholly a charge on Central Revenues, and these Revenues also bore a share of the cost of the Ras Marshag Lighthouse at Aden and the South Patches Lightvessel on the Chittagong coast, the lighting service in Madras was maintained from a special Coast Lights Fund administered by the Local Governments and that in the Bombay Presidency proper, excepting the lights of the Bombay Port and its approaches, was financed from the Bombay Minor Ports Fund.

401. The administration of lighthouses and lightships was centralised with effect from the 1st April 1929 and the Indian Lighthouse Act, 1927, which was enacted for the purpose, came into operation on and from that date. From that date the Government of India have become directly responsible for the maintenance of those lighthouses and lightships which have been declared as "General Lights" under the Indian Lighthouse Act. The Government of India also make grants to local authorities for the maintenance of certain local lights which are of benefit to passing trade. A list of the "General Lights" and of those which receive a grant-in-aid from the Government of India will be found at the end of this review.

402. A Central Advisory Committee for Lighthouses has been constituted under the provisions of section 4 of the Indian Lighthouse Act to advise the Government of India in regard to the matters enumerated in Section 4 (1) of the Indian Lighthouse Act. The Advisory Committee consists of persons representing interests affected by the Indian Lighthouse Act or having special knowledge of the subject-matter thereof.

403. The following rates of lightdues were in force during the major portion of the year 1929-30 :—

(*a*) All ships, other than sailing ships, arriving at, or departing from, any port in British India, except the vessels mentioned in (*b*) below.	One anna and six pies per ton.
(*b*) Ships, other than sailing ships, calling at Aden and/or Perim and not proceeding to another port in British India .	Three pies per ton.
(*c*) Sailing ships	Half the rates in (*a*) and (*b*) above.

The above rates were revised with effect from the 3rd March 1930, and since then the following rates are being levied :—

(*a*) All ships, other than sailing ships, arriving at, or departing from, any port in British India, except the vessels mentioned in (*b*) below.	One anna and six pies per ton.
(*b*) Ships, other than sailing ships, calling at Aden and/or Perim and not proceeding to another port in British India.	One pie per ton.
(*c*) Sailing ships	Half the rates in (*a*) and (*b*) above.

404. The system of Commercial Accounts was introduced in the Lighthouses and Lightships Department with effect from the 1st April 1929. The Balance Sheet and the Income and Expenditure Account of the Department for the year 1929-30 are appended to this review. The net receipts from lightdues during the year under review, after deducting the expenditure on refunds, amounted to Rs. 13,39,831-14-2. Taking into account the sum of Rs. 33,555-10-2, being the contribution received from other Governments for the work done by the Lighthouse Department on their behalf and the miscellaneous receipts to the extent of Rs. 4,295-14-1, the total receipts amounted to Rs. 13,77,683-6-5. Against this the total revenue expenditure including indirect charges, such as the contributions towards the Depreciation and the Additions and Replacements Reserve Funds, etc., amounted to Rs. 8,14,419-10-7. Thus the surplus of receipts over expenditure for the year under review amounted to Rs. 5,63,263-11-10 which has been transferred to the credit of the General Reserve Account of the Lighthouses and Lightships Department. This amount has been treated as a charge against the "Government Account" and will be transferred to the "General Reserve Fund Investment Account" as from the 1st April 1930.

405. As 1929-30 is the first year in which commercial accounts have been maintained, no comparison is possible with the working results of the previous years.

406. The fixed assets of the Lighthouses and Lightships Department as on the 1st April 1929 have been valued on the following basis :—

> "The cost of replacement on 1st April 1929 *less* an amount equal to that cost divided by the normal life and multiplied by the past life of the assets."

The values worked out on this basis are as follow :—

	Rs.
Buildings other than lighthouses	10,78,200
Lighthouses	12,08,000
Lightvessels	8,31,426
Lantern, Optical apparatus and machinery	8,30,982
Fog signals	58,570
Buoys	11,200
Beacons	1,600
Total	40,18,578

The contribution to the Depreciation Fund has been calculated on the cost of replacement on 1st April 1929 divided by the normal life and the annual contribution on account of the wasting assets worked out in this manner amounts to Rs. 1,07,555 for the year 1929-30.

As provided in the Lighthouse Accounting Rules the contribution towards the Additions and Replacements Reserve Fund has been calculated at 2 per cent. of the value of the wasting assets of the Department, and the amount payable to the Additions and Replacement Reserve Fund on this basis is Rs. 80,323 in 1929-30.

The land belonging to the Lighthouse Department, although a fixed asset, is not a wasting asset and no contribution to the Depreciation and the Additions and Replacements Reserve Funds have, therefore, been made on account of it. The total value of the land belonging to the Department stands at Rs. 19,474 and this figure has been adopted in the accounts for 1929-30.

407. The General Reserve Fund of the Lighthouses and Lightships Department started on the 1st April 1929 with a credit balance of Rs. 9,79,744-2-3, which represented the amount transferred to the Government of India on account of their share of the surplus balance standing at the credit of the Madras Coast Lights Fund on that date. The General Reserve Fund and also the Depreciation and the Additions and Replacements Reserve Funds have been invested with Government and are earning interest at the prescribed rate. The balances of these Funds as on the 31st March 1930 stood at—

	Rs.	a.	p.
(i) General Reserve Fund Investment Account	7,18,392	6	1
(ii) Depreciation Fund Investment Account	1,07,585	0	0
(iii) Additions and Replacements Fund Investment Account	82,130	4	0

408. The only capital expenditure incurred during the year under review was in respect of the construction of a new lightvessel "Thalun" for use in the Rangoon District, which amounted to Rs. 3,10,987-3-2 and was met from the General Reserve Fund of the Lighthouses and Lightships Department.

409. List of General Lighthouses—

District—	
Aden	High Light, Balfe Point. } Perim.
Karachi	Cape Monze. Sindhi Lightvessel. Indus Beacons.
Bombay	Piram Island. Aunala. Jaigarh. Jaitapur. Vengurla Rocks. Oyster Rocks.
Madras	Caph. Cotta Point. Quilon. Muttam Point. Seven Pagodas. Pulicat. Armagon. Sacramento Shoal. Santopilli.
Calcutta	False Point. South Patches Lightvessel.
Rangoon	Oyster Island. Beacon Island. Alguada Reef. Baragua Flat Lightvessel. Krishna Shoal Lightvessel. Double Island. Table Island.

409-A. List of Local Lighthouses which receive a grant from the Government of India:

District.	Name of local lighthouse.	Amount of grant.
Aden	Ras Marshag	50 per cent. of the cost of maintenance.
Bombay . . .	Kennery	25 per cent. of the cost of maintenance.
	Nanoli	Ditto.
Madras . . .	Madras Light . . .	40 per cent. of the cost of maintenance.
Calcutta . . .	Kutubdia	Ditto.[sic]

410. Balance Sheet of the Lighthouse Department as at 31st March 1930.

Liabilities.	Headquarters District.	Madras District.	Bombay. District.	Karachi District.	Aden District.	Calcutta District.	Rangoon District.	Total.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Sundry Creditors	5,602	4,311	1,068	1,474	3,149	1,991	..	17,536
Depreciation Reserve	1,07,555	..	..	..	..	..	..	1,07,555
Additions and Replacements Reserve	82,130	..	..	..	..	..	..	82,130
Government Account.								
Add—Amount received from the Government during the year	3,27,924	85,324	42,063	61,814	45,269	39,017	5,69,794	11,71,205
Total	3,27,924	85,324	42,063	61,814	45,269	39,017	5,69,794	11,71,205
Deduct—Payments to the Government during the year	3,13,547	2,67,727	3,03,443	85,730	1,91,605	3,18,864	2,32,800	17,13,715
Balance	14,377	1,82,403*	2,61,380*	23,916*	1,46,336*	2,79,847*	3,36,994	5,42,510*
General Reserve Account.								
Opening Balance	9,76,597	7,62,801	1,34,008	3,59,485	1,10,388	1,13,214	26,80,467	61,36,960
Add—Interest accrued for the year 1929-30	49,636	..	..	..	..	..	..	49,635
Add—Surplus	3,27,820*	1,86,187	2,66,348	17,421	1,52,361	2,88,852	19,086*	5,63,294
Total	6,98,413	9,48,988	3,99,356	3,76,906	2,62,749	4,02,066	26,61,381	67,49,859
Grand Total	9,08,077	7,70,896	1,38,984	3,54,464	1,19,562	1,24,210	29,98,375	54,14,570

* Represents minus figures.

Assets.	Headquarters District.	Madras District.	Bombay. District.	Karachi District.	Aden District.	Calcutta District.	Rangoon District.	Total.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Lands	..	15,268	701	411	747	2,347	..	19,474
Buildings other than Lighthouses	..	2,15,500	69,000	29,700	29,800	10,800	7,21,600	10,76,200
Lighthouses	..	2,22,600	50,100	56,800	32,700	43,200	8,03,200	12,08,600
Lightvessels	..	..	..	1,26,100	..	4,100	10,12,213	11,42,413
Fog Signals	..	..	..	..	..	..	58,570	58,570
Buoys	..	..	..	..	..	11,200	..	11,200
Beacons	..	..	..	1,600	..	..	..	1,600
Other Marks	..	..	..	..	..	..	..	..
Plant and Machinery	..	2,51,200	4,100	1,34,600	44,000	27,000	3,69,482	8,30,982
Furniture and Fittings	..	11,008	8,709	495	352	2,298	23,896	47,358
Stores—								
Fuel and Coal	..	..	..	216	..	268	114	598
Oil and other Lighting Stores	..	7,463	2,644	2,608	3,147	12,674	5,170	33,796
Provisions	..	..	..	..	..	135	256	391
Other Stores	..	43,919	1,093	1,778	..	3,022	3,374	54,085
Sundry Debtors	..	3,338	2,637	66	8,216	6,368	..	20,625
Permanent Advance	..	..	..	..	..	100	500	600
Depreciation Fund Investment Account	1,07,555	..	..	..	..	..	..	1,07,555
Additions and Replacements Fund Investment Account	82,130	..	..	..	..	..	..	82,130
General Reserve Fund Investment Account	7,18,392	..	..	..	..	..	..	7,18,393
Total	9,08,077	7,70,896	1,38,984	3,54,464	1,19,562	1,24,210	29,98,375	54,14,570

S. C. SEN,
Assistant Audit Officer, N. I. Circle
(Commercial).

P. D. SETH, Accountant,
Commerce Department.

LADLI PERSHAD, Assistant Secretary,
Commerce Department.

411. Income and Expenditure Account of the Lighthouse Department for the year ended 31st March 1930.

Expenditure.	Headquarters District.	Madras District.	Bombay District.	Karachi District.	Aden District.	Calcutta District.	Rangoon District.	Total.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Pay of officers	35,044	..	..	..	..	..	15,699	50,742
Pay of establishment	10,546	40,374	8,482	18,108	6,898	8,181	58,118	1,50,707
Allowances and Honoraria	15,874	11,374	752	..	5,295	727	17,463	51,485
Grants to local aided lights	..	3,000	7,820	..	5,845	4,236	..	20,901
Contributions to other Government Departments	12,683	..	..	..	..	1,228	..	13,911
Stores	..	5,070	..	2,831	..	4,280	32,271	44,457
Fuel and Coal	..	..	..	..	..	..	966	966
Oil and other lighting stores	..	..	..	..	..	..	8,217	8,217
Provisions	..	..	..	10,979	868	1,416	18,670	31,934
Cost of Port Officers and other Administrative Officers	20,850	..	..	..	..	..	..	20,850
Upkeep of tender vessels	..	..	..	..	24,675	..	50,973	75,548
Repairs and Maintenance	..	92	4,021	..	1,178	10,629	34,569	50,488
Furniture written off	..	..	..	3,775	289	795	..	4,858
Contributions to Depreciation Reserve	1,07,555	..	..	..	..	..	..	107,555
Contributions to Additions and Replacements Reserve	80,323	..	..	..	..	..	..	80,323
Supplies and Services	1,766	4,113	3,140	22,436	666	..	467	32,588
Pensionary Charges	18,161	..	..	..	..	..	..	18,162
Audit Fees	10,464	..	..	..	..	..	..	10,464
Contributions to Provident Fund	880	..	..	..	..	..	..	880
Miscellaneous	3,941	3,644	1,221	5,224	1,846	840	10,514	27,221
Establishment Charges paid in England	6,153	..	..	..	..	..	..	6,153
Surplus transferred to General Reserve Fund	..	1,86,187	2,65,348	17,421	1,52,361	2,88,852	..	9,10,170
Total	3,30,240	2,53,860	2,90,784	80,774	1,99,821	3,21,184	2,47,926	17,24,590

Income.	Headquarters District.	Madras District.	Bombay District.	Karachi District.	Aden District.	Calcutta District.	Rangoon District.	Total.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Light dues less Refunds	..	2,42,380	2,90,748	80,577	1,77,522	3,20,915	2,27,690	13,39,832
Contributions recovered	..	10,840	..	66	22,299	..	350	33,556
Miscellaneous Receipts	2,420	640	35	131	..	269	801	4,296
Deficiency transferred to General Reserve Fund	3,27,820	..	..	..	..	..	19,086	3,46,906
Statistical Information required under Rule 44 of the Lighthouse Accounting Rules.								
	Tons.							
Tonnage of foreign-going steamships charged at 1¼ annas per ton	9,558,034	..	..	..	..	..	..	..
Tonnage of Home-Trade steamship charged at 1¼ annas per ton	3,865,678	..	..	..	..	..	..	..
Tonnage of steamships charged at 3 pies per ton	4,371,727	..	..	..	..	..	..	..
Tonnage of sailing ships charged at half of 1¼ annas per ton	437,899	..	..	..	..	..	..	..
Tonnage of sailing ships charged at half of 3 pies per ton	12,878	..	..	..	..	..	..	..
Tonnage of steamships charged at 1 pie per ton	328,241	..	..	..	..	..	..	..
Tonnage of sailing ships charged at half of 1 pie per ton	460	..	..	..	..	..	..	..
Total	18,574,917							
	Rs.							
Total dues collected	13,39,832	..	..	..	..	..	..	..
Total expenditure	8,14,420	..	..	..	..	..	..	..
Total	3,30,240	2,53,860	2,90,783	80,774	1,99,821	3,21,184	2,47,927	17,24,590

CHAPTER VI.

Government of India—Home Department concerns.

SHIPPING DEPARTMENT, PORT BLAIR.

SECTION I.—REVIEW OF THE ACCOUNTS AND THE FINANCIAL ASPECTS OF THE WORKING OF TWO CHARTERED SHIPS S. S. "MAHARAJA" AND THE STATION SHIP FOR THE YEAR 1929-30 BY THE CHIEF COMMISSIONER, ANDAMANS AND NICOBAR ISLANDS.

412. In the year 1929-30 the S. S. "Ahmedi" was the Station Ship. The functions of these two ships are to carry passengers and convicts, mails and cargo between the Andamans, Madras, Calcutta and Rangoon. The Station Ship, in addition to the above visits the Nicobar Islands for administrative purposes.

413. Steamer Agents have been engaged at Calcutta, Rangoon and Madras, to attend to the working of these two ships in connection with their arrival and departure and to submit accounts relating to the booking of passages and cargo and stevedorages, etc., for which agency fees are paid.

414. The *Pro-forma* Accounts of the Shipping Office up to the year 1929-30 were maintained in the old form as suggested by the Accounts Officer of the Central Revenues. In order to maintain the *Pro-forma* Accounts on Commercial lines, Mr. C. F. George, Assistant Director of Commercial Audit, was asked in the year 1929 to examine the accounting system in force in the Shipping Office and to adopt the suitability of the draft form to be introduced. Orders were received to maintain the accounts in the new form suggested by Mr. C. F. George, from the year 1930-31.

415. The following are the expenditure and earnings of the two ships for the years 1928-29 and 1929-30.

S. S. "Maharaja".

	Expenditure.	
	1929-30.	1928-29.
	Rs.	Rs.
Cost of Coal	52,039	52,419
Charter of Steamer	4,34,199	4,34,199
Indian Port Expenses, Working Expenses, etc.	70,035	62,092
Other Charges	13,510	7,147
Total	5,69,783	5,55,857

S. S. "Maharaja"—contd.

	Earnings.	
	1929-30.	1928-29.
	Rs.	Rs.
Passage	1,16,380	90,936
Inward Freight	1,21,696	75,100
Outward Freight	1,92,853	1,84,500
Mail Subsidy	4,250	4,250
Total .	4,35,179	3,54,786
Loss	1,34,604	2,01,071

S. S. "Ahmedi".

	Expenditure.	
	1929-30.	1928-29.
	Rs.	Rs.
Cost of Coal	56,093	57,475
Charter of Steamer	2,67,882	2,61,769
Indian Port Expenses, Working Expenses, etc. .	40,187	34,895
Other Charges	7,954	8,557
Total .	3,72,116	3,62,696

	Earnings.	
	1929-30.	1928-29.
	Rs.	Rs.
Passage	44,923	49,319
Inward Freight	76,971	62,192
Outward Freight	72,669	55,241
Mail Subsidy	4,250	4,250
Total .	1,98,813	1,71,002
Loss	1,73,303	1,91,694

416. The account of S. S. "Maharaja" shows a loss of Rs. 1,34,604 against a loss of Rs. 2,01,071 in 1928-29 and that of S. S. "Ahmedi" shows a loss of Rs. 1,73,303 against a loss of Rs. 1,91,694 in 1928-29.

417. The total expenses and earnings on the voyages of both the steamers for the year ended 1929-30 are compared below :—

—	No. of voyage to and from.	No. of steaming hours.	Expenditure.	Earnings.	Loss.	Average loss per voyage.	Loss per steaming hour.
			Rs.	Rs.	Rs.	Rs.	Rs.
S. S. " MAHARAJA ".							
1927-28	19½	2,748	5,54,513	3,80,733	1,73,780	8,912	63·3
1928-29	19½	2,462	5,55,857	3,54,786	2,01,071	10,311	81·7
1929-30	18½	2,078	5,69,783	4,35,179	1,34,604	7,276	64·8
Total	57½	7,288	16,80,153	11,70,698	5,09,455	..	..
Average per voyage for the three years	..	126·75	29,220	20,360	..	8,860	69·9
S. S. " AHMEDI " Station Ship.							
1927-28	21½	2,180	3,38,489	1,61,391	1,77,098	8,237	81·2
1928-29	23½	2,426	3,62,696	1,71,002	1,91,694	8,157	79·0
1929-30	22	2,965	3,72,117	1,98,813	1,73,304	7,877	58·4
Total	67	7,571	10,73,302	5,31,206	5,42,096	..	..
Average per voyage for the three years	..	113	16,019	7,928	..	8,091	71·6

418. From the above statement it will be seen that in the case of both the vessels the expenditure was greater than the earnings. The following are the reasons for loss :—

(1) The present population of the Islands is limited and imports are just limited to their requirements.

(2) Earnings on passages also are restricted owing to small population of Andamans.

(3) Steamers cannot be fully employed in their capacity as they have to meet the demands of the administration as well such as tour.ng the Nicobars, Tending Lighthouses and Vessels off Burma Coast, Transport of Troops, etc.

419. The fluctuations in the following items of expenditure are detailed :—

S. S. " Maharaja ".

	1929-30.	1928-29.	1927-28.
	Rs.	Rs.	Rs.
Charter Hire	4,34,199	4,34,199	4,24,550
Indian Port Expenses, Working Expenses and Agency Fees	70,035	62,092	67,875

S. S. " Ahmedi ".

	1929-30.	1928-29.	1927-28.
	Rs.	Rs.	Rs.
Charter Hire	2,67,882	2,61,759	2,49,100
Indian Port Expenses and Other Expenses	40,187	34,895	30,508

S. S. " Maharaja."

Charter Hire.—The increase in 1928-29 and 1929-30 was due to the increased tonnage of the new vessel. The increase under Indian Port Expenses was due to the greater tonnage of cargo carried during the year and consequent increase in stevedoring charges, Lighterages, Agency charges, etc.

Station Ship. S. S. " Ahmedi."

Charter hire.—This ship was chartered only in May 1927. She was out of commission for 23 days in June 1927, as the ship ran aground in making Stewart Sound off Aves Island on the 10th June 1927 and her Survey Certificate being invalid until the A.M. 23rd June 1927. In 1928-29 also she was out of commission for 26 days on account of some defect in the boiler and the windlass, and in 1929-30, for 18 days on account of general repairs. Hence the difference in the Charter hire for three years.

Indian Port and Other Expenses.

The increase under this head in 1929-30 was due to same as explained in connection with S. S. "Maharaja".

420. The total tonnage carried by the two ships was 31,222, 28,277 and 22,006 tons in 1929-30, 1928-29 and 1927-28, respectively.

421. The increase of earnings during 1929-30 was due to a large number of convicts carried during the year and to a large tonnage of cargo. The increase in the freight earnings during 1929-30 is explained by a comparative statement of tonnage of cargo carried by the vessels during the three years ending 1929-30 given below :—

	1929-30.			1928-29.			1927-28.		
	"Maharaja." Tons.	"Ahmedi." Tons.	Total. Tons.	"Maharaja." Tons.	"Ahmedi." Tons.	Total. Tons.	"Maharaja." Tons.	"Ahmedi." Tons.	Total. Tons.
Calcutta.									
Exports—									
Timber	9,094	2,212	11,306	9,614	1,206	10,820	9,055	964	10,019
Other Cargo	269	131	400	164	100	264	137	32	169
Imports—									
Coal	3,902	140	4,042	2,373	300	2,673	1,087	..	1,087
Foodstuffs	883	291	1,174	749	271	1,020	885	145	1,030
Other Cargo	1,802	886	2,688	1,277	474	1,751	1,491	300	1,791
Total .	15,950	3,660	19,610	14,177	2,351	16,528	12,655	1,441	14,096
Rangoon.									
Exports—									
Timber	4,002	1,987	5,989	2,961	2,367	5,328	2,026	1,595	3,621
Other Cargo	648	596	1,244	289	857	1,146	248	425	673
Imports—									
Foodstuffs	658	680	1,338	282	994	1,276	365	668	1,033
Other Cargo	422	630	1,052	364	659	1,023	480	652	1,132
Total .	5,730	3,893	9,623	3,896	4,877	8,773	3,119	3,340	6,459
Madras.									
Exports—									
Timber	1,870	..	1,870	2,420	428	2,848	864	504	1,368
Other Cargo	65	..	65	9	..	9	4	3	7
Imports—									
Foodstuffs	4	..	4	..	12	12	21	..	21
Other Cargo	50	..	50	107	..	107	..	55	55
Total .	1,989	..	1,989	2,536	440	2,976	889	562	1,451
Grand Total .	23,669	7,553	31,222	20,609	7,668	28,277	16,663	5,343	22,006

422. In comparing the earnings in 1929-30 with those of the previous years it should also be borne in mind that the following rates of freight were increased from October 1929.

Description of Cargo.	Rate per ton. Prior to October 1929.	Rate per ton. From October 1929.
	Rs.	Rs.
Rice and Dall	14	18
General cargo (Import)	21	24
General cargo not being the produce of the Islands (Exports)	21	24

The increase in rates also contributed partly to the reduction of loss in 1929-30.

423. The following are the comparative figures of expenditure and the earnings from the voyages to and from the various ports in 1929-30.

Name of Port.	No. of voyage.	No. of days.	Expenditure.	Average Expenditure per voyage.	Earnings.	Average earnings per voyage.	Net loss. Per voyage.	Net loss. Per day.
			Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
S. S. "MAHARAJA".								
Calcutta	10½	241	3,76,212	35,829	2,87,017	27,420	8,409	366·4
Rangoon	6	86	1,34,250	22,375	1,06,446	17,741	4,634	323·3
Madras	2	38	59,320	29,660	36,566	18,283	11,377	598·8
S. S. "AHMEDI".								
Calcutta	7	159	1,70,509	24,358	73,923	10,560	13,798	607·5
Rangoon	8	117	1,25,469	15,683	99,208	12,401	3,282	224·5
Other Ports	7	71	76,139	10,877	21,433	3,061	7,816	770·5
Out of Commission	..	18	—	—	—	..	..	..

424. From the following comparative table showing the average loss per voyage of S. S. "Maharaja" during the three years ended 1929-30, it will be seen that the losses have gone down in 1929-30 in the case of all the three Indian ports.

Name of the Indian Port.	Average loss per voyage to and from.		
	1929-30.	1928-29.	1927-28.
	Rs.	Rs.	Rs.
Calcutta	8,409	11,079	12,948
Rangoon	4,634	5,809	8,021
Madras	11,377	19,431	16,498

The loss on Madras voyages is the highest as the imports from Madras are very little and the loss on Calcutta voyages is greater than that on Rangoon voyages. The difference is not so appreciable if the number of days taken for the two voyages is 23 days and 14½ days, respectively.

425. The following is the tonnage showing the shipment of timber during the year 1929-30 to the three ports at existing freight rates.

S. S. "Maharaja" and "Ahmedi".

	Total tons.	At Rs. 10 per ton.	At Rs. 12-8 per ton.	At Rs. 15 per ton.	At Rs. 20 per ton.
To Calcutta	11,306	2,659	7,575	880	192
To Rangoon	5,989	1,071	4,917	1	..
To Madras	1,870	1,174	696	..	..
Total .	19,165	4,904	13,188	881	192

From the above it will be seen that a greater portion of timber shipment relates to the freight rate of Rs. 12-8-0 per ton. Apart from the above quantity of timber the Forest Department shipped 5,448 tons by vessels other than our chartered steamers during the year 1929-30. Had this quantity been shipped by our steamers, there would have been an additional earning of Rs. 68,100 taking on an average freight of Rs. 12-8-0 per ton.

426. *Profit and loss accounts.*—These accounts show a total loss of Rs. 4,23,927 and Rs. 3,41,108 in 1928-29 and 1929-30 respectively against a loss of Rs. 4,11,336 in 1927-28. In arriving at these losses *pro-formâ* adjustments have been made for the following charges, besides the allowances of the Shipping Officer, and salaries of Establishment paid out of the Budget of the Shipping Office—

(*a*) Wages of Stevedoring gang and Convict Menial Staff.

(*b*) Rent of Office building and Godown.

(*c*) Rent of staff quarters supplied free.

(*d*) Printing and Stationery.

(*e*) Telephone Rent.

(*f*) Depreciation of furniture.

(*g*) Audit fees.

SECTION II.—REMARKS BY THE DIRECTOR OF COMMERCIAL AUDIT.

427. The working of the Shipping Office has resulted in a total loss of Rs. 3,41,108 and Rs. 4,23,927 for the years 1929-30 and 1928-29, respectively as against Rs. 4,11,336 in 1927-28. The losses on the Voyage Account of the two vessels S. S. "Maharaja" and S. S. "Ahmedi" are compared below :—

Period.	S. S. "Maharaja."		S. S. "Ahmedi."	
	Loss.	Percentage of loss to earnings.	Loss.	Percentage of loss to earnings.
	Rs.	Per cent.	Rs.	Per cent.
1927-28	1,73,780	45·6	1,77,098	109·7
1928-29	2,01,071	56·5	1,91,694	112·1
1929-30	1,34,804	30·9	1,73,304	87·1

There is an improvement in the results of both the vessels during the year 1929-30 largely due to a greater number of convicts carried during the year and to a larger tonnage of cargo handled. The improvement is also partly due to the increase in rates of freight. With a view to reduction of the losses the existing rates for the passenger and cargo transport were examined during audit. It would appear that the rates of the Shipping Department are definitely low as compared with the rates quoted by Shipping Companies for running their vessels between Calcutta, Rangoon and Madras proportionate to the mileage involved. The present timber freights to Rangoon are however considered adequate.

428. It is understood that the renewal of the Charter of the S.S. "Maharaja" is under consideration. In view of the drop in freights since the ship was chartered the possibility of obtaining more favourable terms might be examined.

SHIPPING OFFICE, PORT BLAIR.

429. Voyage and Profit and Loss Accounts of S. S. "Maharaja" and S. S. "Ahmedi" for the years 1929-30 and 1928-29.

1928-29. S. S. "Maharaja".	1928-29. S. S. "Ahmedi".		1929-30. S. S. "Maharaja".	1929-30. S. S. "Ahmedi".	1928-29. S. S. "Maharaja".	1928-29. S. S. "Ahmedi".		1929-30. S. S. "Maharaja".	1929-30. S. S. "Ahmedi."
Rs.	Rs.		Rs.	Rs.	Rs.	Rs.		Rs.	Rs.
		Voyage Expenses—					*Earnings*—		
52,418	57,475	Coal	52,039	56,093	90,936	49,319	Passages	1,16,381	44,923
4,34,199	2,61,759	Charter hire	4,34,199	2,67,882	75,100	62,192	Import freight	1,21,696	76,972
62,092	34,895	Indian Port expenses and other Working Expenses	70,035	40,187	1,84,500	65,241	Export freight	1,92,853	72,669
292	5,012	Water	60	5,247	4,250	4,250	Postal traffic	4,250	4,250
3,962	2,002	Messing charges	6,189	2,287	2,01,071	1,91,695	Loss on voyages carried down	1,34,604	1,73,303
2,894	1,554	Miscellaneous expenses	7,262	421					
5,55,857	3,62,697	Total	5,69,784	3,72,117	5,55,857	3,62,697	Total	5,69,784	3,72,117
		Losses brought down—							
2,01,071		S. S. "Maharaja"	1,34,604		4,23,927		Total loss for the year	3,41,108	
1,91,695		S. S. "Ahmedi"	1,73,303						
21,682		Salaries and allowances	23,897						
		Charges not appearing in the Accounts of the Shipping Office—							
6,883		Wages of Stevedoring gang and convict labour employed.	6,703						
1,200		Rent of office and godowns	1,200						
481		Rent of staff quarters	481						
265		Printing, Stationery and Telephone Rent.	270						
150		Depreciation of Furniture	150						
500		Audit fees	500						
4,23,927		Total	3,41,108		4,23,927		Total	3,41,108	

S. L. ANNETT,
Engineer Lieutenant Commander, R.I.M.,
Shipping Officer.

H. K. MALLIK,
Assistant Director of Commercial Audit,
Burma Circle.

MARINE DEPARTMENT, ANDAMANS.

SECTION I.—REVIEW BY THE CHIEF COMMISSIONER, ANDAMANS AND NICOBAR ISLANDS, ON THE COMMERCIAL CONCERNS OF THE MARINE DEPARTMENT FOR THE YEAR 1929-30.

430. As this is the first review of its kind prepared by this administration a brief history of the Department will perhaps be useful.

This Department since its inception was a service Department. There was an institution known as the "Central Stores" constituted under the orders of the Government of India, Home Department in their letter No. 119, dated the 20th April 1914 which undertook to supply the Marine and other Departments with stores. The Central Stores were abolished and merged in the Marine Stores in the year 1922 under the orders of the Government of India, Home Department in their letter No. 296-Jails, dated the 21st September 1922. The activities of this Department now consist of :—

1. General Port Superintendence.
2. Maintenance of Pontoons, buoys, lights, etc., necessary under Transport Regulations.
3. Maintenance of water transport such as steam launches, motor boats, lighters and row boats (these are still the chief means of transport within the harbour limits).
4. Marine Stores for the supply of materials to the Dockyard, other departments as necessary, and to the Marine craft for running purposes.
5. Maintenance of a Dockyard primarily for repairs of water borne craft of the Department. Work for other departments as required and for the public is also performed with a view to decreasing the departmental running expenses.
6. Supervision of Plant belonging to other departments.

431. It will be seen therefore that the Department is essentially a service department for administrative purposes and this idea is always inseparable from its main activities. While reviewing the results it is therefore essential to keep in view the above principle. Another important point to be clearly borne in the mind of anybody scrutinising this report is the fact of these islands being a convict settlement. The Government of India have decided to constitute some of the activities of the Department on a commercial basis mainly with an object of bringing out the financial effects of these concerns and placing them before the Public Accounts Committee. Until very recently all audit check was relaxed and consequently in many instances definite data is not available. Efforts are being made both by this administration and by the Audit Office to regularise the accounts and frame rules, etc., where necessary. The review can therefore be confined only to the figures exhibited in the commercial audit accounts and can be assumed to approach the true position as nearly as possible.

432. *Dockyard Working Account.*—The comparative figures of charges and receipts shown below taken from the commercial account indicate how the deficiencies arose during the 3 years 1927-28 to 1929-30.

Comparative statement showing the results of the Dockyard working account for 1927-28 to 1929-30.

Charges.	1927-28.			1928-29.			1929-30.		
	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.
To Direct charges—									
Materials	44,382	8	0	36,304	11	0	32,208	15	0
Labour (free)	11,295	4	0	13,919	1	0	14,911	12	0
Labour (Convicts)	33,279	8	0	33,385	3	0	27,669	13	0
Over heads (power)	6,083	8	0	4,443	7	0	3,678	12	0
Over heads (shop)	24,288	0	0	26,799	15	0	29,598	6	0
Over heads (General)	13,592	3	0	14,805	12	0	16,132	2	0
Total	1,33,520	15	0	1,29,748	1	0	1,24,199	12	0
RECEIPTS.									
By recoveries effected—									
Stores	2,821	8	0	1,841	14	0	1,848	6	0
Labour	9,457	4	0	3,750	11	0	5,835	7	0
Centage	291	3	0	214	14	0	..		
Debit to Marine Department for work executed—									
Stores	41,561	0	0	34,367	3	0	30,360	0	0
Labour	10,127	0	0	8,217	10	0	9,288	3	0
Total	64,257	15	0	48,392	4	0	47,432	9	0
Deficiency on working transferred to Income and Expenditure accounts	69,263	0	0	81,355	13	0	76,767	3	0
Total	1,33,520	15	0	1,29,748	1	0	1,24,199	12	0

It will be seen from the above figures that while the outturn during these years when compared to the outlay tended to decrease the outturn in 1929-30 showed slight improvement, the percentage of outturn to the outlay being 48·09 per cent., 37·31 per cent. and 38·16 per cent., respectively. It should however be borne in mind that the outturn represented in the accounts is nearly the net receipts of the concern after eliminating the deficiencies. The outturn has decreased in proportion to the increase under overheads. The figures below will bring out this fact more clearly.

B

Statement showing the distribution of the deficiency under Dockyard account for the three years 1927-28 to 1929-30.

Nature of heads.	Deficiency 1927-28.	Deficiency 1928-29.	Deficiency 1929-30.
	Rs. A. P.	Rs. A. P.	Rs. A. P.
Materials	..	185 10 0	..
Productive labour	24,699 5 0	35,121 1 0	27,357 15 0
Factory Overheads	30,971 8 0	31,243 6 0	33,277 2 0
General Overheads	13,592 3 0	14,805 12 0	16,132 2 0
Total .	69,263 0 0	81,355 13 0	76,767 3 0

Materials.—These have been constant throughout except for a small deficiency in 1928-29.

Productive Labour.—The main reason for the large outlay on productive labour is not far to seek. Owing to the inelasticity of the labour conditions in the islands the services of skilled labourers are not available. Convict labour at a certain minimum strength has to be kept whether work offers or not and when productive work is not available they are necessarily to be engaged on unproductive works in the shops. Normally any other commercial concern under similar circumstances would engage labour on daily wages and increase or decrease it as work offers or not. This cannot be done in this administration as the convicts have to be maintained whether they are working in the Dockyard or otherwise—allowance should necessarily be made for idle labour. It should however be noted that owing to the gradual closing down of the convict settlement the proportion of free labour when compared to the convict labour is slowly increasing.

The total cost of free and convict labour in 1927-28 and 1929-30 being 11295/- Rs. ~~[illegible]~~33,280 and Rs. ~~[illegible]~~27,670 respectively. Better results are anticipated in subsequent years. 14,900/-

Factory Overheads.—These consist of 2 items (1) Power and (2) Shop Overheads. The expenditure under (1) has steadily been decreasing apparently due to the fall in the price of coal and other fuel and it is possible that this may not rise. The expenditure under (2) on the other hand has been rising steadily. The reason being (*a*) increase under general menial establishment. Prior to 1928-29 all expenditure on the maintenance of the convicts was met by the Settlement and no adjustments were apparently made on account of this head. (*b*) Increase under leave and pensionary charges owing to the enhanced rate of pay of the staff due to increments, etc. (*c*) Increase under depreciation on Plant and Machinery and Interest on Capital, due to the large amount of new Machinery purchased during 1928-29 and 1929-30.

General Overheads.—This also indicates a general rise and is dependent on the general increase of pay of establishment due to annual increments, leave and pensionary charges, etc., increasing correspondingly.

433. *Marine Department Income and Expenditure Accounts.*—The main items for consideration under this account are the running expenses of the launches, etc., and the deficiency under stores. Though the stores account is not at present commercialised it cannot be entirely left out of account when considering the net results of the Income and Expenditure accounts with which it is linked.

The comparative statement showing the net charges of the working of the Marine Department given below will explain the situation clearly.

Comparative statement showing the income and expenditure of the Marine Department for the years 1927-28 to 1929-30.

Expenditure.	1927-28.			1928-29.			1929-30.		
	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.
To Running Expenses of Launches, etc.—									
Launches, etc.	1,72,964	10	0	1,73,932	12	0	1,75,791	3	0
Deficiency under stores and Dockyard accounts	72,131	3	0	1,01,141	6	0	87,218	2	0
Maintenance of Steam Cutter Nancowry	8,152	10	0	495	0	0	..		
Maintenance of Time Gun	1,896	0	0	382	0	0	..		
Purchase of Steam Launches and lighters	..			83,925	0	0	92,497	1	0
Purchase of Plant and Machinery	..			32,434	0	0	..		
General Superintendence—									
Office Establishment	9,056	14	0	11,390	15	0	12,304	0	0
Convict Establishment	10,055	0	0	1,257	12	0	1,438	5	0
Total	2,74,256	5	0	4,04,958	13	0	3,69,248	11	0
INCOME.									
By recoveries effected. (Cash and adjustment)	86,735	1	0	81,179	12	0	91,466	13	0
Ferry service	5,589	0	0	5,218	14	0	5,013	5	0
Transfer of Ordnance Stores	..			382	0	0	..		
Issue of Plant, etc. to Dockyard	..			32,434	0	0	..		
Total	92,324	1	0	1,19,214	10	0	96,480	2	0
Net charges of the working of the Department	1,81,932	4	0	2,85,744	3	0	2,72,768	9	0
Total	2,74,256	5	0	4,04,958	13	0	3,69,248	11	0

(1) *Running Expenses of Launches.*—As already pointed out in para. 430 the chief means of water transport is, of launches and motor boats and hence a certain number must necessarily be maintained on administrative grounds. The collection on account of the ferry service contract is quite negligible as by virtue of a long standing practice (recognised by the Government of India) only the free population of the islands other than Government servants and their families, etc., are liable to pay the ferry fare.

It is therefore necessary to consider these expenses under two heads (*viz.*).—

(*a*) Expenditure on the maintenance of the ferry service, etc., on administrative grounds.

(*b*) Expenditure on the launches, lighters, etc., supplied to private traders, etc., for import and export purposes.

On the expenditure side owing to some of the craft being very old, heavy expenditure on stores must necessarily be incurred on their maintenance.

Even though the establishment has not appreciably been increased, the expenditure is steadily increasing owing to annual increments, etc. The expenditure on stores has increased from Rs. 25,000 in 1927-28 to Rs. 39,000 in 1929-30. About Rs. 15,000 in the expenditure for 1929-30 was for purchase of mooring gear required for towing certain new launches, lighter and mooring buoys purchased during that year.

On the receipt side while the recoveries on account of ferry service are negligible, the recoveries from private individuals has appreciably increased in 1929-30 no serious attempts were made in the past to see if the recoveries were adequate. The Landing and Shipping charges, etc., have since been increased from August 1930 and better results can be anticipated in subsequent years, as trade develops.

(11) *Deficiency under Stores Accounts.*—The deficiency under this head when compared to 1927-28 is due to the reduction in the percentage charge from 25% to 15% and 10% from July 1928. This of course is not the main cause for the deficiency, since the percentage was only on limited transactions to the public and other departments, and are quite adequate. The main cause is to be sought somewhere else. Possibly owing to the climatic conditions in these islands materials deteriorate rapidly and have to be condemned and written off more frequently than elsewhere. Freight on stores adjusted under G.6 Passage money was charged to stores accounts entirely and no allocation of this expenditure was made to Dockyard or Marine Department Income and Expenditure accounts. It is probable that after the introduction of the priced ledger and the accounting procedure suggested by Mr. George in his audit report on the accounts for 1927-28 the results may be gauged more accurately.

SECTION II.—REMARKS BY THE DIRECTOR OF COMMERCIAL AUDIT.

434. The net costs to Government of the Marine Department for the last three years are as follows :—

	1927-28.	1928-29.	1929-30.
	Rs.	Rs.	Rs.
Maintenance of launches, lighters, etc.	91,242	98,142	96,252
Deficiency in Dockyard working	69,263	81,356	76,767
Deficiency in stores	2,868	19,785	10,451
	1,63,373	1,99,283	1,83,470
Maintenance and upkeep of Cutter Nan-cowry	8,152	495	..
Maintenance of Time Gun	1,896	Transferred to Police Department.	
General superintendence of port	8,511	2,041	1,092
Purchase of steam launches, lighters, etc..	..	83,925	92,497
			2,77,059
Less Sales of machinery and boats	..	..	4,290
	1,81,932	2,85,744	2,72,769

The increase in expenditure during the last two years is due mainly to the purchase of steam launches, lighters, tug boats, etc., the cost of which has been directly charged to the Income and Expenditure Account. Under a commercial system of accounting such purchases are capitalised, the revenue account bearing only the proportionate depreciation and repair charges. At present only the working account of the Dockyard has been treated as commercial as it has not been possible to introduce commercialisation in the Andamans all at once. It will be desirable, however, to follow the commercial practice in the matter of accounting for capital assets and the point has been suggested for the consideration of Government.

435. The increased deficiency under the Dockyard working is explained by the fact that there was no corresponding reduction in the productive labour for 1928-29 and 1929-30 though there was a definite fall in the outturn of these years. The deficiency in the dockyard accounts is largely a result of the defective rates of recovering overheads. The figures for overheads for the last three years indicate that the rate of recovery should be based on productive labour in the neighbourhood of 100%, taking into consideration the fact that a certain part of labour may remain idle from time to time.

436. The increase of deficiency under Stores is mainly due to the reduction in the percentage charged for overheads from 25% to 15% and 10%.

437. The question of commercialising the Marine Stores was gone into during the inspection and suitable forms and instructions were drawn up.

438. Income and Expenditure Account for the years 1928-29 and 1929-30.

1928-29.		1929-30.	1928-29.		1929-30.
Rs.		Rs.	Rs.		Rs.
	To running expenses of motor launches, Steam Launches, Lighters, Boats, etc. :—			By recoveries effected—	
				Cash recovery claims—	
35,797	Wages of Drivers, syrangs, stokers and lascars	34,450		*Pro-forma* adjustments—	
28,004	Stores Marine and Local material consumed	38,850	5,077	Shipping Charges	6,928
36,053	Coal consumed	34,219	5,531	Landing Charges	6,622
42,585	Repairs and renewals	39,749	70,572	Sale of settlement produce, hire of vessels, private towage, sale of boat and miscellaneous recoveries	75,070
31,494	Convict Workers	28,523	..	Sale of Machinery	3,740
	Deficiency under—		382	Transfer of Ordnance Stores (as *per contra*)	..
19,755	Stores account	10,451	32,434	Issue of Plant and Machinery to Dockyard (as *per contra*)	..
81,356	Dockyard Working Account	76,767	5,219	Recoveries on the auction of the right to collect ferry service tickets	8,019
30,000	Purchase of Steam Launches	25,292	2,86,744	Net excess of expenditure over income	2,72,769
53,325	Purchase of Lighters	57,205			
495	Maintenance of Steam Cutter *Nancowry*	..			
382	Ordnance Stores	..			
32,434	Purchase of Plant and Machinery for Dockyard	..			

	To General Superintendence of the Port—			
4,500	Share of Pay of the Engineer and Harbour Master	4,500		
4,515	Share of Pay of the office establishment	4,879		
1,076	Travelling allowance of officers and establishment	2,031		
234	Share of office expenses and Miscellaneous charges	294		
600	Passage contribution for the Engineer and Harbour Master	600		
466	Passage Money	..		
1,258	Subsistence allowance granted to convicts	1,438		
4,04,959		3,69,248	4,04,959	3,69,248

H. K. MALLICK,

Assistant Director of Commercial Audit.

439. Dockyard Working Account for the years 1928-29 and 1929-30.

1928-29.		1929-30.
Rs.		Rs.
	To Direct Charges—	
	Materials—	
36,395	Wood working; Metal working; Foundry; Leather working; Motor reconditioning	32,209
	To Labour—Freemen—	
5,516	Wood working	6,894
4,488	Metal working	5,588
3,735	Fitters	2,430
180	Boiler making	..
33,385	Labour—Convict workers	27,669
	To Overheads—	
4,443	Coal and Fuel, etc.	3,679
	To Shop Overheads—	
3,118	Pay of Foreman Engineer	4,308
4,078	Pay of Master Carpenter	4,560
2,552	Pay of Motor Mechanic	2,662
3,399	General Menial Establishment	3,057
759	Stores for shop use	1,540
5,129	Leave and Pension Contribution	5,766
4,635	Depreciation on Plant and Machinery	5,314
2,038	Interest on Capital	1,891
500	Audit Fee	500
	To General Overheads—	
4,500	Share of pay of Engineer and Harbour Master	4,500
3,304	Share of office establishment	4,879
2,942	Leave and Pension contribution of Engineer and Harbour Master and office establishment	2,942

1928-29.		1929-30.
Rs.		Rs.
	By Recoveries effected—	
	Cash, Recovery claims and *Pro-formâ* adjustments—	
1,842	Stores (Cash and local materials)	1,848
3,751	Labour (skilled and unskilled)	5,835
215	Centage (on cash recoveries)	..
	By Debit to Marine Department for work executed—	
34,367	Stores (Cash and local materials)	30,361
8,217	Labour (skilled and unskilled)	9,388
81,356	By Deficiency in working transferred to Marine Department Income and Expenditure Account	76,767

466	Passage money	..			
234	Office Expenses	360			
1,258	Office menial staff	1,438			
110	Printing and Stationery and Telephone charges	110			
1,003	Rent of quarters	1,003			
1,29,748		1,24,199	1,29,748		1,24,199

Stores Account.

1,55,800	To Value of Stores on hand at beginning of the year	1,61,152	40,675	By Issues to Dockyard	30,940
1,32,572	" Receipts during the year	1,50,968	64,056	" Issues to Launches	73,069
20,998	" Freight on Stores received	26,057	25,343	" Other Issues	52,278
1,535	" Convict wages	1,883	1,61,152	" Closing Stock	1,07,322
			19,785	" Deficit carried down	10,451
3,10,911		3,40,060	3,10,911		3,40,060

H. K. MALLICK,

Assistant Director of Commercial Audit.

EXECUTIVE COMMISSARIAT DEPARTMENT, ANDAMANS.

SECTION 1.—REVIEW BY THE CHIEF COMMISSIONER, ANDAMANS AND NICOBAR ISLANDS, ON THE COMMERCIAL CONCERNS OF THE COMMISSARIAT DEPARTMENT FOR THE YEAR 1929-30.

440. This review deals with the Bakery, Dairy Farm and the Butchery (Slaughter House) attached to the Commissariat Department in this Administration for the years 1928-29 and 1929-30.

The first review for 1928-29 was not prepared by the Director of Commercial Audit as intended, apparently for want of the audited accounts. Hence this forms the first of a series of reviews and a preliminary sketch of the activities of these concerns may be of help in reviewing the accounts.

These concerns have been in existence since the starting of the Convict Settlement and were intended mainly to cater for the public, other Departments and the Military. Owing to the peculiar circumstances that existed, as a Convict Settlement these concerns were treated as service concerns, though recoveries were made for a part of the service, which were not equal to the outlay expended. Prices were not fixed so as to cover the cost of establishment and other overheads. However, as the Convict Settlement is now slowly evolving into a free colony, things have shaped themselves to suit the needs of the day and adjustments and re-adjustments have been made in the working of these concerns and in prices, etc. The accounts of these concerns for 1927-28 were first examined by the Assistant Director of Commercial Audit, Madras, in 1929, and as a result of his report these are now constituted as commercial concerns.

441. Any one attempting to review the accounts of these concerns should clearly bear in mind the various handicaps one has to overcome in a Convict Settlement. The isolated situation of these Islands, the irregular steamer service and the lack of facilities for free labour, all combine to keep these Islands in an undeveloped state. It is also not possible to entirely isolate the commercial activities from the service activities of the Department. One cannot therefore be too optimistic about achieving better results. A certain amount of loss has therefore to be faced—as in all Government commercial concerns. Having in view the above remarks the individual accounts may be considered.

442. *Andamans Bakery.*—From the comparative statement of Trading and Profit and Loss Accounts for the three years 1927-28 to 1929-30 given below it will be seen that this concern has always been working at a profit.

	1927-28.			1928-29.			1929-30.		
Debits—	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.
Opening stock	5	4	0	0	3	0	5	8	0
Stores used in Manufacture	10,981	2	0	9,829	1	0	9,647	15	0
Establishment (fees covent)	1,296	0	0	1,321	0	0	1,250	3	0
Depreciation on P. and M.	50	0	0	52	0	0	52	0	0
Overheads and Establishment, Rent, Interest, etc.	676	0	0	633	12	0	706	15	0
Total	13,008	6	0	11,836	0	0	11,662	9	0
Profit	1,986	7	0	3,143	6	0	2,525	12	0
Total	14,994	13	0	14,979	6	0	14,188	5	0

	1927-28.			1928-29.			1929-30.		
	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.
Credits—									
Sale of A. F. Bread	14,194	13	0	14,289	9	0	13,497	9	0
Sale of Brown Bread	652	14	0	459	7	0	541	7	0
Sale of Biscuits, buns, etc.	147	0	0	224	14	0	143	10	0
Closing Stock	0	3	0	5	8	0	5	11	0
Total	14,994	14	0	14,979	6	0	14,188	5	0

The profits for 1928-29 and 1929-30 being 20·8 per cent. and 17·7 per cent. respectively over the turnover.

443. *Andamans Dairy Farm.*—The one fact that continually escapes notice with regard to the Dairy Farm is that it is also a Cattle Breeding Station engaged in educational and research activities. No Dairy that is run purely as a profit making concern will attempt to rear calves. They are either killed or sold. In Port Blair local cattle are in need of improvement though they compare favourably with those found in the greater part of India. This result has been achieved by direct Government action over a period of years. The chief methods have been (1) provision of well bred stud bulls by Government with free service, (2) castration of ·99 per cent. of bull calves in village herds before they are old enough to reproduce, and (3) infiltration of good stock by the sale of Dairy Bred Calves to cultivators.

This policy cannot pay as judged by account standards and yet the profit is tangible enough. Every civilised country to-day recognises the necessity of action to improve the local stock and nowhere such activities can result in direct money profit. Thus the dairy farm here is contributing towards the improvement of local cattle and income derived from its main activities should be partly set off against its research and educational activities.

A comparative statement showing the Trading and Profit and Loss Accounts for three years 1927-28 to 1929-30 is below.

	1927-28.			1928-29.			1929-30.		
Debits—	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.
Purchase of Dairy produce	4,254	7	0	8	8	0	11,649	2	6
Fodder and other store	7,309	1	0	10,274	9	0	13,260	7	0
Convict Estt.	4,996	8	0	4,920	0	0	5,765	0	0
Veterinary Estt.	439	8	0	475	0	0	597	12	0
Share of other Estt. Charges	4,072	5	0	4,105	13	0	4,116	12	0
Transport Charges	1,368	12	0	1,369	0	0	1,360	0	0
Rent, Interest and Leave and Pension Charges	3,985	12	0	4,113	0	0	4,298	15	0
Depreciation on Cattle	2,108	10	0	2,875	0	0	3,242	14	0
Casualties and Sales, etc.	765	0	0	..			2,165	10	0
Depreciation on Equipment	653	4	0	..			425	5	0
Depreciation on tools	144	11	0	50	0	0	102	13	0
Total	30,097	14	0	28,190	14	0	46,993	10	0

	1927-28.	1928-29.	1929-30.
Credits—	Rs. A. P.	Rs. A. P.	Rs. A. P.
Sale of Dairy produce	14,229 1 0	19,337 10 0	44,239 12 0
Sale of condemned animals, stores, etc.	217 0 0	25 9 0	...
Transfer of Cattle	1,371 1 0	1,789 0 0	..
Appreciation of live-stock	1,860 0 0	1,200 0 0	..
Total	17,677 2 0	22,352 3 0	44,239 12 0
Loss	12,420 12 0	5,838 11 0	2,753 14 0
Total	30,097 14 0	28,190 14 0	46,993 10 0

It could be seen that the farm produced and sold during the year 1929-30 produce to the value of Rs. 44,200 approximately against Rs. 19,000 in the previous year while the capital value of stock had increased by Rs. 2,000 since 1927-28. Although the farm increased its total output by over 100 per cent. compared with the previous year, the milk supply was not found sufficient and milk to the value of Rs. 11,650 had to be bought from contractors for issue to hospitals to bolster up Dairy supplies. The same climatic drawbacks that affect live-stock farming of all kinds here have their adverse effect on the dairy. Losses from disease, deterioration of milking yields and lack of nutriment on the grazing which is itself rapidly diminishing in quantity, all tend to make dairy farming a continual battle.

Prices.—The price per pound of milk, cream and butter are Rs. 0-2-6, 1-4-0 and 2-0-0 respectively and these are considered reasonable under the existing circumstances in these Islands, where no private sources of supply exist that could hope to cope with the situation without causing hardship to the population, official and otherwise. It is scarcely fair to raise the prices of the ordinary staple foods produced with ceaseless labour and continual disappointment under bad climatic conditions until a theoretical profit can be shown in the accounts.

To summarise the whole, the profit or loss may be analysed as shown below.

Analysis of the profit and loss.	1927-28.	1928-29.	1929-30.		(If correctly adjusted).
	Rs. A. P.	Rs. A. P.	Rs. A. P.		Rs. A. P.
Dairy produce	P. 1,296 13 0	P. 7,685 9 0	P. 19,961 3 0	Profit	17,961 3 0
Overheads Establishment	L. 13,494 1 0	L. 13,613 13 0	L. 14,778 7 0	Loss	14,778 7 0
Cattle and Stores	L. 223 8 0	P. 89 9 0	L. 5,936 10 0	Loss	2,924 10 0
Net loss or profit	L. 12,420 12 0	L. 5,838 11 0	L. 2,753 14 0	Profit	258 2 0

While the Dairy produce alone shows a profit all along, it was the usual overheads inseparable from a Government concern which caused a net loss.

444. *Andamans Butchery (Slaughter House).*—As observed in the preliminary para., this branch exists mainly to feed the detachment of British Troops who have a daily ration strength of about 135 men. The rest of the daily outturn is consumed by residents, hospitals and ships, which help to bring the daily total consumption to about 180 lbs.

A comparative statement of Trading and Profit and Loss Accounts is below.

	1927-28.			1928-29.			1929-30.		
	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.
Debits—									
Purchase of animals	37,767	1	0	27,720	8	0	21,495	4	0
Stores (feed transport)	17,881	10	0	10,814	8	0	8,718	8	0
Transfer of Cattle from Dairy Farm and transport	1,766	12	0	1,289	0	0	2,350	0	0
Value of young stock	229	2	0	605	4	0	689	0	0
Convict Establishment	3,095	0	0	2,899	0	0	2,273	8	0
Veterinary Establishment	342	0	0	344	0	0	144	0	0
Overheads share of other Establishment Charges	2,563	12	0	2,596	0	0	2,349	12	0
Rent, depreciation, etc.	835	7	0	784	7	0	829	0	0
Total	64,480	12	0	47,052	11	0	38,849	0	0
Credits—									
Beef, mutton, etc., etc.	44,218	4	0	40,466	3	0	35,517	1	0
Sale and Transfer of Animals	1,016	0	0	1,861	2	0	2,447	4	0
Value of young stock as *per contra*	220	2	0	605	4	0	689	0	0
Total	45,463	6	0	42,932	9	0	38,653	5	0
Loss for the year	19,017	6	0	4,120	2	0	195	11	0
Total	64,480	12	0	47,052	11	0	38,849	0	0

Purchase of animals, feed, upkeep, etc.—Owing to the enormous freight charges and the high prices of imported cattle the butchery up to 1928 always showed a heavy loss. For instance while animals giving an outturn of 200 lbs. beef can occasionally be bought locally for about Rs. 45 to Rs. 50, imported animals giving an outturn of 105 lbs. cost Rs. 31 in Calcutta *plus* Rs. 30 freight—not counting in attendance, segregation costs, feeding on land and sea, etc. During 1928-30, local purchases were made by the Executive Commissariat Officer whereby losses were considerably reduced and a better outturn was also obtained as indicated in the statement below.

This was in spite of the fact that in 1928-29 goats which were originally intended for the Indian Troops were all sold alive locally on the transfer of the troops and caused a loss of Rs. 408 and odd.

	1927-28.			1928-29.			1929-30.		
	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.
Local purchase	3,754	8	0	16,497	8	0	14,607	0	0
Imports	21,655	7	0	3,800	0	0	2,100	0	0
Total	25,409	15	0	20,297	8	0	16,707	0	0

The outturn on the other hand has improved much as the local cattle yielded better results as indicated below.

	1927-28.			1928-29.			1929-30.	
	Cattle.	Sheep.	Goats.	Cattle.	Sheep.	Goats.	Cattle.	Sheep.
Number of Animals Slaughtered	564	481	218	522	311	..	456	352
Average outturn per animal . lbs.	123-2	19-2	19-9	148	20-13-75	..	160-4-75	18-14

Prices.—The price charged for beef is 7 annas per lb. for all joints and 2 annas per lb. scrap and bones. This is double the price in India. Mutton used to be priced at Rs. 1-4 per lb. and found few buyers among the residents while the Army Department, on the score of expense, cancelled the normal weekly issue to troops and sanctioned a monthly issue instead. The price of mutton was therefore lowered to 12 annas a lb. on the recommendation of the Executive Commissariat Officer with a view to encourage its consumption and thus take some of the strain off the beef production. At that time beef was being sold at a good profit being from local animals and it was thought that the lowering of the price of mutton to annas 12 would be carried by profits on beef. The price of the best mutton in most stations in India is annas 6 per lb. and under.

A statement showing the analysis of the Profit and Loss is below.

Analysis of Loss.

	1927-28.				1928-29.				1929-30.			
		Rs.	A.	P.		Rs.	A.	P.		Rs.	A.	P.
Cattle and Stores	L.	12,181	3	0	P.	2,503	5	0	P.	5,400	9	0
Overheads Establishment, etc.	L.	6,836	3	0	L.	6,623	7	0	L.	5,596	4	0
Net Total	L.	19,017	6	0	L.	4,120	2	0	L.	195	11	0

It can be seen that the loss under cattle and stores in 1927-28 has turned out into profits during 1928-30 while it is the usual overheads that have resulted in a net loss to the concern.

The book loss for 1930-31 is expected to be high. The cattle population of all kinds and ages in the islands is about 10,000 head and reproduction is very slow, while disease kills off a high percentage of young stock which might, in better circumstances, become available for beef. The two years' exploitation weeded out nearly all the spare stock and importation has started again—which means going back to the conditions in 1927-28 with the inevitable result—heavy loss.

445. *General expectations of the future.*—The years 1928-29 and 1929-30 were exceptionally good ones. It should be noted that the present year 1930-31 will show very disappointing results in comparison.

Conditions that apply now are not likely to alter much for a long time. The supply of local slaughter cattle has almost ceased and expensive importation has commenced again, while Dairy Farm overheads have increased. Expansion in settlement of inland valleys and clearance of virgin jungle areas are of course inevitable at some future time and the islands may eventually become self-supporting from the point of view of certain commodities, but one cannot be too optimistic of the results.

Section II.—Remarks by the Director of Commercial Audit.

446. The activities of this department consisting of the Bakery, Dairy Farm and the Slaughter House were subjected to a test audit and Trading and Profit and Loss Accounts were compiled—summaries of the Trading Accounts of the same are attached. The following charges have not been included in the accounts prepared as the figures were not readily available, but this does not affect the results to any large extent as the amount involved is small :—

(i) Rent of buildings occupied by Executive Commissariat Officer and his staff,

(ii) Subsistence allowance of convict menials supplied free to officer and staff,

(iii) Depreciation of furniture and typewriter, and

(iv) Telephone rent.

447. *Bakery.*—The profit for the year 1929-30 is Rs. 2,526 as against Rs. 3,143 in 1928-29 and the decrease is chiefly due to the fall in turnover.

448. *Dairy Farm.*—The losses on the working for the three years are given below :—

	Rs.
1927-28	12,421
1928-29	5,839
1929-30	2,754

The decrease in the loss after 1927-28 is due to :—

(i) the higher yield of milk in 1928-29 and 1929-30,

(ii) the higher yield of Cream and Butter,

(iii) the increase in the selling price of milk from As. 2 to As. 2-6 pies from September 1929.

Notwithstanding the improved results above set forth the milk yield of buffaloes as well as cows are poor as compared with the Government of India Dairies elsewhere. Buffaloes appear to thrive better in the Andamans than cows. According to the accounts the loss is the lowest in 1929-30. The actual working loss should, however, be increased by a sum of Rs. 4,223 being the commission of 6 pies per lb. of milk earned on the milk purchased from contractors and supplied to the hospitals. Out of a total sale of milk during the year of 277,663 lbs. as much as 135,144 lbs. formed the supplies to hospital. The hospital would not have had to meet this extra charge of Rs. 4,223 had it been allowed to deal direct with the contractors.

The question of debiting a portion of the loss on working to the Army estimates was examined. As the strength of the troops stationed at Port Blair has been considerably reduced it might not be equitable to charge the Army estimates. It is also seen that many private contractors are coming forward to supply milk at cheaper rate as is evident from the large supplies to the hospitals. The prices of the Dairy products will have to be further increased if the concern is to pay its way.

449. *Butchery.*—The working results of the Butchery for the past three years were as follows :—

	1927-28.		1928-29.		1929-30.	
	Profit.	Loss.	Profit.	Loss.	Profit.	Loss.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Beef	..	14,900	..	3,330	3,062	..
Mutton	..	2,956	..	382	..	3,258
Goats	..	1,161	..	408	..	..

The decrease in loss for 1928-29 and the profit for 1929-30 on beef were mainly due to local purchases of cattle at cheap rates and better outturn. The increase of loss in mutton for the year 1929-30 was chiefly due to the reduction in the selling price from Rs. 1-4 per lb. to As. 12 per lb. The original rate is about equal to the actual cost and the question of restoring it has been suggested for the consideration of Government. All the stock of goats, which were maintained for the Indian troops, were sold in 1928-29 at a loss of Rs. 408.

Executive Commissariat Office, Andamans.

450. Trading and Profit and Loss Accounts of the Dairy Farm for the years 1928-29 and 1929-30.

1928-29.		1929-30.	1928-29.		1929-30.
Rs.		Rs.	Rs.		Rs.
				By Sale of Dairy Produce—	
8,852	To Grain and Fodder	11,353	13,907	Milk	38,214
1,292	" Other stores—Dairy produce, Ice, etc.	13,234	3,701	Butter	4,213
5,059	" Wages and subsistence allowances of attendants, milkers and coolies (including clothing to Dairy Farm staff)	6,065	982	Cream	943
			639	Separated milk	789
2,400	" Pay of Manager	2,400	1,815	" Sale of condemned and unserviceable stores	..
475	" Share of Veterinary charges	598	1,200	" Appreciation in value of young stock	..
1,326	" Share of Executive Commissariat Officer's pay	1,326	108	" Miscellaneous receipts	81
1,379	" Transport and contingencies	1,391	5,839	" Loss	2,754
	" Other charges for which no debit appears in Executive Commissariat Officer's books—				
2,875	Value of animals dead	2,166			
2,100	Rent of buildings	2,100			
1,409	Interest on capital	1,592			
364	Leave and Pension charges	567			
40	Printing and stationery	40			
370	Share of clerical establishment	391			
..	Depreciation of cattle, loss on sale, etc.	3,243			
..	Depreciation on Equipment	425			
50	Depreciation on Loose tools	103			
28,191		46,994	28,191		46,994

H. K. MALLICK,
Assistant Director of Commercial Audit.

Executive Commissariat Office, Andamans.

451. Trading and Profit and Loss Accounts of the Bakery for the years 1928-29 and 1929-30.

1928-29.		1929-30.	1928-29.		1929-30.
Rs.		Rs.	Rs.		Rs.
..	To Opening stock of bread	5	14,973	By Sale of bread, biscuits, twists and buns	14,183
9,540	„ Stores issued—flour, atta, etc.	9,380	5	Closing stock	6
219	„ Fuel	217			
1,031	„ Wages and subsistence allowances of bakers, coolies, etc. (including clothing to menials)	941			
360	„ Salary of Store-keeper	360			
	„ Other charges for which no debit appears in Executive Commissariat Officer's books—				
240	Clerical establishment	316			
240	Rent of buildings	240			
205	Interest, Depreciation and other charges	204			
3,143	„ Profit of the year	2,526			
14,978		14,189	14,978		14,189

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Assistant Director of Commercial Audit.

Executive Commissariat Office, Andamans.

452. Trading and Profit and Loss Account of the Butchery for the years 1928-29 and 1929-30.

1928-29. Rs.		1929-30. Rs.
	To Opening Stock—	
6,830	Cattle	5,967
4,628	Sheep	1,347
	,, Net Expenditure of the year—	
	Purchase of animals—	
21,739	Cattle	15,173
1,856	Sheep	3,200
6,283	,, Freight and wages of attendants on imported animals	4,067
3,914	,, Feed of live-stock	3,478
607	,, Ice, Miscellaneous stores and clothing of staff	1,082
1,289	,, Transfer of cattle from Dairy and transported	2,350
2,899	,, Subsistence allowance to butchers, attendants, graziers, etc.	2,274
1,326	,, Share of Executive Commissariat Officer's pay	1,326
1,335	,, Other expenses	868
	,, Other charges for which no debit appears in the Executive Commissariat Officer's books—	
370	Share of clerical establishment	391
696	Rent of buildings	696
[illegible]	Interest, depreciation and other charges	133
53,760		42,352

1928-29. Rs.		1929-30. Rs.
	By Sales—	
29,500	Beef	27,528
7,613	Mutton	5,720
11	Goats	..
3,103	Hides and skins	2,048
238	Offals	221
1,861	,, Sales and transfers of animals	2,447
	,, Closing Stock—	
5,967	Cattle	2,408
1,347	Sheep	1,784
	,, Loss—	
3,830	Beef	(profits)—3,062
382	Mutton	3,258
408	Goats	..
53,760		42,352

H. K. MALLICK,
Assistant Director of Commercial Audit.

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