

ANNUAL  
ADMINISTRATION REPORT  
OF THE  
MADRAS CIVIL VETERINARY  
DEPARTMENT

FOR THE YEAR

1927-28



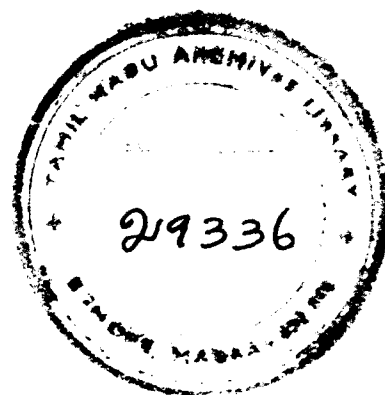
MADRAS

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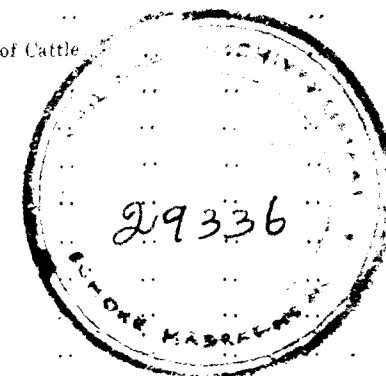
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ANNUAL ADMINISTRATION REPORT OF THE CIVIL  
VETERINARY DEPARTMENT, MADRAS PRESI-  
DENCY, FOR THE YEAR 1927-28.

I.—STAFF.

(a) Administrative.

Mr. D. A. D. Aitchison held the office of Veterinary Adviser to Government until the forenoon of 21st November 1927, when he proceeded on leave preparatory to retirement.

2. Mr. Aitchison inspected the offices of the III, V and VI Circles and many of the subordinate staff during his tours and also the sites selected for the construction of permanent Veterinary hospital buildings at Nandyal, Bellary, Palghat, Kodukand and Rajapalayam. He visited Bangalore to confer with the Head of the Mysore Veterinary Department on the question of taking concerted action for the control of Rinderpest, and he served as President of the Board of Examiners at the Bombay Veterinary College in April 1927.

3. Mr. F. Ware returned from leave and deputation to the Imperial Agricultural Research Conference in London, on 21st November 1927, and held charge of the department from that date until the end of the year.

4. Mr. Ware inspected the offices of the Principal, Madras Veterinary College, and the I, II, IV and VI Circles, several hospitals and dispensaries, the serum simultaneous inoculation camps being held in Trichinopoly and Tinnevely districts, and selected sites for hospital buildings at Cuddapah, Bezwada and Negapatam during his period of office. In December 1927, he attended the Congress of the Far Eastern Association of Tropical Medicine in Calcutta as an official delegate.

(b) Indian Veterinary Service.

5. Mr. P. T. Saunders held the post of Professor of Surgery, Madras Veterinary College, until 30th June 1927, and then acted as Principal until the end of the year in the place of Mr. Ware on leave and other duty.

6. Mr. T. J. Hurley was in charge of the IV Circle until 18th April 1927, when he proceeded on combined study leave out of India. Mr. V. Krishnamurthi Ayyar remained as Professor of Pathology and Bacteriology, Madras Veterinary College, throughout the year.

(c) *Madras Veterinary Service.*

7. Mr. G. T. D'Silva continued to hold the post of Assistant Professor and Personal Assistant to the Principal, Madras Veterinary College, until 7th August 1927, when he availed himself of long leave preparatory to retirement. His post was filled at different times by Mr. M. Sundaranathan and Mr. K. S. Nair, M.R.C.V.S., the latter having been directly recruited to the Provincial Service on 2nd December 1927.

8. Mr. H. C. Sampath Ayyangar was in charge of the III Circle for the first part of the year and on 9th August 1927 took over the I Circle, where he displaced Mr. M. R. V. Panikkar, who acted as Professor of Surgery, Madras Veterinary College, from 8th July 1927 until the end of the year. Mr. M. Anant Narayan Rao held charge of the III Circle from 30th July 1927 till the end of the year.

9. Mr. R. Narasinga Rao was in charge of the II Circle during the year, except for a period of three months leave, when Mr. C. Suryanarayanamurthi acted for him. Messrs. K. Kailasam Ayyar and A. Ramachandra Ayyar held charge of the V and VI Circles respectively throughout the year, and Mr. A. J. Wilson did the same in the IV Circle, except for the first 17 days in April 1927.

(d) *Subordinate.*

10. The sanctioned cadre of Veterinary Assistant Surgeons on 31st March 1928 was 230, but only 223 had been appointed up to that date. The manner in which these men were employed is shown in Table VII. During the year 17 new graduates were entertained in the department, one Veterinary Assistant Surgeon resigned and one was dismissed. Mr. S. D. Devadoss Pillai, formerly a Veterinary Assistant Surgeon in this department, was transferred to the Forest Department as Inspector of Livestock from 2nd November 1927.

II.—EDUCATION.

11. The question of enlarging the graduate course at the Madras Veterinary College was considered during the year, but it was decided to leave the matter over until the report of the Royal Commission on Agriculture in India was received.

32. The total number of inoculations performed against Rinderpest by the serum alone method was 184,798 as compared with 181,781 in the previous year, and as this method appeared to be having very little effect in checking the disease a special effort to introduce the simultaneous method of inoculation on a comparatively large scale was made in the early part of 1928, at which time of the year cultivating operations are not being carried on to any extent. Muktesar being so far away, virus was obtained either locally or from the Mysore Civil Veterinary Department, to whom our best thanks are due, and by the end of the year under report 6,182 bovines and 46 other animals had been protected by this method, and of these only 9 animals died after inoculation. Messrs. Sampath Ayyangar, Kailasam Ayyar, Anant Narayan Rao and A. Ramachandra Ayyar are to be commended on the enthusiasm which they showed in this campaign.

33. From last year's report it appears that the chief difficulties in the way of increasing the number of animals protected by this simultaneous method in the past have been the sentimental objections of the ryots and the lack of highly trained officers. The first obstacle appears to be disappearing naturally, for it is stated that in many places the ryots will not have serum alone, but ask for the simultaneous method. Quite a number of the senior members of the subordinate staff have now had sufficient experience in the field to be able to supervise these inoculations with success and a scheme has been submitted to Government for a considerable increase in the supervising staff of the department, so that a real effort may be made to control this and the other contagious diseases of cattle, which stand so much in the way of the prosperity of the ryot.

34. *Hæmorrhagic septicæmia*.—There was a slight increase reported in the mortality from this disease, the districts worst affected being Ganjam, Kistna, Guntur and Vizagapatam. Only 8,350 serum inoculations were performed as compared with 27,486 in the previous year. This decrease is due to the heavy work of the staff in connection with Rinderpest, but it is unfortunate that no inoculations could be performed in Ganjam, where the disease was very severe.

35. *Anthrax*.—The reported mortality from this disease rose from 4,612 in 1926–27 to 5,074 in the past year. The districts returning the largest number of deaths were Malabar, Ganjam, Bellary and East Godavari. A few sporadic cases also occurred amongst cattle in Madras City. Inoculation

with anti-serum was undertaken in nine outbreaks when 769 animals were protected against 1,669 in the previous year.

36. *Black quarter*.—This disease was less severe than in the previous year, Ganjam, Anantapur and Vizagapatam being the only districts badly affected. 8,186 animals were protected with serum alone, 21 with aggressin alone and 730 cattle and 185 sheep with serum and aggressin simultaneously. Of the latter number, 249 cattle and 185 sheep belonged to the Hosur Cattle Farm, and amongst these several severe cases of presumed anaphylaxis occurred, as a result of the inoculation.

37. *Foot-and-mouth disease*.—This malady accounted for 2,792 deaths of which 879 are reported from Ganjam. The total mortality for the Presidency in the previous year was 1,454.

38. *Tuberculosis*.—A few cases were confirmed amongst cattle belonging to the Madras Corporation, and acid-fast bacilli, indistinguishable from tubercle bacilli, were found in a smear made from the sputum of an elephant in the Coorg Forest Department. A similar record is to be found in the annual report of this department for 1925-26.

39. *Johne's disease*.—This disease was confirmed in two indigenous cattle.

40. *Infectious lymphangitis of cattle*.—Vaccine for the treatment of 62 cases of this disease was supplied from the College Laboratory, and 35 of these cases were confirmed microscopically.

41. *Nasal granuloma*.—Many cases of this complaint in cattle were dealt with during the year, and it is reported that a large percentage were successfully treated with intravenous injections of tartar emetic.

42. *Piroplasmosis*.—The College Laboratory dealt with smears from 282 positive cases of Piroplasmosis, commonly called Tick fever, occurring in different animals during the year. This, of course, in no way represents the number of cases occurring in the Presidency, but in indigenous animals it is only when they are debilitated or subjected to an inoculation like the simultaneous method against Rinderpest that cases come to the notice of this department. In this way Piroplasmosis is of very great importance, and it was contamination with these organisms which interfered with production of Rinderpest virus at the Madras Veterinary College, a point to which reference has already been made.



VETERINARY HOSPITAL, COIMBATORE.  
OUT-PATIENTS' CLINIC.

Plate No. 3

43. *Trypanosomiasis*.—Specimens from 36 positive cases were confirmed during the year. These included one case in a dog in Vizagapatam. The Presidency was free from any severe outbreaks amongst cattle, but 15 cases of surra occurred in horses, of which 9 were destroyed under the Glanders and Farcy Act and the other 6 died.

44. *Strangles*.—Smears from four ponies sent from the I circle proved positive.

45. *Kumri*.—Eighteen cases were diagnosed during the year.

46. *Sheep-pox*.—Five reports of this disease were received and attended to by the touring staff.

47. *Rabies*.—This disease was confirmed in 72 dogs and 4 other animals. Confirmation was not sought in 62 other supposed positive cases. Two horses, two cattle and nineteen dogs, which had been exposed to infection, were treated with anti-rabic vaccine at different Veterinary institutions, and of these one horse and one dog died later of the disease.

48. *Spirochaetosis*.—This complaint, the so-called Tick fever of fowls, was more prominent than usual during the year, several districts in the north and Tanjore in the south reporting it.

49. *Chicken-pox*.—There was an outbreak of this disease on the Hosur Cattle Farm, and most of the young birds succumbed.

#### V.—NON-CONTAGIOUS DISEASE.

##### (a) Hospitals and Dispensaries.

50. Eleven new dispensaries were opened during the year at Kothapeta, Tenali, Rajampet, Badvel, Tindivanam, Tiruvellorê, Tellicherry, Nathakadayur, Periakulam, Ariyalur and Sivakasi, and a Veterinary hospital has been opened at Bobbili. For the latter, the Raja generously provided the necessary building and furniture free of cost, and is contributing Rs. 660 per annum towards its maintenance.

51. The Veterinary hospital at Bellary, which for many years has been managed by the Society for the Prevention of Cruelty to Animals, was taken over by Government on 1st April 1927. The total number of Government Veterinary institutions at the end of the year was 95, including those attached to the cattle farms at Coimbatore and Hosur.

52. The private building in which the Veterinary dispensary at Pollachi has been located for some time was acquired by Government during the year, and the dispensaries at Chica-cole and Kavali were also moved into Government buildings. Structural improvements, which will render them more efficient, were carried out to the hospitals at Ootacamund, Coimbatore, Calicut, Ellore and Madura.

53. Thanks to the efforts of Mr. Souter, the Collector of Vizagapatam, the question of transferring the District Board buildings of the Vizagapatam Veterinary hospital to Government, which has been under correspondence since 1922, has been amicably settled. In the same way the Collector of Tanjore has, it is hoped, finally arranged for the acquisition of a suitable site for the proposed Veterinary hospital at Negapatam, after twelve years of correspondence.

54. The total number of new cases admitted to Veterinary institutions for treatment during the year was 125,762, while the number of cases supplied with medicines but not brought to the institutions rose from 4,923 to 7,387. The leading institutions in the Presidency with the number of cases admitted by each, were as follows:—

|              |     |     |     |     |       |
|--------------|-----|-----|-----|-----|-------|
| Trichinopoly | ... | ... | ... | ... | 3,749 |
| Coimbatore   | ... | ... | ... | ... | 3,280 |
| Rajahmundry  | ... | ... | ... | ... | 2,760 |
| Madras       | ... | ... | ... | ... | 2,737 |
| Calicut      | ... | ... | ... | ... | 2,370 |
| Saidapet     | ... | ... | ... | ... | 2,290 |
| Bezwada      | ... | ... | ... | ... | 2,235 |
| Salem        | ... | ... | ... | ... | 2,232 |
| Mangalore    | ... | ... | ... | ... | 2,221 |
| Cocanada     | ... | ... | ... | ... | 2,162 |
| Rajapalayam  | ... | ... | ... | ... | 2,097 |

Two assistants are now barely sufficient for the work at hospitals like Trichinopoly and Coimbatore, where the number of cases attended to in one day may reach nearly 100.

(b) *Itinerating Staff.*

55. The number of touring posts remained at 88, and several of these were vacant for varying periods owing to the lack of staff. Those at Mangalore and Srirangana were not filled throughout the year.

56. The manner of employment of these touring men, when not engaged in attending outbreaks of contagious disease, has been under discussion for some time, but on 1st



CHINGLEPUT VETERINARY DISPENSARY DURING WORKING HOURS.  
Plate No. 4

October 1927 it was decided that the 34 men, who had been attached to Veterinary institutions as second Assistants, should revert to the old method of doing twenty days touring a month, and run camp dispensaries in large villages for about ten days at a time.

57. The total number of cases treated by this itinerating staff during the year was 60,290 of which 27,419 were non-contagious.

(c) *Castration.*

58. The total number of castrations performed by the staff during the year was 8,521 against 8,290 in 1926-27: of these 4,553 were done by the itinerating staff and 3,968 in Veterinary institutions. Of the latter, 1,396 were performed at the institutions in Ganjam district alone.

59. The number of castrations is small when compared with the figures from some of the other provinces, but it is hoped that when the large indent for Burdizzo castrators, which has recently been made, is complied with, this very necessary operation will be performed in much larger numbers on the many "scrub" bulls which exist in this province. The high pressure at which most of the touring staff has had to work in connection with Rinderpest no doubt accounts in part for the smallness of the figures in the last few years.

VI.—MISCELLANEOUS.

60. *Criminal.*—The Chemical Examiner reports that he examined the viscera of 45 animals during the year, and of this number the post mortem examination was held by the staff of this department in 35 cases. A prosecution was conducted in 21 cases in which poison was detected, resulting in nine convictions, ten acquittals, and two cases were still pending. As usual arsenic was the poison most commonly used, this being present in 12 cases, Thevetin, the active principle of yellow oleander (*Cerbera thevetia*) being found in 6, mercury in 1, and picrotoxin, obtained from *Cocculus indicus*, in 1.

The staff also examined 209 animals for malicious injury and issued certificates to the Police.

61. *Society for the Prevention of Cruelty to Animals.*—The number of convictions obtained under the Prevention of Cruelty to Animals Act was 8,594, of which 2,663 related to Trichinopoly and 1,671 to Coimbatore district. It is reported that only 1,682 of these animals were remanded to

Veterinary hospitals for treatment, and of this number 1,111 were cases convicted in Coimbatore district alone. It appears therefore that while the society's agents are sufficiently active in Trichinopoly district, it is only in Coimbatore district that the Bench Magistrates are exercising their powers in a proper manner. This point has been brought to the notice of Government many times before.

62. *Forest Livestock*.—Under this head the retirement of another Veterinary officer has to be recorded. Mr. F. X. Mascarenhas, who began his career in this department in the year 1903, retired from the post of Inspector of Livestock in the Forest department during the year, and his vast experience of elephants, both in health and disease, will be much missed.

63. The health of the Forest Livestock appears to have been good. One elephant died of anthrax in South Kanara district and another one from choking, after attempting to swallow hurriedly a common jack fruit (*Artocarpus integrifolia*).

64. *Public Health*.—There are now 32 towns in the Presidency which employ a Veterinary Assistant Surgeon of this department on meat inspection duty. In addition, the municipalities of Ootacamund, Coimbatore and Madura employ a Veterinary graduate of their own on this and other public health work. The necessity for an efficient inspection of all meat intended for human consumption has been well exemplified in Ootacamund, where it is found that 1.2 per cent of the beef and 1.15 per cent of the pig carcasses are infected with the larval form of the two tapeworms of man, *Taenia saginata* and *Taenia solium* respectively.

What is known to exist in Ootacamund is almost certainly existing in other places unknown.

65. A coolie employed on the Wentworth Estate, the Nilgiris, died of Anthrax during the year, and it is reported that he probably contracted this through eating Anthrax-infected meat. Whether he obtained this from a butcher or from the jungle is not known.

66. Another interesting case from a public health point of view is the record of a dog suffering from guinea worm (*Dracunculus medinensis*) in Devakottai, Ramnad district. This parasite also attacks man.



Plate No 5.

A DOG FROM WHICH SIX GUINEA WORMS WERE REMOVED AT THE DEVAKOTTAH VETERINARY DISPENSARY.

67. *Fairs and Shows.*—The annual Cattle and Pony Show was held at Tiruppur in June 1927. No other show of any importance was held, and owing to the severity of Rinderpest many annual and weekly cattle fairs were closed during the year.

#### VII.—FINANCE.

68. According to the registers of this office, the expenditure of the department was Rs. 8,26,188-14-8 as compared with Rs. 7,49,325-4-2 in 1926-27. There is an increase under each sub-head, the greatest being under subordinate establishment, due to general expansion of the department and larger indents for anti-rinderpest serum.

The receipts of the department amounted to Rs. 26,859-1-6.

#### VIII.—PROGRAMME OF WORK FOR 1928-29.

69. *Education.*—The Madras Veterinary College will continue its graduate and post-graduate courses. Government having recently increased the number of stipends in each class from 15 to 40 there should be no difficulty in obtaining a sufficient number of students for admission this year.

70. *Research.*—The main line of research will be in connection with Rinderpest, the first *desideratum* being in production of a suitable virus in sufficient quantities to meet the demands which it is anticipated will be received from the districts in future. Work will be continued in connection with Infectious lymphangitis and Nasal Granuloma of cattle, and several other important problems awaiting investigation will be tackled when the necessary funds and staff have been provided.

71. *Contagious disease.*—The work of protecting the cattle of this Presidency against Rinderpest by the simultaneous method will be pushed forward as much as possible, and if more supervising staff can be provided, it is hoped that the number of animals protected by this method will soon show a very large increase.

It will not be possible with our present staff to deal with the other contagious diseases to any extent, until the control of Rinderpest has been effected.

72. *Non-contagious disease.*—Twelve dispensaries should be opened this year, but it is not likely that it will be possible to open more than half this number, owing to lack of subordinate staff.

73. *Propaganda*.—It is intended to pay more attention to this subject in future. As soon as the necessary lantern slides are prepared, the Circle officers will be instructed to make use of the lanterns already supplied to them on every possible occasion, such as fairs, exhibitions, health weeks, etc. It is hoped also that this department will be able to take advantage of the motor units sanctioned by Government for the Agricultural Department for demonstration purposes. Correspondence has already taken place with the Railway Publicity Board for the preparation of a Veterinary film, and the purchase of a cinema apparatus for the department is contemplated.

F. WARE,  
Acting Veterinary Adviser to the Govt. of Madras.  
MADRAS,  
4th July 1928.

## ANNUAL ADMINISTRATION REPORT OF THE MADRAS VETERINARY COLLEGE FOR THE YEAR 1927-28.

### I.—STAFF.

Mr. F. Ware, the permanent Principal, was on leave and deputation from 1st July 1927 to 20th November 1927 and on other duty from 21st November 1927 to 31st March 1927 and during this period Mr. P. T. Saunders, Professor of Surgery, acted as Principal.

2. The post of Professor of Surgery was held by Mr. P. T. Saunders from 1st April 1927 to 30th June 1927 and by Mr. M. R. V. Panikkar from 8th July 1927 till the end of the year. It was vacant from 1st July 1927 to 7th July 1927, both days inclusive.

3. M.R.Ry. V. Krishnamurthi Ayyar Avargal continued as Professor of Pathology and Bacteriology throughout the year.

4. Mr. G. T. D'Silva, the Assistant Professor and Personal Assistant to Principal, continued in the post from the beginning of the year till 7th August 1927 when he availed himself of long leave preparatory to retirement. Mr. M. Sundaranathan, the Senior Lecturer, acted as Assistant Professor and Personal Assistant to Principal from 8th August 1927 to 1st December 1927 and Mr. K. S. Nair, the officer appointed on probation to a temporary post created in the Provincial service, from 2nd December 1927 to 31st March 1928.

5. During the year a third Veterinary Assistant Surgeon was sanctioned for the laboratory and the incumbent appointed to the post took charge of his duties on 28th October 1927.

### II.—INSTRUCTION.

6. *Selection of candidates*.—The Committee appointed by Government for this purpose assembled at Bezwada and Madras and selected the following students for the year :—

| Community.        |     |     | Stipendiary. | Non-stipendiary. |
|-------------------|-----|-----|--------------|------------------|
| Brahmans          | ... | ... | 3            | 10               |
| Non-Brahmans      | ... | ... | 7            | 6                |
| Indian Christians | ... | ... | 2            | 2                |
| Muhammadans       | ... | ... | 3            | 2                |

7. In addition to the above, two paying students, one from the Federated Malay States and the other from Ceylon, were admitted during the year.

8. As some of the students selected did not arrive at the college and as some who joined left it in a few days, some additional students were subsequently taken in to make up the deficiency in numbers. The strength of class A at the end of the year was only 38 including the 6 failed students from the previous year.

9. The total number of students in the college on 31st March 1928 was 86 of whom 36 were Brahmans, 33 non-Brahmans, 9 Muhammadans, 7 Indian Christians and 1 Anglo-Indian.

10. *Professional examinations.*—The annual examinations were held from 21st March 1928 to 30th March 1928, both days inclusive. The following officers constituted the Board:—

Mr. K. Hewlett, Principal, Bombay Veterinary College ... President.

Mr. F. Ware, Acting Veterinary Adviser to the Government of Madras.

Mr. P. T. Saunders, Acting Principal, Madras Veterinary College.

M.R.Ry. V. Krishnamurthi Ayyar Avargal, Professor of Pathology and Bacteriology, Madras Veterinary College.

Mr. G. T. D'Silva, Assistant Professor and Personal Assistant to Principal, Madras Veterinary College, on leave.

Members.

The results of the examinations were as follows:—

| Class. | Number appeared. | Number passed. | Percentage. |
|--------|------------------|----------------|-------------|
| A      | 34               | 27             | 79.4        |
| B      | 26               | 21             | 80.7        |
| C      | 22               | 19             | 86.3        |

11. The Board of Examiners remarked that the rise in the percentage of passes during the year was due to the fact that the rules of the examination are more lenient than is desirable.

12. *Post-graduate course.*—Four Veterinary Assistant Surgeons of the Civil Veterinary Department, Madras, three from the Civil Veterinary Department, Bihar and Orissa, and one private student from the Federated Malay States underwent the post-graduate course held at this college from July to December 1927. At the end of the course, the usual examination was conducted.

13. All the eight candidates presented themselves for the examination and all of them except the one private student from the Federated Malay States were successful in passing the examination and obtaining the certificate issued by the college.

14. The Board of Examiners made the following remark:—

“A good class with one first class, four second class, two passes, and one failure in a class of eight. The Board is of the opinion that an examination at the end of the course serves a very useful purpose and it should on no account be dropped.”

15. *Health, discipline and athletic activities of students.*—The health and discipline of students have been satisfactory during the year.

16. The college entered a team to compete in the inter-collegiate football tournament and some of the students of the college took part in the inter-collegiate sports. There is nothing of note to record concerning these games except the fact that the students evinced great interest.

17. The annual college sports were, as usual, held in February 1928.

### III.—HOSPITAL.

18. *Hospital.*—The number of cases treated at the college hospital is shown in the following table:—

|              | Equines. | Bovines. | Others. | Total. |
|--------------|----------|----------|---------|--------|
| In-patients  | 225      | 215      | 328     | 768    |
| Out-patients | 147      | 409      | 1,413   | 1,969  |
| Total        | 372      | 624      | 1,741   | 2,737  |

19. During the year the brains of 38 dogs which had bitten people were sent to the Pasteur Institute, Coonoor, for examination and of these 31 were reported to be positive. The brain of a mongoose was also sent with the same positive result.

20. The following statement shows the major and minor operations performed in the hospital during the year:—

|                  | Horses. | Cattle. | Other animals. | Total. |
|------------------|---------|---------|----------------|--------|
| Major operations | 8       | 6       | 28             | 42     |
| Minor            | 10      | 23      | 105            | 138    |
| Castrations      | 3       | 6       | 7              | 16     |

21. The shoeing forge attached to the college is working satisfactorily. During the year 1,218 horses were shod and the shoes of 94 horses were repaired.

## IV.—LABORATORY.

22. The laboratory was, till 4th January 1928, in the sole charge of M.R.Ry. V. Krishnamurthi Ayyar Avargal, Professor of Pathology and Bacteriology, and from this date the Parasitological section was separated from it and placed in charge of the Acting Professor of Surgery.

23. The following table shows the number of specimens received and examined during the year in the laboratory including the Parasitological section:—

|                                                       |       |
|-------------------------------------------------------|-------|
| (a) From the staff of the Civil Veterinary Department | 1,010 |
| (b) From the Corporation of Madras                    | 328   |
| (c) From the Agricultural Department                  | 123   |
| (d) From the Forest Department                        | 11    |
| (e) From the different wards of the college           | 2,339 |
| Total                                                 | 3,811 |

24. The total number of specimens received and examined during the last four years is also given below for purposes of comparison:—

|         |       |         |       |
|---------|-------|---------|-------|
| 1923-24 | 1,513 | 1925-26 | 1,878 |
| 1924-25 | 1,722 | 1926-27 | 3,010 |

The increase in the work done is thereby well shown.

25. The following table gives the number of specimens confirmed for the various diseases noted against each of them:—

|                            |     |
|----------------------------|-----|
| (a) Anthrax                | 12* |
| (b) Tuberculosis           | 43  |
| (c) Hæmorrhagic septicæmia | 51  |
| (d) Black quarter          | 35  |
| (e) Bovine lymphangitis    | 2   |
| (f) Johne's disease        | 36  |
| (g) Trypanosomes           | 41  |
| (h) Piroplasma—            |     |
| (1) P. bigeminum           | 62  |
| (2) P. canis               | 15  |
| (3) P. gibsoni             | 3   |
| (4) P. equi                | 161 |
| (5) Theileria sp.          | 1   |
| (i) Coccidia               | 22  |
| (j) Spirochætosis          | 2   |
| (k) Microfilaria           | 1   |
| (l) Hæmogregarina canis    | 7   |
| (m) Hæmoproteus            |     |

\* This excludes the hides and skins in which the infection was proved.

26. It is interesting to note that the nine smears confirmed for tuberculosis include one said to have been made from the sputum of an elephant belonging to the Coorg Forest Department. Acidfast bacilli indistinguishable from tubercle bacilli were detected in this smear.

27. It has also been found, during the systematic examination of blood smears of calves used for the Rinderpest camp opened at the college, that theileriasis is quite common among the calves of this Presidency.

28. Sixty-two samples of hides and skins were examined during the year for the issue of certificates of freedom from Anthrax and of these twelve were found to be infected.

29. Post-mortem examinations were, as a routine, conducted on all the different classes of animals that died in the college and also on those that were received from outside, and they supplied ample material for practical instruction to students and in some cases for preservation in the college museum as well as for the purposes of investigation. During the year these numbered 121. The infection of *spirocerca sanguinolenta* and the occurrence of *Cysticercus cellulosæ* in dogs, Cirrhosis of the liver in dogs, Tuberculosis amongst the cattle of the Corporation and Atheroma of the aorta in cattle were some of the more important conditions met with in these post-mortems, and papers on some of these conditions are awaiting publication.

30. Requisitions for the supply of vaccines for the treatment of cases of Bovine Lymphangitis and other chronic suppurative affections were during the year received from the staff of the Civil Veterinary Department. The total number of cases for which vaccines were supplied was 70; of this number 62 were for the treatment of Bovine Lymphangitis.

## V.—CONTAGIOUS DISEASES IN MADRAS CITY.

31. During the year under report 120 horses that arrived into the city were tested with mallein by the Veterinary Assistant Surgeon on Glanders work but no case of the disease was detected.

32. This Veterinary Assistant Surgeon inspected during his systematic tour 3,898 horses in the city; in none of them was Trypanosomiasis (surra) detected.

33. During the beginning of the year Rinderpest was prevalent in the city but was confined to a few divisions. There were also some imported cases of the disease in March

1928. In all, 1,968 animals were inoculated against the disease by the serum alone method.

34. There were, during the year, some sporadic cases of Anthrax in the Corporation Cattle Depot at Choolai and in the dairy farm of the Buckingham and Carnatic Mills, and 26 animals of the former were inoculated against the disease.

#### VI.—RESEARCH.

35. The following items of research conducted by the Professor of Pathology were in progress during the year.

36. *Bovine lymphangitis*.—During the course of the year further studies on bovine lymphangitis were made with special reference to its vaccine therapy. Vaccine was supplied to the staff of the department on requisition for the treatment of 62 cases which were not amenable to ordinary treatment. Reports on the results of the treatment of 44 cases with the vaccine have been received so far and these reports show that a decided improvement was effected in 37 cases, that in 4 cases it was found ineffective and that 3 cases did not attend the hospital after the first injection. The vaccine supplied to these three cases was returned unused.

37. *Tuberculosis*.—A study of the effects of inoculation into experimental animals of tubercular material collected from the cattle of the Madras Corporation showing widespread tubercular lesions, was in progress during the year.

38. *Anthrax*.—In the course of the examination of samples of industrial materials such as dry-salted goat skins and rough-tanned goat skins for issue of certificates of freedom from Anthrax, it was found that 14 out of 50 samples examined during last year were infected with Anthrax, and as ten of these were received from one firm the desirability of examining the tannery whence such samples were obtained was thought advisable. Materials were therefore collected from the tanneries concerned in March 1927 and again in May 1927 and on both these occasions tests made with the materials collected showed that they were infected. This finding has raised a very important issue as to the source of infection of industrial materials. The probability is that the contamination usually occurs in the tanneries which may harbour the spores from previously infected skins and thus prove a constant source of infection to other materials received in the tanneries.

39. *Johne's disease*.—In view of the favourable results reported elsewhere on the treatment of Johne's disease with formalin injections the treatment was tried on a cow definitely

known to be suffering from the disease. The animal gradually improved in condition with the treatment and the clinical symptoms showed a decided abatement, but examination of her rectal washings made from time to time continued to show Johne's bacilli. The animal was eventually destroyed and post-mortem examination showed definite lesions of the disease.

40. *Outbreak of poultry disease in Tanjore*.—An outbreak of disease among poultry and crows in the district of Tanjore in this Presidency was investigated in collaboration with Mr. Wilson, Officer in charge, IV Circle. The symptoms observed in the sick fowls were diarrhoea, reluctant appetite, drowsiness, paralysis of the legs and death in 24 hours in acute cases; whilst crows were said to fall out of trees either dead or dying. Crows and fowls—some suffering from the disease and others dead—were received at the laboratory for examination. Transmission experiments were conducted and the results obtained showed that the epidemic was one of spirochaetosis complicated with the infection of hæmoproteus which was found in some of the smears received from the affected fowls.

41. *Infection due to streptothrix*.—In addition to a variety of streptothrix which has been found to be present in the lesions in the nasal mucous membrane in the disease known as nasal granuloma of cattle, the infection was noticed in other situations in two cases—a bullock and a buffalo. In the bullock it was reported that the lesion was in the jaw and the growth was of three months' duration at the time of its removal. In sections cut from the growth, filaments indistinguishable from actinomyces bovis were detected and the histological changes were identical with those usually found in actinomyces. Attempts were made to obtain further materials from this case but none were available.

42. In the buffalo it was reported that growths of a size of a lime fruit with a raised base were present in the left shoulder blade. In sections cut from this a streptothrix, acid and alcohol fast was detected. Further materials from this case were not available for further study.

43. *Rhinosporidiosis in cattle*.—Rhinosporidium was recorded in cattle in four cases in growths removed from the nasal cavity. This finding has raised a very important issue as to whether the parasite found in cattle is identical with that found in man or is a closely allied species. It would also appear that the cause of Nasal Granuloma in cattle is not of one etiological entity but of two, namely, an organism akin to actinomyces bovis which is present in most cases and a rhinosporidium.

44. *Contagious abortion in cattle*.—Cases of contagious abortion were reported in two of the agricultural farms in this Presidency. The sera from such cows were tested with *B. abortus bang* on several occasions with negative results. With a view to confirm the results obtained at this laboratory the sera were sent to the Director, Imperial Institute of Veterinary Research, Muktesar, who also reported negative results. The possibility of causes other than *B. abortus bang* has been considered and investigations are being conducted.

45. M.R.Ry. M. R. V. Panikkar, the Acting Professor of Surgery, who is in charge of the Parasitological section of the laboratory, undertook during the year studies on the efficacy of carbon tetrachloride and other drugs in the treatment of hookworms in dogs and schemes were also devised with a view to studying the different strains of trypanosomes occurring in horses and cattle of this Presidency. He has also undertaken studies to ascertain the different species of anchylostomes occurring in dogs.

46. During the year a paper on "Bovine Lymphangitis" by M.R.Ry. V. Krishnamurthi Ayyar Avargal was published as one of the Memoirs of the Department of Agriculture in India.

47. The Professor of Pathology attended the Seventh Congress of the Far Eastern Association of Tropical Medicine held at Calcutta and exhibited to the members of the Congress specimens of pathological and parasitological interest specially dealing with those conditions common to man and animals. The following papers were also read by him during the Congress:—

- (a) Rhinosporidiosis in cattle.
- (b) A preliminary note on the incidence of Anthrax infection in industrial materials such as hides, skins, etc., with special reference to the possibility of the source of such infection.

#### VII.—MISCELLANEOUS WORK.

48. During the year Government sanctioned the preparation of charts and lantern slides for propaganda work and the work is in progress.

#### VIII.—FINANCE.

49. The receipts and fees from the hospital and the college respectively amounted to Rs. 15,567-8-9.

The total expenditure of the college and the hospital is given below:—

|                             | RS.    | A. | P. |
|-----------------------------|--------|----|----|
| Pay ... ..                  | 65,719 | 12 | 0  |
| Scholarships ... ..         | 6,428  | 7  | 0  |
| Travelling allowance ... .. | 2,148  | 13 | 0  |
| Contingencies ... ..        | 22,759 | 12 | 11 |
| Total ... ..                | 97,056 | 12 | 11 |

#### IX.—GENERAL.

50. The college participated in the Health and Baby Exhibition held in January 1928 at the South Indian Athletic Association grounds, Madras, and was awarded by the committee a medal for first place among institutions for exhibits of the greatest popular scientific interest. The booth consisted of charts, specimens, lantern slides, etc., depicting important cattle diseases met with in this Presidency and diseases communicable from animals to man.

51. A Rinderpest camp was opened at the college at the close of the year with the idea of supplying virus to the staff of the department for conducting serum simultaneous inoculations.

P. T. SAUNDERS,

*Acting Principal, Madras Veterinary College.*

30th May 1928.

ANNUAL ADMINISTRATION REPORT OF THE I CIRCLE,  
CIVIL VETERINARY DEPARTMENT, VIZAGAPATAM,  
FOR THE YEAR 1927-28.

I.—ADMINISTRATION.

1. East Godavari, Vizagapatam and Ganjam districts including the Agency tracts attached to them form the jurisdiction of the I Circle.

2. Mr. C. Suryanarayanamurthi held charge of the circle from 1st April to 8th May 1927 and again from 7th July to 8th August 1927. Mr. M. R. V. Panikkar was in charge of the circle from 9th May to 6th July 1927 when he was transferred to the Veterinary College, Madras.

For the remaining portion of the year, i.e., from 9th August 1927 to the end of the official year, I was in charge of the office.

3. Mr. C. Suryanarayanamurthi was on tour for 28 days, attended some outbreaks of Rinderpest, inspected the Veterinary institutions at Amalapuram, Draksharam, Pithapuram and Vizianagaram in detail and the institution at Cocanada casually. He also inspected the offices of the Touring Veterinary Assistant Surgeons of Cocanada, Amalapuram, Peddapuram and Vizianagaram in detail. While at headquarters he visited the Veterinary hospital, Vizagapatam, frequently to render help and give advice in the treatment of animals.

4. Mr. M. R. V. Panikkar was on tour for 17 days, inspected the Veterinary institutions at Rajahmundry and Polavaram in detail and casually the institutions at Cocanada and Amalapuram. The offices of the Touring Veterinary Assistant Surgeons at Rajahmundry and Polavaram were also inspected by him in detail and also buildings at Kothapeta and Kothavalasa for locating the Veterinary dispensaries. While at headquarters Mr. Panikkar has attended the Veterinary hospital, Vizagapatam, very frequently.

5. I have toured for 140 days and inspected in detail the Veterinary institutions at Vizagapatam, Parvatipur, Chicacole, Parlakimedi, Cocanada, Bhadrachalam, Kothapeta and Anakapalle, and the offices of the Touring Veterinary Assistant

Surgeons at Bhadrachalam, Vizagapatam, Parvatipur, Palakonda, Tekkali, Narasapatam and Koraput. Non-detail inspection of the Veterinary institutions at Polavaram, Rajahmundry, Amalapuram and Bobbili and the office of the Touring Veterinary Assistant Surgeon, Amalapuram, has been done by me.

The Veterinary institutions at Russellkonda and Berhampur and the offices of the Touring Veterinary Assistant Surgeons at Russellkonda, Aska and Berhampur were not inspected during the year for want of time, as I was engaged in serum simultaneous inoculation against Rinderpest practically from the middle of November to the end of the official year under report.

6. The Government livestock at Koraput, Parvatipur, Narasapatam, Samalkot, Anakapalle, Polavaram and Bhadrachalam have been inspected during the year.

I also visited Razole to find out whether it was a suitable place for opening a Veterinary dispensary.

7. During the year, 1,994 animals were inoculated by serum simultaneous method against Rinderpest in this circle. Of these, 140 belonged to the Raja Sahib of Parlakimedi, 19 to the Government Agricultural Farm at Anakapalle and the rest, namely, 1,835, belonged to the ryots in East Godavari district.

The virus was obtained from Muktesar for inoculating the animals at Parlakimedi and Anakapalle and the local virus was used for inoculating the remaining animals in East Godavari district.

8. I have also attended the Veterinary hospital at Vizagapatam very often and attended some outbreak reports of Rinderpest in East Godavari district along with the Touring Veterinary Assistant Surgeons concerned.

## II.—EXECUTIVE STAFF.

9. On the 31st March 1928 there were in all 38 Veterinary Assistant Surgeons attached to this circle, 17 in charge of the Veterinary institutions including the men in charge of three private institutions, 16 in charge of touring offices, 3 leave reserve and 2 probationers. In addition, there is an extra Veterinary Assistant Surgeon whose services have been lent to the Raja of Kallikota. There was no casualty among the staff in this circle during the year.



Plate No. 6 A CAMP FOR SIMULTANEOUS INOCULATIONS AGAINST RINDERPEST AT PARLAKIMEDI IN GANJAM DISTRICT.

## (a) Hospitals and Dispensaries.

10. Two new Veterinary institutions—one at Bobbili and another at Kothapeta—were opened and the total number of Veterinary institutions including the three private ones was 17 at the end of the year.

11. The total number of cases treated and the total number of castrations performed in the institutions of this circle were 21,106 and 1,736 as against 19,543 and 1,507 respectively of the previous year. In addition, 3,726 cases not brought to the hospital were supplied with medicines.

12. There was an increase both in the number of admissions and castrations performed in Parlakimedi, Anakapalle, Vizagapatam, Draksharam and Rajahmundry, an increase in the number of admissions only in Polavaram, Amalapuram, Cocanada and Pithapuram, and an increase only in the number of castrations done in Bhadrachalam, Russellkonda, Berhampur and Parvatipur. There was a fall in the number of admissions in Berhampur, Bhadrachalam, Parvatipur and Vizianagaram and a fall in the number of castrations done in Polavaram, Amalapuram, Cocanada and Pithapuram institutions.

The decrease in the number of admissions in Vizianagaram and Parvatipur was very perceptible when compared with the figures of the previous year. The apparent increase in the Vizianagaram institution last year is said to be due to the inclusion of cases not brought to the institution which have been shown separately this year.

The fall in the number of admissions in the Parvatipur dispensary is said to be due to the failure in sending cases from Pinjrapole which is now practically extinct. The admissions in Russellkonda dispensary remained the same as that of the last year, but there was a very slight fall in Bhadrachalam and Berhampur institutions which does not call for any remarks. The work in the Veterinary institutions at Chicacole, Kothapeta and Bobbili could not be compared as the latter two were newly opened during the year and the former was opened on 15th November 1926.

13. During the year the Veterinary dispensary at Chicacole was moved to a Government building.

The dispensary newly opened at Kothapeta has been located in a Government building and the new hospital in Bobbili is located in the buildings presented by the Raja Sahib of Bobbili. The Raja Sahib contributes Rs. 660 annually towards the maintenance of the hospital.

14. The Veterinary Assistant Surgeon in charge of the Veterinary hospital, Cocanada, has attended to the animals of the Government Agricultural Farm, Samalkot, whenever there was a call from the farm and the Veterinary Assistant Surgeon in charge, Veterinary dispensary, Anakapalle, has attended the Government elephants stationed at Narasapatam once.

15. The Veterinary Assistant Surgeons in charge of the Veterinary institutions at Russellkonda, Chicacole, Bobbili, Anakapalle and Kothapeta were exempted from touring work.

16. The second Veterinary Assistant Surgeons attached to the institutions at Berhampur, Vizagapatam, Cocanada, Rajahmundry and Amalapuram were asked to work as Touring Veterinary Assistant Surgeons as before.

## (b) Itinerating.

17. On the 31st March 1928 there were 16 Touring Veterinary Assistant Surgeons attached to this circle. The headquarters of the Touring Veterinary Assistant Surgeon, Jami, was transferred to Vizianagaram so that he may attend the hospital when at headquarters.

18. A comparative statement of work done by the touring staff during 1926-27 and 1927-28 is given below :—

| Year.    | Inoculations<br>by serum alone<br>method. | Contagious<br>cases treated. | Non-contagious<br>cases treated. | Castrations. |
|----------|-------------------------------------------|------------------------------|----------------------------------|--------------|
| 1926-27. | 8,903                                     | 4,973                        | 6,826                            | 1,211        |
| 1927-28. | 28,186                                    | 12,728                       | 6,689                            | 1,261        |

From the above it may be seen that there was an increase under all heads except under cases treated for non-contagious diseases. The small decrease was due to the fact that there were a number of outbreak reports to attend to and also to the fact that some of the Assistants were engaged in serum simultaneous inoculation camps.

19. Veterinary Assistant Surgeons M. Lakshmanaraju, Kripasindhu Patnaick, B. Lakshmanaswami, G. Seetharamamurthi, M. P. Kanniah Nayudu, S. Seshadri Ayyangar, K. S. Venkataraman, P. V. Narasimham, K. S. Prakasa Rao and I. M. Mahaboob Ali helped me in conducting serum simultaneous inoculations in different camps.

### III.—CONTAGIOUS DISEASES.

20. *Rinderpest*.—During the year 235 outbreaks were reported as against 132 of the previous year, of which 204 were attended to, 24 were lodged for want of time or progress reports and the remaining 7 were pending. The disease was severe in East Godavari and Ganjam districts and mild elsewhere.

The disease that prevailed last year continued to spread in Ganjam and East Godavari districts and the movement of cattle from fair to fair (weekly) seems to be responsible for the outbreak of the disease in Vizagapatam district.

21. As there was some opposition even for the serum alone method of inoculation, the provisions of the Cattle Disease Act were first enforced in Chicacole taluk for a period of three months from the latter part of October 1927 and then over the whole of Ganjam district from the middle of November 1927 for a period of six months. No prosecutions were conducted during the year under the Act.

22. In this circle 27,432 animals were inoculated against Rinderpest by serum alone method and 1,994 animals by serum simultaneous method.

The serum simultaneous method of inoculation is getting popular in East Godavari district and the ryots who have seen the operation prefer this method to ordinary inoculations.

23. *Anthrax*.—Ninety-one out-breaks were reported. Seventy-three reports were attended to and the remaining eighteen were lodged either for want of time or the progress reports.

In many instances the disease subsided with only a few deaths. No inoculations were conducted against this disease.

24. *Hæmorrhagic septicæmia*.—One hundred and three out-breaks were reported under this head. Ninety-one of them were attended to and the rest lodged, there being no progress reports.

Three hundred and ninety-two animals were protected against it.

25. *Black quarter*.—One hundred and twenty-three reports were received, of which 83 reports were attended to and the rest were lodged for want of progress reports. Only 362 inoculations were conducted against this disease.

26. *Foot-and-mouth disease*.—The total number of reports received was 434. Only 343 reports were attended to and the rest were lodged after sending written instructions as to the method of treatment to be followed.

27. *Other contagious diseases*.—Under this heading 30 reports were received, of which 19 were attended to, 3 were pending and the rest were lodged for want of progress reports.

28. *Rabies*.—Twenty-one brains—17 of dogs and 4 of others were confirmed microscopically for rabies. Besides the above, there were 6 other animals which were suspected for rabies but no confirmation was sought. Six dogs were given anti-rabic treatment—five in Vizagapatam and one in Rajahmundry hospital.

29. *Strangles*.—Pus smears from 4 ponies were submitted for examination and all proved to be positive for strangles.

30. *Trypanosomiasis (surra)*.—Smears from 8 horses were submitted, of which 6 proved positive for the disease. Two animals were destroyed under the Act and the remaining 4 animals died before any action could be taken. Besides the above blood smears from two bovines and one canine were submitted but it proved positive only in the case of the latter.

31. *Piroplasmosis*.—Thirteen smears—6 from bovines and 7 from canines were submitted, of which only 3 bovines and 2 canines gave positive results.

32. *Kumri*.—Five cases were diagnosed as such during the year.

33. *Diseases of fowls*.—Four smears for fowl cholera and 10 smears for spirochætosis were examined. It was only in one case the latter was observed and the rest proved negative.

34. *Nasal granuloma*.—Some cases of nasal granuloma were treated with tartar emetic with success.

35. *Specimens*.—The staff in this circle submitted 120 specimens to the Principal, Madras Veterinary College, for examination.

### IV.—MISCELLANEOUS WORK.

36. *Criminal poisoning*.—The staff conducted post-mortem examination on seven cases suspected for criminal poisoning. Poison was found in one case and the accused concerned in it was acquitted for want of evidence. No poison was found in five cases, four of which were thrown out by the Magistrate and the remaining one was still pending. In one case, the result from the Chemical Examiner had not yet been communicated.

37. *Malicious injury.*—Fifteen wound certificates and four post-mortem certificates were granted by the staff. The result was that three cases were convicted, nine cases were thrown out for want of evidence, three were compromised, one was not filed, and in two cases, the results were not known at the close of the year.

38. *Society for the Prevention of Cruelty to Animals.*—Seven cases were convicted of which only four cases were remanded to the Veterinary institutions.

39. *Meat inspection.*—The Municipalities of Vizagapatam and Anakapalli and the Union of Parvatipur have continued to avail the services of the local Veterinary Assistant Surgeons for meat inspection.

40. *Fairs and shows.*—There were no annual cattle or horse fairs held during the year but some of the weekly cattle fairs held, were attended by the Veterinary Assistant Surgeons concerned.

41. *Inspection of Government livestock.*—The Government live-stock stationed in different places were inspected by the Veterinary Assistant Surgeons concerned.

#### V.—GENERAL REMARKS.

42. The touring staff had to report against 29 village officers for slackness in reporting outbreaks of contagious diseases and for irregular maintenance of the cattle mortality registers.

43. The Veterinary Assistant Surgeon in charge of the Veterinary hospital, Cocanada, continued to issue certificates in connection with the export of castor seeds to American ports and inspected the lethal chamber maintained by the Cocanada municipality periodically.

44. Out of the total number of castrations done by the staff, 899 were done by the Burdizzo instrument.

45. *Office.*—This office Accountant K. Avatharachari has taken long leave with a view to better his prospects elsewhere. In his place, H. Suryanarayana who is a permanent clerk in the II Circle office has been posted to act. The permanent typist-clerk of this office got himself transferred to the medical college office since the appointment there was a lucrative one. The work of the Head Clerk continued to be satisfactory.

H. C. SAMPATHIENGAR,  
Officer in charge, I Circle,  
Civil Veterinary Department, Vizagapatam.

### ADMINISTRATION REPORT OF THE II CIRCLE, CIVIL VETERINARY DEPARTMENT, BEZWADA, FOR THE YEAR 1927-28.

#### I.—ADMINISTRATION.

I held charge of the II Circle consisting of four districts, viz., Nellore, Guntur, Kistna and West Godavari, throughout the year except for three months from 16th November 1927 when I was on leave. During my absence on leave M.R.Ry. C. Suryanarayanamurthi Pantulu Garu held charge of the circle. I was on tour for 127 days and M.R.Ry. C. Suryanarayanamurthi Pantulu Garu for 51 days. The shortage in my tour days was due to ill-health and subsequently proceeding on leave. I conducted inoculations against Rinderpest by serum simultaneous method on 31 animals at the buffalo breeding station, Guntur.

2. All the Veterinary institutions and touring billets were inspected twice during the year under report except the Veterinary dispensary, Tenali, and the Touring Veterinary Assistant Surgeon, Ellore. The Veterinary dispensary, Tenali, being opened only on 29th November 1927 was inspected once. The Touring Veterinary Assistant Surgeon, Ellore, was on leave at the time of second inspection.

3. I selected a building for the location of Veterinary dispensary, Tenali, and sites for the construction of permanent buildings for Veterinary institutions at Bezwada, Gudivada, Bandar, Nuzvid and Palakole.

4. I visited the Veterinary dispensary, Bezwada, almost daily during my stay at headquarters, examined slides from cases and helped the Veterinary Assistant Surgeon in operations and treatment of cases when necessity arose.

5. All possible attempts were made to carry out serum simultaneous inoculation against Rinderpest but owing to prevalence of Foot-and-mouth disease almost throughout the year the ryots were not willing to submit their cattle for this method of inoculation. For instance at Kavali I made necessary arrangements for serum simultaneous inoculation but when I arrived at Kavali with virus, owners declined.

## II.—EXECUTIVE STAFF.

6. On the 31st March 1928, there were 32 Veterinary Assistant Surgeons including the leave reserve in this circle, 15 Touring Veterinary Assistant Surgeons, 15 Veterinary Assistant Surgeons in charge of Veterinary institutions and 2 Veterinary Assistant Surgeons on leave reserve. There were no casualties among the staff.

### (a) Hospitals and Dispensaries.

7. A Veterinary dispensary was opened at Tenali on 29th November 1927.

8. The number of in- and out-patients treated and castrations performed at all the institutions in this circle was 18,998 as against 15,926 in the previous year. There has been a slight fall in the daily average attendance at Veterinary hospital, Nellore, due to the effects of cyclone and cholera at that place. On the whole there was increase in the number of cases treated and castrations performed when compared to that of last year.

9. Out of 242 castrations done at the institutions 84 were done by Burdizzo's castrator. One thousand five hundred and thirty-two cases were supplied with medicine without their being brought to the institutions as against 719 of the previous year.

10. The District Boards of Nellore, Guntur, Kistna and West Godavari and all the municipal councils in this circle have exempted persons bringing animals for treatment at Veterinary institutions from paying toll-gate fees.

11. During the year under report the following buildings were constructed :—

(a) a temporary operation shed at the Veterinary dispensary, Gudivada;

(b) a latrine for Veterinary Assistant Surgeon's use compound wall and dressing shed at the Veterinary hospital, Ellore;

(c) a latrine outside the Veterinary Assistant Surgeon's quarters at the Veterinary hospital, Ongole.

12. The Veterinary dispensary, Kavali, was shifted from its rented building to the Forest Range office building at that place on 20th January 1928.

13. Veterinary Assistant Surgeons M. N. Ahmed and L. Kumaraswami Pantulu have done good work.

### (b) Touring Staff.

14. Owing to the revival of the old system of touring work from 1st October 1927, the Second Veterinary Assistant Surgeons who were attached to Veterinary institutions at Nellore, Guntur, Bezwada, Gudivada, Bandar, Nuzvid and Ellore and who were attending only to outbreak reports were again required to do 20 days' touring as before. The headquarters of the Touring Veterinary Assistant Surgeons, Atmakur, Tenali, Gudivada and Tadepalligudem were changed to Buchireddipalem, Bapatla, Jaggayyapet and Bhimavaram respectively. Touring billets of Gudur, Kanigiri, Kandukur, Vinukonda and Tiruvur remained without change as in the previous year. The Veterinary Assistant Surgeons in charge of Veterinary institutions, Ongole, Narasaraopet and Palakole were exempted from touring work as the daily average attendance of these institutions was more than 15.

15. The additional Veterinary Assistant Surgeons posted during 1926-27 owing to prevalence of Rinderpest with headquarters at Rapur, Allur and Butchireddipalem continued to work till 26th April 1927, 24th May 1927 and 12th July 1927 respectively.

16. *Castrations.*—The total number of castrations done by the touring staff of this circle was 528 as against 277 of the previous year. Of these castrations 223 were done by Burdizzo's castrator.

17. *Contagious cases.*—The touring staff treated 9,563 cases of contagious diseases as against 3,060 of the previous year.

18. *Non-contagious cases.*—Five thousand four hundred and sixty-five cases were treated for non-contagious diseases by the touring staff of this circle as against 3,640 of the previous year.

19. A comparative statement showing the work done by the touring staff is shown below :—

| Year.   | Inoculations. | Contagious cases treated. | Non-contagious cases treated. | Castrations. |
|---------|---------------|---------------------------|-------------------------------|--------------|
| 1926-27 | 91,821        | 3,060                     | 3,640                         | 277          |
| 1927-28 | 36,202        | 9,563                     | 5,465                         | 528          |

20. There is an appreciable increase in the number of cases treated and castrations performed when compared to that of last year. The decrease in the number of inoculations carried out was due to the fact that Rinderpest was not so severe during the year under report as was during the previous year.

21. The names of the following Veterinary Assistant Surgeons have been noted for their good work:—

- (1) Veterinary Assistant Surgeon K. Surya Rao.
- (2) Veterinary Assistant Surgeon C. V. Venkateswara Ayyar.

### III.—CONTAGIOUS DISEASES.

22. *Rinderpest*.—One hundred and sixty-three reports were received by the touring staff during the year under report and all the reports were attended to. 22,193 inoculations were performed against 74,894 of the previous year. The disease was very mild throughout the circle during the year under report and hence there is decrease in the number of inoculations carried out when compared to that of last year. The Cattle Disease Act, 1866, was put in force in Gudur firka. There was no necessity to prosecute owners of cattle.

23. Thirty-one animals were inoculated against Rinderpest by the serum simultaneous method at the Buffalo Breeding Station, Guntur, during the year under report.

24. *Hæmorrhagic septicæmia*.—One hundred and twenty-six reports were received by the staff of which 122 were attended to. 3,880 inoculations were done as against 14,128 of the previous year. The disease was slightly severe in Ongole and Kandukur taluks and Sulturpet division. Specimens were sent for microscopical examination in 45 cases, of which 21 proved positive.

25. *Anthrax*.—The number of reports received by the staff was 62 of which 57 were duly attended to. No inoculations were done either this year or in the previous one. The disease prevailed in a mild form. Specimens were sent for microscopical examination in 8 cases and all proved negative.

26. *Black quarter*.—In all, the touring staff received 70 reports and 62 were duly attended to. 98 inoculations were done against 2,745 of the previous year. The disease prevailed in a mild form. In 3 cases specimens were sent, of which one was declared positive.

27. *Foot-and-mouth disease*.—Three hundred and seventy-four reports were received by the staff and 365 reports were attended to. The disease was very severe in the taluks of Tanuku, Gannavaram, Nandigama, Bezvada, Kaikahur, Guntur, Vinukonda, Palmad, Kovur, Atmakur, Nellore and Rapur.

28. *Glanders*.—Nil.

29. *Epizootic lymphangitis*.—Nil.

30. *Kumri*.—One case (horse) was diagnosed as such.

31. *Sheep-pox*.—Nil.

32. *Piroplasmosis*.—Nil.

33. *Infectious lymphangitis*.—Nil.

34. *Trypanosomiasis*.—Specimens from two ponies were declared positive. One pony was destroyed under the Glanders and Farcy Act, 1899 and compensation paid for and the other pony died.

35. *Nasal granuloma*.—Specimens from two bullocks were declared positive (*streptothrix*).

36. *Ringworm*.—Specimens from two cases (bullocks) were declared positive (*trichophyton* sp.).

37. *Tumour*.—Specimen from a buffalo was confirmed positive for *Botryomycosis*.

38. *Rabies*.—The total number of dogs, the brains of which were sent by the staff to the Pasteur Institute, Coonoor, is seven and they were all declared to be rabid. No confirmation was sought for 6 dogs and 4 other domestic animals.

39. Two dogs bitten by rabid dogs were treated with anti-rabic vaccine at the Veterinary hospitals, Guntur and Nellore. The dogs were found to be doing well after the treatment.

### IV.—MISCELLANEOUS WORK.

40. *Criminal poisoning*.—Ten cases were dealt with by the staff and in all the cases no poison was found. Post-mortems were conducted on all these cases.

41. *Malicious injury*.—On the whole 61 cases were examined for malicious injury by the staff. The results of 45 cases were not known. In six cases the accused were acquitted having been found not guilty. Parties were compromised in five cases. One case ended in conviction. Two cases were thrown out for want of evidence. In one case the accused was sentenced to pay a fine of Rs. 50 and in default of payment to undergo rigorous imprisonment for six months. In one case the accused was fined Rs. 30. Post-mortems were conducted on 15 cases.

42. In 61 cases certificates were issued in the whole circle of police requisition under Prevention of Cruelty to Animals Act, as to their fitness for duty. No animals were remanded to hospitals under this Act.

43. *Municipal.*—The Veterinary Assistant Surgeons in charge of Veterinary institutions, Ellore, Nuzvid, Jaggayyapet, Guruzala and Nellore were doing meat inspection duty. The meat inspection duty of the Veterinary Assistant Surgeon in charge of the Veterinary dispensary, Palakol, was discontinued from 30th June 1927 as the work was entrusted to one of the sanitary inspectors of the municipality.

44. *Fairs and shows.*—Nil.

45. *Research work.*—Materials were sent from Buffalo Breeding Farm, Guntur, to the Principal, Madras Veterinary College, from cases of diarrhoea but in one case Strongyle sp. was found.

Materials were also sent from the Chintaldevi Cattle Farm to the Principal, Madras Veterinary College, from cases of abortion. The disease is still under investigation.

#### V.—GENERAL REMARKS.

46. The staff found it necessary to complain against 22 village officers for slackness in reporting outbreaks of cattle disease.

47. *Office staff.*—Clerks of this office have very meagre prospects and in spite of this fact they continued to do good work. The question of granting an increased pay to the Head clerk is an imperative one in order to maintain the efficiency of the office and secure contentment amongst clerks.

48. *Finance.*—The total expenditure of the four districts, viz., West Godavari, Kistna, Guntur and Nellore including the cost on account of supply of medicines, surgical instruments, appliances, drugs, soap, bandage cloth, etc., was Rs. 5,865-13-10, Rs. 12,162-3-9, Rs. 11,172-9-6 and Rupees 6,975-3-11 respectively.

R. NARASINGA RAO,  
Officer in charge, II Circle,  
Civil Veterinary Department, Bezwada.

### ANNUAL ADMINISTRATION REPORT OF THE III CIRCLE, CIVIL VETERINARY DEPARTMENT, BELLARY, FOR THE YEAR 1927-28.

#### I.—ADMINISTRATION.

M.R.Ry. H. C. Sampath Ayyangar Avargal, G.B.V.C., held charge of this circle consisting of five districts, viz., Bellary, Anantapur, Cuddapah, Kurnool and Chittoor, from 1st April 1927 to 26th April 1927 and from 27th July 1927 to 29th July 1927. He was on leave from 26th April 1927 to 26th July 1927. I held charge of this circle from 27th April 1927 to 26th July 1927 and from 30th July 1927 to the end of the year under report.

2. M.R.Ry. H. C. Sampath Ayyangar toured for seven days. I spent 206 days in camp inspected all the Veterinary institutions and Touring Veterinary Assistant Surgeons in this circle once in detail except Veterinary dispensary, Badvel, which was opened on 13th December 1927 for want of time. Seven Veterinary institutions and eight touring billets were inspected twice and the rest could not be done for want of time as I had to run serum simultaneous inoculation camps in many places.

3. I selected two private buildings for the location of the Veterinary dispensaries at Rajampet and Badvel. I visited Nandyal, Harpanahalli, Kurnool, Koilkuntla and Hospet in connection with the selection of sites for the construction of permanent buildings for the location of Veterinary institutions.

4. I conducted eleven serum simultaneous inoculation camps against Rinderpest in this circle during the year and inoculated 801 animals, most of the camps were in Bellary district. There was no mortality among the animals so inoculated. This method of inoculation is gaining popularity and a good increase is expected during the ensuing official year.

5. While at headquarters I frequently attended the Veterinary hospital, Bellary, and rendered professional aid to the Veterinary Assistant Surgeon in charge. When in camp opportunity was taken to demonstrate intravenous injections in animals. Some operations were also done.

6. The Government animals at Hagari and Nandyal were inspected by me and serum simultaneous inoculations were conducted on the animals belonging to the agricultural farm in the former place.

7. In all the villages visited by me, opportunity was taken in explaining to them the working of the Veterinary department and the advantages of the modern veterinary methods of treatment.

## II.—EXECUTIVE STAFF.

8. The strength of the executive staff at the end of the year was 37, 15 in charge of Veterinary institutions, 18 touring, one additional and three leave reserve. One Veterinary Assistant Surgeon from this circle took the post-graduate course at the Madras Veterinary College.

9. Among the subordinate staff one Veterinary Assistant Surgeon was dismissed during the year.

10. The Veterinary hospital, Bellary, which was under the management of the Society for the Prevention of Cruelty to Animals till 31st March 1927, was taken over by Government from 1st April 1927 and was under Government control throughout the year.

### (a) Hospitals and Dispensaries.

11. Two new dispensaries, one at Badvel and another at Rajampet were opened and the total number of institutions was 15 in this circle at the close of the year.

12. Remarks as regards the feasibility of opening a Veterinary institution at Siruguppa, Hadagalli and Kanekal were submitted to the Veterinary Adviser to the Government of Madras for the information of Government.

13. The total number of cases treated and the castrations performed in the institutions of this circle was 15,438 as against 13,339 of the previous year.

14. There is an increase in the number of cases supplied with medicines but not brought to the institutions as shown below:—

|         |     |     |  |         |     |     |
|---------|-----|-----|--|---------|-----|-----|
| 1926-27 | ... | 309 |  | 1927-28 | ... | 440 |
|---------|-----|-----|--|---------|-----|-----|

15. The Veterinary dispensary at Hospet, after shifting it to a central place and at the same time after relieving the incumbent of the touring work, shows an increase in its daily average attendance.

16. There is an increase in the total number of cases treated in all the Veterinary institutions in this circle excepting in those at Nandyal, Hindupur and Harpanahalli. In the latter place there was an outbreak of plague and the people were ordered to evacuate the town for over three months, hence the fall in the number of cases treated.

17. The number of cases treated at the Veterinary dispensaries at Proddatur and Koilkuntla are not many when compared with other institutions; these were opened late in 1926 and it is hoped that both these institutions will show more work in the ensuing year.

18. The second Veterinary Assistant Surgeons attached to the Veterinary institutions at Nandyal, Adoni, Harpanahalli, Chittoor, Madanapalli and Cuddapah were asked to tour for 20 days in a month, selecting two centres, wherein propaganda work could be done. This change of policy was given effect to from 1st November 1927.

19. The Veterinary Assistant Surgeons in charge of Veterinary dispensaries Kurnool, Koilkuntla, Hospet, Anantapur and Hindupur were exempted from attending the outbreak reports of their respective taluks. The Veterinary Assistant Surgeon in charge of Proddatur and the Veterinary Assistant Surgeons in charge of the new dispensaries at Badvel and Rajampet were asked to attend to the outbreak reports of their taluks, with a view that the opening of a Veterinary dispensary at the taluk headquarters may be advertised more widely while on tour, when they could explain to the ryots the benefits they could get out of this department.

### (b) Itinerating Staff.

20. No new touring billets were opened during the year under review. The offices of the Touring Veterinary Assistant Surgeons, Nandikotkur, Kalyandrug, Kudligi, Proddatur, Rajampet and Harpanahalli were closed and their headquarters were changed to Kurnool, Anantapur, Hospet, Jammalamadugu, Rayachoti and Hadagalli respectively during the year under the change of policy (rearrangement of touring work). The Touring Veterinary Assistant Surgeons Penukonda, Nandikotkur, Kalyandrug, Kudligi and Nandyal were asked to attend to the outbreak reports of Hindupur, Kurnool, Anantapur, Hospet, Koilkuntla and Sirvel under the new scheme, in addition to the taluks they already had.

21. There is an increase in the number of cases treated by the touring staff for contagious diseases and a slight fall in

the number of cases treated for non-contagious diseases and castrations performed when compared with the figures of last year. The fall is due mainly to the prevalence of Rinderpest and more time was spent in attending to outbreak reports; besides when some of the Touring Veterinary Assistant Surgeons went on leave, such divisions had to be kept vacant for varying periods, when arrangements were made to attend to the outbreak reports in those places.

### III.—CONTAGIOUS DISEASES.

22. *Rinderpest*.—Five hundred and seventy-eight reports were received by the staff as against 363 in the last year, of which 459 reports were attended to, 47 were pending and the remaining 72 reports were not attended either for want of time or progress reports. The disease was very severe in Anantapur, Gooty and Tadpatri taluks of Anantapur district and the whole of Bellary district. It continued to exist in parts of Cuddapah, Kurnool and Chittoor districts but it did not take a virulent form.

23. The provisions of the Madras Cattle Disease Act were enforced in Bellary and Anantapur districts for one year from 21st and 22nd February 1928 respectively.

24. In Cuddapah district the Act was in force till the end of August 1927, but there was no necessity to enforce compulsory inoculation there as the disease was not virulent and did not show signs of spread.

25. Compulsory inoculation was ordered in all the villages of Anantapur, Gooty, Tadpatri, Penukonda and Dharmavaram taluks of Anantapur district and in Bellary, Rayadrug, Adoni and Alur taluks of Bellary district, 58,347 inoculations were performed against 56,057 of the previous year, by serum alone method.

26. Eight hundred and one animals were immunised against Rinderpest by the serum virus method of inoculation as against 81 done during the previous year. Out of this number only six animals belonged to the Agricultural Farm at Hagari and the rest belonged to ryots. This method is steadily gaining popularity. The difficulties encountered were that the poor ryot stealthily worked the animals in spite of warning to give rest to these animals and some people objected to the cattle being brand marked, to distinguish them from the rest not so immunised, saying that branding will depreciate the value of the hide. Attempts were made to open a centre where the cattle could be immunised by this method

first and to which place the cattle of the adjoining villages could be brought for immunisation, so that this system of protection could be spread around systematically. The villagers would not agree to the proposal because they could not get fodder for their cattle in another village and it was not possible for them to carry it and store it in another village. The fodder problem in these districts is rather a hard puzzle to solve and at the same time the apathy and fatalistic ideas of the people are difficult things to overcome by argument in a short time.

27. There was not much opposition for the serum alone method of inoculation although in some villages of Anantapur, Gooty, Bellary and Alur taluks some difficulty was encountered in convincing the people of the advantages. This was overcome by prosecuting about 43 persons who were fined by the concerned Magistrates under section 18 of the Madras Cattle Disease Act excluding 18 prosecutions of Alur, which are under trial with the Stationary Sub-Magistrate, Alur.

28. *Anthrax*.—The number of outbreak reports received by the staff was 60 against 56 of the last year of which 32 were attended. The remaining ones were left unattended because the disease subsided in many cases. Three hundred and seven animals were inoculated by serum alone method. This disease did not prevail in a severe form during the year.

29. *Hæmorrhagic septicæmia*.—Only four outbreaks were reported, of which one was attended and the remaining three were lodged owing to the stoppage of the disease. No inoculations were carried out against this disease.

30. *Black quarter*.—Two hundred and seventy-four reports were received against 572 of last year. One hundred and fifty-three reports were attended, one was pending at the end of the year and the remaining were lodged either for want of time or for want of progress reports. This disease did not prevail in a severe form as in last year. The reports received were mostly from Penukonda, Hindupur and Dharmavaram taluks of Anantapur district and Chittoor and Madanapalle taluks of Chittoor district. A few stray reports from Bellary, Cuddapah and Kurnool districts were also received but the disease was not severe.

31. Fifty-three animals were inoculated against Black quarter by serum aggressin method in Chittoor district. Three thousand four hundred and forty-three animals were inoculated against this disease by serum alone method.

32. *Foot-and-mouth disease*.—The number of outbreak reports received was 113 against 36 of previous year. Eighty-five reports were attended, four are pending and the remaining were lodged. This disease was reported mostly from the villages of Markapur taluk, Kurnool district.

33. *Hydrophobia*.—Six brains of dogs were sent up for microscopical examination of which five were positive and one inconclusive. In three dogs the disease was suspected but confirmation was not sought for. Excepting canines no other class of animals with rabies came to notice. One dog was put through a course of anti-rabic treatment at Chittoor Veterinary dispensary. The Veterinary Assistant Surgeon in charge of the Veterinary hospital, Bellary, had also to undergo anti-rabic treatment in December last.

34. *Scabies*.—Only one outbreak was reported from Madanapalle division where Cooper's dip was used with success.

35. *Sheep-pox*.—One report came from a village near Bellary and the cases were treated. The disease subsided.

36. *Spirochaetosis*.—In Anantapur and Bellary towns this disease was detected in among two poultry runs.

37. *Piroplasmosis*.—During the course of immunising cattle against Rinderpest in Bellary district and portions of Anantapur taluk it was observed that a very large number of cattle in all the camps showed T. mntans in their blood. These parasites were invariably few in number. P. bigeminum was detected in only one instance in a Mysore bull imported a few months before the inoculations. Two cases of P. bigeminum were reported, one from Nandyal and another from Madanapalle. No outbreak of this disease has been observed in this circle. P. gibsoni was detected in a dog in Madanapalle. Five cases of P. canis were also reported in this circle.

38. *Trypanosomiasis*.—No cases of Surra were detected in ponies during the year under review, but four outbreaks of Trypanosomiasis in cattle occurred in three villages of Penukonda taluk. Three cases were treated with tartar emetic and only one recovered.

39. *Nasal granuloma*.—Thirty-eight cases were treated with tartar emetic out of which twelve are reported to have been cured, eighteen got better or were relieved of distressing symptoms, six were not cured and no information was available for the other two cases.

#### IV.—MISCELLANEOUS WORK.

40. *Criminal poisoning*.—Five post mortem examinations were conducted by the staff and only in one case material was sent to the Chemical Examiner. Five cases were dropped owing to want of evidence and the other was not proceeded with because of the negative report from the Chemical Examiner.

41. *Malicious injury*.—Sixteen wound certificates and eleven post mortem examinations were conducted by the staff. Seven persons were convicted for inflicting malicious injuries on animals and the rest of the cases were either thrown out for want of evidence or compromised.

42. *S.P.C.A. and the Gorakshana Sabha*.—The Veterinary Assistant Surgeon in charge of the Veterinary hospital, Bellary, gave 32 wound certificates for cases prosecuted by the local S.P.C.A. as compared with 27 of the previous year. All the cases ended in conviction, but no case was remanded to the hospital for treatment. The Gorakshana Sabha which is an institution like the Pinjrapole in Madras, utilized the free services of the Veterinary Assistant Surgeon in charge for attending on sick animals. The Circle Officer also paid some visits to the place at the request of the Secretary, and gave advice on Veterinary matters whenever it was sought for. The Veterinary Adviser also visited it in October last.

43. *Inspection of slaughter-houses*.—During the year the municipality of Kurnool sanctioned the inspection of meat and slaughter-houses by the local Veterinary Assistant Surgeon in charge of the Veterinary dispensary from 16th September 1927 and the inspection of meat, etc., was discontinued at Chittoor from 6th August 1927.

44. *Cattle fairs*.—The annual cattle fairs at Kuruvatti, Mylar and Punganur were attended by the concerned Touring Veterinary Assistant Surgeons. The other smaller fairs in Gorantla, and weekly cattle fairs in Hindupur and Palmaner were also attended. The Cattle Disease Act was enforced in fairs at Kuruvatti, Punganur and Gorantla during the period. The fair of Kothacheruvu in Anantapur district was stopped owing to the prevalence of Rinderpest in the district.

45. *Inspection of Government live-stock*.—The Government animals at Hagari, Nandyal and Siddapuram were inspected by the staff concerned and the Circle Officer also inspected the animals of the former two places. The Veterinary Assistant Surgeons concerned have also treated sick

animals there, whenever called upon to do so. The Veterinary Assistant Surgeon in charge of the Veterinary institution and the Touring Veterinary Assistant Surgeon inspected the sheep and cattle belonging to the Recruit School, Anantapur.

46. *Research*.—While on tour I studied the kinds of cercariae in fresh water molluscs in Adoni, Anantapur, Hampasagar, Markapur and Kurnool. In a snail from the water works tank of Adoni I was able to find a new species of cercaria, a paper on which will be published soon. In all the places I found mostly amphistome cercariae and a few furco cercariae and a xiphidio cercaria. All these were found to have been described by Sewell in his book on *Cercariae Indicae*.

47. In many villages where I camped I was able to obtain *Tabanus diteneatus* and *T. striatus*. The latter was found in very large numbers in Anantapur town. Dissections of three species of ticks were done with a view to study the developmental stages of *T. mutans* and the results were inconclusive. It was noticed that in all these districts *O. savignii* is prevalent to a large extent. In three bullocks microfilariae were observed in their blood smears. Ticks from their bodies, and wild mosquitoes from their standing places were dissected and no developmental forms were seen. Now that a Personal Assistant is appointed it is hoped that more time will be devoted during the ensuing year for this kind of study.

48. Nine specimens of urethral calculi and also four samples of water obtained from Koilkuntla and Proddatur were sent to the Officer in charge, Deficiency Diseases Enquiry, Coonoor.

49. The Veterinary Assistant Surgeon in charge of the Madanapalle hospital treated 28 cases of chronic luxation of the patella in cattle by injecting Tr. iodine. Some of these were very badly affected and required three injections and were completely cured. This I mention here because in Telugu there is a proverb which means that no drug can cure such condition in cattle.

#### V.—GENERAL REMARKS.

50. During the year the touring staff had to report in nineteen instances about the slackness on the part of village munsifs in reporting outbreaks of contagious diseases.

51. The following Veterinary Assistant Surgeons helped me during the serum simultaneous inoculations in this circle:—Messrs. K. S. Ramachandran, A. D. Samuel,

P. K. Rangesa Rao, T. M. Gangadhara Konar, P. A. Parthasaradhi, B. Hanumantha Rao and C. R. Chamaraj. Mr. Ramachandran arranged the largest number of camps for these inoculations. The Tahsildar of Harpanahalli was good enough to arrange for the serum simultaneous inoculation camp there and at the same time helped this department in checking the movements of a herd of cattle infected with Rinderpest belonging to Koracha cattle dealers. This has greatly helped in keeping the Mylar fair free from Rinderpest.

52. The Veterinary Assistant Surgeon in charge of the Veterinary hospital, Madanapalle, held two exhibitions in connexion with rural reconstruction work and the National Health Week. The touring veterinary assistant surgeons spoke to the people, whenever an opportunity presented itself, on the work done by this department and its advantages. It is hoped that better organized work in this direction will be done in the ensuing year.

53. Out of the total number of castrations done by the staff 508 were done by the Burdizzo castrator as against 288 of last year. There were four of these instruments in this circle during the year. I demonstrated the method of castration by this instrument in some villages I visited.

54. *Office*.—The three clerks of this office that were on probation were confirmed in their respective places. The Head clerk and the second clerk passed the Account Test Examination. They have discharged their duties satisfactorily though the clerical work has increased considerably.

M. ANANTNARAYANA RAO,  
Acting Officer in charge, III Circle,  
Civil Veterinary Department, Bellary.

ANNUAL ADMINISTRATION REPORT OF THE IV CIRCLE,  
CIVIL VETERINARY DEPARTMENT, MADRAS, FOR  
THE YEAR 1927-28.

I.—ADMINISTRATION.

I was in charge of the IV Circle consisting of the districts of Chingleput, South Arcot, Tanjore and North Arcot throughout the year with the exception of seventeen days from 1st April 1927 to 17th April 1927 during which period Mr. T. J. Hurley, M.R.C.V.S., I.V.S., was in charge. Mr. Hurley did not tour during the above period and I was on tour for 207 days during the remaining part of the year. All the institutions and touring billets of the circle were inspected in detail once during the year and the second inspection in the case of six institutions also was undertaken. A surprise inspection was also paid to the Veterinary dispensary, Negapatam, during the year. In addition, 21 visits were paid to the headquarter hospital at Saidapet.

2. During October 1927 I sat as a member of the Board of Examiners for B.Sc. (Agriculture) Degree Examination, 1928.

3. Serum simultaneous inoculation against Rinderpest was conducted by me in three camps at Chunampet, Vellore Central Jail and Tirur (Chingleput district) on 14, 7 and 38 animals respectively during January, February and March 1928, Muktesar virus being used.

4. Twenty-one calves of the Zamindar of Kaugundi were inoculated by me with Blackquarter aggressin and two of the calves immunised against Rinderpest by serum simultaneous method of inoculation were also tested during the year, but the virus which was obtained from Muktesar was found dead and consequently another cow from the Zamindar's herd which was protected against Rinderpest by serum simultaneous method of inoculation was retested with Rinderpest virus drawn from a control at Vellore. To the satisfaction of the Zamindar the cow did not react and one of the controls used for the test died. The rest of the animals of the Zamindar will be protected by serum simultaneous method against Rinderpest during the current official year.

5. The Head office stationery, stores and furniture were inspected by me periodically. The circle office was inspected by the Veterinary Adviser as usual.

II.—EXECUTIVE STAFF.

6. On the 31st March 1928, the subordinate staff including the one leave reserve was 29 Veterinary Assistant Surgeons as against 27 of the previous year. There was no casualty among the staff during the year.

III.—HOSPITALS AND DISPENSARIES.

7. Two Veterinary dispensaries were opened one at Tindivanam and another at Tiruvallur on 24th November 1927 and 14th November 1927 respectively, on the whole bringing up the number of Veterinary hospitals and dispensaries to 5 and 10 respectively.

8. All the Veterinary institutions in the circle worked satisfactorily and the total showed a marked increase in the number of in and out-patients treated and castrations performed, viz., 21,461 as against 19,590 in the previous year. The three institutions at Tiruvannamalai, Kallakurchi and Conjeeveram showed a slight fall in the figures when compared to those of the previous year. The two new dispensaries at Tindivanam and Tiruvallur have had a satisfactory start.

9. The number of cases supplied with medicine during the year was 297 as against 391.

10. Arrangements are being made to select sites at Tiruvallur, Mayavaram, Chingleput and Conjeeveram for the construction of permanent buildings for the institutions located at the above places. The construction of permanent buildings at Kumbakonam for a Veterinary hospital has almost been finished and the institution will be shifted to the new buildings in the near future.

11. During the year, various sites were inspected by me at Negapatam for constructing permanent buildings and during March 1928 they were inspected by the Veterinary Adviser to the Government of Madras, but unfortunately, the several sites selected at different times were through some cause or other objected to by the Municipal Council.

12. The outbreak report attendance duty in the case of Veterinary Assistant Surgeons in charge of the Veterinary dispensaries, Conjeeveram, Ranipet and Mayavaram, has since been removed as all the above three institutions were doing more than fifteen cases a day on an average.

## IV.—ITINERATING STAFF.

13. On the 31st March 1928 there were 13 touring officers of which two were attached to the Veterinary hospital, Saidapet, and Veterinary dispensary, Kumbakonam, as second Veterinary Assistant Surgeons.

14. It will not be out of place to mention here that the system of attending to outbreak reports only by the touring staff was found to be neither effective nor in any way efficacious in the way of preventing cattle diseases or popularising the work of the department by bringing veterinary aid to the very door of the ryots, wherever and whenever it was most needed. All the second Veterinary Assistant Surgeons attached to the Veterinary institutions having more than an average daily attendance of 20, except in the case of the institutions at Kumbakonam and Saidapet, have been directed to follow the method of running camp dispensaries in the absence of outbreak reports. In order to serve better the interests of the agricultural population the headquarters of the second Veterinary Assistant Surgeons attached to the Veterinary dispensaries, Tiruvalur and Negapatam, were moved to Tirutturaippundi and Nannilam respectively.

15. The opening of the two new dispensaries has necessitated the shifting of the headquarters of the Touring Veterinary Assistant Surgeons, Tindivanam and Tiruvallur to Villupuram and Ponneri. The duties of the above two Veterinary Assistant Surgeons have been lightened by the removal of a taluk from the jurisdiction of each.

16. A comparative statement of cases treated and castrations performed by the Touring staff is furnished below:—

| Year.   | Cases treated. |                 | Castrations. |
|---------|----------------|-----------------|--------------|
|         | Contagious     | Non-contagious. |              |
| 1926-27 | 895            | 3,128           | 808          |
| 1927-28 | 1,649          | 3,292           | 604          |

17. Three hundred and two castrations by the Burdizzo's method were performed by the staff during the year as against 113 of the previous year. The fall under castrations can be ascribed only to the absence of systematic touring from the beginning of the year till the end of September 1927.

18. Veterinary Assistant Surgeons G. Krishnaswami Mudaliyar and V. Krishnaswami were deputed to work in the serum simultaneous inoculation camps during the year.

## V.—CONTAGIOUS DISEASES.

19. *Rinderpest*.—Out of the 312 outbreak reports of Rinderpest received during the year 17 only were left unattended. The disease was very severe in Chingleput district. 27,053 inoculations by the serum alone method were performed as against 15,436 of last year. Of the above, 20,721 inoculations were performed in Chingleput district alone. Besides this, 59 inoculations were done by the serum simultaneous method.

20. The Madras Cattle Disease Act II of 1866 was enforced throughout the year and the various cattle fairs in the Chingleput district were closed during the whole year.

21. Additional hands were seasonally posted to Chingleput, Conjeeveram and Tiruvallur whenever the disease became rife and the one posted to Conjeeveram still continues there as an additional Veterinary Assistant Surgeon. The disease was so widely prevalent and the ryots in some places so stubborn in refusing to submit their animals to preventive inoculation that compulsory inoculation by the serum alone method was enforced in the villages of Krishnapuram, Zamin Thondambattu, Sennankaranai and Kalancheri. The Touring Veterinary Assistant Surgeon, Tiruvallur, was deputed to carry out inoculations in the above villages.

22. In North Arcot district Rinderpest was prevalent till September 1927 and though the outbreak reports were rare by that time, the Act had to be enforced to enable the District Magistrate to close the weekly cattle fair at Salavedu in Wandiwash taluk so as to prevent ryots from taking cattle from affected parts on the borders of Chingleput district to the above fair for sale. The ryots of Nedungal village were so stubborn in refusing to submit their animals to preventive inoculation against Rinderpest that the District Magistrate was requested to issue necessary orders for carrying out compulsory inoculations. As Rinderpest broke out again in Arkonam taluk in February 1928, the Cattle Disease Act has been enforced in the taluk for three months from 27th March 1928.

23. In the South Arcot district in the month of August 1927 one outbreak report of Rinderpest was received from the village of Kilgudalur in Tindivanam taluk, but no further spread of the disease was noticed. The source of infection was traced to cattle taken from Seeeveram, Conjeeveram taluk in Chingleput district. During the early months of the current calendar year, the disease was observed to spread from village to village in Tirukkoyilur taluk necessitating the enforcement

33. There were also other outbreaks of the disease amongst fowls in the Government House, Guindy, and in the neighbourhood of Saidapet. Treatment with subcutaneous injection of soamin was resorted to with very good results.

34. *Other diseases.*—Sixteen miscellaneous reports were received by the staff and 13 of them were attended to, but they were found to be of a non-contagious nature.

35. *Bacteriological cases.*—Two hundred and ninety-nine specimens were submitted to the Principal, Madras Veterinary College, for microscopical examination, of which 143 were declared positive for various diseases.

## VI.—MISCELLANEOUS.

36. *Criminal poisoning.*—The staff were asked to conduct post mortem examinations on four cases suspected for criminal poisoning and materials were sent to the Chemical Examiner and death due to poisoning was declared in all the cases.

37. *Malicious injury.*—Thirty-four post mortem and wound certificates were issued by the staff. Two cases were thrown out, one was compromised in the court and the results on the rest are not available.

38. *Government livestock.*—The Government animals at the Agricultural Farm at Aduturai, the calves at the King's Institute, Guindy, the conservancy bullocks belonging to St. Thomas' Mount Cantonment, the Government livestock of the Borstal School at Tanjore, the municipal cattle at Kumbakonam, the Government animals at Central Jail, Vellore, and the bullocks of Agricultural Farm, Palakuppam, were inspected by the respective staff and advice given whenever it was necessary.

39. *Meat inspection.*—The Municipalities of Kumbakonam, Cuddalore, Tiruvalur and Tiruvannamalai continued to utilize the services of the local Veterinary Assistant Surgeons for the slaughter-house and meat inspection work. The slaughter-house inspection work of Tanjore municipality was given to the Veterinary Assistant Surgeon in charge, Veterinary hospital, Tanjore, from 1st July 1927. The Union Board, Ranipet, also availed of the services of the local Veterinary Assistant Surgeon for slaughter-house inspection from 20th October 1927.

40. *Fairs and shows.*—The subordinate staff attended the weekly and annual cattle fairs held in this circle during the year.

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41. *Propaganda work.*—Charts and diagrams relating to the cattle diseases communicable to man were exhibited at the cattle show held by the Zamindar of Kangundi in January 1928. A magic lantern lecture in Tamil on Rinderpest was delivered by me to a very large number of ryots on the above occasion.

42. Lectures on animal diseases were delivered by the local Touring Veterinary Assistant Surgeons, Tirutturaippundi and Ponneri, during the Health Week celebrations.

43. *Investigation and research, etc.*—During the month of November 1927 a most interesting epidemic amongst the domestic fowls and wild crows of Tanjore district was investigated by me in conjunction with the Veterinary Assistant Surgeons of the district. The epidemic was first brought to the notice of the department by the District Medical Officer, who stated that a large number of fowls and crows were dying in several places in the district including Tanjore town itself. The symptoms noticed in fowls were diarrhoea, reluctance to take food, drowsiness, paralysis of the legs and death in 24 hours in some cases, whilst crows were said to fall out of the trees either dead or dying.

44. As a result of my observations on many fowls, I came to the conclusion that they were dying of spirochaetosis or fowl tick-fever. Unfortunately I was unable to observe the disease in crows, but from the stated similarity between their symptoms and those shown by the fowls I was of opinion that these two classes of birds were dying of one and the same disease. In confirmation of this, it is interesting to note that in one place the disease broke out in fowls only after the death of a few crows in the neighbourhood.

45. Attempts made to confirm the diagnosis by microscopical examination were not successful but transmission experiments were carried out in the laboratory attached to the Madras Veterinary College from the two sick fowls sent from Negapatam. As a result of the above in both the cases spirochaetes were recovered from the blood of the two healthy fowls inoculated with the blood taken from the sick ones. This confirmed the diagnosis of spirochaetosis at least as far as the epidemic in fowls was concerned. Instructions were given about curative and preventive treatment of sick and healthy fowls with subcutaneous injection of soamin and spraying of poultry-yards with antiseptics to get rid of ticks.

## VII.—GENERAL REMARKS.

46. The Veterinary Assistant Surgeons in charge of Veterinary hospital, Cuddalore, and Veterinary dispensary, Negapatam, granted certificates in respect of the livestock exported to Straits Settlements and Federated Malay States and one half of the fees collected was credited to the Government.

47. During the year under reference the staff had to complain against 41 officers (village or taluk) for either not reporting outbreaks of cattle diseases promptly or for not maintaining the cattle mortality register or for not transmitting the outbreak reports received from the village officers to the concerned Veterinary Assistant Surgeons.

48. On the whole the executive staff worked satisfactorily during the year and the names of the following Veterinary Assistant Surgeons deserve special mention :—

1. G. Krishnaswami Mudaliyar.
2. W. J. D'Costa.
3. K. A. Ramaswami Ayyar.
4. G. Theophilus.

49. The work of the office staff continued to be satisfactory.

A. J. WILSON,  
*Officer in charge, IV Circle,*  
*Civil Veterinary Department, Madras.*

ANNUAL ADMINISTRATION REPORT OF THE V CIRCLE,  
CIVIL VETERINARY DEPARTMENT, COIMBATORE,  
FOR THE YEAR 1927-28.

I.—ADMINISTRATION.

1. During the year under report there was no change in the territorial jurisdiction of this circle, comprising the districts of Salem, Coimbatore, the Nilgiris, Malabar and South Kanara.

2. I held charge of the circle throughout the year, spent 179 days on tour, inspected all the Veterinary institutions and Touring Veterinary Assistant Surgeons, attended the cattle and pony show at Tiruppur, inspected the Government animals at Nilambur and Cinchona factory at Naduvattam, conducted Black quarter vaccination at the Pattagar's farm, protected Government cattle against Rinderpest by the serum simultaneous method at the Hosur Cattle Farm, Agricultural College, Coimbatore, and the animals purchased for the Ceylon Government, organised serum simultaneous inoculation campaign for combating outbreaks of Rinderpest in the Nilgiris and elsewhere and selected sites for permanent hospital buildings at Gobichettipalaiyam and Tellicherry. I continued to visit frequently the hospital at headquarters.

II.—EXECUTIVE STAFF.

3. At the end of the year there were 36 Veterinary Assistant Surgeons in this circle—18 in charge of Veterinary institutions, 15 on itinerating duty and 3 on leave. Veterinary Assistant Surgeon S. Syed Meyan resigned during the year. Two Veterinary Assistant Surgeons were deputed to work in the Forest Department to take the place of those who were either reverted or proceeding on leave. Veterinary Assistant Surgeon R. Swaminathan from this circle took the Post-graduate course at the Madras Veterinary College. One new post of compounder for the Veterinary dispensary at Gobichettipalaiyam was sanctioned and filled during the year. The compounder's post at the Veterinary hospital, Mangalore, was vacant at the close of the year as the acting incumbent resigned.

II.—(a) HOSPITALS AND DISPENSARIES.

4. The number of institutions under the control of this circle at the end of the year including the dispensaries newly opened at Tellicherry and Nathakadayur was 18. The hospitals attached to the Agricultural College Farm, Coimbatore and the Hosur Cattle Farm which are under the control of the Agricultural Department have also to be taken into account as these two institutions also are being inspected by me.

5. There has been increase in the number of cases treated and castrations performed in the hospitals and dispensaries—30,001 as against 26,484 in the previous year. All the hospitals and dispensaries except Erode and Hosur Cattle Farm have contributed towards this increase of 3,517. There was slight decrease in the number of cases treated at the hospitals at Erode and Hosur Cattle Farm, as compared with the previous year. In the case of Erode, the difference is so slight as to be negligible and as regards Hosur Cattle Farm it is a matter for congratulation, the percentage of sick animals at the breeding farm being less.

6. As usual, Coimbatore district has continued to lead in the matter of S.P.C.A. cases remanded to the infirmaries for treatment; of a total of 1,744 cases for the year, 1,592 were in Coimbatore, 130 in the Nilgiris and 22 in Salem.

7. The dispensary building at Pollachi was acquired by Government during the year and some of the urgent repairs were carried out.

8. An operation room for small animals and a pucca waiting shed were provided at the Coimbatore hospital.

9. At Tiruppur the District Agricultural Association has built a pucca shed for the two breeding bulls maintained there. Government have sanctioned the construction of quarters for the Veterinary Assistant Surgeon in charge of the hospital and a well.

10. At the Ootacamund Veterinary hospital the improvements and additions effected were an operation room for small animals, a store room, an irrigation platform, a horse travis and a road to the Veterinary Assistant Surgeon's quarters.

11. The question of providing quarters for the Veterinary Assistant Surgeon in charge of the hospital at Salem has been taken up and it is hoped that Government will sanction its construction at an early date.

12. At the Calicut Veterinary hospital three more dog-kennels and an operation room for small animals have been provided.

13. Proposals for the acquisition of the dispensary building at Palghat are under correspondence.

14. The second Veterinary Assistant Surgeon at the Veterinary hospital, Coimbatore, was relieved of his touring work as the average daily attendance was over 50. This institution will soon require a third hand to adequately cope with its growing work.

15. It is pleasing to be able to note that the hospitals and dispensaries in the circle have done very well indeed during the year.

## II.—(b) ITINERATING STAFF.

16. The change in the system of touring work introduced last year continued to be in force till October, when all the old touring billets were revived, each Touring Veterinary Assistant Surgeon having to do at least 20 days' tour in a month whether attending outbreaks of contagious diseases or in camp dispensaries.

17. Below is a comparative statement of the cases treated and castrations performed by the touring staff :—

| Year.   | Cases treated.       |                          | Castrations. |
|---------|----------------------|--------------------------|--------------|
|         | Contagious diseases. | Non-contagious diseases. |              |
| 1926-27 | 1,606                | 3,376                    | 659          |
| 1927-28 | 2,738                | 3,142                    | 564          |

18. The decrease in the non-contagious cases treated and castrations performed is chiefly due to the staff being engaged in combating serious outbreaks of contagious diseases. The demand for staff for dealing with contagious diseases was such that adequate provision could not be made in all cases. For the same reason castration by Burdizzo's instrument could not be done more extensively. The Touring Veterinary Assistant Surgeon, Kollegal, did 134 castrations by this method.

## III.—CONTAGIOUS DISEASES.

19. *Rinderpest*.—Of the contagious diseases as reported during the year, the most widely prevalent and that which put to test the strength of the staff was Rinderpest and almost all the districts were affected in varying degree by its prevalence. The Nilgiris and Malabar suffered the most and South Kanara the least.

20. Of the 317 reports of this disease received as against 205 in the previous year, 285 were attended to by the staff. Of the remainder, some were pending attendance at the end of the year, and others not attended to, the outbreaks having subsided.

21. The Cattle Disease Act was in force throughout the year in the Nilgiris and in the Hosur taluk of Salem district. In Malabar the Act was in force as shown below :—

|                             |     |     |                                        |
|-----------------------------|-----|-----|----------------------------------------|
| Wynaad taluk                | ... | ... | 1st April 1927 to 28th March 1928.     |
| Ernad and Walluvanad taluks | ... | ... | 29th November 1927 to 28th March 1928. |

22. In the Nilgiris and Malabar-Wynaad the task of combating a contagious disease like Rinderpest is rendered extraordinarily difficult by the apathy and ignorance of the cattle owners, the poor quality and semi-wild nature of the cattle which live in the open from year end to year end. In most cases the owner is ignorant of the strength of his herd which costs him nothing to keep and naturally is unwilling to bestow any attention when the disease comes round. It was a common experience in those parts to find the owners unwilling to help the Veterinary Assistant Surgeon in securing the animals for inoculation.

23. Twenty-seven thousand eight hundred and fifty inoculations by the serum alone method were performed in 184 outbreaks as against 17,017 inoculations in the previous year. Inoculation could not be undertaken in all the outbreaks attended owing to want of serum in some cases, the disease having subsided in others and unwillingness on the part of the owners in the rest.

24. Compulsory inoculation against the disease was resorted to in the Gudalur taluk of the Nilgiris and in Wynaad, Ernad and Walluvanad taluks of Malabar, where cattle-pounds under the Act were established. 2,455 out of the total number of inoculations by the serum alone method were in the areas served by these cattle-pounds. The Veterinary Assistant Surgeon in charge of the cattle-pound at Erumad village in Gudalur taluk reported to the Deputy Tahsildar, Gudalur, the names of certain ryots who refused to submit their cattle for inoculation but no prosecutions were instituted.

25. A special feature in connection with the control of this disease in the circle during the year, was the successful

demonstration of the advantages of conferring lasting immunity by the serum simultaneous method of inoculation in actual outbreaks. An outbreak of the disease within the municipal limits of Ootacamund afforded the opportunity of proving to the satisfaction of the owners of valuable herds that serum simultaneous method of inoculation was by far the best solution of the problem of protection of cattle exposed to infection. And many of the cattle owners in and around Ootacamund submitted their cattle for active immunisation. The success of this campaign was in no small measure due to the wholehearted co-operation and help rendered by Mr. Davis, the Municipal Chairman, and officers of the Health Department.

26. In order to enable this being done on an extensive scale, a circular embodying precise instructions for carrying out serum simultaneous inoculations in actual outbreaks was issued to the staff.

27. The question of suitable virus for these inoculations was easily solved by the promptness with which it was made available by post from the Mysore Serum Institute. And the number of outbreaks in which the Touring Veterinary Assistant Surgeons were able to undertake these inoculations since then has more than fulfilled expectations.

28. It is highly desirable that the production and distribution of virus should be under our own control. I have had some little experience of a virus depot on a small scale in the Municipal Segregation Camp near the Kennels at Ootacamund in connection with the inoculations on the Nilgiris and I think it would be difficult to find a more suitable place for this purpose anywhere else in the Presidency. The advantages of having a virus depot of our own will more than repay the cost of its up-keep.

29. At the end of the year the number of inoculations done by the serum simultaneous method was 2,153, of which 1,992 were done in 15 outbreaks in the Nilgiris, Coimbatore and Malabar. There was only one mortality due to an animal in the incubative stage being inoculated. Experience has shown that most of the writers on the subject in the past have been unduly pessimistic and cautious to a fault.

30. It is hoped that this method of inoculation will, in course of time, replace entirely the serum alone method in combating Rinderpest.

31. At the time of serum simultaneous inoculation at the Hosur Cattle Farm, anti-rinderpest serum manufactured at the Mysore Serum Institute was used as a test on 13 country-bred cattle, viz., Schindi calves 8, Kangayam calves 4 and Delhi buffalo 1, and comparing the reactions shown it was found to be as effective as the class II special serum supplied from Muktesar.

32. *Anthrax*.—Sixty-two reports of this disease were received as against 40 in the previous year and 49 were attended to. The others were not attended to either for want of time or because the disease subsided. Owing to the sporadic nature of the disease, it was possible to perform 118 inoculations only in 4 of the outbreaks, the disease having subsided in the others at the time of visit.

33. *Hemorrhagic septicemia*.—Seventeen out of the 26 reports received were attended to and 163 inoculations were performed in three outbreaks. There was no disease at the time of visit in the other outbreaks and so no inoculations were done.

34. *Black quarter*.—Of the 95 outbreaks reported 43 were attended. Most of these were as usual reported from the Dharmapuri division of Salem district. 1,020 inoculations were done by the serum alone method and 862 by sero-aggression method. More than half the number of reports could not be attended to on account of the prevalence of Rinderpest which took up most of the time of the Touring Veterinary Assistant Surgeon and no additional hand was available. In fact this billet was without a substitute for some time when the Touring Veterinary Assistant Surgeon was on sick leave.

35. *Foot-and-mouth*.—Of the 40 reports received 27 were attended to and the rest could not be attended to owing to the prevalence of more serious diseases elsewhere.

36. *Rabies*.—Of the 60 cases suspected, the disease was confirmed in 19 cases and in the rest confirmation was not sought. One pony at the Tiruchengodu dispensary and 4 dogs at the Mangalore Veterinary hospital were given anti-rabic treatment. All the animals were reported to be alive and well.

37. *Glanders*.—No cases were reported during the year. Eight horses were tested with Mallein at the Hosur Cattle Farm. In seven of these the reactions were negative and in one animal doubtful, which is to be tested again.

38. *Piroplasmosis*.—Four out of the six cases in canines suspected for the disease were confirmed microscopically.

39. *Distemper*.—Several cases of this disease are reported to have been treated successfully with prophylactic and curative vaccines at the Veterinary hospital, Coonoor, during the year.

40. *Chicken-pox*.—There was an outbreak of this disease at the Hosur Cattle Farm and most of the young chicks succumbed.

41. *John's disease*.—Of the three bovines at the Hosur Cattle Farm suspected for this disease two were confirmed by microscopic examination at the Madras Veterinary College laboratory. No organisms could be found in the rectal washings of the other case. Another bullock from the Salem Jail suspected for the disease died after protracted illness.

42. *Kumri*.—Four cases were recorded during the year.

#### IV.—MISCELLANEOUS.

43. *Bacteriological*.—One hundred and twenty-six specimens were submitted by the staff to the Madras Veterinary College laboratory for examination.

44. A case of abscess in a bullock at the Coimbatore Veterinary hospital which did not respond to the usual treatment was successfully treated with auto-vaccine prepared at the Madras Veterinary College laboratory.

45. *Criminal*.—Twenty wound certificates and 11 post-mortem certificates were given by the staff for malicious injury. Of these two ended in conviction with a fine of Rs. 100 and Rs. 75, respectively, in 12 results not known, in one compromise was effected, in another no action was taken, one pending and in three others prosecution was not launched for want of evidence.

46. *Municipal*.—The Salem District Board has exempted unladen sick animals attending Veterinary hospital for treatment from levy of tolls with effect from 1st April 1928.

47. Ootacamund and Coimbatore Municipalities continue to have whole-time Veterinary Assistant Surgeons. In all other Municipalities except Tellicherry, Salem, Mangalore, Pollachi, Dharapuram and Udumalpet, meat inspection is done by a Veterinary Assistant Surgeon of this department. There can be no valid excuse, except in the case of Udumalpet where there is no Veterinary institution yet, for not employing the Veterinary Assistant Surgeon in charge of

the institution for purposes of meat inspection. Mention has been made about this in the successive annual reports of this department. It seems that the desired object cannot be achieved unless an obligation is imposed by rule that meat inspection in municipal towns shall be done by a Veterinary Assistant Surgeon.

48. *Fairs and Shows*.—The Cattle and Pony Show at Tiruppur and the annual cattle fairs at Kalipatti, Mecheri and Kulgunda were held during the year. The Cattle Diseases Act was in force in all those places. The Kizhur fair was not held owing to prevalence of rinderpest.

49. *Propaganda work*.—Lectures on the care and management and the common contagious diseases of domesticated animals with charts and lantern slides were delivered by the local Veterinary Assistant Surgeon to the officers and men of the Territorial Force at the training camp in Cannanore.

#### V.—GENERAL REMARKS.

50. The executive staff had to complain against 17 village officers for slackness in reporting outbreaks of contagious diseases.

51. Although according to a recent by-law to the Madras Cattle Disease Act, 1866, compulsory inoculation against Rinderpest is permissible in specified areas, yet it appears that unless it is made obligatory on the part of the owner or keeper to produce his animals in the area for inoculation, no action could be taken against him for evading it. This matter may be taken up for consideration at an early date.

52. Government sanction has been accorded for the construction of a permanent building for the Circle office. It is hoped that the construction will be taken up soon and completed before the close of the current official year.

53. The clerks in the Circle office are a hard-worked lot and it is a pity that the proposal for revising the pay of the Head clerk has not met with favourable consideration yet.

K. KAILASAM AYYAR,  
Officer in charge, V Circle,  
Civil Veterinary Department, Coimbatore.

circle during this year was 18,860 and 407 as against 17,154 and 380 of the previous year. Of the 407 castrations done at the institutions, 52 had been performed by Burdizzo Castrator. An increase in the number of cases supplied with medicine but not brought to the institutions has been observed—362 against 209 of the previous year. The increase is presumably due to medicine supplied to contagious cases owing to the prevalence of contagious disease in this circle. There has been a fall in both admissions and attendance in the Veterinary dispensaries at Kodaikanal and Virudhunagar. In the former it is due to change of hands while in the latter, it is attributed to the illiteracy of the ryots, the failure of the monsoon and consequent economic depression, and also to the situation of the dispensary in a non-agricultural centre. However it is a matter for consideration whether a change of hands would improve matters. Its progress will be watched after a change of hand is made.

10. A temporary waiting and an operation shed have been constructed at the Veterinary dispensary, Karur, during the year. A temporary in-patient shed for the same dispensary has been constructed by the S.P.C.A. authorities at Trichinopoly. At the Veterinary hospital, Madura, an existing terraced building has been converted into a dog-ward and necessary improvements have been made. At Virudhunagar a new bath room had been added to the existing Veterinary Assistant Surgeon's quarters by the Public Works Department.

(b) *Itinerating Staff.*

11. Out of the 12 touring billets sanctioned for this circle only nine touring billets were actually working at the close of the official year. Three touring billets namely, Ariyalur, Periakulam and Sivaganga had to be temporarily closed since Rinderpest was virulent in Tinnevely and Madura districts and all the available hands were utilised to combat the same. No new touring billets were opened in this circle during the year under report. A comparative statement of the work done by the touring staff for the last two years is given below for reference:—

| Year.   | Inoculations. | Contagious cases treated. | Non-contagious cases treated. | Castrations. |
|---------|---------------|---------------------------|-------------------------------|--------------|
| 1926-27 | 1,505         | 306                       | 5,444                         | 997          |
| 1927-28 | 24,693        | 1,821                     | 4,249                         | 715          |

12. From the above details it will be seen that there is an increase in the number of inoculations carried out and contagious cases treated. But there is a fall in the number of

non-contagious cases treated and the number of castrations performed. The fall in both the cases is due to the severity of Rinderpest in this circle; besides, when some of the Veterinary Assistant Surgeons went on leave the places had to be kept vacant for a long time for want of leave reserve hands, although arrangements had been made to attend outbreak reports in their jurisdiction. Of the 715 castrations performed, 482 were done by Burdizzo's Castrator.

13. The following Veterinary Assistant Surgeons helped me in conducting serum simultaneous inoculations in three fixed camps, (viz.), Courtallam and Ravanasamudram of Tinnevely district and Kattuputtur of Trichinopoly district, and in nine running camps, (viz.), Sevandipuram, Kulamanikapuram, Kodarangulam, Padmaneri, Keezhakaduvatti and Vijayanarayanam of Tinnevely district and Naickarapatti, Periammapatti and Sivagiripatti of Madura district:—

1. Mr. K. V. Raghavachari.
2. „ K. R. Lakshminarayana Ayyar.
3. „ P. K. Devanayakam Pillai.
4. „ P. S. Kuppuswami Ayyar.
5. „ G. Avoodanayakam Pillai.
6. „ S. Vaidyanatha Mudaliyar.
7. „ K. Rajaratnam Pillai.
8. „ K. G. Krishnan.
9. „ T. Sivagaminatha Mudaliyar.
10. „ J. D. David.
11. „ P. Daniel.
12. „ D. John.
13. „ M. Ramakrishna Pillai.
14. „ S. N. Vengu Ayyar.
15. „ V. Sankaranarayana Ayyar.
16. „ K. S. Vanniaperumal.

III.—CONTAGIOUS DISEASES.

14. The number of outbreak reports received and attended to by the itinerating staff this year and the previous year are given below against the different contagious diseases:—

| Disease.               | 1926-27.  |           | 1927-28.  |           |
|------------------------|-----------|-----------|-----------|-----------|
|                        | Received. | Attended. | Received. | Attended. |
| Rinderpest             | 9         | 7         | 152       | 148       |
| Anthrax                | 23        | 16        | 30        | 29        |
| Blackquarter           | 23        | 20        | 61        | 54        |
| Hæmorrhagic Septicæmia | 23        | 20        | 21        | 19        |
| Foot and mouth disease | 3         | 2         | 29        | 23        |
| Sheep-pox              | 1         | 1         | 1         | 1         |
| Ephemeral fever        | Nil.      | Nil.      | 1         | 1         |

It will be seen from the figures that there has been an increase in the outbreak reports of Rinderpest and Black quarter.

15. *Rinderpest*.—One hundred and fifty-two outbreak reports were received, of which 148 were attended. The remaining four reports were not attended since the progress reports received showed subsidence of the disease. The disease prevailed in a very severe form in Nanguneri, Ambasamudram, Tenkasi and Koilpatti taluks of Tinnevely district, Palani taluk of Madura district and Srivilliputtur taluk of Ramnad district, while in Kulittalai and Udayarpalayam taluks of Trichinopoly district, it was prevailing in a moderately severe form. Inoculations by serum alone method were undertaken in 92 outbreaks and by serum simultaneous method in 9 outbreaks. The majority of these outbreak reports was from Tinnevely and Madura districts. The provisions of the Cattle Disease Act were enforced in the following places:—

For three months from 2nd August 1927 in Koilpatti taluk of Tinnevely district.

For two months from 24th January 1928 in Nanguneri of Tinnevely district.

For six months from 6th March 1928 in the whole of Tinnevely district.

For three months from 13th December 1927 in Kulittalai taluk (excluding Manapparai division) of Trichinopoly district.

16. In this circle 21,890 animals were inoculated by serum alone method and 1,190 animals by serum simultaneous method. The latter method of inoculation has done immense good in checking the spread of the disease and the ryots are appreciating this method of inoculation very much.

17. The source of infection has been traced to the Travancore border where it was prevailing in a very virulent form from the beginning of the official year and no preventive measures appear to have been taken by the Travancore State to prevent the spread of the disease.

18. *Black quarter*.—Sixty-one reports were received by the staff, of which 54 were attended. The non-attendance of the remaining seven was due to the subsidence of the disease before attendance. Seven hundred and sixty-three inoculations were performed against this disease.

19. *Anthrax*.—Thirty outbreaks were received, of which 29 were attended. The disease was very sporadic and mild

and it was reported that no inoculations were possible either due to the conservatism of the ryots or subsidence of the disease before attendance.

20. *Foot-and-mouth disease*.—Twenty-nine reports were received of which 23 were attended. In the remaining 6, postal instructions as to the line of treatment were issued.

21. *Hemorrhagic septicæmia*.—Twenty-one reports were received of which 19 were attended and the remaining two were lodged since progress reports showed subsidence of the disease. Eight hundred and fifty animals were inoculated against this disease.

22. *Sheep-pox*.—One report was received from Ariyalur Division of Trichinopoly district and the same was attended. The disease is reported to have been mild.

23. *Ephemeral fever*.—One report was received from Madura district and it was attended.

24. *Rabies*.—Ten brains from dogs had been sent to Coonoor for microscopical examination of which nine were confirmed and in one the result was reported to be inconclusive. Besides the above, two other animals were suspected for Rabies at Trichinopoly but no confirmation was sought. One equine, two bovines and six canines were given anti-rabic treatment, of which one equine and one canine are reported to have died.

#### IV.—MISCELLANEOUS.

25. *Criminal poisoning*.—Post-mortem examinations were conducted on seven animals suspected for criminal poisoning and arsenic was detected by the Chemical Examiner in five cases only, of which four ended in conviction and one was under trial. The results of the remaining two cases have not been communicated yet.

26. *Malicious injury*.—Thirty-four cases of malicious injury were examined on the whole on lawful requisition from the Police, out of which it was necessary to conduct post-mortem examination on nine of them. Five cases were convicted, two were compromised, three were acquitted and the result was not known as regards the rest.

27. *Society for the Prevention of Cruelty to Animals*.—In 630 cases the Veterinary Assistant Surgeons had occasion to issue certificates on lawful requisition from the Society for the Prevention of Cruelty to Animals agents, and in 63 cases on lawful requisition from Police authorities under the Town

Nuisance Act. Only 18 cases appear to have been remanded to Trichinopoly Veterinary hospital and seven to Veterinary hospital, Madura, for treatment.

28. *Bacteriological work.*—Ninety-six specimens were submitted by the staff to the Madras Veterinary College laboratory for microscopical examination. There was nothing of unusual interest to report about the specimens except a case of *Dracunculus medinensis* in a dog from the Veterinary dispensary at Devakottai.

29. *Municipal.* The Municipalities of Trichinopoly, Dindigul, Kodaikanal, Tuticorin and Tinnevely and the Union Board of Rajapalayam utilised the services of the Veterinary Assistant Surgeons in charge of Veterinary institutions located within their respective localities for meat inspection work. The Madura Municipality continued to have a private whole-time Veterinary Assistant Surgeon for this kind of work.

30. *Government livestock.* The Government animals at Koilpatti Agricultural Farm were inspected by the Touring Veterinary Assistant Surgeon, Koilpatti, periodically and advice was given whenever it was necessary.

31. *Fairs.* Twenty two annual cattle fairs and twelve weekly cattle fairs were attended by the concerned Veterinary Assistant Surgeons during the year under report. Besides one pony fair was held at Athicombai of Madura district and the same was attended by the concerned Veterinary Assistant Surgeon.

#### V. GENERAL REMARKS.

32. The executive staff had occasion to complain against twenty nine village officers for slackness in reporting outbreaks of contagious diseases.

33. The serum alone method of inoculation does not appear to give the desired effect in conferring immunity on inoculated animals and it is a matter for consideration whether the serum simultaneous inoculations against rinderpest with local virus would not be a better method of dealing with the disease. In order to conduct the latter method, the Cattle Disease Act will have to be amended suitably.

34. *Office staff.*—The work of the clerical staff continued to be satisfactory.

A. RAMACHANDRA AYYAR,  
Acting Officer in charge, VI Circle,  
Civil Veterinary Department,  
Madura.

TABLE I.—Statement showing the main results of the Madras Veterinary College for the year 1927-28.

| Name of the College.       | Name of the course of instruction if more than one course is followed. |                                              | Number of students.                            |                                       | Students admitted during the year 1927-28, classified by educational qualifications. |                                             |                                                                                                   | Receipts.                             |                               | Expenditure. |                     | Employment of students passed out during the three years preceding. |                                |                  |                   |                                                                            |
|----------------------------|------------------------------------------------------------------------|----------------------------------------------|------------------------------------------------|---------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------|---------------------------------------------------------------------------------------------------|---------------------------------------|-------------------------------|--------------|---------------------|---------------------------------------------------------------------|--------------------------------|------------------|-------------------|----------------------------------------------------------------------------|
|                            | Scholarship-holders.                                                   | Admitted during the year.                    | Passed final examination during the year 1928. | Failed to pass the final examination. | In ordinary course.                                                                  | Instruction prolonged by reason of failure. | Matured with higher qualifications.                                                               | Knowing English but not matriculated. | Knowing English, very little. | From fees.   | From other sources. | Total.                                                              | Salaries of instructing staff. | Other expenses.  | Total.            | Total number passed.                                                       |
|                            |                                                                        |                                              |                                                |                                       |                                                                                      |                                             |                                                                                                   |                                       |                               |              |                     |                                                                     |                                |                  |                   |                                                                            |
| Madras Veterinary College. | 16                                                                     | 23 (this includes six second-year students). | 19                                             | 3                                     | A 48<br>B 27<br>C nil                                                                | A 11<br>B 5<br>C 2                          | 36 Secondary School-Leaving Certificate holders and two who have passed Intermediate Examination. |                                       |                               | Rs. 3,600.   | Rs. 11,967-8-9.     | Rs. 15,567-8-9.                                                     | Rs. 20,110-3-0.                | Rs. 16,616-9-11. | Rs. 97,056-12-11. | 1925 .. 28<br>1926 .. 15<br>1927 .. 12                                     |
|                            |                                                                        |                                              |                                                |                                       |                                                                                      |                                             |                                                                                                   |                                       |                               |              |                     |                                                                     |                                |                  |                   | 1926 .. 19<br>1926 .. 4<br>1927 .. 2                                       |
|                            |                                                                        |                                              |                                                |                                       |                                                                                      |                                             |                                                                                                   |                                       |                               |              |                     |                                                                     |                                |                  |                   | In service of local bodies or Government .. 18<br>1926 .. 11<br>1927 .. 10 |
|                            |                                                                        |                                              |                                                |                                       |                                                                                      |                                             |                                                                                                   |                                       |                               |              |                     |                                                                     |                                |                  |                   | In service of other bodies .. 10<br>1926 .. 4<br>1927 .. 2                 |
|                            |                                                                        |                                              |                                                |                                       |                                                                                      |                                             |                                                                                                   |                                       |                               |              |                     |                                                                     |                                |                  |                   | In private practice .. .. .                                                |
|                            |                                                                        |                                              |                                                |                                       |                                                                                      |                                             |                                                                                                   |                                       |                               |              |                     |                                                                     |                                |                  |                   | Number unemployed .. .. .                                                  |

TABLE II.—Statement showing the number of deaths from contagious diseases amongst animals during the year 1927-28.

| District.          | Equines. |          |         |        |                            | Bovines. |          |         |        |                            | Others.  |          |         |        |                            |
|--------------------|----------|----------|---------|--------|----------------------------|----------|----------|---------|--------|----------------------------|----------|----------|---------|--------|----------------------------|
|                    | Equines. | Bovines. | Others. | Total. | Other contagious diseases. | Equines. | Bovines. | Others. | Total. | Other contagious diseases. | Equines. | Bovines. | Others. | Total. | Other contagious diseases. |
| 1. Ganjam          | ..       | ..       | ..      | ..     | ..                         | ..       | ..       | ..      | ..     | ..                         | ..       | ..       | ..      | ..     | ..                         |
| 2. Vizagapatnam    | ..       | ..       | ..      | ..     | ..                         | ..       | ..       | ..      | ..     | ..                         | ..       | ..       | ..      | ..     | ..                         |
| 3. Godavari, East. | ..       | ..       | ..      | ..     | ..                         | ..       | ..       | ..      | ..     | ..                         | ..       | ..       | ..      | ..     | ..                         |
| 4. Godavari, West. | ..       | ..       | ..      | ..     | ..                         | ..       | ..       | ..      | ..     | ..                         | ..       | ..       | ..      | ..     | ..                         |
| 5. Kistna          | ..       | ..       | ..      | ..     | ..                         | ..       | ..       | ..      | ..     | ..                         | ..       | ..       | ..      | ..     | ..                         |
| 6. Guntur          | ..       | ..       | ..      | ..     | ..                         | ..       | ..       | ..      | ..     | ..                         | ..       | ..       | ..      | ..     | ..                         |
| 7. Nellore         | ..       | ..       | ..      | ..     | ..                         | ..       | ..       | ..      | ..     | ..                         | ..       | ..       | ..      | ..     | ..                         |
| 8. Karnool         | ..       | ..       | ..      | ..     | ..                         | ..       | ..       | ..      | ..     | ..                         | ..       | ..       | ..      | ..     | ..                         |
| 9. Bellary         | ..       | ..       | ..      | ..     | ..                         | ..       | ..       | ..      | ..     | ..                         | ..       | ..       | ..      | ..     | ..                         |
| 10. Anantapur      | ..       | ..       | ..      | ..     | ..                         | ..       | ..       | ..      | ..     | ..                         | ..       | ..       | ..      | ..     | ..                         |
| 11. Cuddapah       | ..       | ..       | ..      | ..     | ..                         | ..       | ..       | ..      | ..     | ..                         | ..       | ..       | ..      | ..     | ..                         |
| 12. Chittoor       | ..       | ..       | ..      | ..     | ..                         | ..       | ..       | ..      | ..     | ..                         | ..       | ..       | ..      | ..     | ..                         |
| 13. Chingleput     | ..       | ..       | ..      | ..     | ..                         | ..       | ..       | ..      | ..     | ..                         | ..       | ..       | ..      | ..     | ..                         |
| 14. South Arcot    | ..       | ..       | ..      | ..     | ..                         | ..       | ..       | ..      | ..     | ..                         | ..       | ..       | ..      | ..     | ..                         |
| 15. North Arcot    | ..       | ..       | ..      | ..     | ..                         | ..       | ..       | ..      | ..     | ..                         | ..       | ..       | ..      | ..     | ..                         |
| 16. Tanjore        | ..       | ..       | ..      | ..     | ..                         | ..       | ..       | ..      | ..     | ..                         | ..       | ..       | ..      | ..     | ..                         |
| 17. Salem          | ..       | ..       | ..      | ..     | ..                         | ..       | ..       | ..      | ..     | ..                         | ..       | ..       | ..      | ..     | ..                         |
| 18. Coimbatore     | ..       | ..       | ..      | ..     | ..                         | ..       | ..       | ..      | ..     | ..                         | ..       | ..       | ..      | ..     | ..                         |
| 19. The Nilgiris   | ..       | ..       | ..      | ..     | ..                         | ..       | ..       | ..      | ..     | ..                         | ..       | ..       | ..      | ..     | ..                         |
| 20. Malabar        | ..       | ..       | ..      | ..     | ..                         | ..       | ..       | ..      | ..     | ..                         | ..       | ..       | ..      | ..     | ..                         |
| 21. South Kanara   | ..       | ..       | ..      | ..     | ..                         | ..       | ..       | ..      | ..     | ..                         | ..       | ..       | ..      | ..     | ..                         |
| 22. Trichinopoly   | ..       | ..       | ..      | ..     | ..                         | ..       | ..       | ..      | ..     | ..                         | ..       | ..       | ..      | ..     | ..                         |
| 23. Madras         | ..       | ..       | ..      | ..     | ..                         | ..       | ..       | ..      | ..     | ..                         | ..       | ..       | ..      | ..     | ..                         |
| 24. Ramnad         | ..       | ..       | ..      | ..     | ..                         | ..       | ..       | ..      | ..     | ..                         | ..       | ..       | ..      | ..     | ..                         |
| 25. Tinnevely      | ..       | ..       | ..      | ..     | ..                         | ..       | ..       | ..      | ..     | ..                         | ..       | ..       | ..      | ..     | ..                         |
| 26. Madras City    | ..       | ..       | ..      | ..     | ..                         | ..       | ..       | ..      | ..     | ..                         | ..       | ..       | ..      | ..     | ..                         |
| Total              | 8        | 32       | 92      | 35,803 | 2,792                      | 5,252    | 5,776    | 5,074   | 20,569 | 76,197                     | 13,881   | 6,085    | 1,487   | 2,112  | 3,951                      |

TABLE III.—Statement showing results of preventive inoculation during the year 1927-28.

| Districts.         | Name of disease against which inoculation was carried out. | Method of inoculation followed. | Number of outbreaks in which inoculation was undertaken. | Number of animals which died un inoculated in course of outbreak. |          |         | Number of animals inoculated. |          |         | Number of animals which died after inoculation. |          |         |
|--------------------|------------------------------------------------------------|---------------------------------|----------------------------------------------------------|-------------------------------------------------------------------|----------|---------|-------------------------------|----------|---------|-------------------------------------------------|----------|---------|
|                    |                                                            |                                 |                                                          | Equines.                                                          | Bovines. | Others. | Equines.                      | Bovines. | Others. | Equines.                                        | Bovines. | Others. |
| 1. Ganjam          | ..                                                         | ..                              | 32                                                       | ..                                                                | 1,234    | ..      | ..                            | 5,871    | 137     | ..                                              | 5        | ..      |
| 2. Vizagapatnam    | ..                                                         | ..                              | 10                                                       | ..                                                                | 161      | ..      | ..                            | 1,864    | ..      | ..                                              | 51       | ..      |
| 3. Godavari, East. | ..                                                         | ..                              | 63                                                       | ..                                                                | 1,481    | ..      | ..                            | 19,569   | ..      | ..                                              | 1        | ..      |
| 4. Godavari, West. | ..                                                         | ..                              | 6                                                        | ..                                                                | 218      | ..      | ..                            | 1,658    | ..      | ..                                              | 10       | ..      |
| 5. Kistna          | ..                                                         | ..                              | 18                                                       | ..                                                                | 318      | ..      | ..                            | 2,821    | ..      | ..                                              | 4        | ..      |
| 6. Guntur          | ..                                                         | ..                              | 5                                                        | ..                                                                | 146      | ..      | ..                            | 2,482    | ..      | ..                                              | 30       | ..      |
| 7. Nellore         | ..                                                         | ..                              | 77                                                       | ..                                                                | 1,711    | ..      | ..                            | 15,232   | ..      | ..                                              | 15       | ..      |
| 8. Karnool         | ..                                                         | ..                              | 23                                                       | ..                                                                | 504      | ..      | ..                            | 4,218    | ..      | ..                                              | 59       | ..      |
| 9. Bellary         | ..                                                         | ..                              | 97                                                       | ..                                                                | 1,708    | ..      | ..                            | 17,131   | ..      | ..                                              | 112      | ..      |
| 10. Anantapur      | ..                                                         | ..                              | 131                                                      | ..                                                                | 3,063    | ..      | ..                            | 24,289   | ..      | ..                                              | 39       | ..      |
| 11. Cuddapah       | ..                                                         | ..                              | 49                                                       | ..                                                                | 798      | ..      | ..                            | 10,004   | ..      | ..                                              | 6        | ..      |
| 12. Chittoor       | ..                                                         | ..                              | 14                                                       | ..                                                                | 249      | ..      | ..                            | 2,675    | ..      | ..                                              | 25       | ..      |
| 13. Chingleput     | ..                                                         | ..                              | 223                                                      | ..                                                                | 3,855    | ..      | ..                            | 20,721   | 33      | ..                                              | 15       | ..      |
| 14. South Arcot    | ..                                                         | ..                              | 8                                                        | ..                                                                | 299      | ..      | ..                            | 1,603    | ..      | ..                                              | ..       | ..      |
| 15. North Arcot    | ..                                                         | ..                              | 5                                                        | ..                                                                | 80       | ..      | ..                            | 793      | ..      | ..                                              | ..       | ..      |
| 16. Tanjore        | ..                                                         | ..                              | 5                                                        | ..                                                                | 51       | ..      | ..                            | 1,968    | ..      | ..                                              | ..       | ..      |
| 17. Salem          | ..                                                         | ..                              | 11                                                       | ..                                                                | 207      | ..      | ..                            | 956      | 89      | ..                                              | 2        | ..      |
| 18. Coimbatore     | ..                                                         | ..                              | 48                                                       | ..                                                                | 732      | 5       | ..                            | 8,324    | 184     | ..                                              | 99       | ..      |
| 19. The Nilgiris   | ..                                                         | ..                              | 20                                                       | ..                                                                | 134      | ..      | ..                            | 3,271    | 31      | ..                                              | ..       | ..      |
| 20. Malabar        | ..                                                         | ..                              | 101                                                      | ..                                                                | 2,023    | ..      | ..                            | 11,314   | ..      | ..                                              | 221      | ..      |
| 21. South Kanara   | ..                                                         | ..                              | 3                                                        | ..                                                                | 29       | ..      | ..                            | 78       | ..      | ..                                              | 1        | ..      |
| 22. Trichinopoly   | ..                                                         | ..                              | 6                                                        | ..                                                                | 49       | ..      | ..                            | 1,147    | ..      | ..                                              | ..       | ..      |
| 23. Madras         | ..                                                         | ..                              | 9                                                        | ..                                                                | 185      | ..      | ..                            | 2,313    | ..      | ..                                              | ..       | ..      |
| 24. Ramnad         | ..                                                         | ..                              | 2                                                        | ..                                                                | 138      | ..      | ..                            | 3,604    | ..      | ..                                              | 30       | ..      |
| 25. Tinnevely      | ..                                                         | ..                              | 75                                                       | ..                                                                | 2,238    | ..      | ..                            | 15,426   | ..      | ..                                              | ..       | ..      |
| 26. Madras         | ..                                                         | ..                              | 5                                                        | ..                                                                | 51       | ..      | ..                            | 1,968    | ..      | ..                                              | ..       | ..      |
| Total              | 1,048                                                      | ..                              | 21,662                                                   | 5                                                                 | ..       | ..      | 184,321                       | 477      | ..      | 726                                             | ..       | ..      |
| 1. Ganjam          | ..                                                         | ..                              | ..                                                       | ..                                                                | ..       | ..      | 110                           | ..       | ..      | ..                                              | ..       | ..      |
| 2. Vizagapatnam    | ..                                                         | ..                              | ..                                                       | ..                                                                | ..       | ..      | 19                            | ..       | ..      | ..                                              | ..       | ..      |
| 3. Godavari, East. | ..                                                         | ..                              | ..                                                       | ..                                                                | ..       | ..      | 1,835                         | ..       | ..      | ..                                              | ..       | ..      |
| 4. Guntur          | ..                                                         | ..                              | ..                                                       | ..                                                                | ..       | ..      | 31                            | ..       | ..      | ..                                              | ..       | ..      |
| 5. Bellary         | ..                                                         | ..                              | ..                                                       | ..                                                                | ..       | ..      | 703                           | ..       | ..      | ..                                              | ..       | ..      |
| 6. Anantapur       | ..                                                         | ..                              | ..                                                       | ..                                                                | ..       | ..      | 98                            | ..       | ..      | ..                                              | ..       | ..      |
| 7. Chingleput      | ..                                                         | ..                              | ..                                                       | ..                                                                | ..       | ..      | 52                            | ..       | ..      | ..                                              | 1        | ..      |
| 8. North Arcot     | ..                                                         | ..                              | ..                                                       | ..                                                                | ..       | ..      | 7                             | ..       | ..      | ..                                              | ..       | ..      |
| 9. Salem           | ..                                                         | ..                              | ..                                                       | ..                                                                | ..       | ..      | 119                           | ..       | ..      | ..                                              | ..       | ..      |
| 10. Coimbatore     | 1                                                          | ..                              | ..                                                       | ..                                                                | ..       | ..      | 533                           | ..       | ..      | ..                                              | 7        | ..      |
| 11. The Nilgiris   | 3                                                          | ..                              | ..                                                       | ..                                                                | ..       | ..      | 1,104                         | 46       | ..      | ..                                              | ..       | ..      |
| 12. Malabar        | 1                                                          | ..                              | ..                                                       | ..                                                                | ..       | ..      | 351                           | ..       | ..      | ..                                              | ..       | ..      |
| 13. Trichinopoly   | 3                                                          | ..                              | ..                                                       | ..                                                                | ..       | ..      | 47                            | ..       | ..      | ..                                              | ..       | ..      |
| 14. Madras         | 8                                                          | ..                              | ..                                                       | ..                                                                | ..       | ..      | 470                           | ..       | ..      | ..                                              | ..       | ..      |
| 15. Tinnevely      | ..                                                         | ..                              | ..                                                       | ..                                                                | ..       | ..      | 693                           | ..       | ..      | ..                                              | 1        | ..      |
| Total              | 16                                                         | ..                              | 219                                                      | ..                                                                | ..       | ..      | 6,182                         | 46       | ..      | 9                                               | ..       | ..      |

TABLE III.—Statement showing results of preventive inoculation during the year 1927-28—cont.

| year 1927-28—cont.                        |                                                            |                                 |                                                          |                                                                   |          |         |                               |          |         |                                                 |          |         |
|-------------------------------------------|------------------------------------------------------------|---------------------------------|----------------------------------------------------------|-------------------------------------------------------------------|----------|---------|-------------------------------|----------|---------|-------------------------------------------------|----------|---------|
| Districts.                                | Name of disease against which inoculation was carried out. | Method of inoculation followed. | Number of outbreaks in which inoculation was undertaken. | Number of animals which died un inoculated in course of outbreak. |          |         | Number of animals inoculated. |          |         | Number of animals which died after inoculation. |          |         |
|                                           |                                                            |                                 |                                                          | Equines.                                                          | Bovines. | Others. | Equines.                      | Bovines. | Others. | Equines.                                        | Bovines. | Others. |
| Hæmorrhagic septicæmia.                   |                                                            |                                 |                                                          |                                                                   |          |         |                               |          |         |                                                 |          |         |
| 1. Vizagapatnam                           | }                                                          | Hæmorrhagic septicæmia.         | 3                                                        |                                                                   | 24       |         |                               | 392      |         |                                                 | 1        |         |
| 2. Kistna ..                              |                                                            |                                 | 6                                                        |                                                                   | 70       |         |                               | 1,427    |         |                                                 | 4        |         |
| 3. Guntur ..                              |                                                            |                                 | 4                                                        |                                                                   | 46       |         |                               | 2,104    |         |                                                 | 3        |         |
| 4. Nellore ..                             |                                                            |                                 | 2                                                        |                                                                   | 41       |         |                               | 349      |         |                                                 |          |         |
| 5. Chingleput                             |                                                            |                                 | 5                                                        |                                                                   | 57       |         |                               | 205      |         |                                                 |          |         |
| 6. South Arcot                            |                                                            |                                 | 2                                                        |                                                                   | 15       |         |                               | 267      |         |                                                 |          |         |
| 7. Tanjore ..                             |                                                            |                                 | 1                                                        |                                                                   | 149      |         |                               | 2,583    |         |                                                 | 4        |         |
| 8. The Nilgiris                           |                                                            |                                 | 1                                                        |                                                                   | 3        |         |                               | 37       |         |                                                 |          |         |
| 9. Malabar ..                             |                                                            |                                 | 2                                                        |                                                                   | 12       |         |                               | 126      |         |                                                 |          |         |
| 10. Madras ..                             |                                                            |                                 | 2                                                        |                                                                   | 24       |         |                               | 567      |         |                                                 |          |         |
| 11. Rannad ..                             |                                                            |                                 | 2                                                        |                                                                   | 7        |         |                               | 283      |         |                                                 |          |         |
| Total ..                                  |                                                            |                                 | 49                                                       |                                                                   | 448      |         |                               | 8,350    |         |                                                 | 12       |         |
| Anthrax.                                  |                                                            |                                 |                                                          |                                                                   |          |         |                               |          |         |                                                 |          |         |
| 1. Chittoor ..                            | }                                                          | Anthrax.                        | 1                                                        |                                                                   | 31       |         |                               | 307      |         |                                                 | 1        |         |
| 2. Chingleput                             |                                                            |                                 | 1                                                        |                                                                   | 10       |         |                               | 103      |         |                                                 |          |         |
| 3. South Arcot                            |                                                            |                                 | 1                                                        |                                                                   | 18       |         |                               | 215      |         |                                                 |          |         |
| 4. Salem ..                               |                                                            |                                 | 2                                                        |                                                                   | 2        | 1       |                               | 40       |         |                                                 |          |         |
| 5. The Nilgiris                           |                                                            |                                 | 1                                                        |                                                                   | 26       |         |                               | 66       |         |                                                 | 1        |         |
| 6. South Kanara                           |                                                            |                                 | 1                                                        |                                                                   | 1        |         |                               | 10       | 2       |                                                 |          |         |
| 7. Madras ..                              |                                                            |                                 | 1                                                        |                                                                   |          |         |                               | 26       |         |                                                 |          |         |
| Total ..                                  |                                                            |                                 | 8                                                        |                                                                   | 87       | 2       |                               | 767      | 2       |                                                 | 2        |         |
| Black quarter.                            |                                                            |                                 |                                                          |                                                                   |          |         |                               |          |         |                                                 |          |         |
| 1. Ganjam ..                              | }                                                          | Black quarter.                  | 1                                                        |                                                                   | 8        |         |                               | 40       |         |                                                 |          |         |
| 2. Vizagapatnam                           |                                                            |                                 | 2                                                        |                                                                   | 20       |         |                               | 322      |         |                                                 |          |         |
| 3. Nellore ..                             |                                                            |                                 | 1                                                        |                                                                   | 5        |         |                               | 98       |         |                                                 |          |         |
| 4. Karnool ..                             |                                                            |                                 | 1                                                        |                                                                   | 9        |         |                               | 124      |         |                                                 |          |         |
| 5. Anantapur ..                           |                                                            |                                 | 1                                                        |                                                                   | 54       |         |                               | 35       |         |                                                 | 1        |         |
| 6. Cuddapah ..                            |                                                            |                                 | 20                                                       |                                                                   | 21       |         |                               | 18       |         |                                                 |          |         |
| 7. Chittoor ..                            |                                                            |                                 | 2                                                        |                                                                   | 177      |         |                               | 3,268    |         |                                                 |          |         |
| 8. Chingleput ..                          |                                                            |                                 | 4                                                        |                                                                   | 28       |         |                               | 307      |         |                                                 |          |         |
| 9. South Arcot                            |                                                            |                                 | 15                                                       |                                                                   | 45       |         |                               | 913      |         |                                                 | 8        |         |
| 10. North Arcot                           |                                                            |                                 | 3                                                        |                                                                   | 176      |         |                               | 1,250    |         |                                                 | 2        |         |
| 11. Salem ..                              |                                                            |                                 | 1                                                        |                                                                   | 62       |         |                               | 180      |         |                                                 | 2        |         |
| 12. Coimbatore                            |                                                            |                                 | 1                                                        |                                                                   | 8        |         |                               | 810      |         |                                                 |          |         |
| 13. Trichinopoly                          |                                                            |                                 | 1                                                        |                                                                   | 5        |         |                               | 200      |         |                                                 | 2        |         |
| 14. Madras ..                             |                                                            |                                 | 1                                                        |                                                                   | 12       |         |                               | 172      |         |                                                 |          |         |
| 15. Rannad ..                             |                                                            |                                 | 1                                                        |                                                                   |          |         |                               | 391      |         |                                                 |          |         |
| Total ..                                  |                                                            |                                 | 54                                                       |                                                                   | 630      |         |                               | 8,186    |         |                                                 | 16       |         |
| North Arcot ..                            |                                                            |                                 |                                                          |                                                                   |          |         |                               | 21       |         |                                                 |          |         |
| Total ..                                  |                                                            |                                 |                                                          |                                                                   |          |         |                               | 21       |         |                                                 |          |         |
| 1. Chittoor ..                            | }                                                          | }                               | 2                                                        |                                                                   | 11       |         |                               | 53       |         |                                                 |          |         |
| 2. Salem ..                               |                                                            |                                 | 2                                                        |                                                                   |          |         | 677                           | 186      |         |                                                 |          |         |
| Total ..                                  |                                                            |                                 | 2                                                        |                                                                   | 11       |         |                               | 730      | 186     |                                                 | 3        |         |
| * Argues in alone.                        |                                                            |                                 |                                                          |                                                                   |          |         |                               |          |         |                                                 |          |         |
| * Signell, argues inoculation with the .. |                                                            |                                 |                                                          |                                                                   |          |         |                               |          |         |                                                 |          |         |

\* Aggressin alone.

† Simultaneous inoculation with black quarter serum and aggressin.

TABLE IV.—Statement showing the number of animals treated and castrated on tour during the year 1927-28.

| Districts.      | Number of Veteri-<br>nary Assistant<br>Surgeons employed. | Number of villages<br>visited. | Castrations performed. |          |         | Treated for contagious diseases. |          |          | Treated for non-contagious<br>diseases. |        |       | Total number of<br>castrations<br>performed and<br>treated. |        |
|-----------------|-----------------------------------------------------------|--------------------------------|------------------------|----------|---------|----------------------------------|----------|----------|-----------------------------------------|--------|-------|-------------------------------------------------------------|--------|
|                 |                                                           |                                | Equines.               | Bovines. | Others. | Total.                           | Equines. | Bovines. | Others.                                 | Total. |       |                                                             |        |
|                 |                                                           |                                |                        |          |         |                                  |          |          |                                         |        |       |                                                             |        |
| Agency tracts   | 5                                                         | 895                            | 3                      | 472      | 22      | 1                                | 1,710    | 3        | 93                                      | 2,052  | 238   | 2,383                                                       | 7,594  |
| Ganjam ..       | 5                                                         | 542                            | ..                     | 567      | 4       | ..                               | 5,214    | 97       | 24                                      | 1,456  | 58    | 1,538                                                       | 7,429  |
| Vizagapatnam    | 5                                                         | 692                            | ..                     | 79       | 15      | ..                               | 2,286    | ..       | 23                                      | 1,631  | 133   | 1,807                                                       | 4,181  |
| East Godavari   | 4                                                         | 362                            | ..                     | 105      | 7       | ..                               | 3,401    | 16       | 25                                      | 915    | 21    | 961                                                         | 4,438  |
| West Godavari   | 3                                                         | 225                            | ..                     | 71       | 78      | ..                               | 1,908    | 1        | 15                                      | 460    | 34    | 509                                                         | 1,180  |
| Kistna          | 3                                                         | 631                            | 1                      | 172      | 22      | ..                               | 1,908    | 1        | 50                                      | 1,233  | 33    | 1,316                                                       | 3,420  |
| Guntur          | 6                                                         | 612                            | ..                     | 66       | 46      | ..                               | 4,155    | 10       | 43                                      | 1,287  | 32    | 1,362                                                       | 5,939  |
| Nellore         | 7                                                         | 1,300                          | ..                     | 125      | 17      | ..                               | 2,595    | 1        | 63                                      | 2,117  | 98    | 2,278                                                       | 5,017  |
| Karnool         | 5                                                         | 355                            | 1                      | 115      | 42      | ..                               | 1,334    | 6        | 56                                      | 851    | 38    | 945                                                         | 2,449  |
| Bellary         | 5                                                         | 340                            | 3                      | 132      | 25      | ..                               | 554      | 10       | 35                                      | 705    | 12    | 752                                                         | 1,476  |
| Anantapur       | 7                                                         | 605                            | ..                     | 102      | 55      | ..                               | 1,235    | 19       | 59                                      | 1,336  | 51    | 1,446                                                       | 2,857  |
| Cuddapah        | 7                                                         | 301                            | ..                     | 273      | 15      | 3                                | 871      | 7        | 9                                       | 638    | 12    | 659                                                         | 1,583  |
| Chittoor        | 3                                                         | 379                            | ..                     | 273      | 74      | ..                               | 108      | 195      | 14                                      | 745    | 50    | 809                                                         | 1,504  |
| Chingleput      | 4                                                         | 779                            | ..                     | 118      | 2       | ..                               | 915      | 1        | 15                                      | 444    | 9     | 468                                                         | 1,335  |
| North Arcot ..  | 4                                                         | 264                            | ..                     | 125      | 3       | ..                               | 183      | ..       | 15                                      | 993    | 16    | 1,024                                                       | 1,668  |
| South Arcot     | 4                                                         | 288                            | ..                     | 196      | 11      | ..                               | 404      | 35       | 20                                      | 964    | 38    | 1,022                                                       | 1,668  |
| Tanjore         | 4                                                         | 475                            | 1                      | 138      | 10      | ..                               | 100      | 11       | 18                                      | 704    | 56    | 778                                                         | 1,038  |
| Coimbatore      | 5                                                         | 519                            | 2                      | 139      | 28      | ..                               | 849      | 4        | 28                                      | 839    | 94    | 961                                                         | 1,983  |
| The Nilgiris .. | 2                                                         | 465                            | ..                     | 46       | 4       | ..                               | 214      | ..       | 15                                      | 298    | 56    | 342                                                         | 542    |
| Salem           | 5                                                         | 233                            | 1                      | 4        | 3       | ..                               | 214      | ..       | 27                                      | 510    | 51    | 588                                                         | 838    |
| Malabar         | 4                                                         | 710                            | 1                      | 118      | 1       | ..                               | 1,316    | 4        | 4                                       | 338    | 29    | 371                                                         | 1,806  |
| South Kanara    | 3                                                         | 208                            | ..                     | 184      | 34      | ..                               | 112      | ..       | 9                                       | 838    | 96    | 943                                                         | 1,275  |
| Trichinopoly    | 3                                                         | 396                            | ..                     | 297      | 17      | ..                               | 171      | 15       | 28                                      | 1,732  | 63    | 1,823                                                       | 2,323  |
| Madura          | 3                                                         | 196                            | ..                     | 231      | 58      | ..                               | 455      | 1        | 29                                      | 801    | 70    | 900                                                         | 1,645  |
| Rannad          | 3                                                         | 226                            | ..                     | 46       | 2       | ..                               | 299      | ..       | 4                                       | 619    | 2     | 625                                                         | 1,972  |
| Tinnevely       | 3                                                         | 540                            | ..                     | 55       | 9       | ..                               | 875      | 5        | 9                                       | 841    | 52    | 902                                                         | 1,846  |
| Total           | 115                                                       | 13,328                         | 20                     | 4,007    | 526     | 4                                | 32,394   | 443      | 730                                     | 25,257 | 1,452 | 27,449                                                      | 64,843 |

TABLE V.—Statement showing the number of animals treated and castrated at Veterinary Hospitals and Dispensaries during the year 1927-28.

| Districts.           | Number of Veterinary Institutions. | Number of Veterinary Assistants and Surgeons employed. | Number of in-patients treated during the year. |         | Number of out-patients treated during the year. |          | Grand total of patients treated during the year. | Total number of cases supplied with medicine but not brought to institutions. | Castrations performed. |        |           | Receipts. |         | Expenditure. |        |           |           |       |        |        |    |    |
|----------------------|------------------------------------|--------------------------------------------------------|------------------------------------------------|---------|-------------------------------------------------|----------|--------------------------------------------------|-------------------------------------------------------------------------------|------------------------|--------|-----------|-----------|---------|--------------|--------|-----------|-----------|-------|--------|--------|----|----|
|                      |                                    |                                                        | Bovines.                                       | Others. | Total.                                          | Bovines. |                                                  |                                                                               | Others.                | Total. | Karnates. | Bovines.  | Others. |              | Total. | RS. A. P. | RS. A. P. |       |        |        |    |    |
|                      |                                    |                                                        |                                                |         |                                                 |          |                                                  |                                                                               |                        |        |           |           |         |              |        |           |           |       |        |        |    |    |
| 1. Agency ..         | 3                                  | 3                                                      | 13                                             | 72      | 85                                              | 81       | 1,301                                            | 612                                                                           | 1,904                  | 1,096  | 756       | 2         | 82      | 4            | 88     | 54        | 0         | 9     | 4,993  | 12     | 6  |    |
| 2. Ganjam ..         | 3                                  | 3                                                      | 7                                              | 73      | 80                                              | 125      | 491                                              | 810                                                                           | 3,101                  | 3,226  | 209       | 2         | 987     | 31           | 1,020  | 132       | 6         | 0     | 7,440  | 7      | 0  |    |
| 3. Vizianagaram ..   | 4                                  | 4                                                      | 5                                              | 32      | 37                                              | 154      | 116                                              | 1,606                                                                         | 982                    | 2,704  | 2,858     | 292       | 2       | 64           | 15     | 81        | 946       | 10    | 0      | 7,962  | 4  | 10 |
| 4. Godavari, East .. | 5                                  | 5                                                      | 5                                              | 91      | 96                                              | 47       | 688                                              | 2,062                                                                         | 7,997                  | 8,494  | 1,588     | 9         | 133     | 4            | 146    | 712       | 5         | 6     | 12,535 | 12     | 10 |    |
| 5. Godavari, West .. | 5                                  | 5                                                      | 5                                              | 86      | 91                                              | 98       | 234                                              | 1,764                                                                         | 614                    | 2,612  | 2,710     | 251       | ..      | 26           | 2      | 28        | 156       | 12    | 6      | 6,073  | 3  | 4  |
| 6. Krishna ..        | 5                                  | 5                                                      | 6                                              | 86      | 92                                              | 93       | 596                                              | 5,066                                                                         | 1,901                  | 7,663  | 7,666     | 584       | 1       | 99           | 20     | 120       | 392       | 13    | 0      | 11,977 | 14 | 6  |
| 7. Kistna ..         | 5                                  | 5                                                      | 10                                             | 184     | 194                                             | 200      | 260                                              | 3,567                                                                         | 816                    | 4,643  | 4,843     | 182       | 3       | 46           | 9      | 58        | 186       | 11    | 0      | 11,653 | 7  | 9  |
| 8. Guntur ..         | 3                                  | 3                                                      | 13                                             | 111     | 124                                             | 134      | 824                                              | 2,609                                                                         | 580                    | 3,413  | 3,547     | 515       | 2       | 21           | 13     | 36        | 100       | 10    | 0      | 7,066  | 9  | 3  |
| 9. Nellore ..        | 4                                  | 4                                                      | 7                                              | 40      | 47                                              | 83       | 401                                              | 2,866                                                                         | 1,273                  | 4,540  | 4,623     | 109       | 7       | 35           | 39     | 81        | 61        | 13    | 6      | 8,350  | 11 | 10 |
| 10. Bellary ..       | 3                                  | 3                                                      | 1                                              | 18      | 19                                              | 22       | 282                                              | 1,920                                                                         | 605                    | 2,807  | 2,829     | 135       | 4       | 18           | 18     | 40        | 109       | 4     | 0      | 6,106  | 15 | 9  |
| 11. Anantapur ..     | 2                                  | 2                                                      | 5                                              | 45      | 50                                              | 54       | 117                                              | 1,136                                                                         | 499                    | 1,752  | 1,806     | 18        | 2       | 18           | 20     | 40        | 149       | 15    | 0      | 4,828  | 7  | 3  |
| 12. Chittoor ..      | 4                                  | 4                                                      | 6                                              | 78      | 84                                              | 166      | 109                                              | 2,222                                                                         | 824                    | 3,155  | 3,321     | 62        | 2       | 149          | 17     | 168       | 171       | 8     | 0      | 4,653  | 0  | 1  |
| 13. Cuddapah ..      | 3                                  | 3                                                      | 29                                             | 73      | 102                                             | 87       | 1,758                                            | 561                                                                           | 2,400                  | 2,487  | 116       | 15        | 28      | 43           | 237    | 3         | 0         | 7,033 | 12     | 0      |    |    |
| 14. Chingleput ..    | 3                                  | 3                                                      | 46                                             | 217     | 263                                             | 306      | 277                                              | 2,902                                                                         | 1,486                  | 4,665  | 4,971     | 129       | 71      | 49           | 124    | 484       | 3         | 0     | 12,765 | 15     | 11 |    |
| 15. North Arcot ..   | 3                                  | 3                                                      | 21                                             | 203     | 224                                             | 314      | 411                                              | 2,777                                                                         | 766                    | 3,984  | 4,298     | 38        | 1       | 87           | 11     | 99        | 187       | 10    | 3      | 7,534  | 9  | 8  |
| 16. South Arcot ..   | 5                                  | 5                                                      | 17                                             | 148     | 165                                             | 223      | 228                                              | 2,714                                                                         | 461                    | 3,302  | 3,563     | 25        | 1       | 183          | 18     | 202       | 449       | 14    | 3      | 5,996  | 1  | 7  |
| 17. Tanjore ..       | 5                                  | 5                                                      | 12                                             | 40      | 52                                              | 224      | 5,673                                            | 1,922                                                                         | 7,824                  | 8,047  | 105       | 2         | 97      | 58           | 157    | 2,629     | 7         | 6     | 13,569 | 4      | 11 |    |
| 18. Salem ..         | 8                                  | 8                                                      | 68                                             | 178     | 246                                             | 55       | 434                                              | 2,863                                                                         | 1,043                  | 4,282  | 4,337     | 23        | 2       | 22           | 54     | 78        | 102       | 4     | 9      | 7,120  | 14 | 8  |
| 19. Coimbatore ..    | 2                                  | 2                                                      | 45                                             | 98      | 143                                             | 208      | 531                                              | 6,623                                                                         | 2,860                  | 9,814  | 11,901    | 85        | 7       | 55           | 140    | 202       | 376       | 6     | 9      | 17,310 | 13 | 4  |
| 20. The Nilgiris ..  | 4                                  | 4                                                      | 13                                             | 117     | 130                                             | 346      | 261                                              | 1,047                                                                         | 1,983                  | 3,291  | 3,637     | 215       | 7       | 4            | 54     | 65        | 426       | 10    | 0      | 6,807  | 13 | 6  |
| 21. Malabar ..       | 2                                  | 2                                                      | 9                                              | 34      | 43                                              | 221      | 201                                              | 2,646                                                                         | 2,391                  | 5,238  | 5,439     | 139       | ..      | 110          | 33     | 143       | 522       | 10    | 6      | 9,088  | 0  | 4  |
| 22. South Kanara ..  | 2                                  | 2                                                      | 9                                              | 34      | 43                                              | 76       | 73                                               | 1,425                                                                         | 1,450                  | 2,948  | 3,024     | 568       | 41      | 84           | 125    | 18        | 8         | 6     | 4,599  | 5      | 4  |    |

|                          |                            |    |     |     |       |       |       |       |        |        |         |         |       |    |       |     |       |        |    |        |          |    |   |
|--------------------------|----------------------------|----|-----|-----|-------|-------|-------|-------|--------|--------|---------|---------|-------|----|-------|-----|-------|--------|----|--------|----------|----|---|
| VI<br>Circles            | 23. Trichinopoly ..        | 3  | 4   | 23  | 88    | 62    | 173   | 220   | 3,554  | 1,180  | 4,964   | 5,127   | 58    | 59 | 51    | 110 | 412   | 1      | 0  | 8,065  | 3        | 10 |   |
|                          | 24. Madras ..              | 4  | 4   | 10  | 42    | 27    | 79    | 264   | 2,297  | 1,413  | 3,974   | 4,063   | 76    | 28 | 37    | 143 | 166   | 10     | 0  | 8,671  | 11       | 8  |   |
|                          | 25. Rannad ..              | 6  | 6   | 3   | 45    | 3     | 51    | 206   | 4,213  | 1,440  | 5,859   | 5,910   | 84    | 72 | 77    | 149 | 244   | 3      | 0  | 13,206 | 15       | 5  |   |
|                          | 26. Tinnevely ..           | 2  | 2   | 11  | 103   | 17    | 131   | 127   | 1,848  | 864    | 2,839   | 2,970   | 39    | 1  | 38    | 17  | 56    | 82     | 6  | 0      | 4,893    | 2  | 8 |
|                          | 27. Madras City ..         | 1  | 4   | 225 | 215   | 328   | 768   | 147   | 4,099  | 1,413  | 1,969   | 2,737   | ..    | 3  | 6     | 7   | 16    | 11,479 | 12 | 9      | 16,594   | 12 | 9 |
|                          | Total ..                   | 95 | 102 | 640 | 4,584 | 1,582 | 6,806 | 7,298 | 73,715 | 32,611 | 113,624 | 120,430 | 6,499 | 67 | 2,506 | 910 | 3,343 | 20,984 | 10 | 6      | 2,36,800 | 4  | 4 |
| Private<br>Institutions. | 1. Vizianagaram ..         | 1  | 1   | 83  | 216   | 25    | 324   | 43    | 687    | 412    | 1,142   | 1,466   | 79    | 2  | 9     | 6   | 17    | ..     | .. | 2,427  | 1        | 9  |   |
|                          | 2. Parlakimedi ..          | 1  | 1   | 1   | 18    | 2     | 21    | 97    | 1,394  | 205    | 1,696   | 1,717   | 426   | .. | 366   | 10  | 376   | 10     | 10 | 0      | 3,487    | 7  | 5 |
|                          | 3. Pithapuram ..           | 1  | 1   | 5   | 53    | ..    | 58    | 105   | 948    | 238    | 1,291   | 1,349   | 276   | 3  | 4     | 1   | 8     | ..     | .. | 2,285  | 0        | 11 |   |
|                          | 4. Veerakeralam-<br>pudur. | 1  | 1   | ..  | 34    | ..    | 34    | ..    | 691    | 75     | 766     | 800     | 107   | .. | 22    | 2   | 24    | 5      | 5  | 0      | 1,739    | 1  | 0 |
|                          | Total ..                   | 4  | 4   | 89  | 321   | 27    | 437   | 245   | 3,720  | 930    | 4,895   | 5,332   | 888   | 5  | 401   | 19  | 425   | 15     | 15 | 0      | 9,938    | 11 | 1 |
|                          | Grand Total ..             | 99 | 106 | 729 | 4,905 | 1,609 | 7,243 | 7,543 | 77,435 | 33,541 | 118,519 | 125,762 | 7,387 | 72 | 2,667 | 929 | 3,608 | 21,000 | 9  | 6      | 2,46,738 | 15 | 5 |

TABLE VI.—(Discontinued).

TABLE VII.—Statement showing the strength of the subordinate Veterinary staff on 31st March 1928.

| Province.          | How employed.                         | By whom paid.             | Veterinary Assistant Surgeons. |
|--------------------|---------------------------------------|---------------------------|--------------------------------|
| Madras Presidency. | Itinerating .. .. .                   | Government .. .. .        | 88                             |
|                    | Office .. .. .                        |                           | 2                              |
|                    | Reserve staff .. .. .                 |                           | 19 *                           |
|                    | Madras Veterinary College .. .. .     |                           | 10                             |
|                    | Agricultural Department .. .. .       |                           | 3                              |
|                    | Forest Department .. .. .             |                           | 3                              |
|                    | Ootacamund Municipality .. .. .       | Ootacamund Municipality.  | 1                              |
|                    | In charge of Veterinary Institutions— | Government .. .. .        | 96 †                           |
|                    | Government .. .. .                    |                           | 1                              |
|                    | Private .. .. .                       | Private employers .. .. . | 1                              |
|                    | Total .. .. .                         |                           | 223                            |

\* The sanctioned cadre of Veterinary Assistant Surgeons on 31st March 1928 was 230. Out of the seven vacancies that had not been filled up, six related to Personal Assistants to Circle Officers and one to leave reserve. Hence the leave reserve is shown as 19 instead of 20, the sanctioned number.

Out of the leave reserve, one has been lent to the Attagada Estate for two years from 1st May 1927.

† Includes four second Veterinary Assistant Surgeons sanctioned for certain veterinary institutions.

TABLE VIII.—Return of stud bulls for the year 1927-28—Nil.

TABLE IX.—Statement showing the main results of the working of the Provincial cattle farms—Nil.

TABLE X.—Return of horse, pony and donkey stallions under Government and local bodies for the year 1927-28—Nil.

TABLE XI.—Service and produce of each class of horse, pony and donkey stallions under Government during the year 1927-28—Nil.

TABLE XII.—Average cost of feed, keep, attendance, etc., of horse, pony and donkey stallions during the year 1927-28—Nil.

TABLE XIII.—Abstract of particulars regarding horse fairs and shows held during the year 1927-28.

| Name.              | Number of horse fairs and shows held. |                    |                                         |                        |                                                                   |                    |                               |             |        |                          |               |                |                            |            |        |                                     |               |                               |                       |                      |                        |                   |                     |        |                                                                           |          |
|--------------------|---------------------------------------|--------------------|-----------------------------------------|------------------------|-------------------------------------------------------------------|--------------------|-------------------------------|-------------|--------|--------------------------|---------------|----------------|----------------------------|------------|--------|-------------------------------------|---------------|-------------------------------|-----------------------|----------------------|------------------------|-------------------|---------------------|--------|---------------------------------------------------------------------------|----------|
|                    | Total number of animals present.      |                    | Total number of competitors for prizes. |                        | Total number of horse stock (not including branded ones) present. |                    | Number of remounts purchased. |             |        | Price paid for remounts. |               |                | Number of mules purchased. |            |        | Price paid for mules by Government. |               | Total number of animals sold. | Prize money provided. |                      |                        |                   |                     |        | Amount sanctioned by Government of India for next year's fairs and shows. | Remarks. |
| Year under report. | Previous year (1926-27).              | Year under report. | Previous year (1926-27).                | Belonging to breeders. | Belonging to dealers.                                             | For Remount depot. | For Native cavalry.           | For Police. | Total. | Highest price.           | Lowest price. | Average price. | By Government.             | By others. | Total. | Highest price.                      | Lowest price. |                               | Average price.        | From Imperial Funds. | From Provincial Funds. | From Local Funds. | From other sources. | Total. |                                                                           |          |
| 1                  | 80                                    | 150                | 37                                      | 52                     | 18                                                                | 50                 | 250*                          | 250*        | 1      | 1                        | 1             | 1              | 1                          | 1          | 1      | 1                                   | 1             | 1                             | 1                     | 1                    | 1                      | 1                 | 1                   | 1      | 1                                                                         |          |
| Tiruppur.          | 1                                     | 250*               | 1                                       | 250*                   | 1                                                                 | 250*               | 1                             | 250*        | 1      | 250*                     | 1             | 250*           | 1                          | 250*       | 1      | 250*                                | 1             | 250*                          | 1                     | 250*                 | 1                      | 250*              | 1                   | 250*   | 1                                                                         | 250*     |
| Athcom-bai ..      | 1                                     | 250*               | 1                                       | 250*                   | 1                                                                 | 250*               | 1                             | 250*        | 1      | 250*                     | 1             | 250*           | 1                          | 250*       | 1      | 250*                                | 1             | 250*                          | 1                     | 250*                 | 1                      | 250*              | 1                   | 250*   | 1                                                                         | 250*     |

\* Ponies and 5 colts.



TABLE XIV-A.—Statement showing the cost of the Civil Veterinary Department in the province of Madras during the year 1927-28.

| Major heads--                      | RS.      | A. | P. |
|------------------------------------|----------|----|----|
| Direction .. .. .                  | 60,946   | 15 | 7  |
| Circle officers .. .. .            | 64,596   | 13 | 11 |
| Subordinate establishment .. .. .  | 3,79,818 | 5  | 6  |
| Hospitals and dispensaries .. .. . | 2,18,768 | 3  | 6  |
| Works .. .. .                      | 5,001    | 11 | 3  |
| Veterinary instruction .. .. .     | 97,056   | 12 | 11 |
| Total ..                           | 8,26,188 | 14 | 8  |

TABLE XV.—Comparative statement of cattle mortality for five years ending 1927-28.

| Causes of death.                          | Number of deaths among cattle for the years ending |          |          |          |          |
|-------------------------------------------|----------------------------------------------------|----------|----------|----------|----------|
|                                           | 1923-24.                                           | 1924-25. | 1925-26. | 1926-27. | 1927-28. |
| 1. Rinderpest .. .. .                     |                                                    |          |          |          | 35,803   |
| 2. Anthrax .. .. .                        | 3,434                                              | 9,681    | 23,724   | 23,676   | 5,074    |
| 3. Hemorrhagic Septicæmia .. .. .         | 2,890                                              | 3,361    | 4,087    | 4,612    | 5,252    |
| 4. Black quarter .. .. .                  | 3,612                                              | 3,324    | 4,779    | 6,663    | 6,776    |
| 5. Foot and mouth disease .. .. .         | 4,642                                              | 2,068    | 2,332    | 10,613   | 2,792    |
| 6. Other contagious diseases .. .. .      | 1,273                                              | 1,362    | 1,390    | 1,454    | 20,500   |
| Total ..                                  | 7,283                                              | 9,858    | 8,835    | 12,066   | 76,197   |
| 7. Non-contagious -- Other causes .. .. . | 23,134                                             | 29,654   | 45,147   | 59,084   | 23,011   |
| 8. Snake bite .. .. .                     | 15,878                                             | 15,373   | 28,809   | 13,822   | 1,443    |
| 9. Wild animals .. .. .                   | 852                                                | 849      | 750      | 1,022    | 11,434   |
| 10. Criminal poisoning .. .. .            | 11,681                                             | 11,338   | 9,917    | 10,656   | 140      |
| Total ..                                  | 63                                                 | 75       | 93       | 59       | 35,228   |
| Grand total ..                            | 28,474                                             | 27,635   | 39,599   | 25,559   | 111,425  |
|                                           | 51,608                                             | 57,289   | 84,746   | 84,643   |          |

NOTE.—The figures for the years 1923-24, 1924-25 and 1925-26 do not include the mortality in zamindari tracts.

# Government of Madras

## DEVELOPMENT DEPARTMENT

### G.O. No. 1957, 19th November 1928

Veterinary—Administration Report—1927-28—Recorded with remarks.

READ—the following papers :—

#### I

Letter from F. WARE, Esq., F.R.C.V.S., I.V.S., Director, Civil Veterinary Department, Madras, to the Secretary to Government, Development Department, dated Madras, the 24th July 1928, No. D. Dis. 515-A/28.

I have the honour to submit a review of the work performed by the Civil Veterinary Department in this Presidency during the year 1927-28 and a programme of work for 1928-29, together with the usual enclosures.

#### II

Official Memorandum No. 2582-III/28-1, Development, dated 31st July 1928.

The Accountant-General is requested to furnish as early as possible, a statement showing the receipts and charges of the Civil Veterinary Department, including the Madras Veterinary College for the year 1927-28. The expenditure during the year by the Public Works Department on behalf of the department may also be included in the statement. The figures are required in connexion with the administration report of the Veterinary Department.

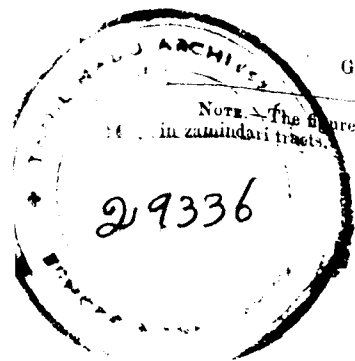
M. C. B. KOMAN,  
Under Secretary to Government.

To the Accountant-General.

#### III

Official Memorandum No. 2582-III/28-2, Development, dated 6th August 1928.

The Government direct that the report on the administration of the Civil Veterinary Department of the Madras Presidency for the year 1927-28 be published in advance of the review. Sufficient



R,  
KZ. 20118/27  
2018/1

number of copies of the report should be printed and supplied to the Director, Civil Veterinary Department. The Superintendent, Government Press, is requested to print and keep ready 100 copies of the report, so that copies of the review may be added to them when they are ready. The review will be distributed in due course to all institutions and gentlemen to whom copies of the report are supplied.

A. McG. C. TAMPORE,  
Secretary to Government.

To the Superintendent, Government Press (with copies of report).

#### IV

#### Endorsement of the Accountant-General, No T.-10-B. K. 333, dated 10th August 1928.

The statement of receipts and charges of the Civil Veterinary Department for the year 1927-28, including the expenditure by the Public Works Department, called for in your Memorandum No. 2582-III/28-1, dated 31st July 1928, is herewith sent.

2. I would suggest that in future, the required information except the expenditure by the Public Works Department on veterinary buildings may be obtained from the head of the department who has to agree his figures with the audit office figures for controlling the expenditure of the department.

N. V. RAGHAVAN,  
Accountant-General.

To the Secretary to Government, Development Department, Madras.

#### ENCLOSURE.

#### Charges, 1927-28.

| Head of expenditure.                                                          | Amount.       |          |          |
|-------------------------------------------------------------------------------|---------------|----------|----------|
|                                                                               | RS.           | A.       | P.       |
| <b>VETERINARY CHARGES—</b>                                                    |               |          |          |
| <b>i. Direction—</b>                                                          |               |          |          |
| <b>Non-voted—</b>                                                             |               |          |          |
| Pay of officers .. .. .                                                       | 23,648        | 5        | 0        |
| Travelling allowances .. .. .                                                 | 2,403         | 7        | 0        |
| Other compensatory allowances .. .. .                                         | 4,187         | 1        | 0        |
| Cost of passages granted under the Superior Civil Service Rules, 1924 .. .. . | 4,109         | 0        | 0        |
| Rates and Taxes .. .. .                                                       | 439           | 5        | 4        |
| <b>Total—Non-voted ..</b>                                                     | <b>34,787</b> | <b>2</b> | <b>4</b> |

| Charges, 1927-28—cont.                                                |  | Amount.       |           |           |
|-----------------------------------------------------------------------|--|---------------|-----------|-----------|
| Head of expenditure.                                                  |  | RS.           | A.        | P.        |
| <b>VETERINARY CHARGES—cont.</b>                                       |  |               |           |           |
| <b>i. Direction—cont.</b>                                             |  |               |           |           |
| <b>Voted—</b>                                                         |  |               |           |           |
| Pay of establishments—                                                |  | 12,864        | 15        | 0         |
| Permanent .. .. .                                                     |  | 498           | 9         | 0         |
| Temporary .. .. .                                                     |  | 1,348         | 1         | 0         |
| Travelling allowances .. .. .                                         |  | 600           | 0         | 0         |
| Other compensatory allowances .. .. .                                 |  |               |           |           |
| Non-contract contingencies—                                           |  | 90            | 0         | 0         |
| Pay of menials .. .. .                                                |  | 459           | 2         | 0         |
| Electric current .. .. .                                              |  | 301           | 6         | 0         |
| Telephone charges .. .. .                                             |  | 1,632         | 8         | 8         |
| Books and periodicals .. .. .                                         |  | 4,418         | 8         | 9         |
| Miscellaneous .. .. .                                                 |  | 833           | 15        | 0         |
| Customs duty .. .. .                                                  |  |               |           |           |
| Supplies and services—                                                |  | 3,832         | 4         | 9         |
| Apparatus and materials .. .. .                                       |  | 1,411         | 12        | 9         |
| Miscellaneous .. .. .                                                 |  |               |           |           |
| Compensation .. .. .                                                  |  |               |           |           |
| <b>Total—Voted ..</b>                                                 |  | <b>28,291</b> | <b>2</b>  | <b>11</b> |
| <b>Total—Direction ..</b>                                             |  | <b>63,078</b> | <b>5</b>  | <b>3</b>  |
| <b>ii. Circle Officers—</b>                                           |  |               |           |           |
| <b>Non-voted—</b>                                                     |  |               |           |           |
| Pay of officers .. .. .                                               |  | 890           | 0         | 0         |
| Travelling allowances .. .. .                                         |  | 8             | 0         | 0         |
| Other compensatory allowances .. .. .                                 |  | 235           | 0         | 0         |
| Cost of passages under the Superior Civil Service Rules, 1924 .. .. . |  | 1,593         | 5         | 0         |
| Rates and taxes .. .. .                                               |  | 620           | 15        | 10        |
| <b>Total—Non-voted ..</b>                                             |  | <b>3,347</b>  | <b>4</b>  | <b>10</b> |
| <b>Voted—</b>                                                         |  | <b>31,522</b> | <b>5</b>  | <b>0</b>  |
| Pay of officer .. .. .                                                |  |               |           |           |
| Pay of establishments—                                                |  | 11,754        | 13        | 0         |
| Permanent .. .. .                                                     |  |               |           |           |
| Temporary .. .. .                                                     |  | 10,958        | 7         | 0         |
| Travelling allowances .. .. .                                         |  | 1,445         | 2         | 0         |
| Other compensatory allowances .. .. .                                 |  |               |           |           |
| Non-contract contingencies—                                           |  |               |           |           |
| Pay of menials .. .. .                                                |  | 570           | 0         | 0         |
| Rents .. .. .                                                         |  | 10            | 0         | 0         |
| Books and periodicals .. .. .                                         |  | 4,444         | 4         | 1         |
| Miscellaneous .. .. .                                                 |  | 455           | 0         | 0         |
| Compensations .. .. .                                                 |  |               |           |           |
| <b>Total—Voted ..</b>                                                 |  | <b>61,159</b> | <b>15</b> | <b>1</b>  |
| <b>Total—Circle Officers ..</b>                                       |  | <b>64,507</b> | <b>3</b>  | <b>11</b> |

## Charges—1927-28—cont.

| Head of expenditure.                                                          | Amount. |    |    |
|-------------------------------------------------------------------------------|---------|----|----|
|                                                                               | RS.     | A. | P. |
| iii. <i>Veterinary College</i> —                                              |         |    |    |
| Non-voted—                                                                    |         |    |    |
| Pay of officers .. .. .                                                       | 23,701  | 11 | 0  |
| Travelling allowances .. .. .                                                 | 1,349   | 1  | 0  |
| Other compensatory allowances .. .. .                                         | 2,850   | 0  | 0  |
| Rates and taxes .. .. .                                                       | 4,224   | 15 | 2  |
| Cost of passages granted under the Superior Civil Service Rules, 1924 .. .. . | 1,842   | 2  | 0  |
| Total—Non-voted ..                                                            | 33,967  | 13 | 2  |
| Voted—                                                                        |         |    |    |
| Pay of officers .. .. .                                                       | 12,284  | 3  | 0  |
| Pay of establishments—                                                        |         |    |    |
| Permanent .. .. .                                                             | 22,983  | 3  | 0  |
| Temporary .. .. .                                                             | 228     | 14 | 0  |
| Travelling allowances .. .. .                                                 | 799     | 12 | 0  |
| Other compensatory allowances .. .. .                                         | 1,718   | 1  | 0  |
| Honoraria .. .. .                                                             | 1,805   | 0  | 0  |
| Non-contract contingencies—                                                   |         |    |    |
| Pay of menials .. .. .                                                        | 1,500   | 13 | 0  |
| Electric current .. .. .                                                      | 835     | 13 | 6  |
| Telephone charges .. .. .                                                     | 512     | 10 | 3  |
| Books and periodicals .. .. .                                                 | 216     | 13 | 2  |
| Miscellaneous .. .. .                                                         | 4,537   | 9  | 6  |
| Supplies and services—                                                        |         |    |    |
| Scholarships and stipends .. .. .                                             | 6,428   | 7  | 0  |
| Apparatus and materials .. .. .                                               | 4,633   | 11 | 2  |
| Miscellaneous .. .. .                                                         | 6,456   | 11 | 9  |
| Compensations .. .. .                                                         | ...     |    |    |
| Customs duty .. .. .                                                          | 452     | 6  | 0  |
| Total—Voted ..                                                                | 65,394  | 0  | 4  |
| Total—Veterinary College ..                                                   | 99,361  | 13 | 6  |
| iv. <i>Touring Establishment</i> —                                            |         |    |    |
| Reserved—Agency—Voted—                                                        |         |    |    |
| Pay of establishment—                                                         |         |    |    |
| Permanent .. .. .                                                             | 6,158   | 2  | 0  |
| Travelling allowances .. .. .                                                 | 2,394   | 1  | 0  |
| Non-contract contingencies—Miscellaneous ..                                   | 1,086   | 15 | 7  |
| Supplies and services—Miscellaneous ..                                        | 259     | 0  | 0  |
| Total—Reserved ..                                                             | 9,898   | 2  | 7  |

## Charges—1927-28—cont.

| Head of expenditure.                   | Amount.  |    |    |
|----------------------------------------|----------|----|----|
|                                        | RS.      | A. | P. |
| Transferred—                           |          |    |    |
| Non-voted—                             |          |    |    |
| Rates and taxes .. .. .                | 4        | 0  | 0  |
| Voted—                                 |          |    |    |
| Pay of establishment—                  |          |    |    |
| Permanent .. .. .                      | 1,05,854 | 3  | 0  |
| Temporary .. .. .                      | 3,972    | 13 | 6  |
| Travelling allowances .. .. .          | 36,022   | 15 | 4  |
| Other compensatory allowances .. .. .  | 218      | 7  | 0  |
| Non-contract contingencies—            |          |    |    |
| Miscellaneous .. .. .                  | 16,002   | 9  | 1  |
| Supplies and services—                 |          |    |    |
| Apparatus and materials .. .. .        | 2,11,300 | 2  | 6  |
| Miscellaneous .. .. .                  | ...      |    |    |
| Total—Voted—Transferred ..             | 3,73,371 | 2  | 5  |
| Total—Transferred ..                   | 3,73,375 | 2  | 5  |
| Total—Touring establishment ..         | 3,83,273 | 5  | 0  |
| V. <i>Hospitals and Dispensaries</i> — |          |    |    |
| Reserved—Agency—Voted—                 |          |    |    |
| Pay of establishment—Permanent .. .. . | 3,472    | 0  | 0  |
| Travelling allowances .. .. .          | ...      |    |    |
| Non-contract contingencies—            |          |    |    |
| Pay of menials .. .. .                 | 612      | 0  | 0  |
| Rents .. .. .                          | 288      | 0  | 0  |
| Miscellaneous .. .. .                  | 162      | 15 | 6  |
| Supplies and services—                 |          |    |    |
| Apparatus and materials .. .. .        | 380      | 2  | 0  |
| Total—Reserved—Voted ..                | 4,915    | 1  | 6  |
| Transferred—                           |          |    |    |
| Non-voted—                             |          |    |    |
| Rates and taxes .. .. .                | 40       | 4  | 4  |
| Voted—                                 |          |    |    |
| Pay of Establishment—Permanent .. .. . | 1,28,933 | 13 | 0  |
| Travelling allowance .. .. .           | 5,879    | 12 | 0  |
| Other compensatory allowance .. .. .   | 777      | 8  | 0  |
| Non-contract contingencies—            |          |    |    |
| Pay of menials .. .. .                 | 28,274   | 13 | 0  |
| Rents .. .. .                          | 10,359   | 12 | 8  |
| Books and periodicals .. .. .          | 1,786    | 9  | 1  |
| Miscellaneous .. .. .                  | 14,383   | 4  | 11 |

| Charges—1927-28— <i>cont.</i>                                                      |  |  |  |  | Amount.  |    |    |
|------------------------------------------------------------------------------------|--|--|--|--|----------|----|----|
| Head of expenditure.                                                               |  |  |  |  | RS.      | A. | P. |
| <i>Transferred—cont</i>                                                            |  |  |  |  |          |    |    |
| Supplies and services—                                                             |  |  |  |  |          |    |    |
| Apparatus and materials .. .. .                                                    |  |  |  |  | 21,195   | 2  | 0  |
| Miscellaneous .. .. .                                                              |  |  |  |  | 83       | 8  | 0  |
| Grants-in-aid—                                                                     |  |  |  |  |          |    |    |
| Recurring—Miscellaneous .. .. .                                                    |  |  |  |  |          |    |    |
| Total—Transferred ..                                                               |  |  |  |  | 2,14,714 | 7  | 0  |
| Total—Hospitals and Dispensaries ..                                                |  |  |  |  | 2,19,629 | 8  | 6  |
| 34. <i>Agriculture—</i>                                                            |  |  |  |  |          |    |    |
| Total—Veterinary—                                                                  |  |  |  |  |          |    |    |
| Reserved—                                                                          |  |  |  |  |          |    |    |
| Non-voted .. .. .                                                                  |  |  |  |  |          |    |    |
| Voted .. .. .                                                                      |  |  |  |  | 14,814   | 4  | 1  |
| Transferred—                                                                       |  |  |  |  |          |    |    |
| Non-voted .. .. .                                                                  |  |  |  |  | 72,145   | 0  | 8  |
| Voted .. .. .                                                                      |  |  |  |  | 7,42,890 | 15 | 5  |
| Total—Minor head—                                                                  |  |  |  |  |          |    |    |
| Veterinary .. .. .                                                                 |  |  |  |  | 8,29,850 | 4  | 2  |
| XXIV. <i>Agriculture—</i>                                                          |  |  |  |  |          |    |    |
| Receipts—1927-28.                                                                  |  |  |  |  |          |    |    |
| Veterinary receipts—                                                               |  |  |  |  |          |    |    |
| College receipts .. .. .                                                           |  |  |  |  | 15,772   | 12 | 9  |
| Rents of buildings .. .. .                                                         |  |  |  |  | 2,669    | 8  | 0  |
| Contributions from local bodies, etc. .. .. .                                      |  |  |  |  | 760      | 0  | 0  |
| Other receipts .. .. .                                                             |  |  |  |  | 7,655    | 12 | 9  |
| Total—Veterinary Receipts ..                                                       |  |  |  |  | 26,858   | 1  | 6  |
| Recoveries of service payments—                                                    |  |  |  |  |          |    |    |
| Veterinary .. .. .                                                                 |  |  |  |  | 1,313    | 10 | 2  |
| Deduct refunds—Voted—                                                              |  |  |  |  |          |    |    |
| Agency tracts—                                                                     |  |  |  |  |          |    |    |
| Civil Veterinary Department .. .. .                                                |  |  |  |  | 0        | 7  | 0  |
| Transferred—Ordinary tracts—                                                       |  |  |  |  |          |    |    |
| Civil Veterinary Department .. .. .                                                |  |  |  |  | 9        | 0  | 4  |
| Outlay incurred by Public Works Department on veterinary buildings during 1927-28. |  |  |  |  |          |    |    |
| Original works .. .. .                                                             |  |  |  |  | 50,033   | 8  | 3  |
| Repairs .. .. .                                                                    |  |  |  |  | 9,372    | 11 | 10 |
| Total ..                                                                           |  |  |  |  | 59,406   | 4  | 1  |

## Order—No. 1957, Development, dated 19th November 1928.

Recorded.

2. The year under review was one of steady progress and development. There was a change in the personnel of the head of the department when the permanent incumbent Mr. D. A. D. Aitchison proceeded on leave preparatory to retirement on 21st November 1927 and Mr. Ware took charge.

3. Eleven new dispensaries were opened during the year and the veterinary hospital at Bellary which had been for many years managed by the Society for the Prevention of Cruelty to Animals was taken over by Government. A veterinary hospital was opened at Bobbili mainly through the munificence of the Raja of Bobbili. The total number of patients admitted to veterinary institutions, as well as those supplied with medicine without being brought to hospital, increased very appreciably during the year.

4. The Government's decision that extra Veterinary Assistants attached to veterinary institutions should run camp dispensaries when not attending to outbreaks of contagious disease, referred to in paragraph 3 of last year's review, has resulted in an appreciable increase in the number of contagious diseases treated by the touring staff.

5. A regrettable feature of the year under review is the high cattle mortality reported, the total number of deaths being 76,196 against 59,084 in the previous year. Rinderpest alone was responsible for 35,803 deaths and two-thirds of these deaths occurred in the five districts of Anantapur, Malabar, Chingleput, Ganjam and Bellary. The Cattle Diseases Act was applied to all badly affected districts, and compulsory inoculations were resorted to in several districts. Owing to the short period of immunity conferred by the serum alone inoculations, and owing to their growing unpopularity, the Director, Civil Veterinary Department, considers that for a proper check on rinderpest, inoculation by the serum simultaneous method should be more widely adopted, and probably will have to be made compulsory under the Act. The question of organizing the resources of the Veterinary Department in a more effective manner against the ravages of rinderpest is under the consideration of Government and with a view to carry on the serum simultaneous inoculations on a more extensive scale, which is absolutely necessary if there is to be a real check on the epidemic, circle officers under whose direct supervision these inoculations are performed have been each given a personal assistant so that the officers may have ample time at their disposal for these inoculations. It is also proposed to increase the number of circle officers and this is now under consideration by Government. It is hoped that these measures will appreciably decrease cattle mortality in future.

6. It is found that the number of available veterinary graduates is hardly adequate for the requirements of the Presidency. There has, however, been a slight increase in the number of students admitted to the College, and with the increase from 15 to 40 of the number of stipends tenable at the College sanctioned by Government recently, it is hoped that a greater number of students will be passing out of the College in future and that veterinary graduates will be available in greater numbers hereafter. Similarly with the recent grant of the increase in the strength of leave reserve it is expected that it would be possible for a greater number of veterinary assistant surgeons being deputed annually to undergo the post-graduate course. The question of appointing a Proto Zoologist is also under consideration. Government note with pleasure the testimony borne by the Director, Civil Veterinary Department, to the good work done in the field of research in the College. They are also pleased to observe that an improvised Parasitological section has been formed and that attempts are being made to supply large quantities of rinderpest virus. The Royal Commission on Agriculture have placed special stress on the importance of the Veterinary Department in the agricultural development of the country, and it is hoped that the recommendations of the Royal Commission will be given effect to very early so that the activities of the department both on the side of research and administration are materially increased.

7. In conclusion, the Government note with satisfaction the enthusiasm and ability displayed by Mr. F. Ware, the present Director, Civil Veterinary Department, ever since he took charge of the department, and trust that the comprehensive scheme of development and expansion of the department which he is at present inaugurating will be carried through with sustained effort to its fruition.

(By order of the Government, Ministry of Development)

A. McG. C. TAMPOE,  
Secretary to Government.

# DEVELOPMENT DEPARTMENT.

## NOTES CONNECTED WITH G.O. No. 1957, DEVELOPMENT, DATED 19TH NOVEMBER 1928.

[SUBJECT.— *Administration report of the Civil Veterinary department—1927-28.*]

The Director, Civil Veterinary Department has submitted the annual administration report of the Civil Veterinary department for the year ending 31st March 1928 together with copies of the reports submitted by the Principal, Madras Veterinary College, and by the several circle officers.

2. The following statement compares the touring of the officers of the department in 1927-28, compared with that of the previous years :—

|                                        | Number of days spent in tour in |          |
|----------------------------------------|---------------------------------|----------|
|                                        | 1926-27.                        | 1927-28. |
| Director, Civil Veterinary department. | 126                             | 99       |
| Officer in charge, I Circle ..         | 178                             | 185      |
| Do. II „ ..                            | 185                             | 178      |
| Do. III „ ..                           | 176                             | 213      |
| Do. IV „ ..                            | 184                             | 207      |
| Do. V „ ..                             | 175                             | 179      |
| Do. VI „ ..                            | 127                             | 198      |

The touring of all officers appears to be satisfactory except that of the Officer-in-charge, II Circle, who reports that the shortage in his tour days was due to his ill health.

3. Mr. D. A. D. Aitchison was the Director, Civil Veterinary Department till 21st November 1927 when he proceeded on leave preparatory to retirement and Mr. Ware held charge of the office during the rest of the period. The post of Principal of the College was held both by Messrs. Ware and Saunders.

2 NOTES TO G.O. No. 1957, DEV., 19TH NOVEMBER 1928

4. The following statement shows the total number of hospitals and dispensaries and touring billets at the end of the last three years:—

|                                  | 1925-26. | 1926-27. | 1927-28. |
|----------------------------------|----------|----------|----------|
| Veterinary Assistant Surgeons .. | 200      | 209      | 230      |
| Hospitals and dispensaries ..    | 82       | 87       | 95       |
| Touring billets ..               | 77       | 88       | 88       |

While there has been an increase in the number of the subordinate staff and the number of hospitals and dispensaries, there has been a stand still in the strength of the touring staff. This is due to the orders in G.O. No. 399, Press Development, dated 29th March 1926.

The work done at the hospitals is compared below:—

|                                        | 1925-26. | 1926-27. | 1927-28. |
|----------------------------------------|----------|----------|----------|
| In-patients ..                         | 6,490    | 6,772    | 7,248    |
| Out-patients ..                        | 87,569   | 105,577  | 118,519  |
| Total number of cases treated ..       | 104,059  | 112,349  | 125,762  |
| Total number supplied with medicine .. | 5,998    | 4,923    | 7,887    |
| Castrations ..                         | 3,103    | 3,424    | 3,968    |
| Receipts—                              |          |          |          |
| Government { Mufassal ..               | 4,423    | 7,823    | 9,505    |
| Institutions. { Madras ..              | 12,533   | 13,124   | 11,450   |
| Private institutions ..                | 79       | 125      | 16       |

5. *Itinerating Staff.*—The following statement shows the work done by them during the last seven years:—

| Year.      | Number of villages visited. | Inoculations. | Contagious diseases treated. | Non-contagious diseases treated. | Number of castrations. |
|------------|-----------------------------|---------------|------------------------------|----------------------------------|------------------------|
| 1921-22 .. | 10,950                      | 70,815        | 18,119                       | 24,718                           | 6,809                  |
| 1922-23 .. | 9,201                       | 29,948        | 19,535                       | 25,593                           | 5,641                  |
| 1923-24 .. | 10,851                      | 18,540        | 6,325                        | 33,705                           | 6,844                  |
| 1924-25 .. | 13,730                      | 29,269        | 31,616                       | 36,206                           | 8,005                  |
| 1925-26 .. | 13,464                      | 175,117       | 16,951                       | 36,594                           | 6,430                  |
| 1926-27 .. | 10,970                      | 229,924       | 11,920                       | 27,121                           | 4,866                  |
| 1927-28 .. | 13,328                      | 209,082       | 32,841                       | 27,449                           | 4,553                  |

There has been a fall in the number of castrations done but it is hoped that when the large indent for "Burdizzo" castration is received, this will be done in much larger numbers.

6. *Mortality.*—The mortality from contagious diseases during the last five years is shown below:—

|            |        |
|------------|--------|
| 1923-24 .. | 23,134 |
| 1924-25 .. | 29,654 |
| 1925-26 .. | 45,147 |
| 1926-27 .. | 59,084 |
| 1927-28 .. | 76,197 |

NOTES TO G.O. No. 1957, DEV., 19TH NOVEMBER 1928 3

The figure for 1927-28 has shown a definite increase over that of last year. Rinderpest alone was responsible for as many as 35,803 deaths against 23,676 last year.

The districts which contributed to or were responsible for the large number of deaths were—

| Districts.    | Total number of deaths. | Deaths from rinderpest. |
|---------------|-------------------------|-------------------------|
| Ganjam ..     | 13,881                  | 8,932                   |
| Bellary ..    | 4,799                   | 3,383                   |
| Anantapur ..  | 7,306                   | 5,840                   |
| Chingleput .. | 5,442                   | 4,217                   |
| Malabar ..    | 6,250                   | 4,502                   |
| Tinnevely ..  | 3,951                   | 2,804                   |

7. *Inoculations.*—The number of cattle inoculated against Rinderpest by the serum alone method and by the serum simultaneous method are shown below:—

|            | Serum alone method. | Serum simultaneous method. |
|------------|---------------------|----------------------------|
| 1922-23 .. | 21,159              | 304                        |
| 1923-24 .. | 3,273               | 285                        |
| 1924-25 .. | 10,216              | 212                        |
| 1925-26 .. | 146,119             | 529                        |
| 1926-27 .. | 181,656             | 597                        |
| 1927-28 .. | 184,821             | 6,182                      |

The number of inoculations carried out against the other diseases was as follows:—

|                           | 1925-26. | 1926-27. | 1927-28. |
|---------------------------|----------|----------|----------|
| Hæmorrhagic Septicæmia .. | 24,093   | 27,486   | 8,350    |
| Anthrax ..                | 2,699    | 1,667    | 767      |
| Blackquarter ..           | 1,662    | 17,534   | 8,186    |

8. The number of convictions under the Act for the prevention of cruelty to animals, 1,890, and the number sent to infirmaries are shown below:—

|            | Number of convictions. | Number sent to infirmaries. |
|------------|------------------------|-----------------------------|
| 1922-23 .. | 4,185                  | 707                         |
| 1923-24 .. | 4,312                  | 617                         |
| 1924-25 .. | 4,704                  | 930                         |
| 1925-26 .. | 5,562                  | 697                         |
| 1926-27 .. | 5,941                  | 825                         |
| 1927-28 .. | 8,594                  | 1,682                       |

Trichinopoly contributed a large number of convictions (2,663) as in previous years and Coimbatore (1,671) comes second. The number of convictions in Coimbatore district is 1,441 as against a total of 1,682 and this shows that the bench magistrates of the place are exercising their powers in a proper manner.

9. At the end of the year there were 32 towns in the Presidency which employed a veterinary assistant surgeon on meat inspection duty. Owing to the severity of rinderpest many annual and weekly cattle fairs were closed during the year, except the annual cattle and pony show at Tiruppur which was held in June 1927.

10. During 1927-28 fifteen students were selected as stipendiary students and twenty others as non-stipendiary students. The total number of students in the college at the end of the year compared as follows with those of the previous years:—

| 31st March | 1924 | 1925 | 1926 | 1927 | 1928 | No. |
|------------|------|------|------|------|------|-----|
| ..         | ..   | ..   | ..   | ..   | ..   | 84  |
| ..         | ..   | ..   | ..   | ..   | ..   | 74  |
| ..         | ..   | ..   | ..   | ..   | ..   | 60  |
| ..         | ..   | ..   | ..   | ..   | ..   | 73  |
| ..         | ..   | ..   | ..   | ..   | ..   | 86  |

The results of the annual examination held in March 1928 compared as follows with those of the previous years:—

|      | A Class. | B Class. | C Class. |
|------|----------|----------|----------|
| 1924 | 68.1     | 78.1     | 75.0     |
| 1925 | 70.0     | 71.0     | 87.5     |
| 1926 | 68.1     | 76.4     | 75.0     |
| 1927 | 70.6     | 84.2     | 64.7     |
| 1928 | 79.4     | 80.7     | 86.3     |

The Board of Examiners remarked in their report that the rules were more lenient than was desirable and a slight revision in the rules has since been made and approved by Government.

The number of in-patients and out-patients treated at college hospital increased from 2,486 in 1926-27 to 2,737 in 1927-28. The receipts from the college hospital alone rose from Rs. 13,123 to Rs. 15,568. There was also a marked increase in the number of specimens received and examined during the year. The following statement gives the figures for the past four years:—

|         | RS.   |
|---------|-------|
| 1924-25 | 1,722 |
| 1925-26 | 1,878 |
| 1926-27 | 3,010 |
| 1927-28 | 3,811 |

In addition to the above, 62 samples of hides and skins were examined during the year for the issue of certificates of freedom from anthrax and of these 12 were found to be infected.

A draft review is submitted for consideration.

A revised draft is put up for approval.

M. C. B. KOMAN—24-10-28.  
A. McG. C. TAMPOE—24-10-28.

I have made a slight alteration in the draft by adding an appreciation of the work of Mr. V. Krishnamurti Ayyar whose work in the Research section has been well spoken of even outside our Presidency.

M. R. S[ETURATNAM AYYAR]—25-10-28.

Might I suggest to my Honourable Colleague that it is rare to make special allusions to individual officers of a complementary character except in special cases? I do not know if Mr. Krishnamurti's research work is especially deserving of this.

G[OSCHEN]—3-11-28.

A. McG. C. TAMPOE—5-11-28.

In view of His Excellency's remarks, I have altered again the draft by omitting the special attention to the individual.

M. R. S[ETURATNAM AYYAR]—7-11-28.

A. McG. C. T.—8-11-28.

Submitted.

A. McG. C. T.—10-11-28.

G[OSCHEN]—13-11-28.

A. McG. C. T.—14-11-28.

For orders whether the draft may now issue.

G.N.—16-11-28.

Yes.

M. C. B. KOMAN—16-11-28.

[G.O. No. 1957, Development, dated 19th November 1928.]

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