

389

The Indian Veterinary  
Journal

1931 - January

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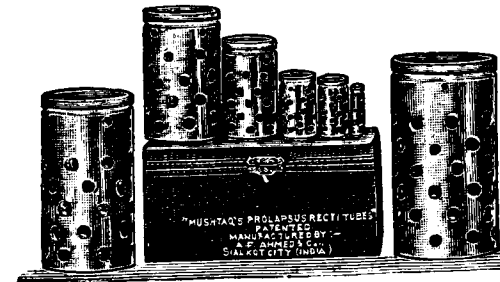


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From, Capt: U. W. F. Walker, M. G. I. V. S.,  
Offg: Principal, Punjab Veterinary College  
Lahore.

Mrs. A. F. Ahmed & Co.,  
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Dated Lahore, the 24, Nov: 1930,

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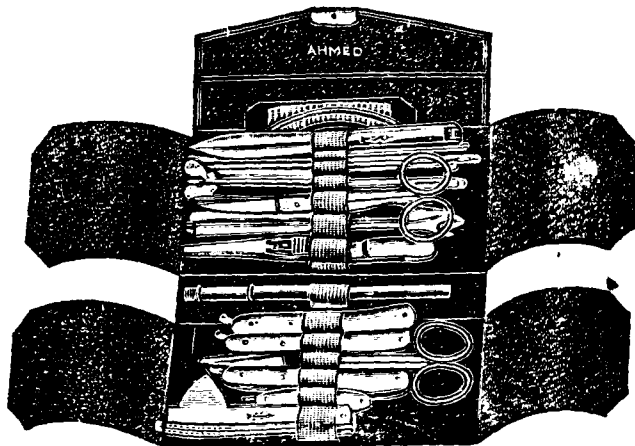
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Published Quarterly.

Vol. VII.

January, 1931

No 3.

# The Indian Veterinary Journal.

(The Journal of The All-India Veterinary Association)

389



*Editor :*

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*Veterinary Surgeon, Madras.*

*Office : 26, WALLAJAH ROAD, MOUNT ROAD, MADRAS (S. INDIA)*

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SRINIVASA RAO, G.M.V.C.,  
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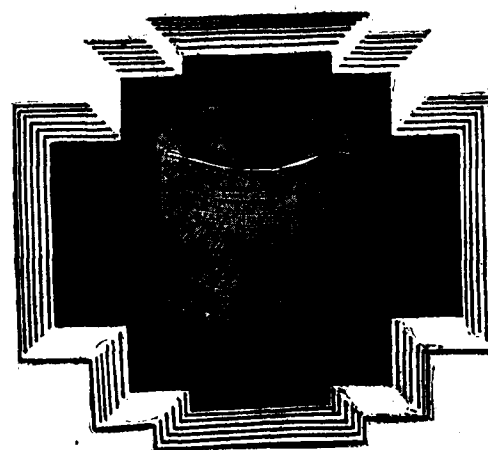
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(The Journal of the All-India Veterinary Association)

Vol. VII.]

JANUARY, 1931.

[No. 3.]

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*Expert Adviser in Animal Husbandry to the  
Government of India, President of the Seventh  
All-India Veterinary Conference,  
Bangalore, 1930.*

# THE Indian Veterinary Journal

Vol. VII]

JANUARY, 1931

[ No. 3

## Editorials.

### THE SEVENTH ALL-INDIA VETERINARY CONFERENCE.

Rightly did a speaker say that the word Mysore has become a synonym for 'Progress' and it was applauded. The Seventh Session of the ALL-INDIA VETERINARY CONFERENCE, held at Bangalore, was a progress indeed over the previous six sessions.

It was a crowded house that met in the 'Daly Memorial Hall' at Bangalore and listened to the very thoughtful and learned addresses which were delivered on the first day of the session.

The Dewan of Mysore, who opened the Conference made such a masterly speech that it at once earned the admiration and the esteem of the house. "The Conference is a body of professional persons and I am afraid, the role of a layman like me among experts is not an easy one" said the Dewan Sahib. We agree. But when we heard him speak of the exigencies of Government finance ill-fitting with the veterinary development of the country; the absolute need for opening of Research Institutes in all major provinces; starting of Cattle Breeding Farms under proper scientific supervision; conducting of experiments on the nutritional values of different kinds of fodder; the role to be played by the Veterinarian with regard to public health; the legislation required to prevent the indiscriminate movement of diseased cattle from fair to fair; the desirability of making India self-contained in the matter of medicines and surgical appliances required; and finally his passionate appeal "for developing the spirit of

enquiry, the faculty of observation and the perseverance for pursuing problems"; and ending with a remarkable encouragement to the field-workers by stating "some of the discoveries which have proved of great value were made outside scientific laboratories"; we felt we were in the presence of a great scientist. So true and so perfect was the role played by the Dewan Sahib. We assure him that when his speech is read all over India and outside, it will be cherished by the entire profession with extreme gratitude.

The presidential speech was no less a remarkable utterance than the Dewan Sahib's. It looked as if the two gentlemen were determined to get to hard facts and not merely indulge in empty platitudes. With much of what the Dewan Sahib had said, the President was in agreement. He laid great stress on the value of "systematic field investigation" of diseases. Out of his ripe experience all over the world, Col. Olver said:—"There appears to have been a tendency to regard anything in the nature of investigation as a matter beyond the capacity or interest of any but those who are employed in large Research Institutions, and I want to impress upon you all that a great deal of most valuable information regarding the diseases from which the livestock in every province suffer, can be obtained by any one who will make careful clinical observations and thorough post-mortem examinations whenever an opportunity occurs, thus collecting material for further investigation." He further added "Without the knowledge of local disease conditions obtained from such investigation further research is impossible, and without an organised Veterinary Service, capable of applying this knowledge, it is not possible to reap the benefits made possible by research. Regarding the part to be played by the Veterinary Services in Animal Husbandry the Colonel said:—"From whatever aspect Animal Husbandry problems are tackled the Veterinary Services must play an important part in bringing such improvement as we may hope to achieve."

It was a model of an address free from doubtful advice, controversial subjects and that irritating attitude of treating all such organisations as something objectionable and unwholesome. Colonel Olver remembered that he was there as a professional man and that the profession had chosen him to

give correct lead in all matters of development. He discharged that duty in a manner which we make bold to say has earned for him the esteem and love of the profession.

The address of Major R.W. Simpson, as Chairman of the Reception Committee was again in a happy vein. His vigorous plea for an improved and uniform course of Veterinary Education in all Colleges; his appeal for an united Association in the provinces, to be modelled after the National Veterinary Association in England; his suggestion for the institution of "Field Research Work" in each province; and his elderly advice to young men to equip themselves better in every way professionally, are all too precious to be easily forgotten.

It was left to Dr. L.C. Coleman, the Director of Agriculture in Mysore, under whom the Veterinary Services are placed, to enrich the proceedings of the Conference by his interesting speeches from time to time. His continued presence on all the days of the Conference; his active participation in the discussion of a few of the professional papers; his suavity of manners; and the deep interest he evinced in the Conference have all endeared him to the profession. It was a revelation indeed to some of us to see that such sympathy, such interest, such co-operation and such good-will were coming from a member of another profession, when a few of our own men fail us so badly. He was the moving spirit of the whole Conference, and but for him the Conference would not have been the success it was.

Mysore was again leading in the matter of arranging excursions, in the number of professional papers read and in the Cinema shows of professional interest arranged. Social functions in the form of a Garden Party and a "Mysore Dinner to All-India" left nothing to be desired. Mrs. Coleman in particular was responsible for the success of these functions and the thanks of the profession are due to her in no small degree.

To Dr. Natarajan and Dr. Parthasarathy, the two medical colleagues, who presented excellent papers on "Discussions of a few filterable viruses interesting to the Veterinarian"

and "Production of Rinderpest Virus" respectively, the profession is very much indebted.

We congratulate Mysore on the unparalleled success of the Conference.

#### THE LATE Mr. A. M. RICHARDS.

Nothing in this world seems to be an unmixed blessing. While we rejoice over the success of a magnificent Conference, we are faced with the painful, yet sacred duty of recording the sad and sudden demise of an esteemed colleague.

The name of Mr. A. M. Richards needs no introduction to our Madras readers. He was born on the 12th November, 1875, at Jaffna and was educated in St. John's College, Jaffna and later on in Jaffna College, wherefrom he proceeded to join the Veterinary College at Bombay, and passed out of it in 1901. In the same year, he took charge of the District Board Veterinary Hospital at Trichinopoly, the first of its kind to be opened outside the metropolis in the presidency of Madras. For ten long years he remained there and the popularity of the institution grew by leaps and bounds. The foundations then laid by him are in no small degree responsible to the continued popularity of this institution.

In 1911, he was offered the place of a first-grade Veterinary Inspector under the Government of Madras, which he accepted with much hesitation. Some of his friends questioned the wisdom of the step he was taking. Later events proved they were good prophets. Let the tale disclose itself in due order. He served as Veterinary Inspector for six long years and in 1917, he was placed on special duty under Glanders and Farcy Act in Madras. Then he was taken as a Lecturer on the staff of the Madras Veterinary College. Poor soul! he found that atmosphere too suffocating for him and had to quit it all too soon and was posted to the Agricultural College at Coimbatore in 1918, as Lecturer in Animal Hygiene, which position he held with distinction till he went on leave preparatory to retirement in 1928.

What would otherwise have been a very successful and remunerative career at Trichinopoly, was lost to him by his accepting service under the Government. It is the universal



The Late Mr. A.M. RICHARDS.  
Born on 12-11-1875. Died on 18-10-1930.



H. N. CHELVA IYENGAR. G.M.V.C.,  
Lecturer in Anatomy, Madras Veterinary College,  
who has proceeded to Edinburgh for higher studies.

opinion where Mr. Richards was known that he did not get his deserts under Government Service. His was a typical instance of merit not being recognised by the Powers-that-be. A very successful doctor with plenty of tact and humour, he would have filled any position in the gazetted rank with distinction. He was denied it, and a graver injustice it has not been our misfortune to record till now.

Mr. Richards was honoured with the offer of the Chairmanship of the Reception Committee of the First Madras Provincial Conference held in December 1921, in Madras under the presidency of another elderly and esteemed gentleman M.R.Ry. Rao Sahib V.P. Subramania Mudaliar, Avl., G.B.V.C., Retired Deputy Superintendent, Civil Veterinary Department, Madras—and the success of the whole function was greatly due to the able and experienced leadership of Mr. Richards.

At the Agricultural College, he was the most popular Lecturer and in a farewell address the students of the College have said "Veterinary Science as taught by you had a wider and more thrilling appeal than fiction; a more living appeal than life. You have placed before us the ideals of true citizenship and those other examples of honour, love and sacrifice, with which the history of every nation teems and of which you yourself are a visible symbol". An oil painting of Mr. Richards now adorns the Freeman Hall of the Agricultural College at Coimbatore. We are thankful to the Agricultural College and its students for the honour they have done him—an honour which he so undeservedly missed at the hands of his own profession.

Mr. Richards went on two years' furlough in September 1928, and devoted all his time to the improvement of his farm at Klinochi in Ceylon. He contracted Malaria of a virulent type and died on the 18th October, 1930. His popularity as a "Friend of the Poor" has been testified to in the obituary notice of the *Ceylon Patriot*. He leaves behind him Mrs. Richards with three sons and four daughters. His eldest son Mr. A. V. Richards is a Ceylon Government Scholarship holder taking higher studies in Agriculture in the Selwyn College, Cambridge. We offer our most heartfelt condolences to the members of the bereaved family.

---

## Notes.

We are glad to know that Mr. F. Ware, F.R.C.V.S., I.V.S. has been confirmed in his present appointment as Director of Imperial Institute of Veterinary Research, Muktesar. With his vast knowledge of this country and unrivalled capacity for administration, he should prove a real asset to that Central Institute, in increasing its activities and usefulness for the immense benefit of the country.

There is no gain-saying the fact that the present efficiency of the Madras Civil Veterinary Department is mostly due to him. As an administrator, he was as much feared as he was admired. He cared for the purity of the service and will not tolerate inefficiency. But he failed to do a good turn to the loyal subordinates on whose hard labour he built up his reputation. Perhaps it was not as much his mistake as it was the ill-luck of the service concerned.

Mr. P. T. Saunders, O.B.E., M.R.C.V.S., I.V.S., is confirmed in his place as Director of Veterinary Services, in Madras. This is as it should be. The loss to Madras in Mr. Ware is made good by this happy choice of his successor. Mr. Saunders knows Madras and its men even more intimately than Mr. Ware. He has worked in charge of circles even. We most heartily congratulate Mr. Saunders on his well deserved confirmation.

Now that he has been confirmed in his Office, the subordinate Veterinary Service eagerly looks up to him to take up the long standing question of their pay and prospects and have them revised without further loss of time, since he knows that for the success of his administration of the Department, a contented service is an absolute necessity. The despair of the Service over this vital question which has been put off from time to time by the Government is such, that any further delay will only prove to be the last straw on the camel's back and thus spoil the morale of the service.

There is yet another important problem which is awaiting solution at the hands of Mr. Saunders. It is the improved Veterinary Education for our youths in this country and the affiliation of the Madras Veterinary College to the Madras University, which should be persuaded to institute a Faculty in Veterinary Science. This much needed reform in Veterinary Education is long over-due. Will he take up this question? We hope so.

During his last and long study leave in the United Kingdom and tour on the Continent of Europe, he has seen huge attempts, in his own country under the distinguished leadership of Professor Hobday and other *savants*, towards this healthy consummation of affiliating the several British Veterinary Colleges to the British Universities, and also the existence of such Faculties in some of the famous Continental Universities already. Mr. Saunders, we hope, will move in this direction, for the sake of improving further the Veterinary Science as a whole in this country.

Mr. T. J. Hurley, M.R.C.V.S., D.V.S.M., I.V.S., is confirmed as Principal of the Madras Veterinary College. We feel very happy over it. We were pained beyond measure when a grave injustice was done to him during the last Ministry. All is well that ends well. We offer our congratulations to him and wish him all success.

Since the publication of the last issue of the Journal, there were strong rumours from most reliable quarters that at least three of the subordinate staff of the Madras Civil Veterinary Department, would be deputed on study leave for higher studies in the United Kingdom, and they had been also warned to be ready. This was no doubt a laudable object. But as misfortune would have it, these men seem to have been refused the study leave on the plea of financial stringency.

Even when the financial condition of the State was in a prosperous condition, the Veterinary Department especially the subordinate service received only a step-motherly treatment. Even now, under the present adverse financial condi-

tions, such deputations—grant of study leave and other activities for the progress of the other departments have not been stopped. Why should not the members of the Veterinary Department have the same privileges?

\* \* \* \* \*

We are however glad that Mr. H. N. Chelva Iyengar, G.M.V.C., Assistant Lecturer in Anatomy in the Madras Veterinary College, took leave and has gone to take up Post-Graduate Course in Anatomy and Histology in the Royal (Dick) Veterinary College, Edinburgh, at his own cost. Our readers may remember that during the last re-organisation in the Madras Veterinary College, he was denied promotion to the Provincial Service, probably on the ground he had no foreign educational qualifications, even though his proficiency in his own subject of Anatomy is equal to that of the best in the same field and he has earned the admiration from all who had the opportunity of seeing his work in the College.

\* \* \* \* \*

The injustice did not stop at this only. He was asked to take the designation of an Assistant Lecturer, but still handle the important subject of Anatomy quite independently, which he was doing under the title of Lecturer before the re-organisation was effected. However, his undaunted courage and his sense of self respect have now prompted him to take up this costly voyage and course in the United Kingdom. We wish him all success.

\* \* \* \* \*

Mr. M. S. Nathan has been similarly a victim to this injustice during the recent re-organisation in the Madras Veterinary College and he also expected his study leave would be sanctioned to enable him to get the stamp of higher studies in foreign countries. But fate wished it otherwise and having a large family, his purse does not permit him to embark on this scheme, entirely at his own cost. He is rightly smarting under this injustice. He has our heartfelt sympathy.

\* \* \* \* \*

We have often advocated in these columns the cause of systematic propaganda work by all the Provincial Civil Veterinary Departments in this country. We are now glad to

know that the Madras Civil Veterinary Department has secured the loan of a Motor Exhibition Van from the Agricultural Department and equipping it with a number of lantern slides, charts and other necessary materials, has sent it round in the Northern Districts of the Circars, in charge of a Veterinary Assistant Surgeon. This progressive step was long overdue. But what is wanted is not one Motor Exhibition Van but at least five of them for the different parts of this vast presidency. We hope what has been done is only a forerunner of many such.

\* \* \* \* \*

The Madras Veterinary College deserves to be congratulated for its having successfully manufactured lantern slides in an attractive style under appropriate captions, on such useful subjects as (1) Rinderpest, (2) Anthrax, (3) Black-Quarter, (4) Foot and Mouth, (5) Fowl-pest (6) Tuberculosis, (7) Bovine Lymphangitis, (8) Nasal Granuloma and (9) Carcinoma for propaganda work. But we understand that only one set of each of these diseases has been so far prepared. This is something like a drop in the ocean. There ought to be a number of sets available for different workers in all the parts of the presidency. We hope the department will soon take steps to this end.

\* \* \* \* \*

We had the pleasure of witnessing the exhibition of fine camera films, so thoughtfully arranged by the Reception Committee, for the benefit of the delegates to the Seventh All-India Veterinary Conference, held recently in Bangalore. Some of the films related to the Kheddah Operations in Mysore State and Cattle and Horse Breeding Operations, Fairs and Shows in H. E. H. the Nizam's Dominions. We wish all the other Indian States and the British Provinces in India will soon follow the fine example of Madras, Mysore, Hyderabad, etc., in preparing and using lantern slides and films for propaganda work.

\* \* \* \* \*

We congratulate Bhai Kidmat Singh, Provincial Veterinary Service, Deputy Superintendent, Civil Veterinary Department, Punjab, and Mr. Munshi Moin Khan, Deputy Superintendent, Civil Veterinary Department, United Provinces who are the recipients of New Year Honours of Sardar Sahib and Khan Sahib respectively.

## Original Articles.

### A CONVENIENT METHOD OF TRANSPLANTING BACTERIA.

BY

D. C. MATHESON, F.R.C.V.S., D.V.S.M. (VIC.)

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A satisfactory method of transplanting Bacteria from one tube of culture medium to another must fulfil four conditions :—

- (1) Both tubes must be held in one hand ; they must be under adequate control.
- (2) The upper and lower thirds of each tube must be distinctly visible during the operation.
- (3) The method must permit :—
  - (a) of the prompt removal of the cotton wool plugs.
  - (b) their protection from contamination while out of the tubes.
  - (c) of their prompt re-insertion when the transplanting of the organism has been effected.
- (4) If the operator's attention be (inadvertently) withdrawn from the tubes an instinctive movement of the arm should carry the tubes to a position of security.

The method which is now to be described fulfils these conditions ; it has been used by the writer for a period of more than twenty years.

To facilitate reference in the following description of the method the tube containing the Bacteria from which the transplantation is to be made will be referred to as tube A, and the tube of fresh medium into or on to which the germs are to be transplanted will be referred to as tube B.

The tubes A and B are placed in a suitable receptacle e.g. a test tube rack in a convenient position to either the left or

the right side of the operator, the Bunsen burner is then to be lighted and the bacteriological needles arranged on the needle rack within easy reach. When a number of subcultures are to be made it is a good plan to have half-a-dozen needles on the rack ; that permits the operator to use them in rotation so that those first used will be cool by the time they are again required. With the modern needle consisting of a wire fixed in a metal handle, this precaution is desirable ; the metal handle, transmits the heat from the wire end to that held by the fingers much more quickly than the old fashioned glass handle did. For that reason a glass handle is preferable.

The two tubes A and B are lifted from the rack and laid diagonally across the third, second and first fingers of the left hand which is extended to receive them and the left thumb is brought over and laid diagonally across the region of the middle third of the tubes, the fingers are raised a little to permit the thumb to reach the tubes. The fourth finger of the left hand is left free. No attempt should be made to lay the tubes across all four fingers. Tube A should be placed nearest to the body of the operator so that when the needle, charged with bacteria, is withdrawn for the purpose of transplanting the organisms it must be carried away from the body and not towards it : thus reducing the risk of infection to the operator. The bacteriological needle is now to be picked up and held between the thumb and first and second fingers of the right hand. The needle should next be sterilised by placing the wire in the flame till it is red hot and then the handle is passed rapidly through, the needle being twirled between the fingers. The handle should be passed through the flame to within a few centimetres of the fingers : the operation should be rapidly performed ; it is not necessary or desirable to make the handle hot, otherwise it will take too long to cool and will be uncomfortable to hold. The cotton wool plugs are now to be removed in the following manner. The right hand still holding the needle as described is turned slightly palm upwards and the third and fourth fingers separated enough to bring the third finger under the cotton wool plugs of the tubes held in the left hand : the fourth finger now closes down on the plugs and these grasped firmly between the fingers are removed together by giving a sufficient pull and at the same time rotating the tubes a little by means of the left thumb.

The right hand then resumes its position palm downwards, the plugs are secure and out of the way firmly grasped between the 3rd and 4th fingers of the right hand; the portion that was within the tubes is not touched at all. The needle is now to be inserted into tube A, taking great care not to touch the outside, the rim or the inner upper third of the tube, during the process: the advantage of being able to see the needle all the time is now obvious; a sufficient quantity of the culture is picked up and the needle is withdrawn with redoubled precautions not to touch the inner upper third of the tube nor any part of the outside, and then the needle is introduced into tube B, with the same precaution but with increased vigilance since the needle is now carrying organisms possibly dangerous. The inoculation of the medium by smear, or by stab in the case of a solid medium is then made, but in the case of a fluid medium a further precaution is desirable especially if a loop needle be used. Do not plunge the loop charged with the organisms straight into the fluid: held as described above, a fluid medium presents in the lower third a portion of the inner glass surface free from fluid; which area, however, is covered by the fluid when the tube is placed in the vertical position. Carefully smear the organisms on this surface, do not put the needle into the fluid at all; withdraw the needle with the precaution advised in the case of tube A and sterilise it in the following manner.

Do not place the tip of the wire (loop or knot) directly into the Bunsen flame but start at the junction of the wire and handle and gradually draw the wire through the flame towards the free end thereby the material adherent to the needle will be charred before it comes into the flame; and when at last introduced into the flame it will burn with a tiny luminous flame for a moment after which the wire will become red hot and sterilisation is effected. The object of the foregoing precaution is to prevent spluttering of the material which occurs if a moist mass be suddenly introduced into a flame; such spluttering may result in a small mass of organisms being blown off the needle possibly before sterilisation is complete—an undesirable occurrence that is particularly likely to happen, if the loop needle be used. For the transplantation of bacteria the loop needle is generally to be avoided, the straight needle is preferable. The plugs must

now be inserted into the tubes; to do this the right hand still holding the needle is again turned slightly palm upwards, the left hand is advanced and the rims of the tubes A and B are passed quietly but rapidly through the flame and while the rims are still hot the cotton wool plugs are pushed in, the tubes being rotated slightly by the left thumb to facilitate the introduction of the plugs. They should not be pushed in further than they were at first. The needle is then set back in the needle rack: tube A is placed in the test tube holder but tube B is retained in the hand until a label is affixed upon which is written the name of the germ in the tube and the date of the inoculation. The date should always be given; it suggests the desirability of subculture in the case of organisms requiring frequent transplantation; in the case of others it affords a means of testing their viability in culture medium since one can tell at any time how long ago the culture was made.

#### THE DESCRIPTION OF A NEW FLUKE FOUND IN THE INDIAN HOUSE-CROW (*CORVUS SPLENDENS*)

BY

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Since July 1928, while investigating into the causes of an epidemic, attended with high mortality, amongst house-crows (*Corvus splendens*) in Bombay, a species of fluke recovered on *post-mortem* examination appeared to be one hitherto undescribed. The incidence of occurrence of worm parasites was not found as high as one would expect from such scavenger birds. Only six out of forty-five crows examined harboured this fluke.

An interesting record was also afforded by the occurrence of a tapeworm species and a microfilaria from this host. A reference to the literature showed that no worm parasites, except an Acanthocephalid worm (*Echinorhynchus* sp.), have so far

been reported from this bird, although in closely allied species (*Corvus corax* and *C. insolens*) flukes of the family *Dicrocoeliidae* had been previously recorded.

#### Description of the Fluke.

The thirteen flukes recovered from the gall-bladder of the six crows already referred to, were examined while alive, by the naked eye, in normal saline. They were found to be elipsoidal in shape and plump in appearance. They were capable of very slow progression and extended their telescopic anterior ends like the tentacles of a snail. The contractions and extensions of their plump body took the form of convexities and concavities. The natural colour of the parasite was liver-like. On fixation the flukes appeared like the cotyledons of a pea. The ventral side bearing the acetabulum was convex, whereas the dorsal side assumed a flattened appearance with wrinkled surface. The acetabulum was situated immediately behind the genital pore and about one to two millimeters apart from the oral sucker. Through the body wall the coils of the uterus and the position of the testes could be seen. The posterior end of the body was characterized by the presence of a notch in the median axis. The length and breadth measurements of the the flukes were as follows:—

|    |             |   |   |   |   |                    |
|----|-------------|---|---|---|---|--------------------|
| 1  | Flattened   | . | . | . | . | 16.6 mm. × 8.7 mm. |
| 2  | "           | . | . | . | . | 17.0 mm. × 9.0 mm. |
| 3  | "           | . | . | . | . | 16.0 mm. × 10 mm.  |
| 4  | "           | . | . | . | . | 12.5 mm. × 9.5 mm. |
| 5  | "           | . | . | . | . | 10.5 mm. × 6.0 mm. |
| 6  | "           | . | . | . | . | 11.0 mm. × 9.0 mm. |
| 7  | Unflattened | . | . | . | . | 7.8 mm. × 6.4 mm.  |
| 8  | "           | . | . | . | . | 8.4 mm. × 7.4 mm.  |
| 9  | "           | . | . | . | . | 6.5 mm. × 5.0 mm.  |
| 10 | "           | . | . | . | . | 8.0 mm. × 6.5 mm.  |
| 11 | "           | . | . | . | . | 7.0 mm. × 5.0 mm.  |
| 12 | "           | . | . | . | . | 6.0 mm. × 5.0 mm.  |
| 13 | "           | . | . | . | . | 6.0 mm. × 4.0 mm.  |

*The digestive System.* The oral sucker led into the muscular pharynx and thence to the oesophagus. The latter measured 0.5 mm. in length. The oesophagus bifurcated in front of the acetabulum into two gut cæca extending nearly

to the posterior end of the body. Each cæcum measured about 10 to 13 mm. in length and 0.5 in breadth.

*The excretory system* consisted of a Y-shaped bladder which opened at the notch of the posterior end of the body. The two arms of the bladder met at the level of the ends of the gut cæca, forming a wide obtuse angle and leading to the exterior by a single tube, two mm. in length.

*The genital system* occupied the posterior half of the body with the exception of the uterus, which was bound by gut cæca laterally and anteriorly, and the common vitelline duct posteriorly. The two testes were pre-ovarial, and ovoid in shape lying just above the gut cæca when viewed from the convex side of the fluke. Vasa efferentia were seen emerging out of the testes but could not be traced further in a whole mount on account of being overlapped by the densely packed coils of the uterus. Longitudinal sections of the fluke, however, showed the presence of seminalis vesicula, and pars prostatica in close proximity of the cirrus sac. The genital pore had a sucker-like appearance.

The ovary which was single, was situated medially adjacent to the shell gland, receptaculum seminis, and Laurer's canal. Vitellaria consisted of 28 pairs of glands lying external to the gut cæca, and extending from behind the level of the ventral sucker to the end of the gut cæca. Each gland consisted of a number of tubular follicles, radiating out from a common centre. The common vitelline duct which took its origin just behind the testes, marked the posterior boundary of the genitalia. Uterus had a definite arrangement, i.e., making a loop first to one side and then to the other, some loops in their turn forming daughter loops. Eggs measured 78 to 88  $\mu$  by 34 to 53  $\mu$ .

#### Discussion on the Systematic position of the Fluke

A survey of the classifications given by Pratt (1902), Luehe (1909), and Ward (1918) showed that the group *Distomata* could be sub-divided according to the position of the ovary in relation to the testes into three main categories, namely—(1) Ovary pre-testicular, (2) Ovary post-testicular, and (3) Ovary inter-testicular. The fluke described above by virtue of its post-testicular ovary fell into the second sub-group, which, according to Pratt, includes four sub-families, namely, *Dicrocoeliinae*, *Syncœlinae*, *Hemiurinae* and *Zoogoninae*. Out of the four sub-families, although *Dicrocoeliinae* approached most, the features of this fluke, yet the comparison also afforded many important differences, so suggestive of a strong diverging tendency (Table I).

TABLE I

| (1) <i>Dicrocoelidae</i> , Looss, 1899, or <i>Dicrocoelidae</i> , Odhner, 1911 | (2) <i>Multitellariae</i> .                                                                                    | (3) <i>Syncaelinae</i> , Looss, 1899. | (4) <i>Hemiurinae</i> , Looss, 1899.                             | (5) <i>Zoogoninae</i> , Odhner, 1902.                               |
|--------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|---------------------------------------|------------------------------------------------------------------|---------------------------------------------------------------------|
| Ovary . . . . .                                                                | Post-testicular, pre-uterine . . . . .                                                                         | .....                                 | .....                                                            | .....                                                               |
| Testes . . . . .                                                               | Near and caudad of acetabulum side by side or tandem, intercæcal symmetrically or obliquely lateral or median. | .....                                 | .....                                                            | .....                                                               |
| Body . . . . .                                                                 | Flat or transparent, broad or narrow, more or less elongate.                                                   | .....                                 | Small, cylindrical, orelliptical, caudal end usually telescopic. | .....                                                               |
| Suckers . . . . .                                                              | Approached, oral sucker terminal or sub-terminal, acetabulum well developed, pre-equatorial or equatorial.     | .....                                 | .....                                                            | .....                                                               |
| Oesophagus . . . . .                                                           | Medium or long . . . . .                                                                                       | .....                                 | .....                                                            | .....                                                               |
| Caeca . . . . .                                                                | Simple, not quite reaching caudal end of body.                                                                 | .....                                 | .....                                                            | .....                                                               |
| Excretory bladder . . . . .                                                    | Y-shaped, post-equatorial . . . . .                                                                            | .....                                 | Excretory crura usually joined over pharynx.                     | .....                                                               |
| Genital pore . . . . .                                                         | Not a sucker.                                                                                                  | .....                                 | .....                                                            | On the left edge of the body nearly opposite acetabulum.            |
| Cirrus sac . . . . .                                                           | Encloses pars prostatica and vasacula seminalis <i>interna</i> .                                               | .....                                 | .....                                                            | .....                                                               |
| Vittellaria . . . . .                                                          | Paired, extracæcal bilateral or unilateral partly covering caeca in mid body.                                  | .....                                 | Nearly equatorial.                                               | Only one vitellarium a small ovoid structure in the centre of body. |
| Uterus . . . . .                                                               | Entirely post-ovarian . . . . .                                                                                | .....                                 | .....                                                            | .....                                                               |

NOTE.—Nos. 3, 4, and 5, are parasitic only in fishes.

TABLE II

| <i>Dicrocoelium</i> .                                        | <i>Lypersomum</i> .                                                                                 | <i>Athesmia</i> .               | <i>Brodenia</i> .                            | <i>Platynasomum</i> .                                                                           | <i>Platynotrema</i> .      | <i>Eurytrema</i> .                                                                           | <i>Multitellaria</i> .                                                                                                      |
|--------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|---------------------------------|----------------------------------------------|-------------------------------------------------------------------------------------------------|----------------------------|----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| Body . . . . .                                               | Elongate, greatest width behind the middle.                                                         | ..                              | Laterally dentate.                           | Elongate, greatest width pre-equatorial.                                                        | Greatest width equatorial. | Thick & broad.                                                                               | Fleshy & plump.                                                                                                             |
| Cuticle . . . . .                                            | Smooth . . . . .                                                                                    | ..                              | ..                                           | Smooth . . . . .                                                                                | ..                         | Armed with scales or spinules.                                                               | Smooth.                                                                                                                     |
| Testes . . . . .                                             | Post-acetabular, slightly lobate, obliquely arranged immediately behind ventral sucker, intercæcal. | Post-acetabular, tandem median. | Post-acetabular, longitudinal axis normally. | Slightly lobate, lie at the same transverse level immediately behind ventral sucker intercæcal. | Pre-acetabular.            | Lobate, lie opposite to each other, posterior border level of ventral sucker the intercæcal. | Ovoid, not lobate opposite to each other, overlapping, the caeca, in the posterior quarter of the body.                     |
| Genital pore. At the place of gut bifurcation, not a sucker. | ..                                                                                                  | ..                              | ..                                           | Anterior to the place of gut bifurcation, not a sucker.                                         | ..                         | Slightly behind the place of the gut bifurcation, a sucker.                                  | Slightly behind the gut bifurcation, a sucker.                                                                              |
| Uterus . . . . .                                             | Post-ovarian . . . . .                                                                              | ..                              | ..                                           | Post-ovarian . . . . .                                                                          | ..                         | Post-ovarian . . . . .                                                                       | Pre-ovarian.                                                                                                                |
| Cirrus sac . . . . .                                         | Small, encloses pars prostatica & vasacula seminalis.                                               | ..                              | ..                                           | Does not reach ventral sucker encloses pars prostatica and vasacula seminalis.                  | ..                         | Reaches beyond anterior margin of ventral sucker not enclose vesicula seminalis.             | Small, does not reach ventral sucker. Does not enclose vesicula seminalis, or pars prostatica, which lie behind the cirrus. |

Travassos (1918), quoted by Stiles (1926), gave a key to the identification of seven known genera under *Dicracæliidæ* from warm blooded animals, and five known genera from cold blooded animals. Nicoll's lists of Trematode parasites included three more genera under the family *Dicrocæliidæ*, namely, *Brachycælium*, *Brandesia*, and *Ictyogonimus* again from cold blooded animals. A comparison with the descriptions of the above-mentioned genera from warm blooded animals (Table II) presented differences of systematic value and appeared sound enough to justify the proposal of giving new specific and generic names under a new sub-family group to the fluke in question.

The summarized characters of the proposed new sub-family, new genus and species would read as below:—

*Sub-family Multivitellarinæ Phadke and Gulati, 1929.*—Body thick and fleshy, uterus pre-ovarial, testes lateral (in posterior quarter of the body). Vitellaria extra cæcal consisting of tubular follicles, in equal numbers on either side. Genital pore in the form of a sucker, pars prostatica and seminalis vesicula not enclosed by cirrus sac. Habitat: The gall bladder of crows: Type Genus: *Multivitellaria*.

*Genus Multivitellaria.* Body thick and opaque, and ventrally convex. Pharynx present. Ovary post-testicular and median above the fork of the excretory bladder. Testes lateral and lying under the cæca. Twenty-eight pairs of vitellaria lying exterior to the cæca. Follicles of the vitelline glands tubular. Genital pore sucker-like close to and in front of the acetabulum and lying behind the gut fork. Excretory bladder Y-shaped. Host: Indian house-crow (*Corvus splendens*). Gall-bladder.

The species described above is dedicated to Mr. K. Hewlett, Principal, Bombay Veterinary College, and is named after him. The species *M. hewletti* presents the following characters;

The oral sucker smaller and less prominent than the acetabulum; cæca straight or slightly curved in a zig-zag manner; eggs 78 to 88 $\mu$  by 34 to 53 $\mu$ ; transverse section semi-lunar; ventral side convex; cæca extending up to the posterior end of the body; twenty eight pairs of vitellaria;

shell gland and Laurer's canal present. Host: *Corvus splendens*.

We have much pleasure in acknowledging the assistance of Mr. K. R. S. Ayyar of the Bombay Veterinary College and Dr. B.P.B. Naidu of the Haffkine Institute.

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## VETERINARY MEDICINE AND COMPARATIVE MEDICINE

*Similarity between psittacosis and an epizootic observed among chickens at Kodaikanal.*

BY

D. A. TURKHUDD, KODAIKANAL.

*An Abstract of the paper presented to Indian Science Congress, Nagpur, 1931.*

A slightly fatal epizootic among chickens at Kodaikanal in 1929-30, was at first thought to be one of chicken-cholera. This was disproved as (1) smears made from affected birds before death, showed no organisms; (2) cultures taken under same conditions were invariably sterile; and (3) chicken-cholera vaccine afforded no protection. Examination for coccidiosis, amœbiasis, filariasis, and spirochætosis proved negative. The cause was therefore suspected to be a filtrable virus, but no means were available for proving this. The epidemic was similar, in all respects, to "Ranikhet disease", which has been shown by Cooper to be caused by a filtrable

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virus, identical with that of Doyle's "Newcastle disease". There is now irrefutable evidence from England, Germany and America, that Psittacosis also is caused by a filter-passing organism, and not by *Bacillus psittacosis*. From the symptoms, pathological appearances, and bacteriological features, there is every reason to suppose that all these diseases are identical; but further serological and immunological investigations are necessary for proving this, or showing that they are different entities. A vaccine prepared from the livers of infected chickens, produced rapidly fatal results, probably from introduction of additional toxin in already infected birds. A carbolized glycerinated vaccine might be tried as a prophylactic measure, and might even prove useful as a cuti-reaction test for determining susceptibility or immunity to psittacosis.

#### THE EXISTENCE OF FOWL TYPHOID IN INDIA.

BY

HUGH COOPER and R. N. NAICK, MUKTESAR.

*An abstract of the paper presented to Indian Science congress, Nagpur, 1931.*

In a natural outbreak of disease in a flock of poultry in the Kumaun hills investigation confirmed that it was due to fowl typhoid. It is believed that this disease has not before been reported in India. A point of special interest is the fact that diagnosis clinically between it and fowl cholera is not readily made, and the use of serum or vaccine in outbreaks due to it and believed to be due to fowl cholera may not therefore be followed by satisfactory results. The extent and distribution of fowl typhoid in India must now therefore be investigated. The causal organism, *Salmonella gallinarum* Klein, isolated from dead fowls in the outbreak has been studied comparatively with an English strain of the same organism as well as *Salmonella pullorum* and *Salmonella psittacosis*. The agglutination relationship between these organisms has also been studied. The results are included in the paper.

Attempts to vaccinate healthy birds failed, but since fowls which had passed through an attack of fowl typhoid also died when tested for immunity at the same time, it

appears that the virulent culture used for the test was over-powerful. It is probable nevertheless that vaccination against natural infection would give more satisfactory results.

#### VACCINATION AGAINST RINDERPEST.

BY

HUGH COOPER and M. B. MENON, MUKTESAR.

*An abstract of the paper, presented to Indian Science congress, Nagpur, 1931.*

The introduction of vaccines has registered a very notable advance in the field of rinderpest prophylaxis, in view of serious limitations inseparable from the two current methods of combating the disease, namely, the so-called "serum-alone" and "serum-simultaneous" methods, but the value of these products had not hitherto been tested in India. Kelsner (1928), in the Phillipines, claims to have succeeded in preparing an efficacious vaccine by treating tissues obtained from cattle at the height of a rinderpest reaction with chloroform. He claims that the vaccine is quite safe immediately and can be used over as long a period as one year after preparation. DAUBNEY (1929) in Africa prepared a vaccine in a similar manner, but treated the tissues with a very weak solution of formalin. He indicates, however, that his vaccine must be used within seven days.

Preliminary work undertaken at Muktesar has indicated that both these forms of vaccine have definite antigenic properties. In a preliminary test with KELSNER'S vaccine the results can only be described as perfect. Attempts to repeat the work, however, gave much less satisfactory results. Tested, however, as long as 11 months after preparation, protective value was still evident.

With DAUBNEY'S vaccine it was found that before seven days the vaccine was very highly virulent and most of the animals injected with it died of acute rinderpest. Twelve days after preparation, however, very satisfactory results were obtained.

Only tentative opinions can, however, be made concerning the vaccine at the present time.

**DISCOVERY OF THE OESOPHAGEAL STAGE LARVÆ OF  
HYPODERMA LINEATUM, VILLIERS, IN INDIAN  
CATTLE. PRELIMINARY OBSERVATIONS.**

BY

P. G. MALKANI, PATNA.

*An abstract of the paper, presented to Indian Science  
Congress, Nagpur, 1931.*

In 1924, Patton first reported the occurrence of *Hypoderma lineatum* in India. In 1926, Cross after having examined several thousands of cattle in the Punjab stated that he had not found larvæ of *Hypoderma lineatum* in the gullet walls, in which situation, they had been found by both European and American workers. At the Imperial Institute of Veterinary Research, Muktesar, larvæ in the gullets, first parts of the stomach and other situations have now been discovered. The possibility of their being the hitherto unknown immature larvæ of *Hypoderma crossi* has been excluded by careful post-mortem examinations of carcasses of goats for the presence of immature larvæ, and the examination of goats in healthy kraals for the presence of developed warble tumours and by comparison of mature larvæ with the larvae of *H. crossi* as described by Patton and Cross. By means of Laake's distinguishing features for the immature larvæ of *Hypoderma lineatum*, and *Hypoderma bovis* by Brauer's and Laake's distinguishing features for the mature ones, and finally by rearing an adult fly these larvæ have been found to belong to *Hypoderma lineatum*.

**RHINOSPORIDIOSIS IN EQUINES.**

BY

V. KRISHNAMURTI AYYAR, MADRAS.

*An abstract of the paper, presented to Indian Science congress,  
Nagpur, 1931.*

The earliest recorded occurrence of rhinosporidiosis in man dates back to the year 1900 when Seeber discovered the parasite in growths from the nasal cavity of two men living in Argentina. Since then, cases have come to be recorded in

man in India and other parts of the world by various other workers.

As regards its prevalence in animals, its occurrence was recorded for the first time in a horse in South Africa by Zschokke (1913) and later in two mules in the same country by Quinlan and de Koch (1926) and again in a horse in Montevideo by Cordero and Vogelsang (1928).

In a paper read by the author entitled "Rhinosporidiosis in cattle" at the Seventh Session of the Far Eastern Congress held in India at Calcutta, the author recorded for the first time its occurrence among cattle in India. He has since been able to detect rhinosporidium in the nasal growth removed from a pony and sent to him for examination and its details are recorded in the paper.

This is the first case of rhinosporidiosis to be recorded in equines in India and this finding when taken with its occurrence among cattle previously recorded is of interest in a country where cases of human rhinosporidiosis are now and then met with.

**General Articles**

**THE ELEPHANT'S EYE**

BY

A. B. BOPAYYA, G. M. V. C.

*Veterinary Assistant Surgeon, Coorg Forest  
Department, Coorg.*

The elephant is a huge animal. His body is big; ears are broad and limbs are thick but his eyes are very small. Why? This appears to be rather strange to a careful observer when even a deer has a pair of big and beautiful eyes and a toad too. Perhaps a Zoologist can tell us the reason why. To me it appears that as the elephant is a hill animal any approach of his into the open exposes him to danger. His colour is dark but has a special charm. He has to shut himself up in the thick of the forest both for his safety and for his fodder. The latter he finds in plenty only in the thick and thorny



jungle. He is a lover of nicety. He would spare no pains to pick up a piece of sugar-cane embedded in the thorns. This he does with his trunk at the head of which stand his bright and beautiful small eyes. He is a rash eater. If his eyes were bigger than what they are he would be exposing them to injuries every minute. Even as they are they are risked. Again it is interesting to see an elephant run in the jungle. A dog, a deer, a tiger, a bison or a sambar has his muzzle and nose pointing and directing him but my elephant has the tip of his nose curled and coiled and kept safe under his chin (at the sub-mixillary space). The distance from the eye to the extreme front with which foreign matter comes in contact is only an inch or two. Eye lids can act only through reflex action. In these circumstances a lover of the elephant would wish his eyes to be smaller still.

The eye of man and of almost all animals is placed parallel to the ground but that of the elephant is so obliquely placed as one may not be far from right if one calls as upper and lower canthus of the eye.

The cornea of the eye is of different colours in different elephants. The common colour is glassy brown. The length of the eye lashes is from one to three inches.

The pupil of the eye is round but in many aged elephants a slit at the upper border is seen. The lens presents a bluish grey appearance.

#### **The Part the Eye Plays.**

The eye is the indicator of the mood, expression, feeling, temper, attitude, health etc., of animals. In man it goes a still further and helps to gauge one's intelligence and knowledge. In fact the eye is the all-meter of living beings. Even in prolonged illness I have not seen an elephant losing the brightness of the eye in diagnosis of diseases. The membrana nictitans (haw) plays a great part in the ailments. The frequent movement of the membrane to and fro excepting for the removal of dust and other foreign matter is a sure indication that the elephant is sick. The membrane staying half way on the cornea is a very bad symptom and I shudder at it.

#### **Tearing.**

Running from the eye is a symptom of much consequence in other animals but it is not so in the case of an elephant. Work in the hot sun, a little indisposition, natural diarrhoea and extremes of temperature bring on profuse tearing. Removal of causes, fomentations, mild astringent lotions are well indicated.

#### **Delicate Eye.**

To a casual observer the elephant appears to be a hardy animal. It is perhaps the most delicate being. The eye of the elephant is most delicate. Without any serious cause one may find complete opacity of the cornea. It might very soon disappear too. A good percentage of the elephants will have partial opacity of the cornea permanent. A considerable number has cataract. An appreciable percentage is to be expected to be blind. Certain kinds of fodder besides external injuries bring on opacity of the cornea. Our new captures were fed with ficus twigs and leaves for the past so many years. I did not notice the opacity as stated by Col. Evans until last year when three of our young elephants suddenly and altogether developed the opacity with profuse tearing. The ficus fodder was cut off and the eyes were treated with fomentations, mild Zinc-sulph lotion and yellow ointment. The elephants were alright in a fortnight. One calf in this herd of four, had no ficus fodder and he was free from the complaint. As these were given good quantities of tender shootings of the ficus owing to good early showers of last year and as I noticed this opacity for the first time during the past 18 years, I am led to think that tender ficus shootings are more prone to cause this eye complaint. During the last Mysore Khedda operations, I noticed two wild elephants with complete opacity of the cornea of one eye among the 13 brought into the roping stockade. This occurs in the natural wild state also. Mr. K. Muthia, E.A.C., and Game Officer (retired) of Mysore, thinks that other wild animals also may be subject to these eye complaints. But he tells me that he has seen a very considerable number of deer, sambar, bison, tigers etc., shot but has not seen one with opacity. It is the experience of our best marksmen also.

Owing perhaps to this delicate nature of the eye and his inability to bear continued sun on his head the elephant is

provided with two big fans on the pretext of broad ears fanning frequently the eye and the forehead. Africa is hotter and the African elephant has broader ears.

**Are Eyes Necessary for the Elephant to live out his life in the Forest?**

No! 'Not necessary' may not be an incorrect answer. I am not aware of any other animal which can go about in search of its food and fodder and pull on its life for years. I know of blind cows, bullocks and ponies who have dragged on for a few months. This is all. But an elephant can, I think, live its full life without eyes. There is now an elephant named Meenakshi in the Madras Forest Department, who is stone blind but works and earns her upkeep. She is under the same condition and treatment as those of her colleagues going about grazing etc. Mr. Rozario, G.M.V.C., of the Madras Forest Department told me that they had recently a pit fall of a good young tusker, stone blind, having lost his eye balls. I am surprised he fell; for, blind ones place measured and cautious steps after feeling with their trunks the ground they tread on. I believe his hind legs might have slipped or he fell while running at some fright. I have seen Bihar merchants purchasing almost blind elephants. This leads me to believe that blind ones are serviceable at some quarters. I am told that the Mysore Government had a cow elephant Thararani, stone blind and serviceable. She, it would appear was very quiet and behaved extremely well. From this data, one may safely presume that we have a good number of blind elephants in the forests.

**To Beware.**

Nothing should therefore be spared to prevent occurrence of eye complaints. Simple ophthalmia and profuse tearing require immediate attention. The eye lotions and drops should, I think, be weaker than those used on horses. Indian owners frequently annoint the heads of elephants perhaps to avoid this as well. They prefer to purchase elephants with very broad ears. Working elephants during hot hours bring on profuse tearing. This has to be avoided. Experience—the greatest guard—has justly prescribed rest in summer and work

in other seasons. He that trespasses this rule pays a toll. In the interest of the calculative owner and the long usefulness of elephant, I endorse this age-long rest of the elephants. To work elephants in summer is a false economy.

**ROUTINE OF POST-MORTEM EXAMINATION.**

BY

T. S. RAJAGOPALAN, G.M.V.C.,

*Veterinary Assistant Surgeon, Mannargudy, (Madras).*

The following form gives a systematic method of conducting a post-mortem examination of a veterinary subject:—

**Form.**

NOTES ON THE POST-MORTEM EXAMINATION ON THE BODY OF A:—

BELONGING TO:—Mr.....(Owner's name and address).

Result of examination of blood, after death of the animal:—

.....

Date and time of making the smear:—

Place from which the smear is taken:—

Stain used or sent to which laboratory:—

Result of the examination:—.....Positive for.....negative

for anthrax &c.

Whether any smear was submitted while the animal was alive:—

If so, date with the result of the examination:—

**Precis of the Case.**

Hospital

Date of admission into the.....19 .

Dispensary

Date of death:—.....or destruction:—

Date and time of making the post-mortem examination:—

.....

Symptoms presented by the animal while alive:—

(a) Subjective symptoms:—

(b) Objective symptoms:—

Diagnosis:—

**External Examination of the Body.**

1. Condition of the body :— e.g. Weak, debilitated, poor, bad, good, not well nourished, &c. &c. &c.
2. Rigor Mortis :— e.g. Present, absent, passed off, beginning to pass off, &c., &c.
3. Eyelids :— e.g. Dilated, closed, half open &c.; &c., &c.
4. Mouth and nostrils :— e.g. Dilated; frothy discharge, bloody discharge from the mouth, nostrils, both, no discharge, stinking, &c., &c.
5. Presence of wound if any :—...If present, note the characteristics of the wound, position, direction &c., &c.
6. Condition of other natural openings :—...
7. Abnormalities noted any? How is it accounted for? :—.....

**Internal Appearance of the Body.**

1. ABDOMINAL CAVITY :— On opening the abdominal cavity one can find gas escaping, bad odour, flakes of lymph, fibrinous deposits on the peritoneum &c., &c. These things to be noted here in detail.
2. Subcutaneous fat :—e.g. Poor, rich, scanty, colour, &c., &c.
3. Peritoneum :— e.g. Moist, dry, any adhesions? where? and why?
4. Position of organs :—Care must be taken to merely inspect the organs in situ; and nothing should be removed at this stage.
11. THORACIC CAVITY :— on opening the thoracic cavity one can find fluid present-if present, note the colour, consistency of the fluid, &c., &c.
1. Pleura :—Parietal as well as the Visceral layer to be examined carefully :—
2. Condition of the Pleura :—e.g. Moist, dry.

3. Adhesions :— e.g. Present in.....portion, &c.
4. Position of organs in general :—...

**111. THE EXAMINATION OF THE HEART :—**

1. External appearance :—
2. Auricle :—Right :— left :—
3. Ventricle :—Right ;—left :—
4. Weight :— Average weight in horse 9 lbs; cattle 5½ lbs; dog 5-6 oz. pig 1 lb.

5. Valves :—
6. Endocardium :—
7. Blood vessels :—
8. Coronary arteries :—
9. The auriculo-ventricular node :—
- IV. LUNGS :—Right and left.

1. Weight :—
2. Colour, consistency :—
3. Section :— e.g. Feeling to the knife; whether section floats in water or not, &c., &c.

4. Lobes :—

**V. DIAPHRAGM :—**

- VI. TRACHEA :—Average length in horse :—30-32 inches; in cattle :—26 inches.

**VII. LARYNX :—****VIII. GLOTTIS :—****IX. EXAMINATION OF THE LIVER :—**

1. Weight :—Average weight :—horse :—10-12 lbs. to 20 lbs; ox :—10-12 lbs; dog :—3 lbs pig :—4 lb.

2. Edges :—
3. Colour :—
4. Consistency :—
5. Section :— feeling to the knife; &c., &c.
6. Capsule :— easily peelable or not; adhesions if any &c.
7. Gall bladder :— Contents and its character, &c., &c.

**X. EXAMINATION OF THE SPLEEN :—**

1. Weight :— Average in horses :— 35-40 ounces; ox :— 2 lbs; dog :—1½-2 oz.
2. Capsule :— Easily peelable or not; adhesions if any &c.

3. Colour :—
4. Consistency :—
5. Section :— Feeling to the knife ; &c., &c.

#### XI. EXAMINATION OF THE KIDNEYS :—

- |                      |                      |            |       |            |
|----------------------|----------------------|------------|-------|------------|
|                      | average weight horse | ox         | dog   | pig.       |
| 1. Weight :—right :— | 23-24 oz.            | left one   | 2 oz. | 7 to 9 oz. |
| left :—              | 22-23 oz.            | is 1 oz    |       |            |
|                      |                      | more than  |       |            |
|                      |                      | the right. |       |            |
2. Colour, consistency, surrounding fat :—
  3. Capsule :—
  4. Section :—

#### XII. EXAMINATION OF THE PANCREAS :—

weight in horse :—12 oz. ox :—12-13 oz.

- #### XIII. EXAMINATION OF THE OESOPHAGUS :—
- In horse the oesophagus is from 4 to 5 ft in length; in ox it is from 3 to 3½ ft in length.

#### XIV. EXAMINATION OF THE STOMACH :—

1. Outer surface :—
2. Interior :—

|                         |                      |     |                 |                           |
|-------------------------|----------------------|-----|-----------------|---------------------------|
| average horse           | ox                   | dog | sheep           | pig.                      |
| Capacity :— 2-4 gallons | Medium :— 30-40      | 6-7 | 4 gal-<br>lons. | 11½<br>to 2 gal-<br>lons. |
|                         | Large :— 40-50 pints |     |                 |                           |
|                         | Small :— 25-35.      |     |                 |                           |

Mucous membrane :—

3. Contents with their characters :—
4. Presence of any foreign body in the stomach, worms, parasites &c. &c.

#### XV. EXAMINATION OF THE INTESTINES :—

1. Outer surface :—
2. Pyloric surface :—

3. Ileocaecal valve :—
4. Parasites and contents :—
5. Mucous membrane :—

#### XVI. EXAMINATION OF THE BLADDER IN MALES WITH URETERS, PENIS, SHEATH AND OTHER EXTERNAL URINO-GENITAL ORGANS :—

EXAMINATION OF THE UTERUS IN FEMALES WITH THE FALLOPIAN TUBES, OVARY, VAGINA AND OTHER EXTERNAL URINO-GENITAL ORGANS IN DETAILS :—

#### XVII. EXAMINATION OF THE BRAIN AND SPINAL CORD :—

#### XVIII. EXAMINATION OF THE ENDOCRINE AND LYMPHATICS IN THE BODY :—

Special reference to Mediastinal lymphatic gland (Tuberculosis), Parotid, Mandibular and Sublingual glands, Thyroid, Thymus, Adrenals, &c. &c.

#### APPEARANCES FOUND :—

Cause of death :—

Portions preserved if any :—

Portions sent to laboratory for examination if any :—

Remarks :—

General remarks :—

Signature :—

Station :—

Date :—

Official designation of the officer  
who conducted the Post-mortem.

Witnesses if required :—

## Clinical Articles.

### OPERATION ON A TIGER

*Amputation of overgrown nail, by the administration of Chloroform.*

BY

L. M. HIRA, G.B.V.C., A.R. SAN. I.,

*Superintendent of Markets & Veterinary Surgeon,  
Karachi Municipality, Karachi.*

A most dangerous and risky operation on one of the tigers of the Zoo in the Mahatma Gandhi Garden was undertaken and successfully gone through on 21st February 1930, by the writer of this article and Mr. Abdul Majid, G.P.V.C., Veterinary Surgeon, Karachi.

*Subject* :—Indian tiger, full grown, 7 years old, 10 ft. long from head to tail.

*History of the case* :—A nail in the 2nd phalange of the right forehand had so overgrown that the sharp point had imbedded in the soft tissue causing suppurating abscess and consequently the animal had been suffering severe pain for the last many days. The pain increased so much that the tiger was not eating properly and walked lame.

*Diagnosis* :—Digital abscess caused by overgrown nail.

*Treatment and remarks* :—To operate a wild and dangerous animal, such as a tiger, was a difficult job and it took two and a half hours. In the first place great difficulty was experienced to bring out the tiger from its enclosure into a small movable cage kept nearby for the operation. The animal refused to come out and attempts to bring out the beast made the tiger all the more furious.

After trying unsuccessfully to secure the animal in the cage, an attempt was made to chloroform the beast in the enclosure of the cage itself.

A long iron bar was taken and at one end of it a piece of sponge was fastened; four ounces of chloroform was poured over the sponge and it was placed near the nose of the tiger. The animal resisted, roared and played usual pranks, but the chloroform was continued and eventually the animal was semi-narcotized.

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| " full-grown cattle and horses     | 200-300    | " 2 "         |
| " suckling pigs, sheep and goats   | 10         | " 3 "         |
| " full-grown pigs, sheep and goats | 20-40      | " 3 "         |
| " dogs, according to age and size  | 5-30       | " 3 "         |

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### *Operation on a Tiger*

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It was then that the animal was with great difficulty pushed into the small movable cage.

The cage was removed to an open place nearby and covered with tarpaulins, and a few men sat on it, while some others held it tight all round so that it might not shake.

Chloroform was given again and the animal soon came under it. The jamedar of the Zoo boldly put his hand through the trap door into the cage and fastened a rope on the affected leg of the animal and some three men pulled it out.



The tiger again resisted but his fierceness was minimised on account of the effect of the chloroform administered for the second time.

Then the overgrown claw was cut with a strong pair of bone-cutter, all pus and dead tissues were removed and wounds were dressed antiseptically. All other nails were then examined one by one and overgrown nails were nipped.

As soon as the overgrown nail was removed the animal felt great relief and showed gratitude by nodding of head and wagging of tail.

SL  
KZ m2, n24

Thus the dangerous undertaking came to a successful termination without any untoward incident. In the evening the tiger looked well and was given its usual food.

I acknowledge with thanks the help rendered by Messrs. J. M. Dhirmalani and H. B. Abasi in this connection.

### CAESARIAN SECTION IN A CAT

BY

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*Veterinary Assistant Surgeon, Veterinary Hospital,  
Ootacamund.*

On 18th July 1930, a young cat suffering from dystokia was brought to the hospital for treatment. It was a case of posterior presentation in a primipara with the os firmly closed over the neck. The kitten was hanging out dead and limpid and while examining it, the body came out easily in my hand. I then learnt that a kindly ayah had tried pulling at the kitten and, in so doing, had practically decapitated it. The os being firmly closed and the mother being very small, "Caesarian section" was at once decided on.

The cat was anaesthetized with chloroform, the left flank shaved and cleaned and an incision about  $1\frac{1}{2}$  inches long made between the last rib and the point of the hip. The incision was carried through skin muscles and peritoneum and the uterus brought out by hooking it with the right forefinger. The decapitated head of the kitten which was in the body of the uterus was worked into the left horn and removed by an incision over it. The placenta also came out with it. The wound was well swabbed with Lotio Hydrargyri Iodidi Rubrum and sutured with catgut. The uterus was replaced and the abdominal muscles and skin sutured separately with catgut and silk thread. The cat got over the chloroform effects without any trouble.

Except for one stitch wound, healing took place very quickly and the cat was discharged from the hospital on 25-7-30.

### A CASE OF RABIES IN A CALF

BY

R. SWAMINATHA AYYAR, B.A., G.M.V.C.,  
*Veterinary Assistant Surgeon, Veterinary Hospital,  
Ootacamund.*

The subject of this case was a black cross-bred cow calf, born on 24-4-29. While it was grazing in the compound a rabid dog rushed in on 25-6-29 and bit it on the muzzle. The dog was chased and killed; the examinations of its brain proved positive for rabies. The wound on the muzzle of the calf was immediately cauterized with pure carbolic acid and Anti-rabic treatment commenced within 24 hours. On 8th July 1929, i.e., on the 13th day after the bite, the calf developed signs of rabies. It began to cry for no apparent reason and its voice was slightly hoarse. There was also a certain amount of excitability on the approach of anybody. These symptoms steadily became pronounced more and more, although the calf continued to drink the milk from a bucket. On 15th July 1929, there was a tendency on the part of the calf to bite the bucket. On 16th July 1929, it was completely off its feed, the voice became very hoarse and it was scarcely able to stand. On 17th July 1929, i.e., 23 days after the bite and 10 days after the development of symptoms, the calf died. The brain was removed and sent to the Pasteur Institute for examination. It was declared positive for rabies.

### A CASE OF TETANUS IN A WILD ASS (EQUUS HEMIONUS) OF THE ZOOLOGICAL COLLECTIONS OF THE VICTORIA GARDENS

BY

D. S. LAUD, G. B. V. C., F. Z. S.,  
*Superintendent, Victoria Gardens, Bombay.*

A female wild ass (*Equus Hemionus*)—Gorkhar or Onager—of the Zoological Collection of the Victoria Gardens, was suffering from Tetanus, and as the case was an interesting one, a clinical lecture on Tetanus was given on 30-1-30, to the senior students of the Bombay Veterinary College and they were shown the method of control, line of treatment adopted, nursing, nourishment, etc. &c.

*History of the Animal:*—A pair of wild asses was purchased on 28—3—26, from Kharaghoda. The Gorkhar or Onager is found in Baluchistan and Western India, principally in the Runn of Cutch. The female Gorkhar when brought to the Gardens was hardly one year old, and was being fed on cow's milk and horse-bread. The pair was first kept in one enclosure, but as the male grew up and began to tease the female and one day bit her severely on the crest of the mane, both of them were separated, and put in different enclosures. The wound on the crest of the mane of the female was dressed with antiseptics and it healed up completely.

On 27—1—30, the female Onager showed the following symptoms of Tetanus. Lockjaw, stiffness of hind legs, membrana nictitans prominent, nostrils protruded and dilated; animal able to drink and eat with difficulty.

*Treatment:*—The following treatment was adopted in the case under reference:—

27—1—30, 2 P. M.

Gave subcutaneously 30 c. c. of saturated solution of Magnesium sulphate.

Ext. Bellad. Elect. internally.

Animal taking food as usual with great difficulty.

Given lucerne.

$\frac{1}{2}$  dram Calomel two times a day in food.

At 6 P. M. subcutaneous injections of P. & D's. Anti Tetanic serum 12,000 units (2 bottles) and 20 c. c. of saturated solution of Magnesium Sulphate were given.

28—1—30, 9 A. M.

Subcutaneous injection of P.&D's. Anti Tetanic serum 12,000 units, 30 c. c. saturated solution of Mag. Sulphate, Bellad. Elect. and Calomel continued.

At 5 P. M. subcutaneous injection of 30 c. c. of Solution of Magnesian sulphate and 6000 units Anti-Tetanic serum of P. & D.

29—1—30. Subcutaneous injection of 40 c. c. of saturated solution of Mag. Sulph. 6000 units of Anti Tetanic serum (P & D). Bellad Elect. and Calomel contd.

30—1—30 at 9 A. M. Appearance of oedematous swelling on the right fore-leg.

Subcutaneous injection of 40 c. c. of saturated solution of Mag. Sulph. and 6000 units of Anti-Tetanic serum (P. & D.)

Milk 2 seers given. Bellad. elect & calomel continued. Gave clinical lecture and demonstration to the senior students of the Bombay Veterinary College.

31—1—30. Given 4 seers of Milk—2 in the morning and 2 in the evening.

Bran Mash & Limji Biscuits.

Calomel and Electuary continued.

At 9 A. M. Injections of 6000 units of serum and 20 c.c. of saturated solution of mag. sulphate were given, swelling on shoulder subsiding.

1—2—30. 9 A. M. Calomel and Elect. Bellad. continued. Milk 5 seers a day. Injections of 6000 units of serum and 30 c. c. of saturated solution of Mag. Sulph. were given.

5 P. M. Elect. Bellad. and calomel continued.

2—2—30. Animal showing signs of improvement.

10-30 A. M. Injection of 30 c. c. of saturated solution of mag. sulph. Calomel and elect. continued. Animal able to chew food.

3—2—30. Calomel & Bellad. elect. continued.

Able to take milk food. Animal showing marked signs of improvement.

9 A. M. Injection of 20 c. c. of saturated solution of mag. sulph.

There were wounds and sores on the body caused by cotton ropes—with which the animal was secured.

Lysol wash & Antiseptic dressing applied.

4 P. M. Animal alright, able to feed and picking hay, etc.,

4—2—30. Animal showing marked improvement, stiffness in hind legs disappeared, able to eat hay.

Usual food given. Milk continued. Calomel and electuary continued. Swelling of legs disappearing.

Injections stopped.

5—2—30. Marked improvement observed.

Calomel & Bellad. elect. continued.

Wounds and bruises—Antiseptic wash & dressing applied.

Usual food given i. e., hay and milk.

6—2—30. Animal alright.

7—2—30. Swelling on legs subsided.

Milk and usual food given.

### AN EXTRAORDINARY CASE OF FRACTURE OF BOTH THE FEMURS IN A FOUR YEAR OLD BULL-CALF

BY

R. G. SATHE, G. B. V. C.,

*Veterinary Surgeon, Plague Research Inquiry, Haffkine Institute, Parel, Bombay.*

Fracture of either a femur or a humerus, is not a very uncommon incident in animals that are often cast for the purpose of shoeing.

The cause of these fractures can be attributed to the rough method of handling and casting on a hard ground which is not provided with either a sufficient bedding or sawdust. But if the animals are cast in some methodical way, and if ample bedding or sawdust be provided there are very few chances for these bones to get fractured in the process of casting.

In the experience of the writer of this paper, who has served for a period of about 8 years at the Imperial Institute of Veterinary Research, Muktesar, where on an average 800 to 1000 bulls and buffaloes were cast every month, no case of fracture had occurred in these animals during the operation of casting, or during the process of their muscular contraction while struggling forcibly when secured by their four legs for the purpose of drawing blood.

The object of reporting this present case is to emphasise the fact that the fracture in question did not occur while casting the animal but it occurred after the calf was completely secured with its four legs tied together; when it was prepared for drawing the blood, all of a sudden, the calf

struggled to such an extent that a crackling sound was distinctly heard as if something had given way.

*History of the case:*—The calf was purchased locally for the purpose of producing anti-plague serum on 22nd July 1928, when it was 1½ years of age and weighed 267 pounds. The calf was of nervous temperament from the start and with great difficulty it could be controlled.

Immunization against plague was commenced on 30/7/28 and up to 29/12/28 the calf had received 21 weekly intravenous injections in all, commencing with a dose of 0.2 of an agar and which was gradually increased to 50 agars in the course of six months. On all these occasions the reaction to the injection varied between 103°F to 107.8°F and the temperature came down to normal in a day or two. After the 16th injection, that is on 9/11/28 the calf had a swelling of near-fore fetlock, so much so that it could not bear weight on it and consequently had to lie on the ground. But within a fortnight the calf was cured and began to put weight on its affected leg as usual.

During the year 1929, the calf had three courses of injections:—The 1st one of 9 weekly injections during a period extending from 5/1/29 to 20/3/29. The second course of 7 injections was from 1/5/29 to 15/6/29 and the third of 13 injections was from 16/9/29 to 15/12/29.

*First course of injections:*—This was commenced from 50 agars and was raised to 80 agars. The reaction varied between 102°F to 106°F. The calf was bled 1000 c.c. for serum and was then given rest. During this period the calf showed lameness of both the hind legs and it got over the trouble by 1/5/29.

*Second course of injections:*—This was commenced from 20 agars and was raised to 100 agars. The reaction varied between 102°F to 104°F. It was bled 1500 c.c. on 26/6/29 and 2000 c.c. on 29/9/29 for serum and was then given rest.

*The third course of injections:*—This was commenced from 15 agars and was raised to 125 agars. The reaction varied between 101.4°F to 105.6°F. After its last injection, that is on 15/12/29 the calf took ill suddenly, went off its feed, bowels were costive but had no rise of temperature; it lost

much of its condition. By proper nursing and medicinal treatment everything came to normal by 10/1/30. It was given rest till the 2nd of February 1930, and during this period it picked up its condition very well again.

During the year 1930, the calf received two courses of injections:—the first one was of 14 weekly injections during a period extending from 3/2/30 to 3/5/30; the second course was of 21 weekly injections and its period was from 22/6/30 to 8/11/30.

*First course of injections:*—This was commenced with first five injections of 100 c.c. of supernatant fluid of Haffkine's Vaccine and the remaining nine injections were of agars commencing with 10 agars and gradually increased to 100 agars. The reaction varied between 102.8°F to 105.2°F. On 12/5/30 the calf was bled 3000 c.c. for serum and was then given rest.

*Second course of injections:*—This was commenced with an initial dose of 100 c.c. of the supernatant fluid of Haffkine's vaccine followed by 15 agars for the start and then gradually raised to 100 agars which dose was repeated 9 times as the reaction was kept up. The reaction varied between 103°F to 106°F, lasted for a longer than the usual period of 24 hours.

On 17/11/30 the calf was cast for bleeding. At this time the animal was in excellent condition. Its four legs were secured and the region of the neck was being prepared for the operation of bleeding when it struggled forcibly and all of a sudden a crackling sound was heard denoting that something had given way. Immediately the calf was let loose, it stood up with his near-hind held up above the ground. When examined near the region of the hip joint it showed signs of pain.

As it was necessary to draw the blood, it was again cast on the off-side. The three legs were secured leaving the affected leg, that is the near-hind completely free altogether. Over 3500 c.c. of blood was drawn, when, again the calf struggled vehemently as before and this time also the same sound as before was distinctly heard. As the bleeding was finished the legs were untied and the calf was allowed to get up of its own accord but unfortunately it was unable to do so. It was therefore carried on bamboos to its stall. A thorough

examination was then made in conjunction with Professor V. R. Phadke, Assistant Principal of the Bombay Veterinary College, who definitely declared that fracture of both the femurs had occurred. The crepitus was distinctly heard. Under these circumstances, it was decided to bleed out the calf as the chances of its recovery were practically nil.

Throughout the day and night the calf seemed to attempt to get up about half a dozen times but it was unable to do so. From its refusal either to take water or to eat any kind of food it seemed that the calf was in very great pain. To allay pain massage with stimulating liniment and fomentation were carried out. Next morning i. e., on 18/11/30 the calf was bled to death at 9 a.m. and post mortem examination was conducted at 11 a.m.

*External appearance:* The calf was in excellent condition but there was extensive swelling on the region of both the hip joints. When legs were moved to and fro a distinct crepitus was heard.

*Internal appearance:* The skin over the region of the left hip joint was dissected. Muscles underneath were completely cut out and the joint was exposed. It was then noticed that fracture at the upper third of the femur had occurred. It was longitudinal and spiral extending towards the neck of the femur. There were many small pieces of bones and the area surrounding the fracture was full of blood clots and haemorrhage. After this the right hip joint was exposed in the same way as the left one; here also the fracture of the femur exactly similar to that of the left side was observed. The most important point which has to be recorded here is that both the acetabular cavities were perfectly intact. This was then followed by the examination of all the other internal organs including the lymphatic glands. All these appeared to be apparently in a perfectly healthy condition.

As a general rule fractures are much more common in horses than in cattle. Prognosis of fracture of long bones in large animals, especially which have got heavy and powerful muscular areas, is unfavourable, simply because, these fractures cannot be set properly owing to inability of immobilising the injured part. One peculiar thing that was noticeable about this calf, was, that on many an occasion when it was brought out of its stall for the purpose of casting.

no sooner the rope was tied round its waist it used to jump up on its four legs and then drop down on either side. One might presume that this kind of dropping down of the calf might have had some effect on both the femurs and the part where the fracture had occurred must have become so weak that it could not stand the pressure due to vehement muscular contractions by the calf and consequently broke into two. But this is a very far fetched presumption; there were no signs of any atrophic or inflammatory changes in the bones at the post-mortem.

This case is one of extraordinary interest in the opinion of the writer, not because of the fracture of the femur in itself but because of the fracture of both the femurs under the same circumstances and exactly in the same part on both the sides.

I shall be glad to hear from any of my professional brothers if they had seen such a case as I have here described.

I have to thank my chief, Dr. B. P. B. Naidu, for his permission to publish these notes and for the facilities afforded for writing up this paper.

### " DOUBLE HEADED MONSTROSITY "

BY

JIWAN DASS L. V. P.,

*Veterinary Assistant Surgeon, Gurgaon (Punjab)*

The animal was brought with the complaint that she did not calve although she started labour pains on the morning of 16th October, 1930, with the result that the front feet of the foetus came out. The animal was admitted to the Hospital on the same day and after carrying out the necessary professional precautions it was found out by manual manipulation that the foetus was double headed, with the head turned towards the left side and the fore legs coming out. As it was impossible to remove the foetus without cutting the legs, the legs were amputated and the foetus was pushed back with the result that the foetus was turned in the womb, bringing the head to the external orifice. After this a string was passed around the lower jaw (shown broken in the photograph) to pull the foetus out, but as it failed a

hook was passed in the orbit of the eye, which got fractured during manipulation (as shown in the photograph) and the foetus was not brought out, until it was necessitated to replace the hook in the other orbit of the eye, which proved successful and brought the foetus out.

The attached photograph shows the calf with its mother cow, along with the operator, Pt. Jiwan Dass, L.V.P., Vety : Assistant Surgeon of the Punjab Veterinary College, Lahore.



Such cases generally happen but this was a case of foetal dystokia of the monstrous type with two separately developed heads joined together at the beginning of the neck, possessing four eyes, two ears, two mouths and a tuft of hairs about six inches in length away from the junction of the heads with the neck.

**DOUBLE HEADED FOETUS**

BY

Mr. M. C. PARIKH,

*Veterinary Assistant Surgeon, Borsad, Bombay*

At about midnight of 28th September 1930, I was sent for by Mr. M. N. Bhutt, a landlord of Borsad, to attend to his buffalo, which was unable to deliver her calf naturally, with the history as under:—

*History:*—The animal had calved thrice before and at each time the calving had been normal. This time the signs of delivery were shown at about 5 p.m., whereupon, as usual, a rahari was sent for, who gave her a drench of garlic, ginger etc. and proceeded to attempt manual delivery. As he was unsuccessful, he sent for assistance and they, applying the rope to the jaw and legs of the foetus and giving country wine to the mother made another unsuccessful attempt to get the foetus out. The animal strained violently and there was no hope for her life.

Hearing this, I went with him taking all I required and made an attempt to replace the foetus taking all necessary precautions, but found it impossible against violent straining. The foetus was already dead. I controlled the straining by hypodermic injection of Morphia and subsequently replaced the foetus and commenced examination inserting my hand into the uterus.

There to my surprise I felt something like a head in front of the right shoulder of the foetus which made me to suspect the presence of another foetus. On further examination however, it became evident that this second head was attached to the neck of the 1st foetus and hence concluded that it was an extra growth on right shoulder joint, preventing the delivery.

To avoid this obstacle, I carefully turned the foetus round brought the hind legs out and endeavoured to effect the delivery by posterior presentation, which proved a success. The placenta was then removed, necessary treatment adopted and the buffalo saved.

The growth proved to be a small additional head attached to the neck. On dissecting the part I found this head attached by a second branch of cervical vertebra originating from the 1st dorsal like two branches coming out from the trunk of a tree.

The additional head was about half the size of the normal head with all its organs well developed. The trachea, oesophagus, jugular vein and artery bifurcated from the point of origin of the additional head in front of the sternal region. No other abnormalities were found on further examinations.

**OSTEOPOROSIS IN A PONY**

BY

R. SWAMINATHA AYYAR, B.A., G.M.V.C.,

*Veterinary Assistant Surgeon, Veterinary Hospital,  
Ootacamund.*

As cases of Osteoporosis are very rare in this part of the country, the following case is worth recording.

The subject was a small Indian Pony (mare) aged 6 years. It was bought somewhere near Poona about 4 years ago where it stayed for a year. Afterwards it was brought to Bangalore and from there to Madras. About March 1927, the pony came up to Ootacamund and, ever since, had stayed here alone. It was always a good doer and was never sick or sorry. It was being fed like other ponies viz. on bran, oats and green grass (Hariali). It was a child's pony and used to carry the rider well.

In January 1929, I was asked to see the pony as it was going lame on near fore. It was given out by the groom that the pony, while rolling in the stable during the night, had its near fore leg caught in the stable bars and that it was with great difficulty that it was released and allowed to get up. On examination, nothing serious was noticed. There was only a slight tenderness over the region of the left shoulder. Rest was ordered and fomentation and embrocation for the shoulder prescribed. In the course of a week, the pony became sound and went about its usual work of carrying its young rider.

On the 18th March 1929, the pony was found lying in its stable and unwilling to get up. I was immediately sent for and I saw the animal in the course of the day. She was "sitting" in her bed and eating grass. On making her get up, she did so with great difficulty and was scarcely able to bear any weight on both fore. The gait and posture was decidedly "laminitic", although there was no heat in the hoof. The temperature was normal and the animal was quite eager for food when once she was down in her bedding.



*Osteoporosis in a Pony.*

No pain or tenderness was detected anywhere in the leg. Cold swabs were ordered for both fore coronets. Carlsbad salts were given in drinking water and the case was watched. The animal improved in the course of a week only to get bad again in a few days. About the middle of April 1929, the gait began to improve and, with exercise, the animal went very nearly sound. At this time, the head was noticed to be a bit enlarged than usual. The animal was slowly put to work again which it did without any trouble.

In July 1929, the animal went lame again. On examination, the head was noticed to be decidedly "big". There was also a distinct prominence over the region of both the scapulas. The interior maxillary bone was nearly twice the usual size. A diagnosis of Osteoporosis was given and the animal destroyed.

On post-mortem, apart from the rarefied bones of the head, the scapulas were found to be curved. The prominence noticed in that region while alive was due to this curve. Evidently, the lameness and the "laminitic" gait noticed early were due to the commencing curvature of these bones.

The photograph of the animal taken while alive and the view of the Interior maxillary bone after death may be found to be interesting.

### NYMPHOMANIA IN A CAT

BY

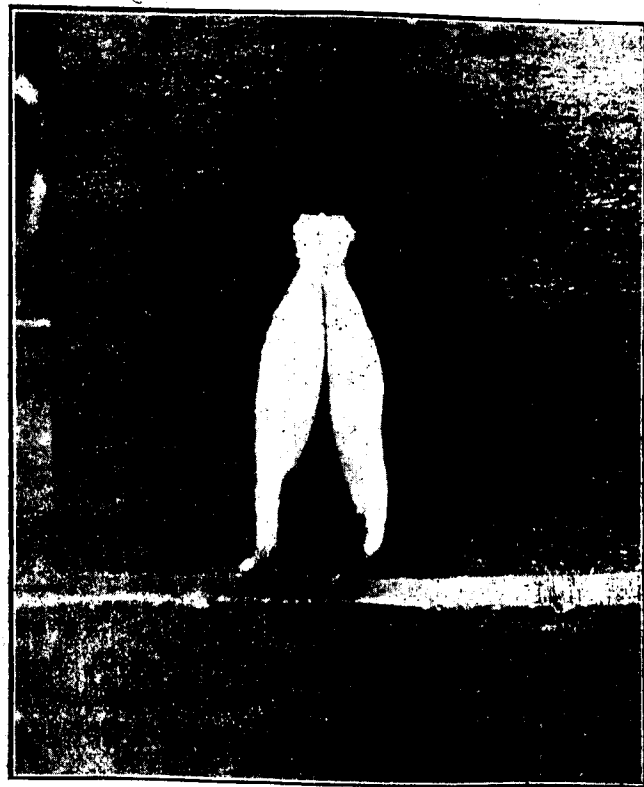
R. SWAMINATHA AYYAR, B.A., G.M.V.C.,

*Veterinary Assistant Surgeon, Veterinary Hospital,  
Ootacamund.*

An ordinary Indian cat, aged 3 years, was seen by me on 3rd June 1930 with the history that she was perpetually on heat and was quite objectionable in the house. I was also given to understand that she had 3 litters of kittens—the last litter being in January 1930. Three months after, she came on heat and continued to be so. The caterwauling was so great and annoying that the owner wanted the animal to be destroyed if nothing could be done. The cat was a nicely grown animal and was a good "ratter". An operation was, therefore, decided on.

After starving the animal for 24 hours, it was put under chloroform anaesthetic. The left flank was shaved and cleaned. An incision, one inch long was made between the last rib and the point of the hip, through the skin, muscles and peritoneum. The right forefinger was inserted and the uterus pulled out. The left ovary was traced, brought near the wound and snipped off with the forefinger and thumb

In the same way, the right ovary was brought out and removed. No ligature was used as there was no bleeding worth the name. The uterus was pushed in and the abdominal incision was closed with four interrupted sutures going through the skin, muscles and peritoneum. Healing took place by first intention and the sutures were removed on the 6th day.



**Nymphomania in a cat**

The ovaries, on cutting through, were found to be cystic.

The cat has grown well and put on fat after the operation. It is nearly 6 months since the operation was done and the cat has shown no signs of heat at all. It has settled down to its work of "ratting" and no ill effects are noticed.

## Association News.

### THE SEVENTH ALL-INDIA VETERINARY CONFERENCE, BANGALORE, 1930.

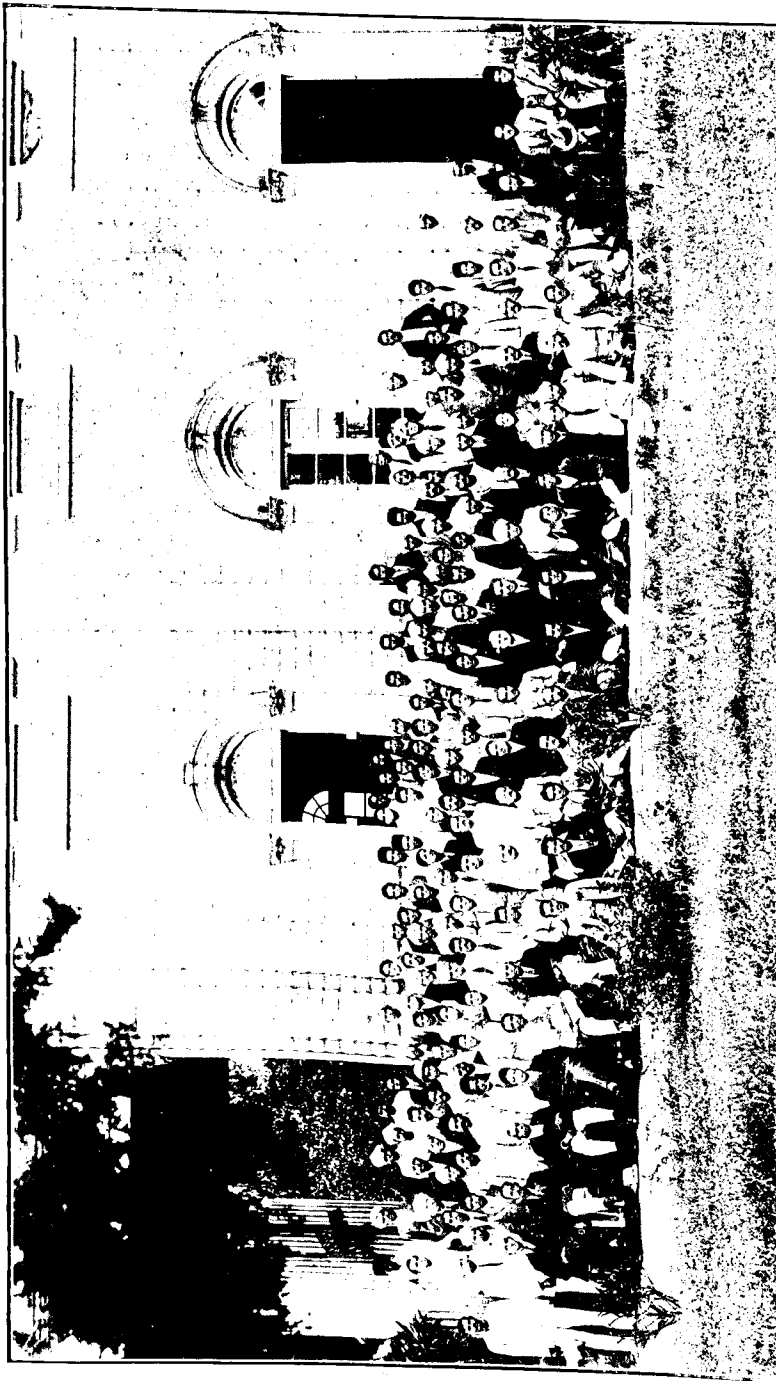
*First Day.*

*Saturday the 27th December, 1930.*

Col. A. Olver, C. B., C. M. G., F. R. C. V. S., Expert Adviser in Animal Husbandry to the Government of India and President-elect of the Conference, arrived by Madras Mail at 6-A.M., and he was received at Bangalore Cantonment railway station by Major R. W. Simpson, M.C., G.B.V.C., Chairman and other members of the Reception Committee and a large number of delegates including the acting General Secretary of the ALL-INDIA VETERINARY ASSOCIATION. After garlanding the President-elect, Major Simpson introduced to him the several members of the Committee and the delegates present on the platform. This over, Col. Olver was taken to the "GRANITE CASTLE" where he stayed during the Conference in Bangalore, as a guest of the Mysore State.

#### Proceedings.

The Seventh Session of the ALL-INDIA VETERINARY CONFERENCE met punctually at 2 P.M., in the tastefully decorated "DALY MEMORIAL HALL" Cenotaph Road, Bangalore City. The Dewan Sahib, Col. Olver and other distinguished guests were received by Dr. L. C. Coleman and Major R.W. Simpson and were conducted to the dais. The Indian Band 'Nagaswaram' was playing as the delegates and visitors arrived. A large number of delegates (Appendix A) from the Punjab, Bombay, Hyderabad (Deccan) and other Provinces and States attended the Conference. Besides, there were a large number of distinguished visitors who graced the occasion with their presence and among them, there were Messrs. Raja Sabha Bhushana K. Chandy, B.A., Member of Mysore Executive Council (Retired), Rajasevaparayana B. Srinivasa Iyengar, B.A., Financial Secretary, Mysore, B. Narayanaswamy Iyengar, B.A., B.L., Development Secretary, K. H. Ramiah, B.A., Bar-at-law, Registrar of Co-operative Societies, Rao



The Seventh All-India Veterinary Conference, held at Bangalore in December, 1930.

*Presided by*

COLONEL ARTHUR OLVER, C.B., C.M.G., F.R.C.V.S.,

*Expert Adviser in Animal Husbandry to the Government of India.*

Bahadur N. S. Nanjundiah, Hassan, Doctors, S. Subba Rao, M.R.C.S., etc., Senior Surgeon with the Government of Mysore, D.S. Puttanna, F.R.C.S., Capt. Rajan, C.V. Natarajan, M.B. B.S., B.Sc., M.G. Dominack, Govardhan, D.S. Ramachandra Rao, Messrs. A.K. Syed Taj Peeran Sahib Bahadur, Dy. Commissioner, Banagalore, C.E. Naronah, Asst. Devt. Secretary, H.V. Krishnayya, B.A., F.C.S., Dy Director of Agriculture, H.C. Javarayya, Ag. Director of Horticulture, V. Venkatappa, President, Bangalore Dt. Board and many others.

Among those who sent telegrams and letters regretting inability to attend but wishing the Conference every success, the following may be mentioned :—

The Prime Minister, Patiala State, the Chief Secretary, Indore State, Messrs. A.D. MacGregor, Principal, Bengal Vety. College, P.T. Saunders, Director of Vety. Services, Madras, R.W. Littlewood, Dy. Director of Agriculture, Hosur, Madras, S.M. Raza Hussain Sahib Bahadur, Dy. Director, Cattle Breeding Farm, Muttra, and General Secretary, A.I.V.A., Rai Sahib P.N. Das, Dy. Director, C.V.D., Cuttack, Khan Sahib N. D. Dhakmarwala, Retd. Vice-Principal, Bombay Vety. College, V. Krishnamoorthy Iyer, G.M.V.C., I.V.S., Professor of Pathology, Madras Vety. College, V.R. Phadke, G.B.V.C., Vice-Principal, Bombay Vety. College, S. S. Ahmed, G.B.V.C., Vice-Principal, Bengal Veterinary College, M. Ramachandra Mudaliar, G.B.V.C., Dy. Supt., C.V.D., Hyderabad, H. V. Rangaswami, B.A., LL.B., President, Municipal Council, Hassan, Rajakarya Dhurina K.R. Srinivasa Iyengar, M.A., Member, Mysore Executive Council, (Retd.) Dr. M.K. Venkata Rao, Asst. Director of Agriculture, Chickmagalur, T.S. Alagappa Pilley, D.V.O., C.V.D., Calicut, C.J. Fernandez, Supt., C.V.D., Vankaner State, Abdul Wahab Hamid, V.S., Basti, B. Mehta V.S., F.M.S., K. S. Nair, V.S., F.M.S., Janakiramayya, V.A.S., Chandragiri, K.T. Satyanarayana, V. S., Karur, V.K., Chatuphole, V.S., Sholapur, R.P. Vedak, V.I., Bombay Corporation, H. Rangaswami Aiyangar, V. S., Hassan, M.W. Mirza, V.S., Hyderabad (Sind), C.N. Desai, V. S., Ahmedabad and many others.

After invocation, Dr. L. C. Coleman, M.A., Ph. D., Director of Agriculture in Mysore, welcoming the visitors and others, and in requesting the Dewan Sahib to open the Conference stressed on the need for the co-operation between the

officials of the Agriculture Department and those of the Veterinary Department in order to improve agriculture which forms the main industry in India and to gain full recognition of the Services. *Inter-alia* he briefly traced the recent advance of the veterinary activities in the State of Mysore and expressed the hope that the Veterinary Service will soon be extended to all the Taluks of the State. He also paid a glowing tribute to Major Simpson, Supt., C. V. D., Mysore, to whom the credit for the rapid advancement of the department in the State is mainly due. (Dr. Coleman's speech—Appendix B.)

Rajakaryaprasaktha Dewan Bahadur M. N. Krishna Rao, B.A., Ag. Dewan of Mysore, delivered his very interesting and illuminating address (Appendix C) and declared the Conference open.

Major R. W. Simpson, M.C., G.B.V.C., Chairman, Reception Committee, then welcomed the Delegates and proposed Col. Olver to the presidential chair. (Welcome Address—Appendix D.) Dr. D. S. Laud, G.B.V.C., F.R.H.S., F.Z.S., Supt., Victoria Gardens, Bombay, in seconding the proposal of Major Simpson said, that Col. Olver has got a world-wide experience in veterinary matters and a big reputation for the successful campaign against 'Rinderpest' in the Sudan. He also expressed the hope that Col. Olver's presence in their midst would be of great value to the Conference and to the profession in India and said that Mysore has been fortunate in having secured Col. Olver's services to preside over the session.

Professor Karam Ellahie of the Punjab Vety. College, supported the proposition and said that Col. Olver is a Veterinary Surgeon of eminence and of great authority and he has been the first Expert Adviser in Animal Husbandry to the Govt. of India, and as such his ready response to the invitation of the profession to preside over this Conference is an indication of his willingness and eagerness to learn the actual needs of veterinary profession by coming in close contact with the numerous Indian Veterinary Surgeons, who have assembled in this Conference. He concluded by saying that it therefore gave him much pleasure to commend the proposition for the acceptance of the Conference.

Mr. T. Vinayaka Mudaliar, (Madras) in supporting the resolution spoke as follows:—

Dewan Sahib, Gentlemen and Brother Delegates,

Whatever might have been the reasons in the past that earned for Madras the title of 'benighted' it cannot now be disputed that she no more deserves that doubtful compliment judging from the achievements of her sons in all fields of human activities. She is not going to lag behind therefore other presidencies and provinces in the field of Veterinary profession as well, in paying her homage to one of the most eminent Veterinarians of the world, whose services, Mysore has been fortunate enough to secure, to preside over the deliberations of this Conference. Mysore seems to easily score over other parts of India in every respect. An outsider like myself begins to wonder and ask the question where does the charm lie? Is it because of its saintly Ruler whose burning desire for progress can only be equalled to his love for the welfare of his subjects or is it because of that long line of illustrious Dewan Sahibs who have been such zealous guardians of the good name of Mysore and have held the torch of light and leading undimmed from time to time; or is it because of that presiding Deity of the province, who seems to direct the destinies of this plateau from her high abode on the Chamundhi hills in the capital of this State? I will not attempt to unravel the mystery. But the fact remains that Mysore has become a synonym for Progress and it is no wonder, then, that she has come forward to undertake a task of the magnitude of an All-India Conference and secure for it as President, the highest authority on Veterinary matters in this land.

The reputation of Col. Olver has travelled far in advance of his arrival in India. His name needs no introduction to the Veterinary World. But to the other section of this august assembly, I wish to state as has already been pointed out that in him you find a doctor, who can lay claim to have successfully eradicated from the Nile Valley, that great plague of Cattle-Rinderpest, and that, within the proverbial span of life given to man. We feel sure that under his guidance, we will soon come to grips with that deadly pest here as well. (Hear, Hear.)

What is more fitting then, than that the Colonel should have been offered the highest honour in the hands of the veterinary profession in India, in requesting him to preside over the very first session of the All-India Veterinary Conference, after assuming his high office in this land? A good gift is very often spoiled by a bad acceptance! But here it has been as gracefully and nobly accepted as it was offered. Nothing but his love for his profession could have induced the

Colonel to accept the honour in spite of the fact that he had been to these parts on an inspection tour only as recently as two months ago and that it is no joy-ride or travel to undertake a journey from Delhi to Bangalore.

It is with great pleasure therefore, that on behalf of Madras I still further support the resolution before this house, proposing to the presidential chair Col. Olver, a choice so good, so happy, so eminent and so fitting. (Loud cheers.)

After this, Col. Olver was duly installed in the Presidential Chair amidst loud and enthusiastic applause and he then delivered his address, which was much appreciated by all (Appendix E).

When this was over, Mr. M.S. Sastry, G.B.V.C., (Madras) Ag. General Secretary of the All-India Veterinary Association proposed a hearty vote of thanks to the Dewan Sahib and the distinguished visitors, as the former had to leave the Conference at this stage owing to other pressing engagements. In the course of his speech Mr. Sastry said:—

Dewan Sahib, Col. Olver and Friends,

"In the unavoidable absence of the permanent General Secretary, Mr. Sayed Raza Hussain Sahib Bahadur, the pleasant duty of proposing a hearty vote of thanks to the Dewan Sahib and visitors has been allotted to me and I do it most heartily. This does not need any eloquent speech from me as I see that the delegates and visitors assembled here have very much appreciated the most enlightened speech of the Dewan Sahib, who has shown his usual broad mindedness and keen sense of duty even in matters veterinary, which have not received the due recognition and encouragement from the influential quarters till now. In the midst of your multifarious and onerous duties of the state, Sir, you have been pleased to find time not only to grace the occasion by opening the Conference but go through the history of the progress of Veterinary Profession, to trace it to its present position, its numerous disadvantages and wants, to emphasise the need for greater recognition of the services of this growing and useful Science, for the benefit of the dumb animals and the community at large, and finally to indicate a few important lines on which the future work is desirable. This is exactly what is anticipated from the Executive head of the State, which has been fortunate in having for it an august Ruler, as already referred to by a previous speaker, the saintly Maharajah whose proverbial solicitude for the suffering dumb animals and subjects is well known all over the country. Your presence here to-day, Sir, has been a great encouraging

factor to the young veterinary profession in India and an incentive to the members for further work towards the progress of this science and welfare of the country. I have also much pleasure in thanking the large number of distinguished visitors who have graced this occasion with their presence as it indicates the popularity of the veterinary profession and its appreciation in this progressive State. I should also thank the Govt. of Mysore whose generous grant of contribution has enabled and encouraged the Reception Committee to invite the ALL-INDIA VETERINARY ASSOCIATION, to hold this Annual Conference this year, in Bangalore. I should not, in this connection, forget to thank the Local Bodies in Mysore State—from the District Boards down to the Panchayats—who have all been keenly alive to the importance of veterinary aid to the economic up-lift of the country and as such contributed their quota of funds towards the expenses of the Conference. This again, is a proof if one is needed that the Veterinary Service under the sympathetic and able guidance of Major Simpson, has gained the confidence and affection of the people in the State. I wish that this noble example of all the Local Bodies and others who have so generously and substantially responded to the call of the veterinary profession, is followed similarly all over the country. I do not propose to speak anything about the progress made in Mysore even in veterinary profession as I feel embarrassed to do so owing to the fact, I am myself a native of this state, though I happen to be at present in British India. I shall only mention that the young Association in Mysore in the third year of its birth has been able to invite this Conference into its midst and to hold a successful session through the encouragement it has received from the Dewan Sahib and all other State Officers and the Local Bodies. We value, therefore very highly such encouragement from you and I request my brother delegates assembled here to join me in heartily thanking you all. Since the Conference continues to sit for two days more, I do not propose to thank the President, Col. Olver, at this stage but it will be done at the end of the session. Once again, I thank you all for your presence here to-day. (Loud cheers)

This was heartily responded to by all the delegates assembled. The Dewan Sahib and the President were then garlanded. Three hearty cheers were then proposed to the Dewan Sahib and to the distinguished visitors, who left the Conference leaving behind their good wishes for its success.

The next item on the programme being the election of *Members to the Subjects Committee*, Mr. M. S. Sastry proposed

and Mr. K. Krishna Iyengar seconded, the following members and it was unanimously carried:—

*From the Reception Committee:*—1. Major R. W. Simpson, Messrs. 2. K. Krishna Iyengar, 3. K. N. Srinivasan, 4. K. Ranganatha Rao and 5. M. R. Chengeri.

2. *From Bombay:*—Messrs. P. G. Date, M. K. Garudachar, 3. M. G. Kulkarni, and 4. M. M. Murgod.

*From Madras:*—Messrs. 1. T. Vinayaka Mudaliar, 2. M. Anant Narayan Rao, and 3. R. Swaminathan.

4. *From the Punjab:*—1. Professor Karam Ellahie.

5. *From Hyderabad (Deccan.):*—Messrs. 1. R. R. Joshi, 2. V. S. Rama Rao, and 3. B. Doraswamy Iyengar.

6. *From Bihar & Orissa:*—1. Pandit M. Agnihotri.

7. *From Coorg:*—1. Mr. B. Somanna.

8. *From Travancore:*—1. Mr. K. M. Nair.

9. *From Pudukottah:*—1. Mr. S. Chinniah.

10. *From Sangli State:*—1. Mr. N. T. Kulkarni.

11. *From Municipalities:*—1. Mr. D. S. Laud.

12. *From Central Committee:*—Messrs. 1. B. K. Badami and 2. M. S. Sastry (Ag. General Secretary).

*With power to co-opt.*

The Conference adjourned at this stage to meet again the next day at 11 A. M., for the reading and discussion of the professional papers. As the President had to attend to some urgent work, he regretted his inability to be present at the Subjects Committee Meeting but desired that it should meet and decide the resolutions, professional papers, etc., to be taken up in the open session of the Conference, as some of the members had early in the day the advantage of the President's views, at an informal meeting at his residence, regarding the resolutions.

The Subjects Committee accordingly met after a few minutes interval, with Professor Karam Ellahie in the chair and decided the programme of resolutions, papers, etc.

At 5 P. M., there was a "GARDEN PARTY" arranged by the Mysore Vety. Medical Association to the President and Delegates in the spacious and beautiful "KUMARA PARK GARDENS" and this was attended by the Dewan Sahib and

the elite of the city and the C. & M. Station. The catering was done in the European and Indian style by Funnels Restaurant, South Parade, Bangalore, and the Modern Hindu Hotel, Bangalore City, respectively, who left nothing to be desired. The Mysore State Band was in attendance throughout. Before the function closed, there was a magic performance by an amateur, Mr. Joseph of C. & M. Station, Bangalore. His performance and humorous talk kept the whole gathering laughing heartily throughout, and the pleasant function was immensely enjoyed by the guests, who departed after the National Anthem played by the band.

*Second Day.*

*Sunday the 28th December, 1930.*

In the morning a party of delegates paid a visit to the Imperial Dairy Farm, the Lal Bagh and a few other places of interest.

Punctually at 11 A.M., the meeting began with an introductory speech by the President Col. Olver, who said that it would be of great interest to all assembled there to hear the several papers, as the subject matter would be of much value to the work in this country. He also hoped that many will take part in the discussions to make them interesting and instructive. The following papers were then read and a keen discussion ensued on each of them:—

1. Discussion of a few filterable viruses interesting to the veterinarian—by Dr. C. V. Natarajan, B.Sc., M.B.B.S., D.P.H., Supt., Public Health Institute, Bangalore, (with a few clinical demonstrations.)

2. Manufacture of Rinderpest Virus—by Dr. P. Parthasarathi, L.M.S., B.Sc., (Mad) L.R.C.P. & S., (Edin) D.T.M. (Lond) D.P.H. (Canb), Supt. Mysore Serum Institute.

At 1 P.M., the meeting adjourned for lunch and reassembling at 3 P.M., the following papers were read and discussed:—

3. Pseudo-Fowl-Pest—by Mr. K. Kylasam Iyer, G.B.V.C., Lecturer in Hygiene, R.V.O. and Personal Asst. to the Principal, Vety-College, Madras. (The lantern slides brought for the purpose could not be shown owing to the large amount of light at the time in the hall, but postponed.)

4. Some Poultry Diseases carried by crows in Travancore—by Mr. K. M. Nair, G.B.V.C., Travancore.

5. Further observations on Serum-Simultaneous Inoculations against Rinderpest—by Mr. T. Vinayaka Mudaliar, G.M.V.C., Hosur Cattle Farm, Madras.

6. Study on immunity after S.S. Inoculations and a few field tests and observations—by Mr. K.N. Srinivasan, G.B.V.C., Asst. Supt., C.V.D., Mysore.

7. Some observations on the Serum-Simultaneous Method of Inoculation against Rinderpest—by Mr. K.S. Gopal Rao, G.M.V.C., C.V.D., Mysore.

8. My experience on Rinderpest Inoculation—by the S.S. Method in cattle during pregnancy and lactation by Mr. Somasundaram Pilley, G.B.V.C., C.V.D., Mysore.

9. Some observations and study on the life of wild animals in the Zoological Gardens—by Mr. D. S. Laud, G.B.V.C., F.R.H.S., F.Z.S., Supt., Victoria Gardens, Bombay.

The Conference adjourned at 5 P.M., to meet again next day. In the evening, a Group-Photo of all the Delegates with the President in the centre was taken.

At 8 P.M., the President and Members of the MYSORE VETERINARY MEDICAL ASSOCIATION, Bangalore, held a 'DINNER' in the Lecture Hall of the Intermediate College, in honour of the President and Delegates. Among the guests who responded to the invitation, there were a few ladies and gentlemen from the City and Station representing medical and other professions.

The special feature of the 'DINNER' being separate arrangements made for both Europeans and Indians, all mixing in the same hall at a cosmopolitan gathering, was highly appreciated. The catering for the Europeans was in the hands of Funnels and that for the Indians was done by the Modern Hindu Hotel, Bangalore City. The arrangements made, left nothing more to be desired and was a grand success. The State Band was in attendance throughout, discoursing delightful and melodious tunes, which added to the enjoyment of the whole function. The following toasts were proposed:—

1. The toast to HIS MAJESTY THE KING-EMPEROR, by Dr. L.C. Coleman, Chairman of the DINNER. The toast

was drunk all the guests standing, to the bars of the National Anthem played by the State Band.

2. Toast to HIS HIGHNESS THE MAHARAJA OF MYSORE, by Dr. L.C. Coleman. This was also drunk to the tunes of Mysore National Anthem, played by the Mysore Band, all the guests standing.

3. Toast to the PRESIDENT and GUESTS, by Major R. W. Simpson, in doing which he said:—  
Colonel Olver, Ladies and Gentlemen.

I hope you will make allowances for me as I am no speaker.

It is a great pleasure and privilege for us, the Mysore Veterinary Medical Association, to be able to have you with us here to-night.

We are most fortunate in having Colonel Olver to preside at the Conference, and are deeply indebted to him for having made it convenient to come down all the way to oblige us.

I must here say a few words about him. Colonel Olver has been amongst Live-stock since childhood. His father was a big breeder, and bred nearly every kind of domesticated animals, even the game fowl, specialising in the very best.

Colonel Olver, as you all know, is a Member and Fellow of the Royal College of Veterinary Surgeons. He served in the army in different capacities in the United Kingdom, South Africa, Egypt, the Sudan, France and America, and while in the Sudan he had the civil control as well, and in this capacity he was able to eradicate rinderpest from the Sudan, and revive the cattle trade with Egypt.

His vast experience and the knowledge he must have gained living as a boy among high class stock, make him the man for his present post, and the Government of India could not have made a better choice. I know Colonel Olver is interested in the Indian Veterinary Graduates and will do his best for them and I only hope the Government of India will give him an opportunity of doing this by extending his term of service.

I am indeed glad to see so many of the profession here to-night. Many of you have faced a long, tiring journey, but I hope you will feel yourselves repaid in having gathered useful and instructive lessons from the papers read and discussed, in having associated with your brothers in the profession, and also in having the opportunity of seeing the many places of interest in this State.

A list of these places can be had at the Enquiry Office, so I shall give you only a few of the more important.

We have the Kolar Gold Field, which is now a flourishing Township, but I remember the time when it consisted of just a few sheds along a barren and rugged ridge.

Then there are the Cauvery Falls, which have been harnessed to supply the Electric Power, required for the Kolar Gold Field, Bangalore, Mysore, and many other towns and villages. The head works at the Bluff are well worth a visit.

Seringapatam, on the way to Mysore, is a place of great historic interest, as you must all know. It is there that you will meet the river Cauvery.

Mysore, the capital of the State, is a well laid out City with its parks and splendid buildings, and it can boast of one of the finest Zoos in India.

Ten miles from Mysore is the Krishnarajendra Dam, a wonderful piece of engineering. There are also several old temples worth seeing, particularly, Halebid and Belur.

Those of you, who can spare the time, should not omit to visit the famous Gersoppa Falls, in the North-western corner of the State. The sight that meets the eye there, will live for ever in your memory.

Many of you young men here to-night, who are commencing your career, will, I dare say be glad of a few words of advice from one with thirty-three years, experience.

Never part with your text books or notes, but try to add to your library, and study all the latest literature on professional matters that you can lay hands on.

Never consider yourselves above learning from even the humblest and most uneducated, who have had experience with Live-stock. By tactfully questioning such men, one often gets useful tips.

When you give an opinion, never say, "I think." Consider well before speaking, but having once given your opinion, hold to it. When dealing with men of the profession you must be quite candid and always own your mistake.

When faced with a difficulty, don't hesitate, go ahead fearlessly with the determination to kill or cure, and you will invariably find that you will more often succeed in curing than in killing.

When asked to treat a pampered pet dog, take my advice and always insist on taking possession of it. Dose it first and then starve it for three days before sending it back, but be sure to send your bill along with it, and the owner, delighted with its good appetite, will pay you readily.

Many of you will probably be called on to treat all kinds of animals. All that you have to do is to use your professional knowledge coupled with common sense.

Early in my professional life, I was asked by an old woman to doctor her hen-turkey that had ceased laying after having laid only two eggs. I put on a wise air, and gave it a tonic. The turkey, to my surprise, began laying again, and the old woman thought me just wonderful.

Then I remember treating a horse, belonging to a money lender, a wealthy Madras Komatee. The horse had a suppurating corn, but nothing would convince the owner that this was the cause of the lameness, as his syce said it was the shoulder. To please and pacify the owner I put a charge of clay etc., on the shoulder, but at the same time I treated the corn. The horse made a good recovery and I got a good fee.

Again, I was once summoned to Court to give expert evidence in a case of guarantee. The opposing lawyer worried me considerably, and insisted on knowing what guarantee I gave when I examined a horse for soundness. He refused to accept my reply that mine was only an opinion and not a guarantee, and it was only when I, in turn asked him what guarantee he gave to his client that he would win the case when accepting the brief (which was followed by loud laughter in Court) that he stopped worrying me further.

I have had at times to summon up all my courage when treating wild animals. I remember once having to extract a bullet from the shoulder of a newly captured young tusker. With the help of a platform, and three trained tuskers, I got through the job, but I was glad when it was over, as the noise it made and the way it shook the platform, almost unnerved me.

Not long ago, I was asked by a Circus troupe to treat a tiger. They assured me that it would be quite safe for me to enter the arena, where they had the tiger standing on two chairs. I went in, but I did not breathe freely till I was safely outside once more, as the tiger was far from docile, and had to be constantly threatened with bars.

I have related these experiences just to show you what some of you may one day be called on to do.

Colonel Olver will no doubt be able to tell us a few of his exciting experiences.

I must not conclude without thanking our Bangalore guests for kindly being present here to meet Colonel and Mrs. Olver and the Delegates.

I couple the name of Colonel Olver in proposing the health of our guests.

In response to this toast, Col. Olver said that he was very pleased to be present at the dinner as President of the All-India Veterinary Conference and narrated a few of the interesting incidents during his service in the Sudan and eulogised the services of the Vety. Profession in South Africa and the Sudan. The toast was drunk all the guests standing.

4. Toast to the Scientific professions and to the Medical profession in particular, by Mr. B. K. Badami of Hyderabad. In doing this he invited the coordination of the members of medical profession in the elucidation of Animal Diseases, laying special stress on the importance of the work of the Veterinary Surgeons to whom the medical profession is indebted to much of the experiments on animals.

Dr. S. Subba Rao, Senior Surgeon to the Govt. of Mysore and President of the Mysore Medical Association, in responding to the toast humorously explained the difficulty of Vety. Surgeons in the diagnosis of animal diseases and how this was found difficult in spite of both the objective and subjective symptoms in human patients and mentioned, while the Veterinary Surgeon had the advantage of a particular line of treatment with regard to animals suffering from incurable diseases, this advantage was denied to the medical men. He cited the example of a recent occurrence in France where a Frenchman shot his mother as he could not bear the sight of her suffering from an incurable cancer, and suggested that it would not be possible in any other country excepting France wherein the Judges took a lenient view, as otherwise the man would have had to pay the extreme penalty of the law.

As the head of the Medical profession in Mysore, he also invited the members of the Vety. profession to attend the Medical Conferences in the State and expressed that he would be obliged if papers on subjects interesting to both the pro-

fessions are brought up for discussion at the Medical Conference.

After this, there was a Magic and Mesmeric performance by Capt. Williams, Organising Scout Commissioner, C. & M. Station, Bangalore, whose feats were very much appreciated by all.

Before this, Cinema Films were exhibited by the kind courtesy of Major B. P. Krishna Urs, Commandant of the Mysore Lancers, who was pleased to lend his private films for the occasion. The subjects of the films were:—Gersoppa Falls, Horse racing, and Kedda operations, in Kakanakote Forest.

Late after midnight the whole gathering dispersed, after enjoying all these delightful functions.

### *Third Day.*

*Monday the 29th December, 1930.*

At 8 A. M., the delegates were taken round and shown the Tasker Veterinary Hospital, the Electrocution Plants for Dogs, C. & M., Station, Bangalore and the Mysore Serum Institute where the respective Supdts. received the delegates and kindly showed them the various items of interest. 'The visits were of much educative value' was the prevailing opinion among the delegates.

At 11 A. M., the Conference met again. As the President could not attend the session in time owing to other urgent engagements, Mr. K. Kylasam Iyer, was voted to the chair. The reading and discussion of professional papers were continued. After about half an hour, Col. Olver arrived and occupied the chair. The papers taken up were:—

10. Some observations on Trypanosomiasis in Madras Presidency—by Mr. M. Anant Narayan Rao, G.M.V.C., Lecturer in Parasitology, Madras Vety. College. (with charts and graphs.)

11. Some observations on sheep diseases in Channarayana-patna with special reference to Rinderpest, Anthrax, Sheep-pox and Distomiasis—by Mr. K. J. Subramaniam, G. M. V. C., C. V. D., Mysore.

12. Filariasis in Horses and Cattle—by Mr. B. Doraswamy Iyengar, G.M.V.C., C.V.D., Hyderabad (Deccan.)

The Conference then rose for lunch at 1 p.m.

Reassembling at 2 p.m., the President at the request of the Delegates spoke on a few points about Rinderpest narrating some of his experiences on all of them. As the time for the final closing of the session was fast approaching, the remaining professional papers could not be taken. All the papers that were read, together with the discussions thereon and the following papers noted below which could not be taken up for want of time, will be published in THE TRANSACTIONS OF THE SEVENTH ALL-INDIA VETERINARY CONFERENCE, copies of which can be obtained from the Editor, *The Indian Veterinary Journal*, 26, Wallajah Road, P. O. Mount Road, Madras. The authors of the papers who had taken much pains to write them and those that contributed towards the usefulness of the discussions were duly thanked.

13. *A brief note on the contagious Dermatitis in Sheep due to Staphylococci in character and the seat of lesions varying from the diseases described in the existing literature*—by Mr. G. S. Balekundari, G.B.V.C., Hubli.

14. *Malignant growths in the air passages of cattle*—by Mr. K.N. Kailasam, G.M.V.C., C.V.D., Mysore.

15. *Infetive Nasal Granuloma*—by Mr. M. M. Murgod, G.B.V.C., Haveri, Bombay.

16. *The mode of capturing elephants and their domestication in Mysore*—by Mr. S. R. Bapu, G. B. V. C., Mysore Forest Service.

17. *Oedema in elephants as a result of pit-fall during capture* by Mr. K. M. Nair, G.B.V.C., Travancore.

18. *Pseudo cancer of the eye in cattle*—by Mr. K. J. Subramanyam, C.V.D., Mysore.

19. *Peculiar Ophthalmia in cattle*—by Mr. K. J. Subramanyam, C.V.D., Mysore.

20. *Auto-Vaccine and its preparation*—by Mr. S. Ganapathy Iyer, G.M.V.C., Veterinary College, Madras.

21. *The Milk Problem in the City of Hyderabad and the British administered areas*—by Mr. R. R. Joshy, G. B. V. C., Hyderabad.

22. *Sexual Neurasthenia among bulls, a case report*—by Mr. K. R. Ramachandra Rao, G.B.V.C., C.V.D., Mysore.

23. *Poisoning of cattle and horses*—by Mr. L. V. Sallam Iyengar, G.B.V.C., P.G. (Bom.) C.V.D., Mysore.

23. (a) *Poisoning in Cattle by castor plants*—by Mr. L. V. Sallam Iyengar, G.B.V.C., P.G. (Bom) C.V.D., Mysore.

(b) *Poisoning in a mare by Lasania alba*. do

24. *The role of preventive medicine in Veterinary Science*—by Mr. J.D. Sampethkumaran, L.V.P., C.V.D., Mysore.

25. *The value of post-mortem examination in the diagnosis of diseases*—By Mr. R.G. Sathe, G.B.V.C., Bombay.

26. *Operation on a tiger—Amputation of overgrown nail*—by Mr. L.M. Hira, G.B.V.C., Karachi.

27. *A brief note on an unusual case of distokia in a she-buffalo due to Criptocephalus foetus*—By Mr. G.S. Balekundari, G.B.V.C., Hubli.

28. *Hetrophyes Indicum Sp. Nov. in dogs with photographs*—by Dr. M. Annant Narayan Rao, G.M.V.C., & Dr. Parameswaran, G.M.V.C.

29. *Metabolic Toxicity in a parturient cow*—by Mr. N. Chakravarty, G.B.V.C., Assam.

The President then called upon Mr. M.S. Sastry, Ag. General Secretary, to read the report on the working of the Association and the Journal, which he did as follows:—

Mr. President and Brother Delegates,

What would have been an otherwise a pleasant duty for me, has been to-day a very un-pleasant task, creating an awkward situation, owing to the fact that the permanent General Secretary Mr. S.M. Raza Hussain Sahib Bahadur has been unavoidably detained in the Punjab, due to the regrettable death of his aged father recently, and he has not been able for the same reason to furnish me the necessary materials for the preparation of a detailed report. Therefore, I crave your indulgence to-day and request you to forgive the unavoidable and unforeseen lapse. I can, however, assure you, the detailed report on the working of the ALL-INDIA VETERINARY ASSOCIATION during the year 1930, will be published in the earliest issue possible of the ALL-INDIA VETERINARY JOURNAL, for the information of you all.

I may however mention here that Mr. Raza Hussain Sahib Bahadur feels that most of the Provincial Associations have not been quite responsive in contributing their annual

quota of funds, with the result, he has not been able to complete the work of publishing the proposed Register of Veterinary Surgeons in India, and to work further towards the formation of the proposed Veterinary Council. He wishes to know if the subscription to the INDIAN VETERINARY JOURNAL can be raised from Rs. 4-0-0 to Rs. 4-8-0 per annum, so that the increased amount of half a rupee may be given to the Central Association to keep the latter to carry on its work without depending on the Provincial contributions for its successful working. It is up to the members assembled here to decide this point. Before I conclude this portion, may I also appeal through you all to the various Provincial Associations to evince greater interest in the working of not only their own Associations, but also in that of the All-India.

The founders of the ALL-INDIA VETERINARY ASSOCIATION, to whom nothing was dearer and more sacred than the advancement of the Veterinary Profession in India, have sacrificed much of their valuable time, energy and comforts in building up this organisation for the welfare of the profession, and these ALL-INDIA VETERINARY CONFERENCES are largely due to the exertions of the CENTRAL ASSOCIATION, which has been fortunate enough to find a few willing workers in the provinces and with their co-operation to do what little work has been possible till now to do.

It is usual to present to this Conference a brief report on the working of THE ALL-INDIA VETERINARY JOURNAL together with a statement of accounts. Though the able editor of the Journal is here, still this duty has been allotted to me, according to the custom. I wish this custom is changed and the editor himself is requested to do it in future. However, I shall try to place before you a few facts about the Journal.

You will all be glad to know that under the able Editorship of Mr. P. Srinivasa Rao, the Journal has successfully completed six years of its existence and entered into its seventh year. It is not for me in this report, to mention about the successful manner, in which the Journal has been working for the advancement of the profession. Therefore, I do not touch upon that point, but briefly shall give you a few figures which would be of great interest. (See next page.)

The circulation of the Journal has immensely increased during the year under report and at present 745 copies are issued as follows:—

Government 103, Madras 202, Mysore 74, Bombay 76, Bengal 29, Bihar & Orissa 29, Federated Malay States 32, United Provinces 21, Hyderabad 18, Central List 15, Maharajahs &

Rajahs 12, Foreign 11, Central Provinces 20, Exchange list 35, Free list 23, Assam & Burma 21, London Agency 24. *Total 745.*

In the matter of subscribers, it is interesting to note, that it is again Mysore & Madras, which have been leading. It is hoped other provinces will soon follow suit.

Under the orders of the General Secretary, I, as Treasurer, audited the accounts of the Journal Office in the month of March '30, and also again during the current month.

For the information of the General Secretary, monthly statement of accounts of Receipts and Expenditure is being issued every month. There are still large number of subscribers who have got to clear up the arrears of subscription due to the Journal, and the Editor's Office has been taking every possible step to collect the arrears.

As I am writing this report, the Editor requests me to appeal to members present here to extend to him greater co-operation in the matter of securing articles, clinical notes, and other interesting matters for publication in the Journal and also in enrolling all the members of the profession as subscribers. But, I do not see the necessity for an appeal from him, as I feel that the Editor is doing this work at a great sacrifice for the uplift of the profession, and as such it is the bounden duty of every member of the profession to do his bit of service to the only Journal in India. I hope however, his request through this report will have the necessary effect on the members of the profession and produce ready response in abundance.

(Sd.) M. S. SASTRY,  
*Ag. General Secretary.*

29-12-1930.

*Statement of Accounts of Receipts and Expenditure of the Indian Veterinary Journal, For The Year 1929-1930 (i.e., 1st July '29 to 30th June, '30.)*

| Receipts                                                        | Rs. A. P. | Expenditure                                                                 | Rs. A. P. |
|-----------------------------------------------------------------|-----------|-----------------------------------------------------------------------------|-----------|
| To Opening Balance.                                             | 700-1-0   | By Journal Printing.                                                        | 1281-8-0  |
| " Subscription.                                                 | 3110-9-0  | " Honorarium for 4th, 5th and 6th volumes.                                  | 1200-0-0  |
| " Advertisement.                                                | 454-10-0  | " Establishment.                                                            | 960-0-0   |
| " Interest.                                                     | 31-8-0    | " Postage.                                                                  | 461-13-6  |
|                                                                 |           | " Typewriter & Lock. (overhauling.)                                         | 50-4-0    |
|                                                                 |           | " Stationery.                                                               | 41-11-3   |
|                                                                 |           | " Binding of Exchange Journals.                                             | 38-12-0   |
|                                                                 |           | " Travelling allowance for Treasurer 17-8-0, Editor. 17-12-0 }              | 35-4-0    |
|                                                                 |           | " Blocks.                                                                   | 18-5-3    |
|                                                                 |           | " Advertisement.                                                            | 6-0-0     |
|                                                                 |           | " Books.                                                                    | 4-3-6     |
|                                                                 |           | Total expenses.                                                             | 4097-13-6 |
|                                                                 |           | By balance                                                                  | 198-14-6  |
|                                                                 | 4296-12-0 |                                                                             | 4296-12-0 |
| TO BALANCE B/D. Rs. 198-14-6                                    |           | Cash at Indian Bank Rs. 96-4-4                                              |           |
| Under the orders of the General Secretary of the A.I.V.A.,      |           | " Karnataka " 70-0-0                                                        |           |
| checked the above account of receipts and expenditure and found |           | " On hand " 32-10-2                                                         |           |
| the same correct,                                               |           | 198-14-6                                                                    |           |
|                                                                 |           | (Sd.) P. SRINIVASA RAO, G.M.V.C.,<br>Editor.                                |           |
|                                                                 |           | 27-12-30.                                                                   |           |
|                                                                 |           | (Sd.) M. S. SASTRY,<br>Secy. A.I.V.A. Madras Branch, & Treasurer, A.I.V.A., |           |
|                                                                 |           | 27-12-30.                                                                   |           |

After the report and the accounts were read out, the President, called upon the members to say if they have got anything to be said on the report before its adoption.

Mr. B. K. Badami (Hyderabad-Deccan) moved for the adoption of the report with the statement of accounts and in doing so, he said that the members assembled feel very much the absence of the Syed Sahib and desired that the acting Secretary should send a letter of condolence to him in his bereavement. He also moved that the subscription to the INDIAN VETERINARY JOURNAL be raised by half a rupee, so that this enhanced amount of half a rupee may go to the Central Association and to discontinue the present system of collecting contributions from Provincial Associations. In moving this, he mentioned the difficulties in realising the Provincial contributions and to solve the problem of finding money for the successful working of the Central Association, the course suggested was the easiest one. As the Central Association has been working for the benefit of the profession in India, and it is badly in need of funds, he expressed the hope that the report would be adopted with the resolution attached to it.

Mr. K. Kylasam Iyer in seconding the motion for the adoption of the report and the raising of the subscription said as follows:—I have no hesitation to support the proposition put forth by Mr. Badami to raise the subscription to the Journal by As. 8/- or even to Rs. 5/- per annum. It is well known that an organisation like ALL-INDIA VETERINARY ASSOCIATION needs funds for its successful working. The Journal and the Association have been working for the advancement of Science and the welfare of the profession and to carry out these objects, I am sure no member will grudge to pay. This increased amount will assure the Central Association of a definite source of income to meet its own demands and I am in a position to say that this will increase the efficiency of that body. Of course, some of you may feel difficulty to meet this extra demand, but I am sure that all of you will consider this as a worthy cause and thus make a small sacrifice. I am therefore much in sympathy with the practicability of this proposal and I have great pleasure in seconding this resolution.

Professor Karam Ellahie mentioned that the relationship between the Associations in the Punjab and the Central Association is not clearly defined at present, as there are two different Associations in his Province, each having for its membership exclusively men of different services. This year with some difficulty they were able to find an amount of Rs. 50/- and have sent it with him to be paid to the Central Association. In conclusion, he handed over Rs. 50/- to the Secretary on the spot.

Mr. Y.N. Maratte (Bombay) said that the Central Association was only asking for contributions, but never rendered accounts nor published the balance sheet, year after year. He said, that they in Bombay were ready to contribute their quota to the Central Association, if only the Central Committee publish the accounts annually.

The President said that this matter of increasing the rate of subscription to the Journal was largely a matter for them to decide and it is obvious that if only funds are required, accounts should be rendered, and he understood that there were no funds to spend and to account for. Now the proposition before them was whether to raise the subscription to Rs. 5/-.

Mr. K. Krishna Iyengar said that since it is the opinion of many and that instead of asking 750 subscribers to pay As.8/-each and get a total amount of Rs.300/-and odd it would be better to ask 6 or 7 Provincial Associations and get Rs.750/- or more. Therefore, he wished to move an amendment to the effect:—

*"That this Conference resolves that the Provincial Associations be requested to contribute their annual quota towards the upkeep of the Central Association, instead of raising the subscription of the journal".*

This was seconded by Mr. Y.N. Maratte (Bombay).

Mr. K. Kylasm Iyer:—I wish to say a few words. I know the question of accounts came up last year before the last conference for discussion. I also wish to point out whether the Associations paid the amounts collected by their members or the members paid directly to the Central Association through the enhanced subscription is all the same. But I agree that it is easy to collect Rs.750/- or so from half a dozen Associations instead of from 750 members individually. The

Provincial Associations should contribute their quota regularly to the Central Association, but I understand that the Provincial Associations, in some cases have much difficulty in collecting subscriptions from their members. Therefore, this course of raising the subscription through the Journal has been recommended and I earnestly request you to reconsider and adopt the original proposition.

President:—Whether the subscription is to be raised to Rs.5/- or it should remain as at present, is the question to be decided and I call upon you to vote on the original proposition.

The proposition to raise the subscription was lost, and the amendment was carried by a majority of votes.

President:—I put it to you whether the report with the statement of accounts can be adopted.

All agreed by show of hands and the same was unanimously adopted.

Next item on the programme being election of Office-bearers, Mr. M. Anant Narayan Rao, Lecturer, Madras Vety. College proposed Col. Olver to the President-ship of the Association, as in all the scientific and other organisations, the President of the Conference continues to be the President throughout the year and Col. Olver is eminently fitted for the President-ship and under his guidance, we are sure to strengthen the Association in all directions.

Mr. K. Ranganatha Rao, Asst. Supt., Scientific Section, C.V.D., Mysore, seconded it.

Mr. B.K. Badami, Dy. Supt., C.V.D., (Hyderabad-Deccan) supporting the proposal said that the Colonel's continuing as President would be of great service to the profession and would give an impetus to the advancement of the Veterinary Science in India; and his keen desire to help the agriculturist and support the cause of the Veterinary Profession would be of immense value at this juncture.

The proposal was received with loud applause by the whole audience.

Col. Olver:—I value and appreciate the honour, but I should decline it now as I have to consider the situation, which I can hardly explain at present. I understand that one should

necessarily be a member of the Association before one is elected as President, and I have not acquainted myself well with the rules; therefore, let the present arrangements continue till next year. I will do my best to help the Association in any way I can. For the present, I regret, I must decline the offer.

Mr. M. Anant Narayan Rao, then proposed Major R. W. Simpson for the President-ship. But Major Simpson at once expressed his inability to accept the offer, as he was not sure of his staying in India during next year.

Mr. Badami, then proposed Mr. S. M. Raza Hussain Sahib to be the President in consideration of his valuable services to the Association from its inception.

This was seconded by Mr. M. Anant Narayan Rao and carried *nem com.*

Mr. K. Ranganatha Rao proposed and Pandit M. Agnihotri (Bihar & Orissa) seconded, that Mr. M. S. Sastry, G.B.V.C., Ag. General Secretary, Anantapur (Madras), be the General Secretary,

This was carried unanimously.

Proposed by Mr. K. Krishna Iyengar and seconded by Mr. K. Ranganatha Rao, that Mr. B. K. Badami, G.B.V.C., Dy. Supt., C.V.D., (Hyderabad-Deccan) was unanimously elected as Treasurer.

Mr. Badami:—While thanking you for the offer of Treasurership, I fail to see the need for a separate Treasurer, as Mr. Sastry says he had no money to deal with as Treasurer. Therefore, the General Secretary can as well be the Treasurer himself.

Mr. M. S. Sastry:—The constitution provides for the election of a Treasurer and as such, we have to abide by the rules. Your (Mr. Badami's) election has taken place under auspicious circumstances and I promise, I would earn enough of money for you to keep you as Treasurer. I herewith hand over Rs 50/- at once to assure you of my fulfilling my promise. (He thus handed over the sum of Rs 50/- to Mr. B.K. Badami, the new Treasurer—the amount he had received a few minutes ago from Professor Karam Ellahie of the Punjab.)

Mr. Badami accepted the amount and the Treasurer-ship.

Mr. M. S. Sastry :—On behalf of you all, I wish to convey and place on record the thanks of the members to the retiring President, Rai Sahib P. N. Das, and other retiring office-bearers excepting the Treasurer (myself) who held no funds and turned out no work, for the valuable services rendered by them to the Association, even under the present adverse circumstances.

I also wish to thank you all on his behalf for the honour done to Mr. Raza Hussain Sahib Bahadur, by electing him as President in recognition of his valuable services. But on my own behalf, I should not like to thank you now only for the honour you have done me, even though you have given me great opportunities to serve you all, because, last year, when I was your Treasurer, you did not trust me with funds, but now you have entrusted me with empty papers and registers. I shall however wait and see if you will heartily co-operate with me during the ensuing year, and thus give me a real opportunity for service. Therefore, I reserve my thanks to you all for the end of the year. But if you so desire, I shall have no objection to thank you in anticipation of your active co-operation in making the Central Association function well.

As for Mr. Badami, I am sure, he will heartily thank you for the great partiality you have shown him by placing a substantial amount at his disposal as Treasurer, even before he took charge from the Treasurer of the year, whereas the latter was not given anything till the fag end of his Office. Now, I request you all to work vigorously and help us in all the ways possible to carry on our work during the ensuing year.

Then the resolutions were taken up for discussion.

#### Resolutions

1. That this Conference records its deep sense of sorrow at the premature demise of Rai Sahib Debaker Dey, Vice-Principal, Bengal Veterinary College and of Mr. A.M. Richards, Lecturer in Animal Husbandry, Agricultural College, Coimbatore, and empowers the General Secretary to send a letter of condolence to the members of the bereaved families.

*Moved from the chair and passed in silence all members standing.*

2. That this conference requests the Provincial Governments and the Indian States to take early steps to improve the pay and prospects of the members of the Sub-ordinate Veterinary Services, having regard to their standard of education, as in the matter of initial pay these Services have been placed on a lower scale than other similar Services.

Mr. K. Krishna Iyengar, Asst. Supt., C.V.D., Mysore, who moved the above resolution said :—

Gentlemen,

I am voicing the feelings of one and all of you on the vital issue involved in this resolution as that has been a universal feature of the subordinates of the Veterinary Services all over India. We have been bringing up this resolution year after year with no tangible progress. Many of the Provincial Governments put off this important question on the plea of financial stringency. The President, in his address, has said that the only avenue of employment in India for Veterinarian is Government and State Services and they have convinced the authorities of the great usefulness of our services to the economic life of the agriculturists.

It is an accepted fact, Gentlemen, that the members of the Subordinate Services, by their sincere work, have saved millions of cattle from all sorts of epizootic diseases by prompt action. Under these circumstances, Gentlemen, I think that if any Service deserved to be compensated for the money value saved to the State it is the Veterinary Service. I therefore commend this resolution for your acceptance.

Mr. B. K. Badami in supporting the resolution said :—I invite your attention to a speech of no less a personage than His Royal Highness The Prince of Wales, during his visit to the North Western Frontier Provinces to the effect, that to keep the services contented, it is always necessary to keep them free from domestic worries. Unless this is done, you could not expect full work from men in service. When such is the opinion of the great Prince, is it not quite necessary to improve the prospects of the subordinate staff so that the minimum needs of the family may be satisfied? Unfortun-

ately, this Department is being looked upon as the Cinderella of Services and is not having the due recognition it rightly deserves. I can only say that the economic benefit derived by the public from this Department is in no way inferior to that of any other Department. Therefore, I have much pleasure in seconding this proposition.

The President:—I am in entire agreement with this resolution and I know many others are also in agreement. The Veterinary Service has not received the status and recognition which it deserves. I shall try to do something towards its improvement. I now put this resolution to vote.

*The Resolution was carried unanimously.*

3. That this Conference requests that greater facilities may be given to Veterinary graduates for Post-Graduate study by means of study leave, scholarships, and by Deputations for special study, in the interests of Veterinary advance in India.

In moving this resolution, Mr. M. Anant Narayan Rao of Madras said that it has become very difficult for the members of the Subordinate Service to get even study leave. He knew of an instance in Madras, where study leave was refused at the last moment when everything else was ready. He also assured the audience that it was becoming increasingly difficult for the members of the Subordinate Service, to get opportunities for deputations for purpose of higher studies. Therefore, he had much pleasure in moving this resolution.

Mr. B. K. Badami seconded it, and in doing so he said:—There is a genuine desire on the part of the Indian Graduates to obtain higher knowledge in different branches of Veterinary Science, with a view to improve themselves and there is a great need also for such a knowledge to keep oneself abreast of times. Therefore, every facility should be afforded to the members especially of the Subordinate Service.

The President:—In putting this resolution to vote said that it was very desirable that facilities on the lines indicated in the resolution, should be provided to acquire higher knowledge and he was also in agreement with the object of the resolution, but he felt that the Provincial Governments might find some difficulty in providing the necessary funds in the present state of their finances. He was of opinion, however, that the matter deserved favourable consideration at the

hands of the Agricultural Research Council. He said, he would do what he could to help in the matter.

*The Resolution was carried unanimously.*

Then Col. Olver rising amidst cheers, pointed out the importance of Serum-Simultaneous Inoculation against Rinderpest and opined that Serum alone method was costlier, and that the Serum-Simultaneous Inoculation has considerably reduced the losses in various parts of the world. Since the disease is prevalent in many parts of India, each Province has to work towards the investigation of the disease peculiar to it. Precise investigation of local disease conditions of an insidious nature has been neglected in this country; unless preventive methods are found for such conditions, the economic loss sustained by the country every year must continue to be enormous. He laid special stress upon the importance of breeding and maintaining of good live-stock, which forms the back-bone of the agricultural population. As this had been the main industry of the country, everyone should work in close association with his fellow workers for the development, proper maintenance and preservation of live-stock in India.

The work done in regard to research in Animal Husbandry and cognate subjects and the practical results obtained should be published in professional journals, and he hoped that workers would form the habit of publishing their observations.

He hoped, in time to come to see the birth of a Federation of Veterinary Institutions, controlled by an authoritative body, whereby it might achieve international recognition.

In conclusion, he said that the Conference was a great success. He congratulated Dr. Coleman and Major Simpson, and thanked them for the trouble they took in bringing the Conference to a success. He also thanked Mr. M. S. Sastry for his arduous work and assured the meeting that he would do his best to raise the status of the Veterinary Profession. (Cheers)

Dr. L. C. Coleman in proposing a vote of thanks to Col. Olver spoke as follows:—

Mr. President and Gentlemen,

The duty has been placed upon me of conveying to the distinguished President on behalf of the members present our

thanks and appreciation for the admirable manner in which he has conducted the proceedings. I believe, no one in this room has so much experience as myself of the arduous duties of a presiding officer; to me it has always been a task involving great physical as well as great mental strain. I have rarely seen the task carried out with such tact and firmness as has been displayed by you, Sir, during the past three days. I offer you on behalf of the members of the Conference their most hearty thanks.

I have also to thank on your behalf the Vice-Chancellor of the Mysore University and the Superintendent of the Intermediate College, Bangalore, for allowing the College buildings for the use of the delegates, the President of the Mythio Society for allowing us their hall to conduct the deliberations of the Conference and the Superintendent of 'Kumara Park' as without his co-operation the 'GARDEN PARTY' would not have been a success. This Conference would not have been successful, but for the hearty co-operation and support of the delegates.

In proposing a vote of thanks to Dr. Coleman, Major Simpson and all the members of the Reception Committee, Mr K. Kylasam Iyer on behalf of the delegates from British India expressed his deep debt of gratitude for the splendid hospitality and co-operation of the *Mysore Veterinarians* in making this function a grand success. At this juncture, he said he should not forget to propose his hearty congratulations to Mr. K. Ranganatha Rao, Secretary, and all others, who have been the moving spirit in the deliberations and arduous duties they have discharged all these days, which is in no small measure due to their courage and enthusiasm.

Mr. B.K. Badami, on behalf of the delegates from the Indian States thanked the Reception Committee for the excellent arrangements made to look after the creature comforts of all the delegates.

After three hearty cheers to His Majesty the King Emperor, His Highness the Maharajah of Mysore, and Col. Olver the President, the Conference concluded the session.

On the morning of the 30th December, 1930, a party of about 50 delegates left for Hosur Cattle Farm, where they were all warmly received by the Dy. Director of Live-Stock,

Mr. T. Murari, B.Sc., (Oxon), Mr. T. Vinayaka Mudaliar, G.M.V.C., V.A.S., and other members of the staff, taken round and shown the various items of interest and activities on the farm. At 5 P.M., the delegates were entertained by the Farm Staff at a 'TEA PARTY' so thoughtfully arranged for the convenience of the visitors.

Mr. M. S. Sastry, Gen. Secy., who had accompanied the party thanked Mr. Murari and his staff for the warm reception and tea, and said that the delegates have immensely enjoyed the visit and hospitality and would carry with them pleasant memories of this excursion. Mr. Murari in reply expressed how they were all pleased to meet the delegates from different provinces of India and he hoped that such visits would be frequently arranged as they would be of value to the Live-Stock Section and the Veterinarians.

The party returned to Bangalore in the night.

A second batch of delegates paid a visit the same day to Kunigal Stud Farm, where the Superintendent and his staff received the visitors, took round and showed them the various items of interest on the farm. The delegates were entertained at a 'TEA PARTY' at the farm, and after enjoying this they all returned to Bangalore in the night.

True to the promise made in the invitation, the excursions to the Hosur Cattle Farm, Kunigal Stud Farm, the Imperial Dairy Farm, the Mysore Serum Institute, the Lal Bagh, the Tasker Veterinary Hospital and the Electrocution Plant for dogs in Bangalore C & M., station and other places of interest, had been thoughtfully arranged by the Reception Committee, who, in addition, defrayed the cost of conveyance to these places by Motor Buses for the comfortable and quick journey of the delegates. The excursions and the Cinema Shows were very much enjoyed by the delegates, who thanked the Committee for having introduced this happy and useful innovation into the programme of the Conference.

After the Conference was over, a telegram was received from Rai Sahib P.N. Das, President of Bihar & Orissa Veterinary Association, inviting the next session of the Conference to Patna. The invitation has been accepted.

P. O. ANANTAPUR. } (Sd.) M. S. SASTRY, G.B.V.C.  
Madras Presidency. } General Secretary. A.I.A.V.

## APPENDIX A

LIST OF DELEGATES THAT ATTENDED THE  
SEVENTH ALL-INDIA VETERINARY CONFERENCE,  
BANGALORE 1930.

## Madras Delegates

## Messrs.

- |                           |                          |
|---------------------------|--------------------------|
| 1. P. Srinivasa Rao       | 12. G. R. Visvanathan    |
| 2. K. Kylasam Iyer        | 13. J. D'Costa           |
| 3. R. Narasinga Rao       | 14. V. P. Subbayya       |
| 4. K. Seshagiri Rao Naidu | 15. P. Visvanatha Pillay |
| 5. M. S. Sastry           | 16. M. Ponniah           |
| 6. R. Swaminatha Iyer     | 17. S. Ganapathy Iyer    |
| 7. T. Vinayaka Mudaliar   | 18. T. M. G. Konar       |
| 8. M. Sunderanathan       | 19. V. Sankaranarayanan  |
| 9. V. Janakirama Iyer     | 20. B. Venkataramanayya  |
| 10. T. Raghavan           | 21. O. Lakshmana Rao     |
| 11. M. Anant Narayan Rao  |                          |

## Bombay

- |                       |                     |
|-----------------------|---------------------|
| 1. Y. N. Maratte      | 10. D. B. Sapre     |
| 2. D. S. Laud         | 11. M. G. Kulkarni  |
| 3. P. G. Date         | 12. N. K. Barshikar |
| 4. M. K. Garudachar   | 13. P. N. Mane      |
| 5. N. K. Basith Ahmed | 14. S. V. Deshpande |
| 6. H. G. Murnal       | 15. M. M. Murgod    |
| 7. D. C. Bambure      | 16. K. Kandadi      |
| 8. G. S. Balegundri   | 17. G. G. Chebbi    |
| 9. U. Y. Gadag        | 18. Maniar (Junior) |

## Hyderabad

- |                 |                         |
|-----------------|-------------------------|
| 1. B. K. Badami | 3. V. S. Rama Rao       |
| 2. R. R. Joshi  | 4. B. Doraswamy Iyengar |

## Punjab

- |                        |                |
|------------------------|----------------|
| 1. Prof. Karam Ellahie | 2. Muhammadali |
|------------------------|----------------|

## Coorg

- |                    |                  |
|--------------------|------------------|
| 1. K. A. Ganapathy | 3. C. N. Kalappa |
| 2. B. Somanna      |                  |

## Bihar and Orissa

- |                        |
|------------------------|
| 1. Pandit M. Agnihotri |
|------------------------|

## Travancore State

- |               |
|---------------|
| 1. K. M. Nair |
|---------------|

## Pudukottah State

- |                |
|----------------|
| 1. S. Chinniah |
|----------------|

## Sangli State

- |                   |
|-------------------|
| 1. N. T. Kulkarni |
|-------------------|

## Inchalkaranji State

- |                  |
|------------------|
| 1. S. G. Gokhale |
|------------------|

## Mysore State

- |                              |                             |
|------------------------------|-----------------------------|
| 1. Major R. W. Simpson       | 46. R. M. Purushotham Naidu |
| 2. Messrs K. Krishna Iyengar | 47. K. R. Ramachandra Rao   |
| 3. K. N. Srinivasan          | 48. K. S. Gopal Rao         |
| 4. C. K. Srinivasa Iyengar   | 49. H. N. Doraswamy Iyengar |
| 5. B. V. Venkatachar         | 50. N. Seshagiri Rao        |
| 6. T. V. Manicka Raj         | 51. K. J. Subramaniam       |
| 7. R. M. Patankar            | 52. S. G. K. Iyengar        |
| 8. C. Narayana Iyengar       | 53. S. M. Pantambekar       |
| 9. N. Krishna Iyengar        | 54. Syed Masum              |
| 10. S. D. Achar              | 55. S. M. Abdul Hakim       |
| 11. N. R. Srinivasa Iyengar  | 56. Syed Yousuff            |
| 12. S. R. Bapu               | 57. G. Zachariah            |
| 13. G. Subramania Iyer       | 58. D. N. Vasudeva Mudaliar |
| 14. L. V. Sallam Iyengar     | 59. S. Parthasarathy        |
| 15. C. V. Govinda Rao        | 60. G. N. Srikantiah        |
| 16. C. Ranganpa              | 61. J. P. Wesley            |
| 17. Sunderaj Iyengar         | 62. S. Ramakrishna          |
| 18. B. Lakshmipathy          | 63. L. Gurunathan           |
| 19. P. U. Nayar              | 64. H. Bandiah              |
| 20. K. Ranganatha Rao        | 65. R. Sadagoparamanujam    |
| 21. M. R. Kenchiah           | 66. P. K. Nair              |
| 22. T. Chandu                | 67. P. K. Kurian            |
| 23. M. Ramaswamy Naidu       | 68. Abjad Hussain Khan      |
| 24. T. V. Venkatachelam      | 69. M. M. Kulkarni          |
| 25. C. S. Prabhakar          | 70. H. Khader Khan          |
| 26. H. B. Kulkarni           | 71. T. Krishna Rao          |
| 27. P. K. Shama Rao          | 72. M. V. Srinivasa Rao     |
| 28. B. Sheikpeer             | 73. S. V. Ramaswamy         |
| 29. T. Aswatha Sastry        | 74. K. S. Pillay            |
| 30. G. V. Ramiah             | 75. Mahomed Ibrahim         |
| 31. C. Nanjundiah            | 76. K. N. Subba Rao         |
| 32. B. S. Rajgopal Naidu     | 77. N. M. Krishna           |
| 33. G. Narayana Murthy       | 78. K. K. Murthy            |
| 34. K. Srikantiah            | 79. K. S. Krishnappa        |
| 35. V. Jagannath             | 80. B. L. Subramaniam       |
| 36. S. Kalyana Sundaram      | 81. A. N. Sharma            |
| 37. M. Subba Rao             | 82. M. Lawrence             |
| 38. B. Venkatesiah           | 83. P. Veda Bhatt           |
| 39. Somasundaram Pillay      | 84. Sarada Pada Das         |
| 40. M. Srikantiah            | 85. R. Narayanan            |
| 41. Syed Nuruddin            | 86. J. D. Sampathkumaran    |
| 42. K. Krishnamurthi         | 87. P. M. Narayanaswamy     |
| 43. N. Narayana Rao          | Naidu                       |
| 44. P. C. Adikalam           | 88. M. G. Shakaran          |
| 45. V. S. Kuppusamy Mudaliar | 89. C. V. Sastri.           |

**APPENDIX B.****DR. L. C. COLEMAN'S INTRODUCTORY SPEECH AT THE SEVENTH ALL-INDIA VETERINARY CONFERENCE.**

Dr. L. C. Coleman, M.A. Ph.D., Director of the Mysore Agricultural Department, rising amidst cheers, in an introductory speech spoke as follows:—

Dewan Sahib and Gentlemen,

It is usually considered a privilege, I believe, to get the first place. That privilege is mine to-day. A few remarks that I have to make would be addressed primarily to those friends who have come from other parts of India to be our guests.

The delegates, are, I believe, for the most part officers of Government. Thus while the traditions of your profession demand an interest in the alleviation of the sufferings and a restoration to health of all kinds of domesticated animals, your duty must be mainly in connection with the preservation and improvement of the Live-Stock of the agriculturist. Your work therefore is or should be in very close contact with that of officers of Agricultural departments whose duties are more definitely restricted to work on Agricultural improvement. It was probably this consideration which induced the Government of His Highness the Maharajah of Mysore some ten years ago to place the Administrative control of the Mysore Civil Veterinary Department in my hands. Such an arrangement is obviously one, not without its dangers, for an officer who like myself can claim no knowledge of Veterinary Science might easily be tempted to overlook the needs of the State from a Veterinary standpoint. If I have ever been tempted through ignorance or indifference to do this I can assure you that the forceful personality of your Superintendent of the Civil Veterinary Department, Major Simpson and the insistent demands of the agriculturists of the State would have prevented it.

My duties in connection with the Civil Veterinary Department have been pleasant ones for although the financial situation during the past ten years has never allowed the allotment of the full amount of money that has been needed, I have always found the Mysore Government willing to spend money on the Veterinary aid, to the limit of their ability. This is clearly evidenced by the fact that whereas in 1920, we had a staff of 20 Veterinary Surgeons with a total budget of Rs. 40,000/- we have in the present year a staff of 91 with a



Dr. L. C. COLEMAN, M.A., Ph. D.,  
*Director of Agriculture, Mysore.*



Major R. W. SIMPSON, M.C., G.B.V.C.,  
*Superintendent, C.V.D., Mysore,  
Chairman, Reception Committee,  
Seventh All-India Veterinary Conference,  
Bangalore, 1930.*

Rs. 236,000/-. If we add to this the budget of our Serum Institute which must be included in the Statement of Expenditure in Veterinary work, we have a total budget of about Rs 4,25,000-, for work connected with the preservation of our live-stock, an increase of 1,000% in ten years, is, I submit, something upon which we can congratulate ourselves.

If I were to be asked what are the outstanding features in connection with the Veterinary Service of the State during the past ten years I should pick out three as of prime importance.

The first, is of course the introduction of the Serum-Simultaneous method of inoculation for the control of Rinderpest, as the regular practice in the State and associated with it, the establishment of our own Institute for the production of Serum and Virus. The success that has been attained in Mysore in this direction was, as you know, one of the main grounds for the recommendation of the Royal Commission on Agriculture, that the Serum-Simultaneous method should be introduced generally in India.

It is but fair in this connection to give credit where credit is due. I must state quite definitely that the credit of this work rests almost entirely with Major Simpson. When six years ago Major Simpson approached me with the suggestion that we should attempt the introduction of the Serum-Simultaneous method against Rinderpest, I did not accept the idea with any enthusiasm. While I fully realized what every one had to realize that the use of the Serum alone method in a country such as Mysore, was like pouring money into a bag with a huge hole in the bottom, we had the fact that the experts at Muktesar looked upon the Serum-Simultaneous method of inoculation as one that must be carried out by officers specially trained for the purpose. It is due, very largely, to the courage and vision of Major Simpson that we now know that with proper supervision, the Serum-Simultaneous method of Inoculation against Rinderpest can be undertaken on a large scale in this country with comparatively little danger and with a very high percentage of success.

I must in this connection also pay tribute to Dr. Parthasarathi for the manner in which, under what must be considered as rather unfavourable circumstances, he has organised the supply of serum and virus which has made a large scale campaign possible.

When I tell you that in the second year of its existence our Serum Institute turned out a supply of serum equal to one third that produced at Muktesar you will see how creditable the work of Dr. Parthasarathi and his staff has been.

The second important feature of our work has been the extent to which it has reached the villages. Leaving out of account the huge amount of inoculation work that has been carried on (between 4 and 5 lakhs of cattle have been inoculated during the past three years) there has been a steady effort to bring home to the ryots of the State the importance of Veterinary aid. This has been done at times perhaps at the sacrifice of some of the efficiency in the hospitals and dispensaries themselves, for it is obvious that if a Veterinary Officer has to spend 20 days of a month away from Headquarters, work in the Dispensaries must devolve largely on Salustries and Compounders. I believe, however, that the policy that has been followed has been largely responsible for the success of the work, for without the intimate touch with the ryot population which this systematic touring has allowed the Veterinary Staff to establish, it would have been impossible to accomplish anything like the amount of inoculation and castration which has formed so important a feature of the work during the past few years.

The third important feature is the association which is being continually strengthened between the officers of the Agricultural Department and of the Veterinary Department. It may interest you to know that we meet in one common body every year to consider all matters connected with the improvement and preservation of our live-stock. In connection with the campaign for the improvement of live-stock through the selection of Breeding Bulls we are obtaining the closest co-operation between officers of the two departments. It may interest you also to know that of the three Senior Officers who have to do with the improvement of live-stock by breeding, two are Veterinary Surgeons, who were formerly employed in the Civil Veterinary Department. I am not at all sure that the co-ordination of effort towards which we are striving is not the most important feature of progress in Mysore. During the present period of deficit budgets all over India reduction of expenditure on Government Departments seems to be inevitable. There can hardly be a question of expansion of effort and if we are to retain the efficiency of operations which we have already reached, it must be by more economical and efficient utilization of the staffs and funds which are being provided. All spirit of interdepartmental jealousy must vanish and we must all work towards the common goal which should be dear to the heart of every worker in India, a more prosperous and enlightened agricultural population as a basis for India's prosperity.

Gentlemen, I do not want to detain you any longer and again I wish to express to you my great pleasure at seeing

such a large number of delegates from other parts of India, and I trust that your stay here during the next two days and as much longer as you can spend will be one of the pleasant recollections in your future years.

### APPENDIX C.

#### **Dewan's opening speech at the Seventh, All-India Veterinary Conference, at Bangalore on 27th December, 1930.**

DR. COLEMAN, LADIES AND GENTLEMEN,

Let me first offer my thanks to the organizers of this Conference for the invitation which they have so kindly extended to me for participating in it. It gives me great pleasure to be present here to-day and to perform the pleasant function of opening the Seventh Session of the Conference.

I am glad that annual sessions of the All-India Veterinary Conference are being regularly held and I have no doubt that they are serving a very useful purpose. There are many veterinary problems which are national in their character and there is evident need for the periodical fore-gathering of the members of the profession from all over India for pooling their experience and for co-operating in the formulation of measures for the prevention of diseases and generally, for improvement of the live-stock of the country. All-India organizations like this Conference are also, I consider, of the highest value as they serve to emphasise the fundamental unity of the country and the need for maintaining its solidarity in every sphere of life.

The Conference is a body of professional persons and, I am afraid, the role of a layman like me among experts is not an easy one. I confess I have found it somewhat difficult to decide on what points I should address the Conference. I shall content myself by giving expression to my views in regard to the position which the Civil Veterinary Department occupies in the economics of a country and by alluding to a few problems to which I should like to invite the attention of the Veterinary and allied Professions and Services.

Veterinary service is, I think, part of the problem of production of the necessities of man's life. "The primary function of the cattle," observed the Royal Commission on Agriculture in India, "is as draught animals for the plough or the cart; without the ox, no cultivation would be possible; without the ox, no produce could be transported." Mechanical traction may replace animal traction in a few cities and on a few large estates, but we may take it that as far in the future as

we need be concerned with, there is not the remotest probability of the cattle ceasing to be the vital factor they are in the production of food and of clothing, which, whether made of cotton or of wool, or of silk, natural or artificial, is also obtained from land. Cattle manure is, I understand, essential for purposes of cultivation and cannot be replaced entirely by chemical manure. Apart from the use of sheep and cattle as direct food to which I shall not refer, there are the dairy products which form no small part of the food of man, young or old, rich or poor. It is obvious what an important place is occupied by the cattle of a country in its economy, and especially in a country like India which is so largely agricultural and the value of the service which the Cattle's Doctor, the Veterinarian, renders to society can hardly be over-estimated. We want a much larger number of veterinarians than we now have and they should be well-equipped in every respect for the discharge of the great responsibility resting upon them.

The Royal Commission observed that veterinary service in this country could not be considered as adequate unless there was at least one veterinary assistant surgeon for every 25,000 cattle. I shall give a few approximate figures to show the present position compared with the standard laid down by the Commission. In Bengal, there is one veterinary dispensary for every three and a half lakhs of cattle; in Madras, for every two lakhs; in Bombay, for every one lakh; and in Mysore, for every three-quarters of a lakh. This comparison is, no doubt, much in favour of Mysore but the position cannot be considered to be satisfactory anywhere in India and a great deal yet remains to be done for meeting the veterinary requirements of the country.

If the increase in the number of veterinary institutions in India or in Mysore should depend entirely upon the exigencies of Government finance, it will take a very long time to attain the standard set by the Commission. There can be no worthier object of charity in India than the endowment of veterinary dispensaries for the diminution of the suffering of dumb animals, especially the cow, which Mahatma Gandhi has very appropriately and pathetically characterised as "a poem of pity."

Private practitioners are very few in India and unless there is a substantial increase in their number, I do not think we can expect any material improvement in the provision of veterinary service. It is to be hoped that in course of time, live-stock-owners in India will appreciate the value of veterinary consultation and treat-

ment and encourage the establishment of a body of private practitioners, so essential for the proper care of the animal husbandry of the country. In Mysore, there is an increasing appreciation of the value of veterinary help and a growing demand for the opening of more dispensaries. The Government of Mysore have a scheme of development in view and their object is to provide, at least, one veterinary institution for each Taluk. Of seventy-eight Taluks in the State, sixty have now veterinary dispensaries and only eighteen remain to be provided with this convenience. Some Taluks require more than one dispensary each, on account of their larger cattle population or of the importance of their cattle-breeding industry or of the higher economic value of their cattle and the consequent greater attention they need, and we should mainly look to private endowments, to the patronage of live-stock-owners and to the public spirit of Local Bodies to provide them.

The chief pre-occupation of the Civil Veterinary Department in India will, for a long time to come, be the control, prevention and eradication of contagious and infectious diseases. Thanks to scientific research, methods of inoculation for combating several of these diseases have been discovered. The manufacture of sera and vaccines is, however, now carried on only at one place in British India, namely, the Imperial Institute of Veterinary Research at Muktesar. I do not think that one centre for the manufacture of these materials for supply to a large continent like India is by any means adequate. I do not see why the major Provinces, at least, should not have their own separate institutes and carry on research work bearing on their special conditions and also manufacture the sera and vaccines required by them.

The Government of Mysore have started their own Serum Institute and have been successfully manufacturing anti-rinderpest serum and virus in quantities sufficient not only for meeting all their requirements but also for satisfying some of the demands of the Presidency of Madras and of the States of Hyderabad, Cochin and Puduchottah. The production of rinderpest serum and virus in the Mysore Institute is now about one-third of that made at the Muktesar Institute which is supposed to supply the needs of the whole of India. Our Serum Institute will shortly be housed in new buildings erected for the purpose and it is our intention to expand the scope of the Institute by providing for research work in Veterinary Science in general and also for the manufacture of other sera and vaccines which we now import from outside the State. We have also in view a scheme for the establish-

ment of a combined Health, Serum and Vaccine Laboratory to deal with all problems connected with the diseases of human beings and of domesticated animals.

The Mysore State was the pioneer in India in the introduction of the Serum-Simultaneous method of inoculation against rinderpest. The experience of its use gained in Mysore established the fact that it was safe, effective and acceptable to cattle-owners and its adoption in other parts of India has contributed in no small measure to saving the life of cattle and to improving the agricultural interests of the country by preventing the ravages of rinderpest.

The improvement of cattle by conducting breeding operations under scientific control is one of the most important measures to which adequate attention has not so far been paid in India. There is a large and growing demand all over the country for young bulls of the right type for breeding purposes but the available supply of such bulls is hopelessly insufficient as the number of private breeders is very small and as there are only a few Government breeding farms. In the economic interests of the country, it is essential that prompt action should be taken to start, under proper scientific supervision, more cattle-breeding farms, either Government or Government-aided, and to increase the supply of young bulls required by breeders of draught and milk cattle.

We have in Mysore, as observed by the Royal Commission, a foundation stock in the famous Amrut-Mahal herd which is second to none in India. The State has, besides, been the source of supply of draught cattle to the adjoining districts of Bombay and Madras Presidencies. The Mysore Government have recently established a Central Cattle Station for carrying out research work in breeding and for supplying young bulls for the general improvement of the cattle in the State. In a short period, the annual number of bulls supplied from this Station is expected to be not less than two hundred, and this measure coupled with a systematic campaign of castration of inferior stock, is certain to have a marked effect in improving the quality of the village cattle in the State.

The fodder problem is another to which I should like to invite attention. With the growing pressure of population and the consequent demand for land for cultivation, there is a contraction in grazing areas. It is obvious that there can be no material advancement in the efficiency of cattle unless adequate supplies of fodder are made available. The possibilities of growing fodder crops of different kinds, indigenous and exotic, of utilising the grass resources of forests, of improving the yield of grazing lands and of making ensilage

on a large scale, require to be explored. Serious efforts are, I think, necessary to encourage the raiyat to grow fodder crops and keep reserves of them for the stall-feeding of his cattle. Systematic experiments in the nutritional values of different kinds of fodder have also, I think, to be undertaken.

Nutrition Chemists tell us that dairy products form the best food for man but the position from the point of supply of these products is by no means satisfactory. India is not self-sufficient in this vital respect but has to import these articles to supplement the home supplies. The greatest nutritional need of India is the production of more and pure milk. The conditions under which milk is produced and sold are often most insanitary and its adulteration with impure water is almost a universal practice. More than half the cases of tuberculosis in human beings are, I understand, due to the use of impure milk. The problem of supplying sufficient quantities of milk and of its products in a wholesome condition is of the highest importance and it is to the Veterinary Profession chiefly that the public look to make the best contribution to its solution.

The indiscriminate movement, mostly in connection with fairs, of cattle suffering from diseases is the most common source of spread of infection. It is essential in the interests of the health of the cattle and in the economic interests of their owners, to control the movement of cattle, if necessary by legislative enactments. The Government of Mysore have made provision for regulating the movement of cattle within the State and this action has had a beneficial effect in checking the spread of contagious diseases. This is a matter in which concerted action on the part of Governments of neighbouring territories would be productive of much good.

I do not know to what extent Veterinary Departments in India obtain their supplies of medicines and instruments from abroad. I think it is very necessary that we should manufacture in the country all the medicines and surgical appliances required for use by them. Medicines should be as cheap as possible if their benefit should reach all those who are in need of them and if the humanitarian object of relieving pain and suffering should receive its proper value.

The main foundation of the progress of a society is its physical soundness and that soundness depends upon freedom from disease. There are many points of contact between men and domesticated animals and the maintenance of the public health of a community depends upon the degree to which both are free from disease. The Veterinarian, the Physician, the Surgeon, the Laboratorian and the Health Officer are all guardians of public health. However well-

equipped and however vigilant, these custodians of public health might not be able to eliminate disease altogether and bring about a condition of affairs in which no one dies except of old age; but with the new knowledge which is steadily being stored for their benefit, and with the growing armament of preventive and defensive medicine at their command, we may reasonably look to them to gradually restrict those forms of illness, whether epidemic or endemic, which destroy the young and hamper or devitalize those in the prime of life.

Evidence is gradually accumulating to prove that most of the diseases, whether of men or of animals, are demonstrably, and all of them theoretically, preventable, but disease prevention cannot be accomplished without the co-operation and intelligent support of the community. There is a great deal of ignorance in this respect, especially in rural areas and it is the business of all guardians of public health to dispel it by disseminating widely information regarding the means and methods for avoiding disease and for maintaining physical efficiency at its highest level and for as long a period as possible. The different professions to whose care the vital interest of the physical well-being of the community is committed, should realise that the distribution of functions among them is only an arrangement of division of labour, for the attainment of the unity of goal which is to ensure that humanity is kept free of disease so that there may be a steady improvement in the growth of the race.

The problem of supreme importance to India is the need for a vigorous campaign of research work in every field of activity. I think there are limitless possibilities of such work in Agriculture and ancillary activities. I would classify research work under two heads: one which requires high scientific training and expensive laboratory equipment, and the other which calls for no more than the spirit of enquiry, the faculty of observation and the perseverance for pursuing problems. There is a popular impression that all research work comes under the first head and that it can be undertaken only by advanced students of science, working in up-to-date laboratories. I am not sure if this view is correct. There is, of course, very great need for research work of the first kind and India has unfortunately long lagged behind in the race for scientific progress and every effort should be made to place her in the forefront of such progress. I am, however, now drawing attention to the work coming under the second head, and I do not see why some humble work in this direction cannot be attempted by every raiyat on his field and by every livestock-owner on his cattle-stall. What I plead for is the

creation of a general atmosphere of research work, however empirical the methods adopted. Some of the discoveries which have proved of great value were made outside scientific laboratories. After all, even the discoveries made in laboratories have to be tried outside to test their worth and we need not discard the results of careful observations which may be submitted to experts for purposes of scientific explanation. I think it is desirable to harness the energies of a large number of people for conducting studies in observation and for collecting data on which scientific research work might be based.

I congratulate you on the choice of your President. Colonel Oliver is a very distinguished member of his profession and has a wide and varied experience of work in many lands. I wish the Conference all success under his able guidance.

I now declare the Conference open.

## APPENDIX D.

### WELCOME ADDRESS

BY

MAJOR R. W. SIMPSON, M.C., G.B.V.C.,

*Chairman, Reception Committee,*

*The Seventh All-India Veterinary Conference, Bangalore, 1930.*

Dewan Sahib, Col. Oliver, Ladies and Gentlemen,

It gives me great pleasure to welcome you on behalf of the Reception Committee to this Conference, the Seventh All-India Veterinary Conference, which as you all know, is being held for the first time in an Indian State. We are grateful to you, Dewan Sahib, for making this possible, and we thank you for having so kindly consented to our request in opening this Conference.

We thank you Colonel, for so kindly consenting to preside and are grateful to you for making it convenient to come down all this way to oblige us.

I assure you Gentlemen, the Delegates from British India and the Indian States, who have so kindly responded to our invitation, that we, the members of the Reception Committee, will endeavour to do our best to make your stay here as comfortable and interesting as possible, and we crave your indulgence for any shortcomings.

Before going any further, I think it will not be out of place here, to trace the history of our Association in Mysore.

The Mysore Veterinary Association was formed in May 1928, with a view to create a *esprit-de-corps* among the members of the profession in the State, to discuss problems of professional interest, to exchange notes, and thus to equip themselves to render efficient service to the State.

Supported by Dr. Coleman, the Director of Agriculture in Mysore, the Association was recognised within a year by our Government as a Scientific Association, and has already had two Annual Meetings. Although the Association is still in its infancy, being only two years old, it has been able to invite the All-India Veterinary Association to hold this year's Conference at Bangalore, which would not have been possible if we had not had the support of our benign Government, the District Boards, the Municipalities, and the people, who have all helped us to carry out this pleasant undertaking.

We, in Mysore, are proud of what we have been able to achieve. This has only been accomplished because we have been fortunate enough in having the support of the people, especially the agriculturists, the local governing bodies, and the Government, and last though not least, the patronage and support of our beloved Maharaja, who is second to none in his sympathy for the needs of the agriculturist, and for the economic improvement of his people. The presence here today of the Dewan, is significant of the great interest and sympathy of our Government in our work. 60 Taluks out of 78 in this State, have now each a Veterinary Institution, and we have great hopes that it will not be long before every single Taluk has its own. We shall have the pleasure of showing you round our Serum Institute on the 29th. It is at present working under a disadvantage, but it is soon to be shifted to better and more suitable buildings outside the town, where it will be possible to prepare other sera and vaccines.

It is customary for the Chairman of the Reception Committee to say something on the progress made by the profession, and to suggest, if possible, any points of importance with regard to its future.

During the past seven years we have met every year and passed resolutions, but these have not and will not be of any help to us, unless we bring forward some constructive programme every year and strive to achieve it.

I understand that there are two kinds of Associations in every British Province, working on parallel lines, one a Service Association, and the other a Graduates Association, the members of the one are also the members of the other. This, is not healthy, nor will it be conducive

towards the advancement of Veterinary Science. In India private practitioners are few and far between, and are almost negligible in number. I would suggest that instead of having two Associations in a province there should be only one Provincial Association, and that this be affiliated with the Central Association. We should at least attempt to live up to our motto viz., *Vis Unita Fortior*, and if this be done, the Indian Veterinary Journal will be the organ of the profession in India, and instead of a quarterly issue, it will have to appear as a monthly issue, for recording discussions on scientific matters, and so will really voice the activities of the whole profession in India. In this connection, I would invite your attention to the constitution of the National Veterinary Association of England, and the Veterinary Medical Association in America, who have now consolidated themselves under one Central Association.

Gentlemen, I would like to suggest for your consideration that the future work of the Association should be directed towards stimulating public opinion for Veterinary education, and more intensive research into animal diseases peculiar to India. These are very important and necessary if we are to keep pace with the other scientific professions of the world.

In India there are now five Veterinary Colleges. These should have a uniform course of study, and the training should be more intensive with special reference to the basic sciences, and if possible young men who have qualified in basic sciences and who have an aptitude for the work, should be encouraged to enter the profession. Thus the Veterinary Colleges will, in time, be staffed with Professors holding University Degrees, which would facilitate Veterinary Colleges being affiliated with the Universities—a reform every one of us must desire. I agree with the Royal Agricultural Commission that there should be a Central College manned by specially selected Professors for the higher training of men who possess the special aptitude for research into animal diseases.

We have only one Research Institute for the whole of India. This is out of all proportion and inadequate to meet the needs of a big country like India. I would therefore suggest that the public should be enlisted to prevail on Government to provide Research Stations and to institute "Field Research Work" in each Province in India. If the Provincial Stations coordinate with each other, and with the Central Institute, Veterinary Science will advance on right lines, and the future of the profession will be one of increased usefulness to the agriculturist and the State.

There is a feeling among the profession that it is not sufficiently recognised in dealing with questions on public health, but this can be overcome by making ourselves more efficient so as to be on a par with the Medical profession, by taking a keen interest in public health, and by co-operating with the Medical Health Officer. Those of the profession, who are not in the public service, should endeavour to get elected as members of Municipalities and other local bodies, where they will be able to impress on them the necessity for employing Veterinary Officers.

In my experience of 33 years, I can safely say that Veterinary Science has made rapid strides, and the profession has achieved much, especially during the last ten years, but there still remains much to be achieved.

Here in India, as you know, there are numberless diseases of live-stock peculiar to different localities. In Mysore alone, we have several which all require investigation. Thus the members of our profession have great opportunities of showing the worth of the profession to the people and thus gaining their confidence and support.

I am glad to say that within the last 15 years, the position of the Indian Veterinary Graduate has vastly improved and his position to-day cannot be compared to what it was then. It is now for the young men to make their work appreciated still more by improving themselves by taking post graduate and refresher courses and by throwing themselves heart and soul into the work. If this is done in the right spirit, and they have the confidence and support of the people, no Government will withhold their appreciation and recognition of the service.

I must in concluding, thank the Government of His Highness the Maharajah of Mysore, the District Boards, the Municipalities, Panchayats, and the host of important agriculturists, who have so kindly co-operated with us, and contributed towards this Conference.

I have also to thank the University authorities and the Mythic Society, for kindly allowing their premises to be used for the Conference.

I crave your indulgence, Gentlemen, for having detained you so long, but before requesting Col. Olver to take the Chair, I must introduce him to you, as several of you may not know him. He is a retired Officer of the Royal Army Veterinary Corps, with a vast amount of experience, having served in various parts of the world, Africa, America, Europe and India,

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both as a Military and Civil Officer. His intensive training in Tropical Diseases under Sir Arnold Theiler, was of great service to him in the Soudan, where he eradicated Rinderpest, and was instrumental in developing the Cattle-trade of Egypt.

We are most fortunate in having him here to-day to preside at this Conference.

With your hearty co-operation, Gentlemen, and good fellowship, our deliberations, discussions and decisions, will, I trust, benefit the profession and earn for it its due share of recognition.

I now request Col. Olver to take the Chair.

## APPENDIX E

### PRESIDENTIAL ADDRESS

BY

COL. A. OLVER, C.B., C.M.G., F.R.C.V.S.,

*Expert Adviser in Animal Husbandry to the Govt. of India*

Dewan Sahib, Major Simpson, Ladies and Gentlemen,

It is a great pleasure to me to be able to accept the very kind hospitality of the Mysore Government and to take the opportunity afforded by the Seventh All-India Veterinary Conference of meeting so many members of the Indian Veterinary Services as are present here to-day, with whom it would otherwise have been very difficult for me to become acquainted.

We are very grateful to you, Sir, for the facilities you have so kindly granted for the Conference to be held; to Dr. Coleman for his interest and assistance; and to Major Simpson and the Organizing Committee for having provided such a full programme of practical and social interest.

Major Simpson has referred in his address of welcome to my work in other countries but he has said nothing of the good work the Mysore Veterinary Service has accomplished under his direction, and it is certainly another feather in his cap that the Mysore Veterinary Association, formed as late as May 1928, has been able to organise such a successful meeting so early in its short life.

As you may see from the Agenda, the Conference will afford opportunities for the discussion of a variety of matters of scientific interest and will also provide those occasions for

social intercourse which are so essential for the success of any organized service.

In view of the success of the Mysore Veterinary Service in dealing with Rinderpest by the Serum-Simultaneous method, the visit to the Mysore Serum Institute will be of particular interest, while visits to the Hosur Cattle Farm, Imperial Dairy Farm, Kunigal Stud Farm, Hebbal Agricultural School and Tasker Veterinary Hospital will, I am sure, from personal experience, be much appreciated by all who are interested in the practical care of domesticated animals.

On the social side, we have a full programme of entertainments and visits arranged, which will enable those able to afford the time to see some of the beauties of Mysore State, which are world renowned.

For the arrangement of such a complete programme, we are much indebted to Dr. Coleman as well as to Major Simpson and the Organising Committee, and I hope at the end of the meeting that all of you will feel that you have derived much pleasure as well as practical benefit from the Conference.

Seeing that they are usually held during what would otherwise be part of our Christmas Holiday the social side is perhaps more than usually important at your meetings, but the discussion of professional papers, though the basis of all such Conference, is never the only benefit to be derived therefrom.

Probably the greatest benefit from such Conferences is that derived from the private discussions which take place, at informal moments, of the many common problems with the solution of which all are faced, and I would urge upon you the paramount necessity for constant scientific study and interchange of views, if Veterinary Science in India is to obtain better recognition which I know you all desire.

The status of any profession or State service must, in the end, depend on its economic value, and the only avenue along which real advance can be made towards a higher status is along the, perhaps at times, tedious and difficult road of scientific progress.

I am particularly glad to be able to attend this Conference because I meet you here as a private individual, and this is the first occasion on which I have had an opportunity of being present at a representative gathering of those on whose efforts the prevention of disease and the better care of live-stock in India must largely depend.

From whatever aspect Animal Husbandry problems are tackled the Veterinary Services must play an important part in bringing about such improvement as we may hope to achieve.

Without effective measures for the prevention and control of disease all efforts to improve live-stock must, to a large extent, be wasted, and I would like to impress upon all members of the Indian Civil Veterinary Services the importance of taking every opportunity of increasing their knowledge of stock, and their diseases, in this country regarding which, owing to the immense areas concerned and the enormous numbers of animals for which the existing Veterinary Services are responsible, is as yet very far from complete.

Major Simpson has told you that in the course of my long professional life I have had experience of disease control in many parts of the world, and as I am now responsible for giving expert advice to the Government of India, on all matters connected with Animal Husbandry, it may not be out of place if I tell you that since the days of my childhood I have been closely associated with the scientific breeding and care of high-class stock of various kinds, and have always been greatly interested in all matters affecting the practical breeding and rearing of such stock.

After qualifying for the Veterinary profession and spending some years in practical Veterinary work in England, I was fortunate enough to have considerable experience of the control of disease, among large numbers of animals, under such widely different conditions as those which existed in South Africa at the time of the Boer War and subsequently in the Sudan, Egypt, France, United States of America, and Canada.

In the course of my service with the Army, I was closely associated for years with the late Sir Frederick Smith, and with Sir Arnold Theiler, under whom I worked at the Daspoort laboratories, before they were removed to the present Onderstepoort Research Institute, which has become world famous as a centre of scientific veterinary research, of priceless economic value to the agricultural community in South Africa and indeed to the whole world.

During the Great War I was also closely associated with the direction of the highly successful Army Veterinary Service in France, and towards the end of that War, when I was charged with the veterinary direction of the British Remount Commission in Canada and North America, I had the advantage of gaining practical experience of the work of the Bureau of Animal Industry of the United States of America,

of which another outstanding Veterinarian, Dr. J. H. Mohler, is the Chief.

In all this work, what has impressed me most has been the great economic value of scientific veterinary control of disease and the fact that an organized and scientifically directed service is capable of producing far greater results than a less well organized and equipped service, however good its members may be individually.

South Africa, which just before the South African War, was a most unhealthy country for domesticated animals of all kinds, has now, as a result of critical investigation of disease under scientific direction, been completely cleared of such scourges as Rinderpest and East Coast Fever, while the brilliant research work carried out by Theiler and his co-workers has made it possible to deal effectively with a number of other stock diseases peculiar to that country, which previously were not at all understood and exacted a heavy toll of every kind of live-stock. The value of this work to South Africa can be reckoned in millions of pounds sterling every year, and the result has been that the veterinary services have obtained due recognition and have been placed in a position commensurate with their economic value.

In America, State and Federal Veterinary Services, under the direction of Dr. Mohler, have now succeeded, amongst other notable achievements, in completely cleansing the greater part of the United States of America of the scourge of ticks which previously made stock raising, particularly in the Southern States, a very hazardous occupation, owing to the diseases conveyed and the exhaustion caused by ticks of various kinds.

In the Great War, the Army Veterinary Service, which for the first time in history was able to function as an organized service, under the control of a Veterinary Director, succeeded in keeping contagious disease so well under control that wastage from all causes in all theatres of operations during the war seldom exceeded 10 per cent per annum, whereas in no previous war had it been less than 50 per cent per annum. In the days before any form of organized veterinary service was available, the losses were even far greater than this and history records that on more than one occasion the mortality and sickness caused by contagious disease of their animals has been so great as to cause complete immobilisation of the forces engaged.

In my own experience, the Veterinary Service under my control in the Sudan was able to stamp out Rinderpest on the

Nile, north of Khartum, and to establish a lucrative cattle trade with Egypt, while in America a striking reduction in mortality was effected, among the very large numbers of remounts which were being purchased by the British Remount Commission, as soon as the Veterinary Service was satisfactorily organized and the results of bacteriological research could be applied.

Similar results have been obtained in other countries, and all of this has been made possible by the systematic clinical study of disease, developed in most cases from a very modest beginning.

I tell you this not with any idea of eulogising the veterinary profession, which I am fully aware has many and great shortcomings, but because I want you all to realize that it is only by systematic study of the disease problems at your door and co-ordinated measures for their control that such striking results can be hoped for.

To emphasize what great results may be obtained from small beginnings I may tell you that when Sir Arnold Theiler started work in South Africa he was provided with no facilities whatever for scientific investigation. Being, however, an enthusiastic student of disease he made facilities for himself, and eventually so impressed the authorities with the knowledge he had gained of South African diseases of stock, from the field investigations which he never lost an opportunity of making, that he was able to obtain all the facilities he required, and make for himself a name which is second to none in the realm of veterinary research.

In India, up to the present, though a great deal of valuable work has been done at the Muktesar Institute, by the limited scientific staff available, and at some of the provincial veterinary colleges, there has never been a fully organized or equipped veterinary service for the whole country, and no provision has been made for the field investigation which must be the first step in all disease control.

Without the knowledge of local disease conditions, obtained from such investigation, further research is impossible, and without an organized veterinary service, capable of applying this knowledge, it is not possible to reap the benefits made possible by research.

Provincial Governments, throughout India, have year by year, spent large sums of money on the education and provision of veterinary services, but owing to the lack of adequate provision for disease investigation and of the superior staff required for scientific direction, the efforts of these services have, to a large extent, been directed towards the treatment of minor ills, rather than to the scientific control of communicable disease.

Such diseases as Rinderpest, Foot-and-Mouth disease, Hæmorrhagic Septicæmia, Black quarter, Anthrax and a variety of acute contagious diseases have been attended to and more or less effectively dealt with, because by their virulence they could not fail to attract attention, but a number of other diseases of equal or even greater economic importance, such as parasitic infestation, protozoal diseases of various kinds, and diseases caused directly or indirectly by mineral or other deficiencies in the food, have received little attention because their effects are less dramatic, and the facilities for their systematic investigation have not been available.

There appears to have been a tendency to regard anything in the nature of investigation as a matter beyond the capacity or interest of any but those who are employed in large research institutions, and I want to impress upon you all that a great deal of most valuable information, regarding the diseases from which the live-stock in every province suffer, can be obtained by anyone who will make careful clinical observations and thorough post-mortem examinations whenever an opportunity occurs, thus collecting material for further investigation.

Major Simpson, in his introductory remarks, has suggested, for your consideration, that the future work of the Association should be directed to stimulating public opinion in the matter of veterinary education, and of more intensive research into animal diseases peculiar to India, and has stressed their importance if the Veterinary Services of India are to keep pace with the scientific professions of the world.

With this I am in entire agreement and I may, I think, without indiscretion tell you, purely as a private individual, that I have already put forward a scheme to provide for systematic field investigation in every province throughout India, which should, in time provide the Animal Husbandry Services with the precise knowledge required to enable them to deal with stock by scientific methods.

The work, however, must be of a practical nature to be of any economic value.

While it is interesting to record some rare condition, seldom met with in practice, it is of far greater value to ascertain the real cause of some common disease, which causes heavy loss day by day, and it is by careful clinical investigation of such conditions that reputations are made and a service obtains the recognition it desires.

Such work if dealt with on a sufficiently broad basis should not only give us the information necessary for the control of disease, but should also become a most important factor in the education of the students of veterinary science

in India, to such a high standard as will be required in order to obtain the recognition accorded to the fully qualified veterinary services of other countries.

In conclusion, I would impress upon you all that the primary function of the veterinary services of India is the control of contagious disease, and that the treatment of minor ills, though of undoubted benefit to the individual, is not the main purpose for which the services are organized and paid by Government.

When more fully organized and equipped for the scientific investigation and control of disease the existing Veterinary Services of India should be capable of rendering far more valuable service than in the past and along these lines only can their economic value be so demonstrated as to insure fuller recognition.

In India as in all other countries both students and graduates should however realize that their advancement must depend very largely on their own endeavours.

Provincial and State governments can only afford to educate and maintain such services as are essential for their practical needs, and those individuals who wish to reap the full benefits of advanced study must, in this country as elsewhere, be prepared to pay, to a very large extent, for the high standard of education now required to enable them to enter any of the scientific professions, or to take up scientific research.

To those who educate themselves to a high standard of practical and scientific efficiency in any branch of science, opportunities for lucrative employment are becoming more and more frequent, because the great economic results to be obtained from the practical application of science are being demonstrated every day, but there is no market nowadays for anyone who is unable to demonstrate the value of his knowledge to his employers.

Openings for private practice will no doubt increase in India as time goes on but for a long time to come the Government services must continue to be the principal source of employment and any one wishing to advance himself will be well advised to take every opportunity of higher study which may be open to him.

In the State services the prevention of disease and the education and assistance of stock owners to a higher standard of Animal Husbandry are the directions in which results of the greatest economic value can be obtained, and State services should concentrate their energies on such work rather than on the treatment of individual cases.

In India where the cow is so much revered and of such essential importance to the community, the scope for such

work is unlimited, and there should be a satisfactory future for any one who is willing to undertake the constant study which is essential to a proper understanding of disease, and who can demonstrate his practical value to the community.

### IMPRESSIONS OF THE SEVENTH ALL-INDIA VETERINARY CONFERENCE, HELD AT BANGALORE, 1930.

BY

"A DELEGATE."

It was really a splendid successful session that the All-India Veterinary Association had in its 7th Annual Conference at Bangalore, on the 27th, 28th and 29th December, 1930, under the able and sympathetic Presidentship of Col. Olver. This is the first time that the Conference was held in an Indian State and it was in the fitness of things that the venue was chosen in the State of Mysore. For enlightened advancement and progress under a benevolent Ruler, and for the possession of world famous valuable live-stock, this State is second to none in the whole of India. It is a model State in many ways and every department of its Government is pulsating with life. Even the Veterinary Department—which is very much neglected in most of the British Provinces even to-day—has been making rapid improvement in this State. The opening of a Veterinary Serum Institute and the starting of an intensive campaign against Rinderpest by the adoption of S.S. Inoculation on an effective scale in the field, have been a very bold and successful example to the rest of India. It was therefore quite appropriate that the All-India Veterinary Association has accepted the invitation of the Mysore Branch—which, by the way, was started only in May 1928—and held its annual Conference in the State.

Mysore rose equal to the occasion and, practically, the whole veterinary staff had been mobilised for the purpose. It was a sight to see the vivid and sparkling enthusiasm of the young and old in the profession and department, and they eagerly vied with one another in looking after the perfection of the arrangements.

In true oriental style, the President was welcomed with "*Nagaswaram*" and conducted to the dais by Major Simpson and members of the Reception Committee. The Conference opened punctually at 11-A.M., on the 27th, appropriately with the singing of 'Bandemataram'. Although it would have been better if it had been sung in chorus, still, it was finely rendered by a youngster.

Equally appropriate was the opening of the Conference by the Dewan Sahib and the continued State patronage that was such a prominent feature of the Conference.

### *Presidential Address at the Seventh A.I.V. Conference 319*

The Dewan's speech was warmly applauded. It was a very telling and instructive speech, which must be read and digested by all those in charge of the Veterinary Department in the different provinces in India. To those who often scorn at the idea of conducting All-India Conferences and who frequently belittle the potentialities of the Veterinary Department, his speech must be an eye-opener.

Dr. Coleman, the very able and sympathetic Director of Agriculture—the Veterinary Department also is under him—was the very first speaker of the day. He was really an impressive speaker and the tone of sincerity and purposefulness that rang through his speeches gave an indication of his true nature. He very finely classified the servants of the State under two categories. One belonged to the type of men who came with a real desire to do their best and who honestly thought they could do their very best to the country: the second belonged to the other category of men who came and took service in the State, because they could not get any job anywhere else. "I belong to the first category and if I find that I cannot honestly serve the State to its advantage, I would not remain even for five minutes," he said. The classification is a real one and shows the true worth of the Officer. No wonder, that Dr. Coleman is loved and adored by his men. Incidentally, how we wish some one undertakes a classification of the various servants of the Crown under the above two heads!

The Conference was happy and fortunate in the choice of the President. It would be no exaggeration to say that Col. Olver was an ideal President and his conduct in the chair was all that could be desired. By his patience and tactfulness, he contributed in no small measure to the successful ending of the Conference. Owing to his throat trouble, his voice, was not at its best, but, still, he delivered his address well and it was very well received.

The Professional and Social side of the Conference had been well provided for by the Executive Committee. The papers read at the Conference were of a high order and the majority of them, quite naturally, were on the all important subject of Rinderpest. Everyone had some new experience to relate and Mr. Ganapathi's remarks, especially came in for a good deal of appreciation from the audience. Everyone who listened to the original papers and the discussions thereon was really benefitted. One important thing that struck me most was that we have still a lot to learn about this scourge of cattle viz. Rinderpest. There is ample scope and room for investigation into this disease.

The social activities of the Conference included a grand 'Garden Party', at the spacious 'Kumara Park' and a brilliant

'Mysore Dinner'; on both the occasions, prominent citizens of the State were present and the Mysore Band was in attendance. The tables were really groaning under the weight of the choicest dishes and all enjoyed the parties. The feats of jugglery that were given at the end of both the parties should be specially mentioned for their high standard of excellence.

The Business Meeting of the Conference was a real "Business" meeting. Every year we used to see a number of Resolutions on many and varied subjects being moved, seconded and passed to the accompaniment of oratory. We do not minimise the value of these resolutions, but the proceedings of this year appealed to the audience very much. We are told that the President was responsible for restricting the Resolutions to only two and, as these two were of the most vital importance, we were all quite satisfied. The improvement of pay and prospects of the profession and the facilities for Post Graduate Training for its members very naturally formed the subject of resolutions and if these are conceded, we easily gain a recognition and status which can subsequently be used with advantage for the redress of their grievances.

My impression would be incomplete if I were not to acknowledge the splendid arrangements so ably done and perfected for the comfort of the Delegates by Major Simpson and his band of volunteers. They had a hard time during the days of the Conference and they came out with shining colours.

## Reviews

**The Milk Problem of the City of Hyderabad And the British Administered Areas.**—Size 6x10. Number of pages X+30. Illustrations II in the text and a map of Hyderabad city suburbs. Price Rs. 1-8-0 including Postage. This book by Mr. R. R. Joshy, G. B. V.C., gives in detail the existing conditions of Milk Supply in the City of Hyderabad and the British Administered Areas and, as Mr. B. Abdy Collins remarks in the foreword, this experience must help to improve matters. The conditions in Hyderabad appear to be much similar to that obtain in other places. The inefficiency of milch cattle, the absence of any scientific breeding with a view to improve the milking capacity, the production and distribution of milk in the most primitive style without any regard to cleanliness and purity, and most important of all, the ignorant poverty and illiteracy of the Gowlies who, so to say, have got the monopoly of milk supply—these are the main factors of Milk Problem all over the country; and Hyderabad, we see, is no exception. Mr. Joshy opines, that by the introduction of the co-operative system the Gowlies can be improved and made to realize the advantages of better and finer milk supply, at the same time improving the general demand for cleaner milk by educating the public. He also opines

that the milking capacity of cows can be improved by the adoption of scientific methods of breeding.

The suggestions are both practical and practicable and we would commend them to the authorities.

We are very pleased to see that a member of the Veterinary Department taking such practical interest in this difficult problem.

**A. F. Ahmed's Patented 'Kareem's Automatic Clips for Burdizzo's Castrator** :—Messrs. A. F. Ahmed & Co., deserve congratulations for inventing this 'Kareem's Automatic Clips. With the original Burdizzo's Castrator, the great defect was that the cord slips from the jaws when crushed. Now the Automatic Clip can be fitted with the Jaws of the Castrator, which would hold the cord of the animal in tact, and won't allow it to slip out. This clip can be fitted to all the Castrators both new and old ones of any make, at a cost of Rs. 10-per pair. We have found it very effective and it dispenses with the use of an assistant for holding the cord in position and we have pleasure in recommending this improved Castrator to the Profession.

**Instructions for use of the Automatic Clip** :—Open the jaws, and put the cord in as usual. Just press thumb clips, fitted at the bottom and on the upper jaws, which will at once hold the cord tightly without injuring it. Press the cord, when the spring clips will automatically be locked up.

**Veterinary Medicine Label Book, adapted for use in the Dispensaries of the Civil Veterinary Department in India, Second Edition** :—By Mohd. Umar Khan, V.A.S., i/c Veterinary Hospital, Ghaziabad, Dt. Meerut, U.P. :—

The author deserves congratulations for bringing out a book of this kind. Till now, there has not been a Veterinary Label Book and allopathic labels were being used. Very great difficulty was being experienced in finding out appropriate doses of medicines for different classes of animals. This book fulfills all these drawbacks in containing the doses for Horse, Cattle, Sheep and Dog. Now, a good deal of difficulty and inconvenience is experienced in all the hospitals and dispensaries for want of such labels. We hope that the authorities will take advantage of this much needed book and introduce the same in all their institutions. The very fact that the book has gone on a second edition, shows the value and need of such a book.

The book has been divided into two parts of non-poisonous drugs on the yellow paper and poisonous drugs on the red and in both the cases there are number of blank labels. The general get-up of the book is nice. The book is sure to be felt very useful by a busy practitioner and in a hospital. The cost of the book is only Rs. 2/- and can be had from the publisher.

**A Catalogue of Books on Veterinary and Agricultural Science and Animal Husbandry** :—We have been sent by Messrs. Bailliere, Tindall Cox their catalogue of books on Veterinary and Agricultural Science and Animal Husbandry dated October, 1930. This is a most useful catalogue as not only does it contain a complete list of Veterinary books but it enables one to see what books are issued on other subjects. In order that its scope and intention may be appreciated we reprint the following from the publishers' notes introducing the catalogue,

"This catalogue is divided into the following sections :

SECTION I. Pages 1-16.

VETERINARY SCIENCE, which contains those books of direct interest to the Veterinarian.

Section II. Pages 17-24.

ANIMAL HUSBANDRY, which comprises books dealing with such subjects as breeding and management (including small animals, poultry, beekeeping etc.), and also books of interest to some extent to the Veterinarian.

SECTION III. Pages 25-40.

AGRICULTURE, which contains those books of particular interest to the scientific agriculturist and to the research worker.

SECTION IV. Pages 41-45.

ATLASES, Diagrams and Charts prepared for the Veterinary and Agricultural Student; for those whose work takes them among animals; and in the case of the Atlas of the Ox, for students of meat inspection and those studying in the classes arranged for butchers' assistants.

SECTION V. Pages 46-48.

PERIODICALS, which is divided up into Veterinary and Agriculture, and Miscellaneous.

It is inevitable that there must be some overlapping between the various sections, but it is hoped that by publishing the above classes of books in one catalogue an opportunity may be afforded reader of the checking over the books available to him on subjects to which at some time he may desire to refer."

This catalogue is, we are informed, unique and is certainly one which every member of the Veterinary Profession should have in his possession. Messrs. Bailliere, Tindall & Cox will be glad to send on request copies to anyone who has not already received one.

**Dollar's Veterinary surgery** :—Size 6 × 10. Number of pages IX+253. Figures in the text 495. Price 25s net. The second edition of Dollar's Veterinary Surgery is a very readable book. Professor James J. O'Connor, M. R. C. V. S., in rewriting this standard work has been able to incorporate many new operations and made it quite up-to-date. He contends that since he has been able to arrange in one section all the ordinary operations that the student would be required to practise in a dead subject, the value of the book would be enhanced. This may be so, but the busy practitioner may not thank him for this innovation. It is also to be regretted that the essential *Surgical Anatomy* dealing with the various operations has been deleted from the present edition. Further more Surgical Pathology does not find a prominent place in this work. We must record our disappointment in not seeing this important but oft-neglected branch of Surgery, not finding a place in a book of this sort. However, we hope, that before long either Professor O'Connor or some one equally eminent would remedy this short-coming.

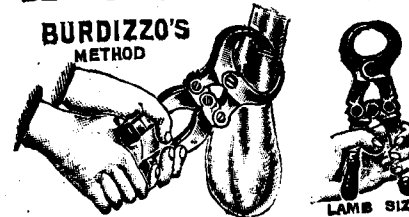
The present edition of Dollar's Surgery is a welcome addition to the none too rich Veterinary Literature and it can be confidently recommended both to the student and to the practitioner. Publishers—Messrs. Bailliere, Tindall & Co., 7 and 8 Henrietta Street, Covent Garden, London, are to be congratulated for the splendid way with which the book is got up.

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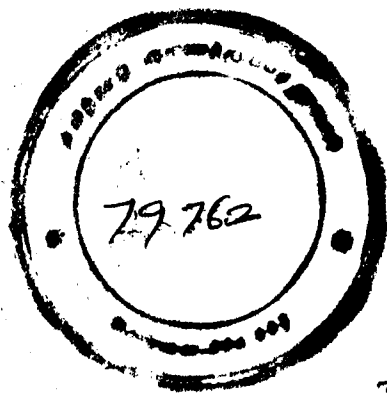
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