

Published Quarterly.

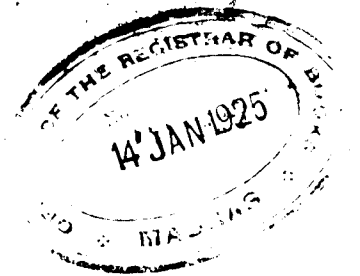
November 1924.

Vol. I.

No. 2.

The Indian Veterinary Journal.

(The Journal of The All-India Veterinary Association.)



Editor :

P. SRINIVASA RAO, G.M.V.C.,

Veterinary Surgeon, Madras.

Office : 18, WALLAJAH ROAD, MOUNT ROAD, MADRAS (S. INDIA.)

PRINTED BY MESSRS. VEST & CO., MOUNT ROAD, MADRAS.

NOTICE.

THE INDIAN VETERINARY JOURNAL.

A quarterly record of Veterinary Medicine and Surgery devoted to the cause of the Veterinary Profession.

PUBLISHED FOR THE ALL-INDIA VETERINARY ASSOCIATION.

EDITOR:

SRINIVASA RAO, G. M. V. C.,

Veterinary Surgeon and Proprietor, Dr. Pangal's Veterinary Institute,
19, Vallajah Road, Mount Road, Madras, S. India.

SUBSCRIPTION:

For members and students:—Rs. 4 or 5s. 4d. per annum including postage in advance. Re. 1 or 1s. 4d. per part.

For others:—Rs. 8 or 10s. 8d. per annum in advance or Rs. 2 or 2s. 8d. per part.

1. Original articles, clinical notes, society reports and notes on interesting cases are invited. Contributors of original articles will receive 10 copies of their papers free.

2. All Editorial Communications, reports and books for review and exchange, should be addressed to the Editor.

3. All Contributions should be sent to the Editor. Contributors are requested to sign their contributions. All communications must be authenticated by the name and address of the writer, whether intended for publication or not.

4. Members who do not receive the journal regularly or who find it wrongly addressed are requested to communicate correct address to the Editor at once.

THE INDIAN VETERINARY JOURNAL.

(The Journal of the All-India Veterinary Association).

Vol. I.	NOVEMBER 1924.	No. 2.
I. EDITORIALS. Contents:		
1. PROFESSIONAL ASSOCIATIONS AND GOVERNMENT RECOGNITION	...	75
2. THE PRESIDENTIAL ADDRESS: A REVIEW	...	78
3. THE NEXT CONFERENCE	...	80
4. THE N.W.Ry. DISASTER AND THE PRAISEWORTHY AID RENDERED TO THE INJURED by A Veterinary Surgeon on the spot	...	81
5. COLONEL G. K. WALKER: A SHORT SKETCH	...	92
II. ORIGINAL ARTICLES.		
1. IMPROVEMENT OF CATTLE BREEDING IN INDIA. By Mr. M. Jamaluddin, Second Cattle Superintendent, Pusa	...	84
2. INDIGENOUS DRUGS FOR CERTAIN AILMENTS OF LIVE STOCK. By Mr. Hirachandra, Vety. Inspector, Allahabad	...	100
3. NOTES ON DISINFECTION. By Mr. A. Ramachandra Iyer, Vety. Asst. Surgeon, Tanjore, Madras.	...	103
4. PROLAPSE OF THE RECTUM IN DOGS. By Mr. R. Swaminatha Iyer, Vety. Asst. Surgeon, Ootacamund	...	114
III. CLINICAL ARTICLES.		
1. HYSTERO OVARIOTOMY IN THE BITCH. By Mr. A. M. Richards, Vety. Asst. Surgeon, Agricultural College—Coimbatore	...	115
2. CAPONISING IN FOWLS. By Mr. M. Ponnaya, Vety. Asst. Surgeon, Tirupur, Madras	...	116
3. ARSENIC POISONING IN FOWLS. By Mr. P. Sreenivasa Rao, Vety. Practitioner, Madras	...	117
4. MILK FEVER OR WHAT? By Mr. K. A. Ramaswami Iyer, Office Vety Asst. Surgeon, C.V.D., Madras	...	118
5. A CASE OF DELIVERY IN A BITCH. By Mr. V. Parameshwara Menon, G. M. V. C., Vety. Asst. Surgeon, Vety. Hospital, Saidapet	...	121
6. A SUSPECTED CASE OF EPHEMERAL FEVER. By Mr. C. Venkataratnam Chetty, Chief Superintendent, Cattle Depot, Corporation of Madras	...	122
IV. EXTRACTS.		
1. RAT-BITE POISONING IN THE DOG. By Mr. J. F. D. Tutt, Winchester	...	123
2. PROLAPSE OF THE UTERUS IN MILK FEVER. By Mr. John B. Bryant, Mount Vernon, Iowa	...	124
3. SOME SKIN DISEASES IN THE DOG. DISCUSSION	...	125
V. ASSOCIATION REPORTS.		
1. BIHAR AND ORISSA	...	138
2. UNITED PROVINCES	...	139
3. BENGAL	...	143
4. MADRAS	...	144
5. COIMBATORE DIVISION OF THE MADRAS BRANCH	...	150
VI. THE THIRD ALL-INDIA VETERINARY CONFERENCE, MADRAS 1924.		
1. AN APPEAL By Mr. S.M. Raza Hussain, General Secretary, A. I. V. A., Jhansi	...	153
2. BULLETIN, No II. By Mr. T. Vinayaka Mudaliar, Secretary of the Reception Committee	...	155



Dr. Pangal's Veterinary Institute,
18, Wallajah Road, Mount Road,
Madras.

A FEW OF Dr. PANGAL'S SPECIALITIES.

To all Lovers of Horses, Cattle and Dogs.

1. Equitone.—A well-tried and the only genuine tonic powder for horses. Quite indispensable to horse-owners to keep their animals healthy, active and in tip top condition. This creates good appetits, expels all worms from the stomach and improves the coat wonderfully.

Price per 2 lbs. tin Rs. 3-12-0.

1 lb. tin Rs. 2.

2. Dhum-Dhum.—A specific for dhum *i. e.*, heavy breathing so common in horses. Acts like magic.

Price per big bottle Rs. 4.

Small bottle Rs. 2.

3. Colic mixture for horses.—A cure for all kinds of colic. Quite indispensable for horse-owners. Advisable to have always one bottle in stock.

Price per bottle Rs. 4 only.

4. Hoof Ointment.—This strengthens the hoof and is a specific for brittleness, sandcrack and split hoof.

Price per tin Rs. 2.

5. Cough Electuary.—A specific for cough and catarrh in horses.

Price per 1 lb. tin Rs. 4.

6. Embrocation.—A specific for all kinds of sprains, thickened tendons, cold, catarrh etc., in horses, cattle and dogs.

Price per big bottle Rs. 2-4-0.

Small bottle Rs. 1-4-0.

7. Mange Oil.—A specific for all kinds of mange in horses, cattle and dogs.

Price per bottle Rs. 1-4-0.

8. Canatone.—Best tonic powder for dogs.

Price per bottle As. 12.

9. Canogen.—An ideal tonic and reconstructive for dogs, a great desideratum in the convalescence, after debilitating diseases, as distemper, hookworm disease, canine typhus etc.

Price per bottle Rs. 1-8-0.

10. Tick Specific.—A wonderful tick destroyer.

Price per bottle Rs. 1.

11. Mange ointment for Dogs.—A specific for all kinds of mange.

Price per tin Rs. 2.

12. Worm Mixture for Dogs.—A best remedy for expelling all kinds of worms from the system. Price per bottle Rs. 2.

13. Canker Wash.—A specific for internal canker of the ear, otorrhoea and otitis in dogs. Price per bottle Rs. 1-8-0.

14. Bovotone.—Best tonic powder for cattle and growing calves and is a good lactagogue. This improves the appetite and general condition of the animal. Fattens the cow and sweetens the milk and at the same time increases the yield of rich and creamy milk.

Price per 4 lbs. tin Rs. 4.

2 lbs. tin Rs. 2.

364



COLONEL G. K. WALKER, C.I.E., O.B.E., V.D., F.R.C.V.S.
WHO PRESIDED AT THE FIRST
ALL-INDIA VETERINARY CONFERENCE, LAHORE 1923.

THE Indian Veterinary Journal.

Vol. I.

November, 1924.

No. 2.

EDITORIALS.

PROFESSIONAL ASSOCIATIONS AND GOVERNMENT RECOGNITION.

THE one question that appears to us to be more important than anything else, is the matter of getting the All-India Veterinary Association officially recognised. Circumstances in India are so peculiar that associations such as the above cannot hope to achieve much without the patronage of the Government. The veterinary aid in India is mainly rendered through Government agency. Almost all the Veterinary Surgeons in India are in the service of the Government. It is obvious, therefore, that the association has to deal with service questions, mostly to safeguard the interests of the profession. Even suggestions for the improvement of science, efficient control of the various epizootics amongst cattle, prevention of degeneration and depletion of the several indigenous breeds of cattle, horses and dogs, profitable animal husbandry and such other things are to be submitted to the Government. Hence the co-operation of the Government is highly desirable in every way.

This important aspect of the movement did not escape the notice of those who are at the helm of the affairs of the association. Last year the Government of India was approached to extend their 'recognition' to the association. But they were pleased to send a negative reply. So far as we are aware, similar results attended the efforts of the provincial associations in Madras and Bombay even before they were affiliated to the parent body.

The primary objection of the Government, whether central or provincial, seems to be that since the association is not exclusively a 'service association', they are unable to officially recognise it. By the term 'service association' they mean 'a body consisting entirely of Government servants. We are aware of the Government Order indicating the lines on which a service association ought to be worked. We do not propose to go into the merits of that G. O. That order may hold good in the case of all those services where a scientific profession is not involved. But a scientific profession should not be hedged in with unhealthy restrictions as are found in that G. O. lest it should decay and die. Both the 'science' and 'art' of a profession have to improve and benefit the humanity. A profession lives for the humanity at large and not for the Government alone.

The G. O. under reference permits "a distinct class of Government servants" to form themselves into an association. The interpretation put on the above quoted phrase is that Veterinary Assistant Surgeons can form themselves into an association, the Inspectors can form another, the Deputy Superintendents a third and the Superintendents a fourth. This we consider as nothing but creating 'castes' within a profession. Why such water-tight compartments? Can this lead to advancement of science? When so much is said about the necessity of co-operation and association of even two allied professions such as the medical and the veterinary in the interest of science, is it not the height of absurdity to expect the veterinarians to divide themselves into so many mercenary groups? Can this lead to *esprit-de-corps* amongst the members of the profession? No, these sectional groups can never be conducive to the advancement of science. If the Government do really care that science should improve and benefit the humanity at large, if they earnestly wish that their efforts in that direction should not go in vain and if the maximum amount of good should result from professional associations, we make bold to suggest that such associations must be exempted from the above G.O.

In a profession, there will be both service and non-service men who can combine and compare notes on professional subjects with

benefit to both. Again professional men of our province may associate with those of another and as a result of their deliberations, new and efficient methods of treatment may accrue. The sum total of all these would be the fulfilment of the very objects of the Government and the advancement of science. Do Government wish to frustrate the good results of such combinations of professional men? We suppose not. Why should then such an homogenous body be divided into 'service' and 'non-service' groups and again into various sub-sections according to the several grades of service? We fail to see any anomaly in professional associations discussing 'service' questions also. That is only a part of their work. After all, such associations being full of Government servants can ill-afford to go against the policy of the Government. It will only prejudice the cause they attempt to champion. What is there then for the Government to be nervous about recognising such associations? Is it fair we ask to throw away the resolutions passed at a conference where over 200 delegates from all over India sat and gave their considered opinion on many matters of vital importance, merely on the technical ground of the association not being recognised, as was done with the resolutions of the first conference, over which no less a person than Col. G. K. Walker presided? Are Government justified in trampling over the feelings of their ill-paid subordinates in the way they have done? It is well to possess the strength of a giant but it is cruel to misuse it.

Our impression is that the matter has not been exhaustively discussed with the Government by responsible men. We are sure when this is done, the Government would either alter the G.O. under reference or make such amends as may be found necessary with regard to the professional associations. We appeal to the Government to reconsider their decision and not allow any mistaken notion of 'prestige' to stand in their way of rendering justice to their hard-working subordinates.

Our advice to the profession is to muster strong at the next conference in Madras and solve this question of questions, cost however much it may.

THE PRESIDENTIAL ADDRESS : A REVIEW.

In reviewing the Presidential address of Col. H. T. Pease delivered at the Second All-India Veterinary Conference, we said in our first issue, that he indulges in certain *ipse-dixits* which will not stand close scrutiny. We return to these, however unpleasant the task may be.

Col. Pease says: "A time of financial stringency does not seem to me to be a favourable one to put forward a proposal to revise and introduce uniform time-scale of pay in all the provinces."

Now this argument is as spurious as it is irrelevant. Does the boggy of 'financial stringency' arise only where the ill-paid subordinate service is concerned? Do men who are supposed to hold more responsible appointments under the crown in superior services and as such ought to know better, take into consideration this 'financial stringency' and stop their clamour for more pay and allowances? No, they are there like Oliver Twist always asking for more. Was it not a period of acute financial stringency when the 'Lee Commission' was appointed by the Government itself? Did that responsible body stop recommending more pay and allowances to men in superior services, out of consideration of the prevailing 'financial stringency'? Why then, we ask, the men in subordinate service alone be told that their claim is untimely? Are we to understand that what is sauce for the gander is not sauce for the goose? If the Colonel thinks that even the men in superior services are wrong in setting up their claims during this 'time of financial stringency' and that two wrongs cannot make one right, we are glad the subordinates prefer to err in good company. A starving man cannot afford to wait for a 'favourable time' to ask for what all in justice is due to him. The 'favourable time' may not come at all from the point of view of the giver!

What amuses us more is when he says "It appears to be certain that increase of pay at present, would result in decrease in numbers, a not-at-all desirable result."

If the Government is swayed by such unworthy motives in its administration, we cannot condemn it more strongly than what the Colonel himself has done. "Surely this pennywise and pound-foolish policy should be dropped. The country cannot afford to lose lakhs of money and animals in order to cut down departmental expenses." But we are certain that Government will not subscribe to such a view, for they know that it is bad policy to have an ill-paid, discontented and over-worked staff. Unless the Government are wantonly blind to the interests of the live-stock of this country, no one can deny the need for immediate development of veterinary aid in rural areas. At present there is only "one veterinarian for every 700 square miles, to attend nearly on 1½ lakhs of cattle!" When is this condition to be improved? Does the Colonel seriously advise the low paid and hard-worked men in the lower ranks not to set up their claims for more pay till the advent of more propitious time, however remote and uncertain it may be, regardless of the struggle to keep body and soul together? We are sorry that such an incongruous proposal should have been made.

Next, with regard to the question of raising the standard of veterinary education to that of the R. C. V. S. the Colonel bursts out in a pathetic vein and finishes by saying "the prospect fills me with dismay with regard to the future". He further adds "What our policy should be, then, is to continue to expand the department with our cheap, practical men, until there are enough to make some effect on the work and then go on to provide more highly trained men for the more important duties."

We consider this to be the most retrograde proposal of all. We will not attribute motives, which some one whispers in our ears; we take it as the honest expression of a genuine opinion. This counsel of 'hasten slowly' has been detrimental to our country in more ways than one. If this advice of the Colonel is followed, it will lead to two inevitable evils. It will put off indefinitely a very necessary and urgent reform leading to progress of veterinary science in this country; and it will create a class of 'cheap vets' who, besides being a menace to our profession, will not command the necessary confidence and esteem of the general public. We ask

in all seriousness, what support can we expect from outsiders when our own members do not scruple to let down the dignity of the profession in the name of 'Expediency' and 'Cheapness'? No! the profession as a whole must set its face against such suicidal proposals.

Finally as a piece of parting advice, the well-intentioned Colonel lets go the following words:—"There seems always, in India, to be a great temptation to start building the upper structure before the foundation is well laid. We ought to try to avoid this." We do not wish to be hard in our expression of retaliation against such common-place invectives.

But the duty of every Indian Veterinarian is clear. Let him not be disheartened by utterances as the above. His rise or fall entirely depends upon himself. It is vain to expect outside help. It is for him to assert his claims and rise higher and higher and take his place amongst the foremost ranks of the veterinary profession.

THE NEXT CONFERENCE.

The Third All-India Veterinary Conference will be held in Madras on the 29th, 30th and 31st December, 1924. Elsewhere we publish an appeal from the General Secretary which deserves careful reading. The Bulletins from the Secretary of the Reception Committee are also published. It will be noticed that the conference will be held a little earlier this time. It is in pursuance of a wish expressed at the last conference by our northern colleagues, who fear the oppressive heat of April 1925 at Madras, when this conference ought to be held. We hope this cold weather session will be welcome to all.

From what we are aware, arrangements are well in progress to make the session a great success. It is not every year that Madras will get a similar opportunity of meeting and entertaining the professional colleagues of the various provinces of this vast country. If this opportunity is let go, it may not occur again for a decade to come. We hope every veterinarian in the presidency of Madras, whether European or Indian, will join the Reception

Committee and give the delegates from other parts of India as warm a welcome as possible and make the session a record success.

To the professional colleagues of the other parts of India we appeal to attend the conference in large numbers and thus honour Madras. Besides the intellectual treat that await them there, we assure them that Madras will not be dull during the the Xmas week. It is a place of great antiquity with many interesting places to visit, and opportunity can be taken of visiting such places of pilgrimage as Rameswaram, Sreerangam, Tirupathi (Balaji's Temple), Madura and Nagore.

We are pleased to learn that M. R. Ry K. Kylasam Ayyar Avl., G. B. V. C., Deputy Superintendent, C. V. D., V Circle, Coimbatore, was unanimously elected as the Chairman of the Reception Committee. Those who know him, will admit that his name is a guarantee for the success of any undertaking. We wish him every success.

THE N. W. Ry. DISASTER AND THE PRAISEWORTHY AID RENDERED TO THE INJURED BY A VETERINARY SURGEON ON THE SPOT.

It is not given to every Veterinary Surgeon to impress on the Public and the Government how useful his services could be in

rendering first aid to his maimed and injured fellow-beings, in the absence of medical aid. Such a rare opportunity, though a highly regrettable one, fell to the lot of Mr. Ch. Mushtaq Ahmad, Asst. Professor of Surgery, the Punjab Veterinary College, Lahore.



Mr. Ch. MUSHTAQ AHMAD.

Mr. Ahmad was a passenger in the 24 Down train which collided with 43 Up train at 1-25 A. M. on the 29th August, 1924, between Harappa Road and Mirdad Muafi Railway Stations on the

North Western Railway. The heartrending tales of this collision filled the pages of daily newspapers all over this vast country. Ninety-two people were killed on the spot and 25 others succumbed to injuries later on. The injured numbered about 200.

Mr. Ahmad's escape was quite providential. In that darkness of the night, unable to withstand the appealing cries of the panic-stricken crowd and unruffled by his own miraculous escape, Mr. Ahmad ran to the rescue of the injured persons. It was all "a shambles, with dead and dying scattered amongst the wreckage." Ill-lighted and ill-provided, heroic Ahmad was soon at work, dressing and bandaging the ghastly figures and removing them to places of safety. Single-handed, he worked from 1-30 A. M. to 8-30 A. M. when medical help reached the place from other stations. It was due to his immediate 'first-aid' that several lives were saved. Both the public and the authorities appreciated his services very much. Later on he was presented to H. E. The Governor of the Punjab, who was much pleased to meet him, congratulated him on his own escape and thanked him for his noble work.

We offer our congratulations to Mr. Ch. Mushtaq Ahmad not only on his own escape but on so nobly acquitting himself during that terrible disaster.

COLONEL G. K. WALKER, C.I.E., O.B.E., V.D., F.R.C.V.S.

Col. G. K. Walker received commission in Army Veterinary Department on 24th July, 1894. Arrived in India January 1896. Joined Civil Veterinary Department as Offg. Superintendent, C.V.D., Baluchistan, May 1897, subsequently officiated as Superintendent, C.V.D., North Punjab, and Superintendent, C.V.D., Bombay. Was appointed Assistant Bacteriologist at Muktesar in December 1897 where he remained until October 1901. He then took up the newly sanctioned appointment of Superintendent C.V.D., Provincial Circle, Punjab and formed the Provincial Department, the first to be established in India. On the transference of the Imperial Horse Breeding to the A.R.D., Capt. Walker took over charge of the

Punjab and N.W.F.P., C.V.D., eventually becoming Chief Superintendent. He was transferred to the Punjab Veterinary College in 1912 and remained there for 2 years. He then went to Poona as Superintendent, Bombay Presidency, until July 1919 when he became Principal of the Punjab Veterinary College.

Colonel Walker is a Fellow of the Royal College of Veterinary Surgeons, a Fellow of the Royal Society of Medicine, and a Fellow of the Punjab University.

Colonel Walker was promoted to his present rank in July 1922. He was created a C.I.E. in 1913 for his work in the C.V.D., and for his military service during the war he was mentioned in the Commander-in-Chief's despatches and received the Military O.B.E. Colonel Walker is a keen volunteer officer and he holds the Volunteer Officers' Decoration. He has commanded the Poona Rifles, the 35th Poona Battalion and the Punjab Light Horse. He is now commanding the Lahore Contingent A.F.

Colonel Walker is distinguished also in masonic circles. He is a Past Grand Deacon of England and a Past Warden of the Punjab District.

ORIGINAL ARTICLES.

IMPROVEMENT OF CATTLE BREEDING IN INDIA

BY

Mr. M. Jamaluddin, Second Cattle Superintendent, Pusa.

(A paper read at the Second All-India Veterinary Conference, Lucknow.)

Leaving aside the professional brothers and others, who have been or are in direct or close touch with cattle breeding, there are a number of societies, sabhas, committees and associations in this country (and we see so often in papers and correspondences etc., something or other about cattle) that one cannot but feel it lucky for both the country and the science that the people of India are so very keenly interested in, are heartily sympathising with, and giving so much attention to the matter in some way or other. But we have to look to the other side of the picture.

It is undoubtedly advantageous to have the support of so many people sympathising with the necessity and importance of this profession in the country, but it is certainly disadvantageous as well to work for the science in accordance with the views of those who know little or nothing about the art.

In India though cow keeping and cattle breeding are involved in a mist of superstition, prejudicial ideas and ignorance and is impossible to try and solve the problem from an entirely utilitarian point of view, yet the subject of so vital an importance for the country cannot be left unconsidered.

I do not mean to say that some nucleus is needed to be formed in the country to improve its cattle breeding. Some very fine breeds of both draught and dairy cattle, still found in different parts of the country, reflect credit on the knowledge of Cattle Breeding of the ancient people of India, which even now is not very far behind the so-called modern investigations in the science. Cattle like Nagore, Cattle of Rajputana, Nellore Breed of Madras, Gujrat Breed, Amrit Mahal Breed of Mysore, Dhanni, Sanhiwal and Mariana Cattle of the Punjab, Panwar Breed of U. P., Karachi Cattle and many other breeds of cattle suitable to the different conditions of India could not have come into existence,

and could not have been evolved to the present stage, without strictly observing the laws of Cattle Breeding and without the fullest knowledge of different lines of cross breeding.

The history of the ancient cattle breeders, wandering in search of good pasture and water for their cattle, shows that they were not unaware of the importance of feeding their cattle in as good and economical a way as possible. But the circumstances and the economic conditions of India have changed. The reservation of forests and the still increasing extensive cultivation, the extension of roads, railways and canals have limited the natural pasture area and pushed back cattle breeding to a somewhat difficult and different situation.

Now, natural grazing in India is no better than mere delusion and the average grazing area available in the villages is quite inadequate, not only to suffice for the subsistence of the animals kept there, but even to supplement the food they are supplied with by their owners.

It is said that a number of cattle breeders had to sell off their herds and adopt some other means for their livelihood after these facilities provided by nature in India were gone. The habit of leading a hardy and rough life as demanded by the profession is rapidly disappearing even from professional breeders, other industries and trades being more remunerative and less troublesome. Zamindars and landed proprietors as a class could undertake systematic breeding of cattle, but they too seem to have been affected by the economic conditions.

The desirability of dedicating young, well bred and typical bulls as Brahmani Bulls by Hindus, a religious rite in memory of a deceased member of the family, has become simply a matter of religious routine. The main object is almost forgotten. Instead of selecting and purchasing a well bred promising young bull for the purpose, generally the cheapest possible or useless animal is sought for, unmindful of the fact that it defeats the purpose of the institution.

Facilities for the movement of cattle now-a-days have made it rather impossible to keep any of even the best breeds of cattle isolated and thus to preserve them from being mixed with other non-descript strains.

Now when in addition to all these above alterations in the economic conditions and circumstances of India, the religious sentiments demand that the herds of underfed and inferior class of cattle (including uncastrated males) of all descriptions should be allowed to remain, preventing the substitution of better stock, then there seems little can be done. But still, there remains much scope for the work particularly in the more favourable parts of India.

The habit of leading a hardy life, as demanded by cattle breeding is almost gone, but let us hope the spirit and love of the profession is still there. Roads and railways have provided better means of locomotion and transport of cattle-food and fodder, when and where they are needed. The canals are a boon for water supply and irrigation where there is much scope for cattle breeding, as extensive cultivation of fodder crops is rendered possible. The Zamindars and the cultivators of India are poor but cow keeping is still one of their important necessities of life. The practice of dedicating young bulls to the temples, though reduced to a meaningless routine is still there. Considering the above favourable aspects for the improvement of cattle breeding, there remains little to say against the possibilities of successfully improving the cattle of India with a slight alteration and modification as required by the present economic conditions.

Before describing the requirements and the necessities for cattle breeding operations in the country and suggesting measures for the same, I would like to mention the present condition of cattle and the present state of cattle breeding in the country.

From a comparative statement of figures for the years 1901 and 1921 it is seen that the numbers have satisfactorily increased during the past 20 years but still we see that even with this increased number of cattle, our difficulty is not solved. The milk supply for

the people of India is quite insufficient, the agricultural and draught works are still suffering. Why? The two main reasons are:—

1. In India the majority of cattle are of exceedingly inferior description with no milk or draught points whatsoever.

2. The food supply of the cattle available in India has reached a famine stage and is hardly sufficient for their bare existence.

These are the two main reasons responsible for these increased number of animals to be insufficient even for the requirements of India itself. The scarcity of milk and the fabulous price demanded for milk and its products have attracted public interest, and considerable correspondence appears often in the press, but I am sorry that the authors seem to have very confused ideas on the whole subject. Usually every such article starts with the denunciation of cow killing and the export of cattle to foreign countries, ignoring the fact that the elimination of many wretched cattle will probably bring more milk to the market at cheaper rates. I consider it a sign of prosperity for the owner, if his ill-bred and ill-fed cattle can so easily be weeded out, much more so, if they are bought by some one, as in my opinion, even the death of a poor and useless animal is no loss to anybody.

With regard to the other item, that is, the exportation of cattle to foreign countries, I think that a demand from abroad for Indian cattle instead of being a drain on the country is an encouragement for the breeders and owners of the best class of animals.

They will get good price for their stock; they will devote more attention to the profession. Of course, I don't want to include here the transference of the very best of milch cattle to the big cities of India like Bombay and Calcutta where the process of *Phuka* and other means of artificially extending the milk yield and its period for an abnormal period, spoils the animals for ever and where later on owing to the inability of the owners to keep and feed them properly during their dry period, leads to the slaughter of such promising animals. This sort of practice must be stopped by every rigorous measures.

STATEMENT SHOWING THE DETAIL OF CATTLE IN BRITISH INDIA.																			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Year.	Bulls.	Bullocks.	Cows.	Young stock (Cows.)	Buffaloes (Male.)	Buffaloes (Female.)	Young stock (Buff.)	Total.	Net area Sown.	Not available for cultivation.	Culturable waste.	Fallow.	Forest.	Population.	No. of Cattle per 100 acres of Sown area.	No. of Cattle per 100 population.	No. of working animals (including uncastrated ones) per 100 acres of sown area.	No. of Cows per 100 population.	No. of Buffaloes (Females) per 100 population.
1901-2	28,126,000		20,779,000	23,727,000	3,237,000	8,841,000	included in the No. of Cow Calves.	84,710,000	199,708,000	137,963,000	107,525,000	42,147,000	66,364,000	294,292,433	42.5	28.1	14.1 excluding the work buffaloes.	7.0	3.0
1920-21	5,618,000	48,936,000	37,083,000	30,717,000	5,437,000	13,812,000	9,618,000	145,103,000	212,259,000	141,505,000	114,848,000	61,347,000	88,545,000	318,859,000	68.3	45.5	23.1 excluding the work buffaloes	11.6	4.1

STATEMENT SHOWING THE NO. OF BOVINES ETC. IN DIFFERENT PROVINCES.

Name of Provinces.	Bovines.	p.c.	No. of Cattle per 100 acres of Sown area.	No. of Cattle per 100 population.	Net area Sown.	Fallow.	Culturable waste.	Forest.
Bengal	24,724,000	17	103	55	23,959,400	5,011,324	5,952,446	4,271,471
Madras	22,294,000	15	67	54	33,073,702	9,978,419	12,011,588	13,038,544
Bombay & Sindh	10,002,000	7	42	55	28,140,610	14,495,472	7,084,532	9,233,110
U. P.	29,764,000	20	87	63	34,301,170	4,293,713	10,387,107	9,302,748
B. & O.	19,853,000	14	80	58	24,782,200	5,881,912	6,949,541	7,100,641
Punjab	14,409,000	10	66	71	21,788,478	7,547,966	16,264,567	2,176,071
Burma	5,731,000	..	38	50	14,980,994	5,161,507	24,604,474	21,887,819
C. P. & Berar	11,121,000	8	48	80	23,132,125	4,820,969	14,489,443	16,850,131
Other minor provinces ..	7,205,000	9	87	71	8,100,827	4,255,241	17,104,392	4,384,606

STATEMENT SHOWING THE DETAIL OF CATTLE IN EACH PROVINCE.

Name of Provinces.	Bulls.	Bullocks.	Cows.	Cow Calves.	Buffaloes (Male).	Buffaloes (Female).	Buffalo Calves.
Bengal 1919-20 ...	1,124,604	8,229,750	8,118,235	6,225,836	639,143	260,084	126,574
Madras " ...	2,714,558	4,460,621	5,700,110	3,661,007	1,418,818	2,561,193	1,778,021
Bombay " ...	445,692	2,620,000	1,636,703	1,597,728	221,303	987,845	674,461
Sindh " ...	57,817	488,566	616,973	302,455	5,887	258,537	87,657
U. P. Agra " ...	17,960	6,672,222	4,126,170	4,253,235	536,297	2,545,601	2,172,055
Oudh " ...	9,663	3,201,652	2,084,798	1,930,292	297,812	1,050,625	865,382
B. O. " ...	141,177	6,256,310	5,617,449	4,482,405	802,570	1,515,301	1,038,169
Punjab " ...	12,016	3,947,326	2,740,775	3,095,195	430,283	2,432,507	1,750,684
C. P. 1920-21 ...	179,302	2,805,996	2,570,024	2,037,562	469,094	602,790	442,722
Berar " ...	Bullock.	785,746	538,629	336,762	18,494	214,350	119,615
Assam 1919-20 ...	300,144	1,529,522	1,575,953	1,479,886	192,578	246,867	147,392
N. W. F. P. " ...	1,650	395,694	286,044	202,004	13,402	159,385	73,702
Ajmere 1920-21 ...	163	84,516	114,718	48,659	4,512	40,467	21,266
Delhi 1919-20 ...	312	34,847	27,169	34,397	742	21,424	16,639

The majority of cattle in India are deteriorating and unless some effective measures are adopted to check it immediately, some of the finest breeds of Indian cattle are likely to be extinct in the near future. It is a known fact that although during the last 20 years there has been a considerable progress in agriculture, yet it has become increasingly difficult in most parts of India to procure, no matter what price is paid, good draught or milch cattle in any numbers. The great number of uncastrated non-descript brutes, so called bulls, and the present practice of dedicating bulls of unknown and inferior breed are causing more harm than good.

Fortunately before it is too late the Local Governments, Municipalities and other local bodies have started fostering some of the special breeds by demonstrations, cattle shows, by starting pedigree herds and maintaining herd books and by lectures illustrated by cinema films etc. The grading up of Sanhiwal cattle of the Punjab, is well-demonstrated in Pusa far away from their home and under quite different climatic conditions. At Pusa, cross breeding experiments with the imported Ayrshire bulls and poor milking Montgomery cows have been done with the result that the milking capacity in the first cross is a little more than double. It has clearly shown a sure and rapid method of breeding high milk yielding cows for dairy purposes, the lack of which has undoubtedly led to the serious shortage of milk supply in large cities in India. Now it remains for the public to avail itself of the opportunity offered to it.

The Government of India has recently transferred 3 Military Dairy Farms to the Agricultural Department for the purpose of demonstrating the means of obtaining high yields of milk and reasonably cheap fodder and offering a complete training in modern dairying and animal husbandry.

The policy of the Punjab Civil Veterinary Department to preserve and improve the indigenous breeds of the Punjab cattle by mass selection and to grade up the Mariana, Dhanni and Mont breed through subsidising private breeding operations in villages will, in due course of time, surely prove a boon to the cattle-owners of the Punjab in particular and the whole of India in general.

That within the short period of 5 years, well bred cattle are now available in the Dhanni tract is a fair proof of the success of the activities of cattle breeding in the Punjab. The scheme of having a herd book for maintaining the purity of the breed, which I understand has been already started for the Dhanni cattle and which is under consideration for Mariana cattle and which is so badly wanted in other cattle breeding centres where some sort of nucleus is already in existence, is worth following.

There is little fear of the special breeds of the Punjab cattle deteriorating when such precautions are being taken.

U. P. is already trying to raise pedigree herds of cattle selected to meet both the needs of draught cattle and milch stock at Madhorikund and Manjhra cattle farms.

The former is dealing with the larger breeds of Ilissar, Kosi, Sanhinals and English Mont. crosses, while the latter is fostering the famous Kheri breed. The work done in U. P. so far, though in its early stage, is very encouraging. Cattle breeding operations in Rangpur Farm in Bengal are distinctly promising.

The indigenous small Desi cattle of Bengal are being improved. The fact that a low standard of yield of 500 lbs. of milk per lactation period prevalent in 1920, was found practicable to be raised to 1500 lbs. in 1922, shows that even cattle of so poor a type as that of Bengal can be improved by systematic breeding and proper feeding. If this is continued, it is hoped that even Bengal will be able to raise her own cattle at least for her requirements, instead of depending on cattle imported from up-countries as has been the case till now.

There are three cattle breeding farms in the province of Behar and Orissa, *viz.*, Sepaya, Sabour and Ranchi. The question of opening two more farms at Monghir and Cuttack is under consideration.

There are nine cattle breeding farms and one dairy farm in C. P.; each farm represents the breed most favoured in the locality where it is situated. Originally these farms were intended as centres for supplying pure bred bulls. But now with the exception of Hoshangabad and Raigarh Farms where

pure bred Malvi and Gaolac herds are to be kept, the herds of all the other farms are to be crossed with Mont. bulls, perhaps owing to some difficulties in getting suitable stud bulls for these herds. Anyhow this system if carried on, will, I think before long fix up a type of cattle carrying the milk character which is badly wanted in C.P. cattle.

Bombay in my opinion stands second to none in India in cattle breeding activities. Charodi Farm has already specialised itself with Gujrat cattle, while Amrit Mahal and Sindhi cattle are being fostered at Bankapur and Malir Farms respectively. I understand that regular herd books and pedigree registers also are being maintained there.

These herds seem to be sufficient to serve as nucleus for the study and improvement of the important breeds of cattle of that province.

Madras is trying to produce a large number of well bred, good type of Ongole and Kangayam breeds and these two breeds of well fixed type must be worked up.

H. H. the Maharajah of Baroda has given a good lead to grade up herds of famous Gir cattle in his Estate by starting a Dairy Farm.

The Agricultural Department of Travancore State is trying to introduce Sindhi cattle in the State. Some cattle have also been taken there from Pusa. Mysore State is still ahead of the other native states in cattle breeding operations.

At Hebbal Farm every possibility of improving the milk yield of the local cows is being explored while at Reiyankere Dairy Farms every attempt is being made to improve the milking capacity of the famous Amrit Mahal Breed by crossing them with Holstein bulls. I am sorry I know very little of the cattle of Assam, Burma, N.W.F.P., Hyderabad and other states. During my last trip to Hyderabad, I observed that both in Telangana and Marhativadi tracts, the cattle are a mixture of Amrit Mahal, Ongole and Krishna valley breeds.

Unfortunately, I could not see any one of the farms there, but I understand, the Hyderabad Government is taking steps to introduce more of Amrit Mahal blood in the cattle there.

After hearing this brief account of, how, with what different objects, and under what different circumstances, the cattle breeding operations are being conducted in different parts of India, one may think that more than enough is being done for the improvement of cattle in the country. But I may be excused for saying that it is not so; it is not enough; it is not more than a mere preparation yet.

It has been often suggested to have a Society on the principle of Royal Agricultural Society of England which has done so much good to agriculture and cattle breeding there; but, remember, that the secret of the success of that society of England and such other societies of other countries is chiefly in co-operating with the various societies and therefore, here in India, instead of having a well-organised society like that of England, we need first the societies of breeders and cattle-owners, to do the spade work at the bottom, that is most necessary and only at a later stage of development we may need an organisation like the Royal society.

There are a number of agricultural credit societies, non-credit societies, landholding societies, cotton sale societies and many others, doing a lot of useful work on their own lines, but, there are very few of the societies of cattle breeders and cattleowners doing something useful towards the improvement of cattle breeding.

The only societies, I know of, are certain co-operative dairy and milk societies of Bombay, C. P., Bengal and U. P., of which the two Nagpur societies which are reported to have earned a profit of over Rs. 10,000 in the year 1922-23, and the Baraset Societies of Bengal which supplied about 3000 lbs. of milk daily to Calcutta, are worth mentioning.

The cattle insurance societies of the Punjab, Burma and other places, in spite of their being so useful, need to be more patronised and expanded. It is a matter of regret to note that in the year 1922-23, the number of cattle insurance societies in the Punjab declined from 41 to 39 and membership from 529—365. While in

Burma, the premia fell from Rs. 3,957 to Rs. 3,605 and the number of animals from 3,056 to 2,305.

However, the financial conditions of these societies are yet sound and the model by-laws in Burma for the improvement of such societies have been modified and it is hoped that this will bring success and good results.

But, we need societies of cattle breeders, we need every Zamin-dar, every cattle breeder, and every cattle owner, to be a member of such societies. Sufficient material is now ready for the demonstration and training. We want people to learn it, we want them to follow it, we want them to co-operate with us.

Fortunately the Agricultural Department to which the most part of the question concerning cattle has been entrusted is more closely associated now with the co-operative departments and it is hoped that when the advantages of co-operative actions are realised by the public in this direction, through the combined efforts of these two departments, the deficiency, will be made up before long.

Next to this, we want many more experts of the profession, particularly Indians or experts of foreign training having full experience of Indian conditions, the condition, and nature of Indian cattle, the condition, circumstances, and the ideas of the people of India, who will impress upon the cattle owners better, and who will demonstrate to them better the best methods of improving the cattle of India. We are awfully handicapped for want of such experts, as on one side the remedies suggested by public, generally indicate a wrong perception of the situation, while on the other hand, a new expert with a foreign training is apt to ignore the Indian conditions altogether.

The third point of equal importance is ensuring the continuity of policy while attempting to solve the problem.

It must be borne in mind that perfection in anything cannot be obtained in a single day, nay, even in a few years. A newly recruited foreign officer entrusted with the work, takes some years to study the Indian conditions and the Indian cattle

and is generally transferred or promoted to some other work or province, when he is just fit to handle the work, or an old experienced officer is given the job when he is at the verge of retirement. The result of all these is disappointing. A new broom sweeps well and is very apt to sweep out of existence the work done by his predecessor.

This drawback is one of the greatest hinderances. When these three requirements and necessities are gained, be assured there remains nothing in our way of achieving success.

The immediate problem before us to be solved is the supply of fodder. As I have said, the supply of food for cattle available in India has reached a famine stage and is still threatening with increasing scarcity owing to the enticement offered to the cultivator by commercial crops. The grazing areas are hopelessly insufficient to supplement the poor quantity of fodder of insufficient nutritive value, like straw and stalks of over ripe grain crops, on which the cattle over a great part of India have to subsist. Irrigation seems to be the only remedy. So far as the food supply of dairy cattle is concerned, the solution as experimented and as is in practice at Pusa, seems to be quite successful.

The results of modern experiments and investigations show :—

1. The more succulent and nutritive the food for a dairy, the better it is.
2. That dairy cattle do much better when stall fed, supplemented by grazing them on some suitable pasture near about, than while kept on large unsuitable grazing areas, where they are likely to lose much of their milk producing energy in search of food.

It has been found necessary, useful and profitable, for a dairy herd to grow suitable fodder crops by direct cultivation and even that somewhere near the herd.

It is impossible to lay down a general rule for guidance for all parts of the country; each district will have to be considered individually according to its circumstances; but here I give, a brief account of the Pusa herd.

Pusa is managing a herd of a little over 400 cattle including about 100 bullocks and young stock with about 500 acres of land under direct cultivation, without purchasing a single article as fodder or concentrates, with the exception of a small quantity of salt and oil cake.

The rotation of crops has so nicely been arranged that green succulent fodder of excellent nutritive value is available almost all the year round. The introduction of Egyptian clover, *Trifolium Alexandrinum* (Barseem) by Mr. G. S. Henderson the present Imperial Agriculturist, has solved the difficulty of having green fodder during the dry months when nothing of the sort is available.

About 100 acres of waste land previously used as grazing area, have been cleaned and levelled where Barseem is sown early in October. The stuff is rotationally grazed from November to May. After this, early maize is sown which goes on till July when the area becomes generally flooded with water.

The cattle graze in the fields where different crops are grown for the purpose. The enormous amount of manure which was being wasted in the previous years, is now so usefully utilised for the fertility of the fields and also by thus providing the cattle with sufficient quantity of suitable fodder, we are able to take the maximum quantity of milk the cow can give.

Some 10 years back the average yield of the milking herd at Pusa, was only about 5 lbs. per head and a 4000 lbs. cow was considered to be one of the best ones, while now the average yield per cow has risen up to as much as 168 lbs. and 4000 lbs. after the second calving of a cow, is the lowest standard in the herd.

The principle adopted by Mr. Milligan, late Agricultural Adviser to the Government of India, for grading up the herd by dividing the different families into several separate groups by which every danger of in-and-in breeding and degeneration of the herd was avoided, has played the most important part in bringing up the herd to a stage of one of the best Montgomery herds in India, but the abundant supply of suitable food and fodder for the cattle so arranged as to be produced by direct cultivation has no less an

important share in it; and consequently it has been proved that it is not only possible to maintain a Dairy herd without some waste land as grazing area, but that the only way of managing a Dairy herd successfully is to produce food and fodder crops by direct cultivation somewhere near the herd.

The old controversy about the dual purpose of breeding is being realised in India by the experts, to be for milk and meat only, and not for milk and draught. Attention is being devoted to explore the possibilities and to devise means of producing and fixing a type, and building up herds of animals which will serve both the milk and the draught purposes of India and when the aim is achieved the whole question would be settled.

The Dairy herd in addition to milk supply will be able to breed good draught animals, as well as good milch cows. The breeders of working animals will be able to produce good milking animals also.

Bombay Agricultural Department is busily investigating the renovation of the still available pastures which have exhausted owing to having been over used and it is satisfactory to note that such pastures can be improved by rest and rotational grazing.

It is hoped that other provinces where such pastures are still in existence, will take up this work soon. It is obvious that India cannot do without cattle breeding, she cannot bear any more deterioration, but she has to improve her cattle breeding industry. But the latter cannot be improved unless the food supply for cattle in India which is in a very deplorable condition, is remedied.

The public opinion on the matter is that the problem of supplying cattle food cannot be solved unless and until the strict conserving of jungles is removed and unless some grazing area is reserved for every village or locality.

With this view of the people, the extension of even cultivable lands is condemned. But in my opinion this idea of the people implies a wrong perception. Removing the restriction regarding free grazing in forests and stopping the extension of cultivation would mean an obstacle in the improvements of other industries

of the country, which is in no way a wise idea for the betterment of the country.

The question is why the cattle breeding industry cannot be or should not be run on equally prosperous lines with other industries. As it is rather beyond the scope of this paper to discuss the problem from the commercial point of view or to explain the money value of these days, I would merely say that the value of an article depends upon its market value throughout the Empire and other trading countries. The idea is that cattle breeding, if carried on properly in suitable surroundings, will prove a profitable industry.

Last but not of least importance, I have to mention is, how to solve the Problem of Bulls. The result of experiments at Pusa is a striking confirmation of the very important factor in cattle breeding, that the milk comes from the sire and not from the dam.

It is also not a matter of little importance for breeders to note that while a good milking cow can be obtained from a poor milking mother and a bull from an approved milking strain, it is very unlikely to get a good bullock from a good cow and a bad bull and therefore it is absolutely essential for a breeder to get well-bred bulls for his herd.

In India at present there are two important points to be solved in this respect:—

1. How to stop and check the breeding by the non-descript bulls which are carrying a major portion of the work in India and which in other words are spoiling the breeds of Indian cattle?

2. How to procure sufficient number of well-bred bulls of improved type to replace these inferior ones? The solution for both these points seems to depend upon each other.

When sufficient number of well-bred bulls are available, the breeding work of the inferior bulls will naturally be done away with more easily with the help of the Veterinary Department, and when the inferior bulls do not breed, naturally good bulls will come

up. Therefore, the question remains how to bring up the number of good bulls.

The number of bulls of better strain and type, available from the Government Farms, the only places where the principles of systematic breeding are observed and only from where bulls of known pedigree and breeding can be had, are quite insufficient to cope with the work demanded by the industry. But the Government Farms cannot undertake the supply of bulls in required numbers nor one should expect it. The utmost the Government Department can do is to help and show the cattle breeders and owners, a way how to push on towards the improvement and it is for the public to avail of the benefit.

The Government Farms are mostly for experimental and demonstration work. It remains for the societies and the local bodies to take up the propaganda work.

INDIGENOUS DRUGS FOR CERTAIN AILMENTS OF LIVE-STOCK.

BY

Mr. Hirachandra, Veterinary Inspector, Allahabad.

(A paper read at the Second All-India Veterinary Conference, Lucknow.)

With the present condition of financial stringency and the ever-increasing cost of upkeep of live-stock, it is not likely that if cheap bazaar drugs are not substituted for the more costly ones, our profession would prove attractive to stock owners who prefer the cheap treatment. Should we not at the same time take adequate measures to induce ryots to take rational method of treatment of their live-stock for the good of animal industry and advancement of our profession? It is no wonder that a large number of ryots in these days complain of the heavy bills they have at times to incur by way of treatment charges for their animals. How shall we effect retrenchment in this line? The answer is by prescribing as far as possible agents available in the bazaars at a nominal price

or procurable in the neighbourhood of a station at the cost of labour.

In my practice, a few indigenous drugs have proved serviceable in emergencies. To quote one instance, I may mention here that once when Rinderpest and Foot and Mouth diseases were prevailing side by side in the Fatehpur district, I was deputed to deal with them. To suppress the former, preventive inoculation was performed; but, for the latter I had to resort to some treatment as it was also playing havoc. Moreover, those animals that survived Rinderpest, were attacked with Foot and Mouth disease in their convalescent stage. I had no stock of European drugs, nor the local hospital was well-equipped with them. In such a helpless condition I was driven to the necessity of using country drugs. Fortunately, the pasture was full of Babul trees; its bark and leaves were both accessible and NEEM OIL too could be had in plenty there. So I made the decoction of the former for washing the mouth affected with Foot and Mouth disease and used the latter mixed with camphor in dressing the ulcers of the feet. In the case of fly-blown wound, I prepared a mixture of country tar and kerosene oil and having mixed some burnt-blue stone in it, applied over the part with the result that it killed the maggots and healed the wound without other applications. In this way I cured hundreds of animals with the above two preparations without the help of costly European drugs and I can say that only Rs. 5 were spent on nearly 300 animals on this line of treatment. In the case of Rinderpest I tried country Vinegar with advantage and I confidently say that many cases were saved by administration of this fermented juice. I request my professional brethren to give this a fair trial in the field when opportunity occurs and communicate the results through the medium of this journal for the benefit of the public and the profession. If I had used Phenyle, Iodine, Carbolic Acid and other similar agents, I would have spent plenty of them incurring a considerable expenditure. Such a treatment would have no doubt proved greatly expensive to the owner and neither he nor the controlling authority would have been in a

94472

position to meet the charges. I may also add here that in my practice I have often tried the decoction of the leaves of the Custard Apple plant on animals affected with lice and it has proved very efficacious in killing lice. We know that this parasite is a common pest causing considerable damage to young-stock in villages and if we use costly European drugs for the purpose we will surely spend much more by way of treatment than the circumstances would justify.

It is quite obvious that apart from the question of cost, we cannot get sufficient European drugs especially in out of the way villages on tour, where we are required to treat animals for different ailments. In such cases if we are acquainted with the use of local herbs we can safely use them with advantage. I beg to invite the attention of professional brethren to the utility of indigenous drugs which are easily procurable everywhere according to local need. If we exert a little to study the actions and uses of these drugs I believe we will meet the present situation successfully when every one expects that our treatment should be cheap and accessible to the poor ryot. People do not generally like to spend much on the treatment of their less valuable animals. They actually wish that medicines be given them either gratis or such treatment be advised which may be available in their surroundings without much trouble or cost. If we prescribe medicines involving expenditure they reject it and do not care for our treatment with the result that a quack's advice is sought for.

Books on indigenous drugs are available, and may be referred to for actions, uses and their vernacular names.

I think we ought to consider this important question seriously and try to improve our knowledge of country herbs and make experiments and researches wherever possible.

I. Acacia or Babul's Bark, the bark of *Acacia Arabica* Babulka-chab (Hind); Karu-velam-pattai (Tam); (An excellent astringent).

II. Neem tree or Margosa (*Azadirachta Indica*); Neem (Hind); Véppa-maram (Tam); Vépa-chettu (Tel); Veppu (Mal).

III. Custard-apple tree. Seethapalam maram (Tam.)

NOTES ON DISINFECTION.

BY

Mr. A. Ramachandra Iyer, G.M.V.C., Vety. Asst. Surgeon, Tanjore, Madras.

(A paper read before the Second All-India Veterinary Conference, Lucknow.)

Definition:—Disinfection is the destruction of the microparasites responsible for infection.

Other terms used in connection with disinfection are Sterilisation, Antiseptics, and Deodorants. An accurate knowledge of their meaning is quite essential.

Sterilisation implies the total destruction of life and is therefore a method of disinfection. It is possible only in the laboratories and not in the field. It is often expensive and usually not necessary since most organisms responsible for infectious diseases succumb to processes less virulent than sterilisation.

Antiseptics are agents that prevent the growth of microparasites, therefore much milder and in the case of chemical agents produced in much lower dilution *e.g.*, Formalin is a fairly good antiseptic at 1-50,000 but is not a very efficient disinfectant under 1-40. Other agents like sugar or salt are antiseptics when concentrated, whereas, they are not at all disinfectants.

Deodorants are agents that will not necessarily destroy organisms but destroy the evil smelling products of bacterial decomposition. The deodorant action is not to be confused with the drowning of one smell with another which is the action of many highly-scented substances *e.g.* charcoal or soot is a deodorant whereas oil of Eucalyptus is not.

General considerations:—There are certain natural disinfecting agents, that is to say, agents which are not the result of human

enterprise. The three most valuable agents among them are Light (Sunlight), Desiccation and Dilution.

Light is the most powerful of the three and has the advantage of being cheap and plentiful. Very few organisms can withstand a few hours exposure directly in the sunlight, quite apart from the heating or drying effects of the sun. Diffused bright light as in a fairly well-lighted room is also inimical to micro-organisms.

Desiccation varies in its effects. Complete drying will kill some organisms very rapidly while it has little or no effect on others. Since desiccation is most easily obtained by the sun's heat in field work, one has then the combined effects of light and drying which together are very powerful. In other circumstances fire is employed and the comparative merits of living in dry and damp rooms are well known.

Dilution is brought about by dissemination of microparasites. The more a disease is scattered mechanically, the less does the concentration become, so that, in the course of time, one infection is so dilute that if picked up, less than a "minimum lethal dose" would be absorbed.

Cleanliness is the most important adjunct to disinfection. Mechanical cleaning of an infected area not only removes a large part of the infective material but also breaks up masses of "dirt" which are either virtually culture media or light screens for organisms. Cleaning also tends to produce dilution but one must remember that in removing infection from one place there is the danger of sending it somewhere else unless due precautions are taken. All the aforesaid natural disinfecting agents have little or no effect on most of the spores of micro-organisms.

Properties of disinfectants:—The ideal disinfectant must first of all be rapidly fatal to micro-organisms. It must not be rendered inefficient by the presence of organic matter, must mix with water and must have penetrating power. It must also be stable *i.e.* must not decompose rapidly and must be harmless to higher animals. It should be cheap, odourless and should not corrode materials or fittings to be disinfected. Such a perfect article is not

known and moreover different substances vary considerably in their effects on various micro-organisms so that a considered selection is necessary depending on the particular infection to be removed. The properties of different classes of disinfectants depend partly on the way in which the infecting organisms are killed and partly on the medium in which they are contained.

How disinfectants act:—There are 4 main ways in which disinfectants act.

(1) *Oxidation* as with the powerful oxidising agents *e.g.* Chlorine, Pot. Permanganate, Iodine.

(2) *Tonic poisoning i.e.* by dissociation of metallic salts, one part of which combines with the organism *e.g.* Arsenious acid.

(3) *Coagulation*:—Various compounds as Perchloride of Mercury and Silver Nitrate.

(4) *Colloidal Absorption* or absorption of the poisonous substances as in emulsions.

(1) *Limitations and Modifications*:—The presence of organic matter hinders nearly all germicides in their action. The oxidising agents expand themselves in attacking the organic matter. The metallic salts whether dissociated or not, usually coagulate the part they touch and thus automatically shut themselves out from the main mass, and emulsions (soap emulsion) cannot be effective because they are physically incapable of penetrating the mass.

(2) Penetration is an important factor with liquid disinfectants. This virtually means thorough wetting, so that, intimate contact is assured between the disinfectant and the material to be disinfected.

(3) Time is the next important consideration. Mere dipping into a powerful disinfecting solution is not likely to be so effective as a thorough soaking.

(4) Temperature is another potential factor. Hot solutions of germicides are more powerful than cold ones *e.g.* Anthrax spores are killed in three minutes at 75 °C, in 30 minutes at 55 °C and in 36 days at room temperature.

(5) The strength of the solution must be taken into account.

(6) Chemical neutralisation of the agent must be considered, for example, Lime would be weakened by using in contact with acids; Silver Nitrate would be precipitated in the presence of chlorides, etc.

Every drug has got its own disinfecting capacity which is generally compared to a standard drug's disinfecting power. The standard drug selected is pure phenol. The disinfecting power is always expressed by the term Carbolie coefficient. Carbolie coefficient is a number which expresses the ratio of the disinfecting capacity of any substance on any bacterium in comparison with pure carbolie acid under similar conditions.

Classes of disinfectants:—Let us now consider the classes of disinfectants. There are 2 classes of disinfectants namely *physical* and *chemical*. Physical disinfectants are light, heat and electricity, whereas chemical disinfectants are gases and liquids. Solids are of no use until they are vapourised or burnt. The gases commonly used are formaldehyde and its derivatives, prussic acid, sulphur dioxide, chlorine and ozone. The liquid disinfectants are considered under two heads—mineral (inorganic and organic), acids and alkalies.

Now it is better to consider the various disinfectants separately.

(1) *Physical disinfectants*:—*Light* (sunlight or artificial light) is a powerful disinfectant provided it is of the right quality. Ultra-violet rays are more powerful than light rays themselves. Sunlight is rich in ultraviolet rays and all micro-organisms will die within less than a day when directly exposed to it. Spores of *B. Anthracis* survive for 30 hours.

Heat either dry or moist. Dry heat is used in bacteriology and has the advantage of possessing a high degree of penetration. In fact any organic matter cannot reasonably be disinfected by dry heat because it makes fabrics brittle. So moist heat is used a great deal for disinfection. Cooked food and drinks are common

examples. Steam either as an open stream or under pressure is used for many purposes apart from its uses in the laboratory. Municipal and other sanitary installations use steam for disinfecting clothes. Boiling especially in carbonate of soda for about one hour acts as a very efficient disinfectant.

Burning is the most effective of all methods but destructive. It is employed in the form of blow-lamp passed rapidly over the metal fittings of rooms. Carcasses and discharges may be burnt.

Electricity by itself is probably not in the least a disinfectant but an electric current passing through solutions containing salt, induces the formation of free Chlorine or of Hypochlorites both of which are powerful disinfectants.

(2) *Chemical disinfectants*:—The chemical disinfectants that are generally used are gases and liquids. The disinfectant gases commonly used are Formaldehyde gas and its derivatives, Prussic acid, Sulphur Dioxide, Chlorine and Ozone. The gases penetrate very well into crevices but not in loose fabrics and they have a slow rate of diffusion. Some gases are poisonous.

Formaldehyde is usually sold as a 40% solution in water as *Formalin*, also as *polymers* under the name of *Paraform* with trioxymethylene. Formaldehyde acts by combining with albumen chemically *e. g.* an addition of a few drops to the white of an egg will prevent it from coagulating when heated and when combined with gelatin it will prevent it from liquifying. Its disinfectant action is due to its chemical combination with the albumen of bacteria. It is a decoloriser and a true deodorant. It has no detrimental effect on fabrics and does not bleach. Also it does not corrode metals. Formaldehyde is efficient as a *surface* disinfectant when the temperature is above 50° F, and the air contains 60% of moisture. It is not an efficient disinfectant in cold or dry atmosphere. Owing to its lack of penetrating power, it is not efficient for the disinfection of loose materials as fabrics etc. The gas may be generated for the purpose of disinfection from Formalin or from Paraform usually by heat. Formerly the heat was generated by combustion but more recently chemical heat producer has been

introduced such as Sulphuric acid in water or lime water. The methods commonly used for producing the gas are :—

- (a) the permanganate formalin method,
- (b) the bichromate formalin method,
- (c) the formalin lime method.

The detailed description of all the above methods can be obtained in any text book. Spraying may be employed but is troublesome because Formalin is irritant and the spraying takes time.

The next gas which is used as disinfectant is *Sulphur Dioxide*. It is not a powerful disinfectant but fairly efficient and requires moisture. It is very fatal to higher forms of life. The time of exposure should not be less than 24 hours for bacterial infections. Sulphur Dioxide is especially applicable to the holds of vessels or to apartments that may be tightly closed and that do not contain objects that would be injured by the gas. Its disadvantages are that it is poisonous to higher animals, bleaches or destroys fabrics, corrodes metals, does not penetrate, diffuses slowly and settles to the floor too quickly. It is a valuable agent for the extermination of rats, insects and other vermins. Sulphur Dioxide is a germicide only in the presence of moisture and even then will not kill spore-bearing organisms. An advantage is that it is easily condensed to liquid either by cold or by pressure or better still by a combination of the two. It can then be conveniently handled when packed in strong screwstoppered bottles. The usual way of producing Sulphur Dioxide is by burning sulphur. Liquified Sulphur Dioxide has the advantage of being a liquid which vapourises with extreme rapidity when released from the pressure of its container. It is expensive.

Prussic acid gas :—It is not a very powerful germicide but a most efficient insecticide. It is not a substance to be recommended. It quickly diffuses and has no tendency to settle on the floor. Its main use in the Veterinary practice is to eliminate rats from grain-stores.

The next in importance is the *Chlorine gas*, which is a powerful but uncertain germicide in gaseous form. It is easy to prepare and might be used in the absence of other compounds. It is a surface disinfectant depending for its action on moisture. It is extremely poisonous to higher animals, bleaches and corrodes metals. Chlorine may be generated from common salt or Calcium Hypochlorite.

Liquid disinfectants are the next sub-class of chemical disinfectants to be considered. These are all more or less powerful agents which may be dissolved or emulsified in water and used as liquids. There are two main methods of using liquid disinfectants namely :—

(1) Dipping the material in the solution and (2) applying the solution to the material. These depend on the size of the article or material to be disinfected and obviously the former is more efficient. The action of liquids depends on "*Wetting*" which is necessary for penetration. In the case of large surfaces which have to be scrubbed, hot solutions are indicated because higher temperature ensures a rapid action and many organisms will be killed.

For convenience the liquid disinfectants will be considered under 2 heads :—mineral (Inorganic and Organic). Under inorganic minerals we have acids and alkalies. Acids are not very good disinfectants though they kill bacteria when sufficiently concentrated. They are too corrosive to be used in practice and their action seems to depend on the degree of dissociation. Mineral acids vary considerably in disinfectant power and may act either in virtue of coagulation or in virtue of the specific ionic action of the metallic ion. Some depend on their break-down products when brought in contact with organic matter.

Alkalies are good as disinfectants in reasonably weak dilution and also are good detergents.

A few of the important salts are worth mentioning and shall be considered individually.

Potassium and Sodium Permanganate :—Are very powerful germicides but since they act by oxidation they are rendered inert by large quantities of organic material if such be present. 1-800 solution will kill pyogenic cocci in 2 hours, 5% will kill any spores in a day. 10% kills B. Glanders in 2 minutes. A good guide as to whether there is any loss of efficiency is to observe the colour of the solution. So long as a good pink colour remains, there is disinfecting power in the solution.

Calcium salts :—Are not much good but Calcium Oxide or quick lime is one of the best and cheapest disinfectants. Lime wash is used for disinfecting stables, horseboxes, cowsheds and almost every place used in animal husbandry. It should be a mixture of freshly slaked lime and water. Air-slaked lime is inert as disinfectant.

The only other calcium compound is *Chlorinated Lime* or *Bleaching powder* whose action depends on the presence of Chlorine in it. It is a very good disinfectant of proved value. It is very unstable and apt to lose its Chlorine particularly in dampness and in the presence of CO_2 i.e. if exposed to air. Solutions of bleaching powder are destructive to fabrics and dyes and are rendered comparatively inert in the presence of organic matter. Chlorinated Lime may be used in powder form by sprinkling or in solution (1-200). It kills bacteria in about 5 minutes or even less, depending on the organic matter. For the disinfection of floors and walls, excreta etc., it may be used effectively if these are scrubbed first to remove organic matter. For preparing disinfectant solutions add 1 lb. of bleaching powder to 4 gallons of water.

The other preparation of chlorine used as a disinfectant solution is Dakin's solution which is a neutral Sodium Hypochlorite solution. The composition of Dakin's solution is as follows :—

A	Bleaching powder	100 Grms.
	Water	1000 C. C.
B	Sodium Carbonate	45 Grms.
	Sodium Bicarbonate	48 Grms.
	Water	1000 C. C.

Mix A and B, filter after a few hours. The filtrate is Dakin's solution.

Zinc Chloride :—Was once very popular as a disinfectant. It has a low carbolic coefficient. It is slightly a deodorant.

Copper Sulphate :—Is a strong disinfectant about half as good as corrosive sublimate but not much used in practice. It has a remarkable destructive effect on species of algae in water in the strength of 1—2 or 3 millions. CuSO_4 will not kill pathogenic bacteria in water except in quantities poisonous to animals.

Mercury Salts :—All are disinfectants if soluble. The best is corrosive sublimate. It kills bacteria and spores in high dilution. The two great drawbacks of this salt are that it corrodes metals thereby losing potency and forms insoluble compounds with albumen. It is also extremely poisonous. The disinfectant action is partly due to coagulation and partly due to specific mercurial action. Its practical uses are few in spite of its power. In veterinary practice, except for small jobs, it has been almost entirely replaced by cheaper coal tar products. For disinfection of floors and walls, 1-1000 may be used.

Of the organic disinfectants which are worthy of consideration are Formalin and the coal tar product. Formalin we have already dealt with, along with the Formaldehyde gas. A 5% solution of commercial Formalin in water makes a satisfactory disinfectant. It is not likely to be used extensively in veterinary practice because it is not so cheap as other equally good materials.

Now coming to the coal tar products, they are by far the most useful class of disinfectants because on the whole they are cheap, moderately nonpoisonous and powerful germicides. The basis of all is *Benzene* from which are derived Phenol, Cresol, Aniline and derivatives of Naphthalene.

Phenol :—Known as Acidum Carbolicum Puris B. P. It is soluble in water about 1-10. It is taken as a standard because it is a single chemical compound and not a mixture as are practically all other disinfectants of this group. Phenol pure has the power of penetrating fairly well and will not stain.

Carbolic acid is a mixture of phenols containing some cresols and higher bodies which have very little germicidal power. The cresols however increase the carbolic coefficient so that commercial carbolic acid is much better than the chemical pure compound. It is soluble in water. It has the disadvantage of turning red on exposure and also of having rather objectionable smell. You cannot depend on all phenolic products to kill spores even after a day or two but Carbolic acid kills non-sporing bacteria in weaker solution than pure phenol. Carbolic coefficient is 2.75. The commercial Carbolic acid is cheaper than pure Phenol. The practical uses are for rough disinfection of stables, sheds etc., even where a considerable amount of organic matter is present. It is particularly useful for ground, soiled with albuminous discharges, in 3 to 5% solutions.

The remaining coal tar products used as disinfectants are Cresols, Lysol (mixture of soft soap, tar oil and spirit) Creolin, Lysol and Napthalene products.

Methods of Disinfection.

In dealing with the infectious diseases, there are two main channels of infection to be watched.

- (1) The infected animal or carcass.
- (2) Discharges etc., including the faeces which infect the surroundings, clothing, utensils etc.

For particular diseases, the methods and agents of disinfection may vary slightly particularly in the case of a carcass. The disposal of the carcasses is an important factor and the two methods in the order of merit are:—

- (1) burning and
- (2) burying atleast 6 feet below the surface of the earth taking care not to run the risk of polluting any water supply. The hide must be slashed to eliminate any temptation to dig the carcass up. It is also recommended that one foot of quick lime must be put beneath and above the carcass.

The mode of cleansing and disinfecting sheds, stables, buildings or other places or parts thereof, shall be as follows:—

(1) All such parts of a stable etc., that are to be cleansed and disinfected shall be thoroughly sprinkled with freshly burnt lime or other suitable disinfectants, then swept out; and all dung, litter, broken fodder or other things used for the diseased animal shall be effectually removed therefrom.

(2) Then the floor and all other parts of the shed, stable, building or other places with which the diseased animal or its droppings or any discharge from the nostrils or other parts of the animal have come in contact shall as far as practicable be thoroughly washed or scrubbed or scoured with hot water.

(3) The same parts of the shed etc., shall be washed over with limewash made of freshly burnt lime and water with 4 oz chloride of lime or half a pint of commercial Carbolic acid, the lime wash being prepared immediately before use or with some other suitable disinfectants.

The mode of cleansing and disinfecting such utensils, pen, hurdle or other things such as van, cart or other vehicle shall be as follows:—

(1) Each utensil, pen etc., or vehicle shall be thoroughly scraped and all litter dung sawdust or other things shall be effectually removed therefrom.

(2) Then it shall be thoroughly washed or scrubbed or scoured with hot water.

(3) Then it shall be washed over with lime wash made of freshly burnt lime and water.

(4) All dung, litter, broken fodder or other things that have been removed from any such shed, stable, building, van, cart etc. shall be forthwith burnt or disinfected and where practicable buried deeply.

PROLAPSE OF THE RECTUM IN DOGS.

BY

Mr. R. Swaminatha Aiyar, B. A., G. M. V. C.,

Veterinary Asst. Surgeon, Veterinary Hospital, Ootacamund.

The article on the above subject which was extracted in the last number of the Indian Veterinary Journal is very interesting reading and, as I have come across some such cases, I should like to record my experience of them.

All my cases have been in puppies—Australian terriers, Fox hounds and ordinary country-bred ones. Some of them have been poor in condition, while others were in good health. In most of these cases, catarrh of the bowels due to bad dieting has been the chief cause. By way of treatment, I always effect reposition which has, in my hands, been very successful. The prolapsed part is very well cleaned with condy's fluid, a few minims of Adrenalin is injected submucously, and, then, by slow kneading the part is replaced. A purse-string suture round the anus finishes the operation.

The after treatment is both dietetic and medicinal. The animal is to get only liquid diet in small quantities at a time. A dose of Mist. Ol. Ricini with Salol, Bismuth and Opium is given for the first 3 or 4 days after which opium is discontinued. The persistent diarrhoea mentioned in the article quoted above is often troublesome and is effectually combated by continuing the above mixture, preferably without opium; for some time. High rectal washings with Boric lotion or Normal Saline is sometimes necessary and often beneficial; in some obstinate cases, a weak solution of Argenti Nitras is indicated.

I have so far been successful with the above line of treatment and there was no necessity for me to have recourse to amputation of the prolapsed part.

CLINICAL ARTICLES.

HYSTERO-OVERIOTOMY IN THE BITCH.

BY

Mr. A. M. Richards, G. B. V. C.,

Veterinary Asst. Surgeon, Agricultural College, Coimbatore.

(A talk over a demonstration of the operation at a meeting of the Coimbatore Division, Madras Presidency.)

This operation consists in the removal of the ovaries and fallopian tubes. It is performed in the diseased condition of the said organs and also to prevent the straying propensities of bitches.

Technique of the operation:—The animal is prepared by a dose of purgative the previous day and all food is withheld on the day of operation until the operation is over. The region of the abdomen along the 'linea-alba' is rendered hairless and aseptic. When the animal is well under chloroform, she is secured on her back and after further painting the seat of operation with Tincture of Iodine, an incision along the 'linea alba' extending from the last two teats to a little anterior to the second pair of teats, is made. The abdomen being opened the tissues are separated with the fingers, care being taken not to injure any of the viscera; a search is made for the ovaries with two fingers a little anteriorly and to a side. On feeling the ovary slowly separate it from the broad ligament by the fingers alone and draw it towards the incision in the skin. When made visible aligature is applied to the anterior attachment and the ovary is scissored off. Similarly the second one also is removed.

Then after ligaturing all the big vessels running to the fallopian tubes and disconnecting them from the latter, both the tubes are together ligatured at the body and scissored off. Then the ovaries with the fallopian tubes are taken out. The abdominal wall is first sutured with uninterupted sutures and then the skin. A little collodium dressing and a well retained bandage are all that is necessary.

The after treatment consists in keeping the wound aseptic and giving the animal light easily digestible food or liquid diet as milk or conjee. The success of the operation depends much on strict asepsis observed and preventing all bleeding before suturing.

CAPONISING IN FOWLS.

BY

Mr. M. Ponnaya, G. M. V. C.,

Veterinary Assistant Surgeon, Veterinary Hospital, Tirupur, Madras.

(A talk over a demonstration of the operation before a meeting of the Coimbatore Division—Madras Presidency.)

Caponising in fowls is the same as Castration of male animals. In birds the testes are intra-abdominal and consequently a certain amount of skill is required in removing them. The best age for doing the operation is when the birds are to "crow." There is practically very little preparation needed except keeping the bird without food or water for the previous 12 hours.

There are three ways of doing the operation. In the American method the instruments required are a scalpel, a pair of retractors and grippers. The bird is placed on its side and the feathers on the abdomen in front of the thigh removed for a space of 2 or 3 inches. The abdomen is then opened by an incision between the last two ribs, the retractors are put in to keep the wound well open, the peritonium ruptured, the testes gripped with the grippers and removed by a rotatory movement. In the German method the testes after being freed from their attachments are left free in the abdominal cavity where they become absorbed in course of time.

In the Indian method, the instruments required are a scalpel, some thread and a needle. The abdomen is opened by an incision an inch in front of the cloaca. The index finger of the left hand is introduced along the vertebral column and the testes seized with the index finger and thumb and pinched off and removed. The protruding bowels are then put back and the incision sutured. No after care is necessary except keeping the bird shut up separately for 2 or 3 days and putting it on light diet.

ARSENIC POISONING IN FOWLS.

BY

Mr. P. Srinivasa Rao, G. M. V. C.,

Veterinary Practitioner, Madras.

Recently I had to treat a flock of fowls for arsenic poisoning under the following circumstances:—One noon I was called in to see a fowl that was about to die and the owner gave me the following history about the case. That noon when he went home he saw a loaf of bread thrown in his court yard. Thinking that he got a good meal for his flock of fowls consisting of 17 beautiful Leghorns and not suspecting it to be a bait containing arsenic put down for rats, he cut it into pieces and threw them before the fowls and himself went for meals. When he had half finished his meals he was told that one fowl was dead and others looked seedy. Poor man leaving his meal half finished went and saw to his utter dismay and grief one dead and two others very sick and drooping and the remaining lot also sickly. He at once ran to me with the two very badly affected fowls, out of which one died on the way and the other was about to croak. So I hurried up to my dispensary to see the fowl in the following condition:—The comb black, very dull, not able to sit, moping badly and when made to stand and walk gait very unsteady and when I was examining, this fowl also succumbed. So in the interest of other fowls that were suffering, I conducted the *post mortem* at once when I found nothing abnormal in the internal organs, but when I opened the stomach and intestines I found some patches of haemorrhage and areas of congestion and inflammation in the stomach and intestines and the inješta emitting a peculiar smell. I suspected arsenic poisoning and sent the inješta for chemical examination and advised the owner the following line of treatment. Stomach wash first and then alternate administration of *Liqr. Calcined Magnesia* and solution of *Liqr. Ferri Perchlor* 1 in 8. I showed the technique of the stomach wash as follows:—Took a rubber tube from a stethoscope; fitted it with a glass funnel on one end passing the other end into the oesophagus which went easily into the stomach. Then poured some water into the funnel and sometime after the water reached

jaggery. By way of diet, I asked the owner to give clean cooked bran mash and rice gruel.

When I visited her the next morning the owner informed me that she got up for a few minutes late in the night but soon occupied the recumbent position; took a small quantity of gruel and passed flatus every now and then. Her temperature was 102.5°F , respiration partly oral, head turned towards the flank, straining occasionally, and trying to bring out the reduced uterus. Gave an ounce of Chloral Hydras well diluted with rice gruel, emptied the bladder and rectum, repeated the douche and injection of air and placed her in her natural position with the hind quarters slightly elevated. There was complete cessation of milk and the udder had retracted very much. Late in the evening on the same day the owner reported to me that she was moaning in pain. I hurried up and saw her breathing distressful with marked tympany, pulse frequent and wiry, eyes blood-shot, and the extremities cold. Had her propped up, removed the accumulation of faeces in the rectum, emptied the bladder, gave an electuary of four drachms of each of Ammon carb and Nucis. Vomica and a similar dose of medicine was left to be given after a couple of hours. Instructed the owner to turn her every two hours if she were to lie down continuously on one side. Pumped in air into the teats once again. On the 23rd morning, her temperature was 103°F , she had a wretched look with retracted eyes, but tympany had gone down to a certain extent. Tried to give her some gruel but she would not swallow. Repeated the injection of air. The bladder and rectum were empty. Put her again in her natural position. The owner reported to me that she had another attack of tympanities in the evening and succumbed to it. I have never seen a case of Milk Fever in a cow with prolapse of the uterus and a rather high temperature towards the end. I shall be glad to hear if any member of the profession has met with a similar case.

[Mr. John B. Bryant of Iowa in an article extracted in this issue, writes that he has noted three cases of Parturient paresis with prolapse of the uterus, though he states that it is unusual in his experience.—Ed.—I. V. J.]

A CASE OF DELIVERY IN A BITCH.

BY

Mr. V. Parameshwara Menon, G. M. V. C., Vety. Assistant Surgeon,
Vety. Hospital, Saidapet, Madras.

A Mongreal-terrier bitch was admitted in the hospital, with the history that the animal was in great pains, was straining since morning, and had completely refused her usual food and drink.

It was found that she was in an advanced stage of pregnancy and in severe labour pains. Vaginal examination revealed that the Os was only three-fifths dilated. She was therefore provided with a clean straw bedding in a special dark room, free from the disturbance of all other in-patients in the hospital, with the hope that she would have a normal delivery, if only left to herself granting sufficient time for the full period. The pulse and temperature were quite favourable and the presentation was normal.

After about two hours, the Os uterus was noticed to have fully dilated, but even then there were no signs of an easy delivery. Therefore an injection of pituitrin was given hypodermically. Although the uterine muscles responded to it, it was found almost impossible for the removal of the foetus without intervention owing to its abnormal size and the pelvic constriction of the mother. Forceps was of no avail in this case. Truncotomy was decided upon to save the life of the mother at least, and the two fore-limbs of the pup in situ were severed and taken out. Again repeated efforts were made to pull out the foetus. Finding it of no use, a douche with warm condys fluid was immediately prepared and given flushing as it were the uterine contents. It had its desired effect. The muscles and ligaments were well relaxed and after some time, the foetus came out.

The after treatment consisted of Ergot, Quinine Sulphate, Salol etc. internally and warm Potassi Permanganas douche repeated twice daily for a week.

The diet was restricted to rich, nourishing and easily assimilable food such as bread, milk and egg-flip with brandy.

THE INDIAN VETERINARY JOURNAL.

the stomach turned the funnel down and allowed the water to flow down. The owner ran at once to his house to find that 2 more fowls had died and the remaining 12 were very sick. He immediately gave a stomach wash to all of them in the manner shown to him and then gave alternately every 15 minutes Liquor Calcined Magnesia $\frac{1}{2}$ teaspoonful, solution of Liqr. Ferri Perchlor 1 in 8, $\frac{1}{2}$ teaspoonful and to his great joy the remaining lot survived and in an hour became as lively as before.

Chemical examination of the injecta, confirmed my diagnosis. My object in presenting this article is to show that in such cases the stomach wash could be resorted to with ease and that we can save a lot of our avian patients by this method even in cases of indigestion.

MILK FEVER OR WHAT?

BY

Mr. K. A. Ramaswamier, G. M. V. C.,

Office Veterinary Assistant Surgeon, C. V. D., Madras.

On September 21, I was called to a black, crossbred, deep milking cow, 6 years old, which could not get up after a natural and easy calving.

The history of the case was briefly this. About a month previous to parturition the owner had left the cow in charge of his servant residing in a village five miles off. She had gone on her full time and calved all right for the second time on the 19th evening. The next morning the servant gave her a cold water bath and removed her with the calf to the owner's residence walking a distance of about 5 miles. Seeing that the after-birth had not cast off yet, the servant attached a stone weight to the mass and caused expulsion of the foetal membranes in a few minutes. At about sunset the owner found her making uneasy movements of the hind limbs and ultimately lying down on her side. He had not noticed her passing either dung or urine. She had a little rice gruel for the day but did not take grass or straw. Next morning he observed a rounded mass protruding from the womb.

THE INDIAN VETERINARY JOURNAL.

On my arrival I found the cow exhausted and lying down with her head poked forward, with partial prolapse of the uterus beyond the vulva. Her temperature was 98° 8' F, pulse weak and frequent, respiration slow, eyes red and fixed, slight tympany, occasional grinding of the teeth and her udder looked shrunken. Tried to get the cow on her feet with proper assistance but she was unable to bear any weight on the hind limbs. The calf was brought near her but she did not evince any interest in it. Put the cow on her brisket and plenty of straw was shoved under the shoulder and the side. On rectal examination I got two hard balls of dung enveloped in thick mucus. Gave a warm water enema and this brought away some more mucus. Cleaned up the perineal region and the prolapsed mass with 1 per cent solution of Chloramine-T. The mucous membrane of the cervix was inflamed and there were lacerated wounds in and around the Os uteri. These were carefully washed and touched with Tr. Iodinæ. Next I examined the uterine cavity with due precautions. There was a certain amount of straining, during the passage of the hand and a small quantity of brownish fowl smelling liquid was discharged. Removed carefully a few fragments of after-birth without injuring the cotyledons. Douched the cavity with 1 per cent solution of chloramine-T by introducing a rubber tube connected to a douching can and emptied the uterus by syphoning off the solution imprisoned in the uterus. Returned the uterus into the abdominal cavity and retained my hand in the uterus for a few minutes until straining ceased. The cow now passed urine. Possibly the bladder might have been compressed by the prolapsed uterus. Raised the hind quarters of the animal a little by means of straw padding. Washed the quarters thoroughly with the same antiseptic solution used for douching, stripped a portion of the milk, passed a sterilised milk tube into each quarter, connected it with an ordinary cycle-pump and injected air till each quarter became tense, tied the teats, massaged the udder and instructed the owner to undo the knots after 3 or 4 hours. Rubbed her back and hind quarters with stimulating liniment. Gave internally an electuary made up of half an-ounce of each of Ammon. Carb and Pulvis Nucis Vomica and 8 ounces of Epsom salt in plenty of

the stomach turned the funnel down and allowed the water to flow down. The owner ran at once to his house to find that 2 more fowls had died and the remaining 12 were very sick. He immediately gave a stomach wash to all of them in the manner shown to him and then gave alternately every 15 minutes Liquor Calcined Magnesia $\frac{1}{2}$ teaspoonful, solution of Liqr. Ferri Perchlor 1 in 8, $\frac{1}{2}$ teaspoonful and to his great joy the remaining lot survived and in an hour became as lively as before.

Chemical examination of the inješta, confirmed my diagnosis. My object in presenting this article is to show that in such cases the stomach wash could be resorted to with ease and that we can save a lot of our avian patients by this method even in cases of indigestion.

MILK FEVER OR WHAT?

BY

Mr. K. A. Ramaswamier, G. M. V. C.,

Office Veterinary Assistant Surgeon, C. V. D., Madras.

On September 21, I was called to a black, crossbred, deep milking cow, 6 years old, which could not get up after a natural and easy calving.

The history of the case was briefly this. About a month previous to parturition the owner had left the cow in charge of his servant residing in a village five miles off. She had gone on her full time and calved all right for the second time on the 19th evening. The next morning the servant gave her a cold water bath and removed her with the calf to the owner's residence walking a distance of about 5 miles. Seeing that the after-birth had not cast off yet, the servant attached a stone weight to the mass and caused expulsion of the foetal membranes in a few minutes. At about sunset the owner found her making uneasy movements of the hind limbs and ultimately lying down on her side. He had not noticed her passing either dung or urine. She had a little rice gruel for the day but did not take grass or straw. Next morning he observed a rounded mass protruding from the womb.

On my arrival I found the cow exhausted and lying down with her head poked forward, with partial prolapse of the uterus beyond the vulva. Her temperature was 98.8° F, pulse weak and frequent, respiration slow, eyes red and fixed, slight tympany, occasional grinding of the teeth and her udder looked shrunken. Tried to get the cow on her feet with proper assistance but she was unable to bear any weight on the hind limbs. The calf was brought near her but she did not evince any interest in it. Put the cow on her brisket and plenty of straw was shoved under the shoulder and the side. On rectal examination I got two hard balls of dung enveloped in thick mucus. Gave a warm water enema and this brought away some more mucus. Cleaned up the perineal region and the prolapsed mass with 1 per cent solution of Chloramine-T. The mucous membrane of the cervix was inflamed and there were lacerated wounds in and around the Os uteri. These were carefully washed and touched with Tr. Iodine. Next I examined the uterine cavity with due precautions. There was a certain amount of straining, during the passage of the hand and a small quantity of brownish fowl smelling liquid was discharged. Removed carefully a few fragments of after-birth without injuring the cotyledons. Douched the cavity with 1 per cent solution of chloramine-T by introducing a rubber tube connected to a douching can and emptied the uterus by syphoning off the solution imprisoned in the uterus. Returned the uterus into the abdominal cavity and retained my hand in the uterus for a few minutes until straining ceased. The cow now passed urine. Possibly the bladder might have been compressed by the prolapsed uterus. Raised the hind quarters of the animal a little by means of straw padding. Washed the quarters thoroughly with the same antiseptic solution used for douching, stripped a portion of the milk, passed a sterilised milk tube into each quarter, connected it with an ordinary cycle-pump and injected air till each quarter became tense, tied the teats, massaged the udder and instructed the owner to undo the knots after 3 or 4 hours. Rubbed her back and hind quarters with stimulating liniment. Gave internally an electuary made up of half an-ounce of each of Ammon. Carb and Pulvis Nucis Vomica and 8 ounces of Epsom salt in plenty of

The temperature, though it rose up to 104.4°F , gradually came down, and the foul smelling acrid discharges from the genitals also stopped, much to the relief and satisfaction of the writer.

She became her old self once more and was discharged after a week.

[Pituitrin would appear to be contra-indicated in this case as pelvic constriction is said to have been present.—Ed.—I. V. J.]

A SUSPECTED CASE OF EPHEMERAL FEVER.

BY

Mr. C. Venkata Ratnam Chetty, G. M. V. C., Chief Superintendent,
Cattle Depots, Corporation of Madras.

I had recently two interesting cases. Both the patients were bullocks belonging to the Basin Bridge Cart Depot of the Madras Corporation.

On the 31st July, 1924, the Superintendent-in-charge of the Depot reported to me that a six-teeth Ongole bullock (number B. 89) was ill. On examination I found him dull, off his feed, with no rumination, temperature 106°F , quickened respiration with soft cough, mucous membranes of the eyes highly injected, watery discharge from the eyes, marked salivation with constipation. When made to walk the animal evinced a certain amount of stiffness all over the body and limbs and showed acute lameness in left fore and hind limbs. I suspected the ailment to be some microbic disease and took blood smears for microscopical examination. The result was negative. Prescribed a dram each of Carbolic acid and Chlorate of Potash twice daily in rice gruel and put him on bran, green grass and conjee. The next day his temperature was 103°F and his general condition seemed better but the lameness appeared more marked in the left hind limb. Repeated the above treatment. On the 2nd August, 1924, I was informed he had taken grass and bran and his temperature was 100.4°F . He walked about sound in my presence and looked lively. I now gave him a powder made-up of Sodii Bicarb 6 dr., Ammon. Chlor. 3 dr., Pot. Nitrates 2 dr., Pulvis Gingib 4 dr. in feed. On the following

day I found the animal quite healthy and discharged him from the sick line.

The second case, Bullock No. 149, presented the same set of symptoms as the previous one but the symptoms were not so acute, in that, the temperature was 102°F and the animal had only partial loss of appetite and rumination, nevertheless there was lameness in the right forelimb and he was unable to get up with ease. This animal also did well with the same line of treatment and was discharged after four days.

In this connection I request my professional brethren to communicate their experience of such cases through this journal and what they consider about the diagnosis.

EXTRACTS.

RAT-BITE POISONING IN THE DOG.

BY

Mr. J. F. D. Tutt, M. R. C. V. S., F. H. S., F. Z. S., Winchester.

The part most commonly bitten is a part of the muzzle, as would naturally be supposed. The symptoms may be purely local, or may be generalised, involving paralysis of the limbs. The local symptoms are swelling of the part bitten and often enlargement of the lymphatic glands, sometimes accompanied by difficulty in swallowing. Fever may be present in the early stages.

In generalised cases there is marked emaciation and paralysis of the hind limbs or of all four limbs, or there may be only weakness of the hind limbs, the dog swaying or straddling when walking. Loss of appetite is often noticeable but in some cases this is not affected. In one case a dog (Mongrel) was completely paralysed for three weeks.

Treatment:—Salol is specific in these cases, but its use may have to be prolonged in obstinate cases. The dose depends on the size of the dog. Terriers and allied breeds of the same size will take 5 grs. three times a day or even every four hours; but in the larger breeds, 10 grs. is necessary. Local treatment consists in

attention to the wound, this being freely dressed with Tr. Iodine BP. and made larger if necessary with hot fomentations and a mild liniment to the swollen parts. Where emaciation follows, a course of tonics is indicated.

—*The Veterinary Journal, August 1924.*

[When, Mr. Ananthanarayana Rao's paper on "Ratbite fever in Dogs" published in our last issue, was read at the last All-India Veterinary Conference, a doubt was expressed as to whether there was such a thing as rat-bite fever in dogs at all. Now another writer has corroborated his view, but the symptoms given by him are quite different. It will be interesting to know the experience of other practitioners on the subject:—*Ed.*)

PROLAPSE OF THE UTERUS IN MILK FEVER.

BY

Mr. John B. Bryant, Mount Vernon, Iowa.

I observed a condition in three cases of parturient paresis of cows that was unusual in my experience. I offer this report in the hope that some one will add comments.

A telephone consultation concerning an ailing cow elicited the symptoms of milk fever. Upon arrival at her stall typical milk fever was observed, but complicated with prolapse of the uterus. The owner declared that the prolapse had not existed longer than twenty minutes, as he had not been away from the cow for a longer time. Replacement of the parts was readily accomplished and the cow responded nicely to the air treatment. Untoward after effects have not been observed.

Two other cases presented the vagina, in a threatening manner at the vulval opening. This was observed during the administration of the air treatment. Sutures fixed in the lips of the vulva prevented further trouble in this connection. These three cases occurred in rather aged subjects. They were heavy producing cows.

—*Journal of the American Veterinary Medical Association, October 24.*

SOME SKIN DISEASES IN THE DOG.

DISCUSSION.

(Continued from page 74.)

Mr. G. H. LIVESEY, in opening the discussion, expressed great pleasure at being once more amongst old friends in the Midland Division, and thanked the members for having paid him the compliment of asking him to be there to open the discussion. Mr. Stainton's paper, he said, was an exceptionally good one, full of sound practical common sense, and written in such a manner as to be of the greatest use to men in everyday practice. Mr. Stainton has wisely divided the subject of skin disease into two headings, parasitic and non-parasitic, and this was most sensible from a practical point of view. After referring to the general aspect of the paper, Mr. Livesey, dealing with certain details, said he did not agree that pruritus ani was the most common form of itching, nor that worms were a frequent cause of pruritus ani. Apart from mange and lice, itching was most frequently seen in dogs (and cats) at the time of change of coat, and it was then rather physiological than pathological, though owing to domestication and insufficient attention many dogs at this time became subjects of skin disease as a result of skin infection from scratching and nibbling themselves. Dirt and neglect were the direct causes of nine-tenths of the skin diseases of the dog. Retention of coat was a condition seen almost daily in practice, and it would repay them to study its treatment. In treating erythema he did not like either starch or bran baths, especially for long-coated dogs. It was often difficult to get the bran out of the hair. Borax or bicarbonate of soda was preferable, and carbonate of magnesia he had found very useful as a mild saline aperient. Seborrhoea was much more common than was supposed, and was often contagious. In those Pekingese, as mentioned by Mr. Stainton, where sebaceous cysts were commonly found, this condition was followed by the formation of sebaceous warts often of a horny nature, and which became so numerous as to make treatment difficult and often inadvisable. Salicylic acid had proved in his hands the most useful means of treatment, in the form of solution in spirit or castor oil, and used as a brilliantine. Resorcin was not to be advised, as it

had the effect of turning the white coat of some dogs into a kind of olive green, and he knew no method of removing the stain.

Acne was sometimes followed by bacillary necrosis, a condition most difficult to treat. He would like Mr. Stainton's opinion as to the best method of dealing with it. Urticaria he had very often seen, not as a simple swelling of the head, but in the form of true nettlerash all over the body. The popular swellings soon disappeared, and required prompt treatment if the veterinary surgeon was to have any say in the cure. Alopecia or baldness was most frequently seen in the dry non-pustular form of follicular mange, and differential diagnosis was not easy. Mr. Livesey drew attention to the fact that in many dogs (and particularly brindle and red dogs), where the coat had been lost from some known cause, such as ringworm, sores, etc., it was often difficult to get the hair to grow again; but this was especially so if the skin was bare long enough to become pigmented. He believed pigmentation was a definite hindrance to hair growth, and propounded the theory that there was some connection between pigmentation and several pathological conditions of the skin, and particularly those affecting the growth of coat.

He was not a believer that true eczema was to be found in the dog, except perhaps in cases of eczema of the scrotum, one of the most painful conditions we were called upon to treat. On the other hand, acute impetigo was common, and was amenable to treatment. The so-called chronic eczema of the back (called by some psoriasis) was more frequently the result of chronic irritation from retained coat, or followed on chronic kidney disease in old dogs. He did not believe there was such a condition as non-parasitic eczema of the ear flap. The condition was a dermatitis which arose as a result of fermentation of debris and secretion in the ear, the direct sequel to the presence of ear mites. He agreed that ointments were not much use, and should be avoided in these conditions. He found the old-fashioned blackwash very useful on wet surfaces. In dealing with sore ears, one should be careful not to bandage in such a way as to exclude air. It was important to keep the ear flap turned back.

Mange was perhaps the most important skin disease they had to treat, and was probably the easiest also. Sulphur, *properly applied*, was an absolute specific. It was essential for success that one should apply the dressing *oneself*, and treatment must continue for three weeks, even if a cure seemed to have been obtained before that time had elapsed.

It was very remarkable to him how often mange seemed to pass undiagnosed. Either it was not recognised or the practitioner had not the pluck to state the truth. Many dogs were not thoroughly treated and the coat was not clipped in preparation. In this way cases hung on for long periods and the dog as a result often lost its coat and became pigmented and bald. He had seen many dogs with dermatitis, the direct result of over-treatment, whose owners were still rubbing in sulphur ointment. Cessation of dressing and cooling baths soon restored health, in apparently incurable cases.

The best remedy he had used for follicular was zinc chloride in 4 to 8 per cent. solution, scrubbed in every day with a brush. Collargal intra-muscular injection was also useful. He had had no success with vaccines.

Mr. Livesey concluded by complimenting Mr. Stainton on the excellence of his paper, the interest in which would extend far beyond the Midland, and would be appreciated by all members of his profession.

Mr. H. W. Dawes:—I should like, at the outset, to congratulate Mr. Stainton on his excellent paper, which dealt in a very practical manner with a subject of great interest. This is the first time we have had the pleasure of hearing Mr. Stainton at the Midland Counties Division, and I feel sure it is the beginning of many similar occasions. At the same time, I should like to add my appreciation of the opening of the discussion by Mr. Livesey. Mr. Livesey is an old friend of the division, and I think he realises how very welcome he is at our meetings.

Referring to the paper itself, there are a few points I should like to bring forward. Many cases of erythema are met with which are largely due to the bathing of dogs by their owners in

strong solutions of disinfectant fluids, particularly Jeyes' Fluid and Izal. These preparations are frequently used without any regard to necessary dilution. In the treatment of simple erythema, I find that a lotion containing calamine in the strength of 30 grains to the ounce, particularly when combined with an evaporating base, to be of great service.

Mr. Livesay has referred to retention of the coat being associated with generalised pruritis. I find this to be a very common occurrence in certain breeds, particularly the wire-haired terrier, and the Scotch terrier. It is very frequent to meet with great pruritis, associated with retention of a large amount of "dead" coat in old dogs of these breeds and, in the treatment of such a condition, removal of such dead coat is the first step. I am inclined to be of the opinion that such cases are frequently the primary stage in the development of so-called dorsal eczema.

Alopecia Areata is a widely-differing condition, and I have frequently found it in the Airedale terrier. Mr. Livesay has raised an extremely interesting point in connection with alopecia by his remarks on the part played by pigmentation in the question of skin disease. I am afraid that at present, we do not understand the full role played by pigment and pigmentary cells. In the aged Yorkshire terrier one frequently finds chronic skin irritation, and this irritation is often accompanied by small pigmentary new growth scattered about the skin. It is quite feasible that changes in pigmentation of the skin may give rise to an irritation of an obscure nature.

With regard to the treatment of scrotal eczema, I consider that in such cases the application of dressings in the form of an ointment only aggravates the condition; treatment must take the form of a united astringent lotion, followed by the application of a dusting powder containing zinc oxide, boric acid, starch, etc. I find that a lotion containing lead subacetate associated with a small amount of glycerine to be an excellent dressing.

In other forms of eczema, resinol, both the ointment and the soap, is a very useful application. It has a remarkable

antipruritic effect. Mr. Stainton has also mentioned dimol, which is a phenol derivative, and of low toxicity.

Lastly, a few words with regard to the manges. Mr. Stainton has stressed a most important point when he remarks on the misunderstanding which may arise between ourselves and our clients with regard to mange. Sarcoptic mange of the dog is a condition in which we may rely upon a sulphur and oil dressing with confidence. But one more thing is required in treatment, and that is the absolutely thorough and conscientious dressing of the patient. In the treatment of such cases in an infirmary, this dressing must *not* be relegated to other persons; if the latter is done, one may be sure that the necessary care will not be taken. It is no uncommon occurrence for a dog to pass from one veterinary surgeon to another, accompanied by a dissatisfied owner, simply because a cursory diagnosis of mange has been made, together with a more cursory and casual method of treatment.

I know of nothing more calculated to increase the reputation and sale of proprietary preparations and quack dressings among the dog-owning public than the treatment of cases of sarcoptic mange in a slipshod, haphazard fashion, with the time of treatment running into many weeks, and at the end of that time a dissatisfied client and an uncured dog.

Another point: wherever possible in the treatment of mange, the dog should be clipped from head to foot. Sometimes, after an animal that appears to be only slightly affected is clipped, it is remarkable the extent to which the disease has spread; and the application of a remedy merely to the affected part is not likely to meet with success.

With regard to follicular mange: diagnosis in the squamous type is sometimes admittedly difficult, but in the pustular type one should always confirm one's suspicions by microscopical examination. The demodex in the pustular form is always easy to recognise.

I am afraid that my experience of the treatment of follicular mange has not been fortunate: the general condition of the dog

and the length of time required in treatment are conditions that must be borne in mind, and these frequently activate against what might be a successful issue.

Mr. W. Trigger thanked Mr. Stainton for his most interesting paper, and said he would like to ask whether the essayist had had any experience of a form of eczema affecting the feet of dogs as a sequel to distemper? He himself had observed this more particularly in foxhounds during an epidemic of distemper, and it was a very troublesome complication, though fairly amenable to treatment.

Mr. P. M. Evershed: I have read Mr. Stainton's practical paper with very great pleasure, and I am sure we all owe him our best thanks for coming here this afternoon to tell us all about it.

On the whole, skin diseases of the dog do not give me very much trouble; but there are several forms about which I should very much like to have Mr. Stainton's opinion:

I. That form of dry eczema, causing a good deal of irritation, characterised by small scaly pimples. The scale can be picked off, leaving a shiny surface. Often seen in terriers and Sealyhams.

II. That form which shows itself as circular patches. The hair is broken and thin, and the skin may be slightly thickened and scaly. It is usually seen in puppies and young dogs. What is this? Is it the squamous form of follicular mange, or is it ring-worm? Sewell says it is due to a vegetable parasite. I have never been able to find the parasite of follicular mange in these lesions. I find it very difficult to treat; but these cases almost invariably do recover if given time. Has Mr. Stainton a specific for these cases to enable us to effect a quick cure?

III. With regard to follicular mange. It is an admittedly easy matter to find the parasite in the pustular form; but I have often had some difficulty in finding it in the squamous form. In the former I inject the pustular with a 25 per cent. solution of carbolic acid, and have had some very good results.

Mr. H. S. Reynolds: I should also like to thank Mr. Stainton for his very practical paper.

I think the practice of owners frequently washing their dogs is conducive to eczema, especially if they use Jeyes' Fluid, of which a great number are very fond. I consider Jeyes' very unsuitable. For scrotal eczema I have found a lotion of weak strength of liq. plumbi and liq. carbonis very good, and prefer in any case, if possible, to use a lotion in preference to a greasy dressing, but, as Mr. Stainton says, what will effect a cure in one case will fail in another. One form of eczema Mr. Stainton did not mention—eczema of the lips. I should like to ask what he uses, as I have found this most troublesome to treat, as the dog constantly licks the parts. I quite agree with Mr. Dawes that it is no good attempting to treat a case of mange before clipping the dog all over.

Mr. W. F. Brooke said:—I would like to join with previous speakers in a tribute of thanks to Mr. Harold Stainton for his very able and useful paper. Skin diseases in the dog now form a large part of our daily practice, and on their proper recognition and correct treatment a good measure of our reputation depends. The paper is so comprehensive that it is somewhat difficult to concentrate upon it, the area which it covers being so wide. Almost any one of the subjects touched upon might have been expanded so as to have formed a subject sufficient in itself. In the reading of Mr. Stainton's paper, many of the points which I had marked for comment have been dealt with by Mr. Livesey and the speakers who followed him, thereby rendering further comment unnecessary.

I think the division into parasitic and non-parasitic is a good practical start. Much in the latter class is of a systemic nature, and hinges largely upon circulatory and digestive aberrations. Injudicious feeding during the first few months of life, which is so often irrational (especially in the hands of the amateur), and which lays the foundation for a permanently disordered mouth and digestion, materially predisposes, I am sure, to the skin troubles which follow in later life. Disorders of the circulation and the heart itself are also important factors in predisposition,

and, with the digestive causes, are mainly responsible for the production of the autogenous poisons in which many non-parasitic skin troubles originate—not perhaps, to the same extent as in other organisms (in which the skin is more actively excretory), but the sebaceous glands although not purely so, are finally excretory, and an abnormally-formed secretion would act in these, quite conceivably, in a similar manner to that which influences the more actively excretory sudoriporous glands. Irritability of the tip of the tail is not always due to faulty docking, for I have seen it worse in the Pekingese than perhaps in any other breed accompanying rectal abscess, and so badly gnawed as to become necrotic and necessitate amputation. For such cases, which are often trying and persistent, I have used an injection of a mixture of glycerol of tannic acid and hamamelis extract, combined with a mild antiseptic. As general treatment I employ tonics such as syrup of glycerophosphate, calcium sulphide and antistreptococcic vaccines once a week, the treatment to the tail being quite incidental. I cannot agree that erythema of the back is caused simply by rubbing, as Mr. Howard Dawes suggests; but consider that it is due to localised eruption over nervous areas. How commonly do we find such circular patches a short distance anterior to the base of the tail and often nowhere else. These quickly recover if cleansed with a strong solution of borax, and afterwards treated with borated glycerine combined with a little simple general treatment.

In seborrhoea, or any other condition in which there is much epithelial proliferation, I usually commence with a cleansing and fairly prolonged application of a warm solution of borax and bicarbonate of soda until the healthy skin surface is exposed, when the alkali is eliminated.

The essayist says that urticaria is rarely seen in the dog. I have, however, met with it, not uncommonly, in puppies, following ingestion of foreign matter as coal, cinders, wood fibre of mats, etc. The eruption is confined to the head and throat, and in a recent case, I witnessed the head of a fox-terrier increased by about a third its size in twenty minutes. When the owner brought him in

I noticed a developing eruption on the right side of the face, and in the short time mentioned the whole head became generally swollen.

Regarding alopecia there is, I am afraid, not much to be said. It is not uncommon in Pomeranians and Yorkshires, and the owner's patience is exhausted long before the time necessary to restore a normal condition. A white Pomeranian, about eight years old, which had lost the whole coat excepting from the head about eighteen months ago, now has a complete normal coat. The skin was periodically cleansed with coal-tar soap, and three or four times a week treated with borax and warm water, one tablespoonful to half pint, dried and dressed lightly with lanoline. Quinine, iron and arsenic—quite small doses of latter—were given daily for about a fortnight, with intervening fortnightly intervals. The dog was otherwise healthy and last spring grew a normal coat even after so long an interval.

One condition which Mr. Stainton has quite pardonably omitted is urinous eczema. I have seen but few cases; it affects both horse and dog. A tenacious discharge issues from circumscribed patches of skin, with a distinctly urinous odour. It is usually due to grave functional disorder, and in my hands has never recovered.

In a case which I treated at my own kennels, upwards of twelve months ago, it affected a spaniel dog eight or nine years old. Other symptoms were excessive thirst and profuse urination, with rapid loss of flesh, although the appetite was fairly good. On *post-mortem* both kidneys were found to be greatly diminished in size, shrivelled in appearance, and when cut into were almost cartilaginous in consistency, the result of chronic nephritis. How the profuse watery urine which was passed in such quantity managed to get through them remains still a mystery to me.

In scrotal eczema, when the part is so difficult to protect, and is constantly chafed and soiled in the sitting position, and when in old dogs with a very thin skin and a pendulous condition of these parts there is often considerable haemorrhage. I have found, after the primary acute irritation has passed off, that a fairly thick

coating of collodium flexile is very useful. The dog must, of course, be restrained until it is quite set, which only occupies a few moments.

Cases of sarcoptic mange are frequently contracted from the cat. Mr. Stainton's symptoms read like the classical ones of eczema from which it is not always easy to distinguish, as the parasite is sometimes elusive. I have found mange and ringworm running concurrently both in the dog and horse.

My experience of follicular mange is similar to that of most of my confreres. If far advanced it is not worth treating. I have had, however, a few recent recoveries, and have found an ointment of one part ung. hydrarg. nit. fort. to four parts of ung. sulph. perhaps the most effective local application, and Donovan's solution, in five minim doses, a useful medicine. Cases in which large areas are affected with confluent suppuration are hopeless.

Mr. Cormack:—I should not like the opportunity to pass without adding my thanks to those of the previous speakers to Mr. Stainton, for giving us so useful and practical a paper on a subject of such great importance to those who are called upon to treat the diseases of the dog. The subject covers a very large proportion, possibly about 50 per cent. of the cases one meets with in canine practice.

One point occurs to me which has not been dealt with by other speakers, and that is in connection with follicular mange, *viz.*: the more or less characteristic odour which one finds in the majority of cases.

Mr. Steele Bodger.—I should like to add my meed of praise to that of the previous speakers, and to thank Mr. Stainton for his excellent and very useful paper. If he has overlooked any detail in his paper we have surely had it from Mr. Livesey, who opened the discussion in such an able manner.

I should like to ask Mr. Stainton if he has any knowledge of oil of cevadine, particularly with regard to its application in the treatment of follicular mange.

I have not found it possible to procure the drug in this country, but whilst attached to the French Veterinary Hospitals, I had some considerable experience of its use in treating the various manges in the horse. All these cases of mange were very advanced; often the body was hairless and the skin dry, tough, cracked and bleeding. After the animal was washed, scraped and dried, a small quantity of huile de cedre was well scrubbed into the skin. One dressing was usually sufficient; never more than two were required.

The results were extraordinary: itching ceased, the skin became soft and pliable, and, most noticeable of all, the new hair grew with mushroom-like rapidity.

Several of the members have remarked upon the great difficulty experienced in promoting the growth of hair in certain breeds of dogs, and it has occurred to me that this drug might be usefully employed in that connection.

THE REPLY.

In reply to the discussion, Mr. Stainton thanked the President and members, first for the honour of being invited to read a paper to the Midland Division; second, for the very kind reception and interest evinced in the paper; and, third, he wished to thank all those members who had contributed to such a useful discussion.

In reply to Mr. Livesey—Mr. Livesey discounted rectal worms as a cause of *pruritus ani*,—he could not agree on that point.

Regarding the administration of arsenic bromide, this was dispensed as a tabloid, and so obviated errors in dosage.

In connection with the causes of pruritis, Mr. Livesey had raised the very important question of shedding and retention of the coat, and to his remarks were added the very sound and practical views of Mr. Dawes, junior. In these days of breeding and showing it was important that the veterinary surgeon should be *au fait* with the details of the top coat, under coat and the technique of stripping, etc.

As regards bacillary necrosis, one had to agree with Mr. Livesey that it was a most difficult condition to treat. So far

as he was concerned—apart from excision of necrosed parts—the best results had been obtained from chromic acid 10 per cent., and perhaps chloride of zinc 5 per cent.

Mr. Livesey was inclined to connect alopecia with pigmentation—possibly there was something in this association. One might reasonably assume that the loss of balance of heat passage in a bald skin might be to some extent corrected by pigmentation. On the other hand, it was to be remembered that pigmentation, melanosis and melanomatous tumours usually occurred in dogs where red or tan predominated in coat colouration, as for example, in Yorkshires, Irish terriers, Airedales, etc. Alopecia, on the other hand, occurred in any breed.

Mr. Livesey had a theory that, in old dogs, some skin affections were closely connected with kidney deficiency. It was true that the majority of old dogs suffered from interstitial nephritis, but, from the physiological standpoint, it was difficult to connect this with the skin in view of the limited excretory function of the latter.

On the subject of mange Mr. Livesey deplored the number of undiagnosed cases, but incidentally he made the remark that possibly some practitioners were diffident about using the word "mange." Later Mr. Dawes, junior, among his other pointed and useful observations, stated that we should not temporise when mange was obvious.

True as this might be, there were occasions when it was not policy to call a spade a thing with which you dig. To a certain class of client the name was offensive, and it was better to treat the case under a synonym.

In reply to Mr. Aston, dimol was a phenol body, and non-toxic. It could be used in large doses as internal antiseptic, as an ointment for external use, or, in the syrup form, as a mouth wash. It was to be obtained from the Anglo-French Drug Co., Gray's Inn Road, London. To test its non-toxicity, one had given very large doses to young dogs, and also to cats, who were particularly susceptible to phenol bodies. In answer to the second question, bandages were

not advocated, because they produced a soft spongy condition of the foot. An oil-silk bag was better in allowing ventilation. Mr. Dawes' remarks had been acknowledged in his reply to Mr. Livesey, but there was one other point with which he was in agreement, namely, that an ointment was contra-indicated in scrotal or any other moist form of eczema. In reply to Mr. Brooke, he thought that the majority of rectal abscesses were due to infection of the anal pouches, and periodic evacuation of the latter might obviate the former.

There certainly were obscure cases of *pruritus ani*, as, for instance, in the case of so-called "whirlers." He remembered a Pekingese who showed violent irritation and whirling at every period of oestrus. The cause was not discoverable. The chronic suppurating anal pouch of old dog would sometimes yield to injections of tincture of Iodine. By everting the anus, the duct could be discovered and a fine nozzle of a syringe introduced. He doubted if one could gain much by comparisons with human dermatology. In the dog the skin played little part in excretion. Sweat glands were only few and localised. Had never seen urinous eczema in the dog.

Mr. Reynolds had rightly remarked that a great deal of trouble was due to the use of strong baths and concentrated solutions of Jeyes, etc. He was probably correct in calling the labial eruption eczema, and agreed with him that it was not easy to treat. Zinc sulphate and boracic acid applied frequently as a weak lotion was helpful.

Mr. Evershed had drawn attention to small bald patches on young dogs. No doubt it was a specific condition possibly due to a vegetable parasite. In treatment lime and sulphur was used by some, and 2½ per cent. to 5 per cent. Burnett was also useful. Squamous follicular had to be remembered in differential diagnosis; one's experience correspond with that of Mr. Evershed, in that the demodex was not always easy to find in squamous follicular mange.

The hypodermic injection of carbolic acid was one of the recognised treatments, but some individuals were susceptible to carbolic acid, and care was necessary.

In reply to Mr. Trigger, it was not uncommon to get a curious eczematous condition of the skin as a sequel to distemper. It seemed to have been more than usually prevalent during the past year. Very active treatment was not necessary as a rule.

Mr. Steele Bodger's information as regards oil of cevadin was very interesting. It would be worth enquiring of the Anglo-French Drug Company whether or not the oil was obtainable.

He agreed with Mr. Cormack that the odour in follicular mange was sometimes strong and characteristic.

—*The Veterinary Record*, 26th January, 1924.

ASSOCIATION REPORTS.

PROVINCIAL ASSOCIATIONS.

BIHAR AND ORISSA.

A well-attended and influential meeting of the Veterinary Surgeons of Bihar and Orissa, was held at the Patna Secretariat on the 16th June 1924, with the object of founding a provincial Veterinary Association.

Mr. D. Quinlan, I.V.S. and Captain P. B. Riley, I.V.S. also attended the meeting. Rai Sahib P. N. Das, Asst. Director, C. V. D., Patna, presided.

Mr. D. Quinlan as the Patron of the Association addressed the meeting and declared it formally opened.

The office-bearers for the current year were elected and are as follows:—

D. Quinlan Esq. I.V.S.	Patron.	
Rai Sahib P. N. Das,	Asstt. Director, C.V.D.	President.
Babu N. Chatterjee.	Do.	Vice-President
„ N. N. Ghose,	Vety. Inspector, (Arrah Circle)	Secretary.
„ R. K. Ram	Do.	Joint Secretary.

Babu A. K. Ghose,	O.V.A.,	Treasurer.
„ D. N. Mukerjee,	Vety. Inspector,	Auditor.
„ P. Panda	}	Members of the Executive Committee.
„ S. K. Sinha		
„ T. Singh		
Moulvi S. I. H. Akbari		
„ A. U. Ahamed.		

The rules and bye-laws of the association were next placed before the meeting and adopted.

The association was given the name "The Bihar and Orissa Veterinary Association" and the membership is thrown open to "all Veterinary Graduates of recognised Veterinary Colleges, practising privately within the Province or holding posts in the public services."

The subscription is fixed at Rs. 6 per annum with an admission fee of Re. 1.

For further particulars, intending members will please apply to the Secretary.

Resolutions requesting the Director, C.V.D., Bihar and Orissa, to obtain Government recognition of the association and the General Secretary of the All-India Veterinary Association to affiliate this newly founded provincial association to the parent body, were moved and duly carried.

THE UNITED PROVINCES VETERINARY ASSOCIATION.

Proceedings of the Executive Committee meeting held at Allahabad on
20th August 1924.

President:—Mr. K. S. Sh. Niaz Mahammad Sahib,
Supdt., C. V. D., Allahabad.

Members present:—

Mr. K. S. Sheikh Niaz Mahammad Sahib, Supdt., C.V.D.,
Allahabad.

„ P. T. Tekchand, Deputy Supdt., C. V. D., Basti.

„ Babu Hirachander, Vety. Inspector, Allahabad.

Mr. M. Mushtaq Ahmad, Cattle Inspector, Basti.
 „ S. M. Raza Hussain, Offg. Deputy Director of Agriculture i. c. Cattle Breeding, Muttra.

The following gentlemen sent their opinion in writing :—

Mr. Sirdar Udey Singh, Vety. Asst. Surgeon, Kheri.
 „ Mirza Nasib Beg, Vety. Inspector, Gonda.
 „ Mirza Tahir Mirza, Vety. Inspector, Cawnpore.
 „ M. Imdad Hussain, Vety. Inspector, Agra.

The following resolutions were passed :—

1. Mr. Allahbux, Vety. Asst. Surgeon, Lucknow, was appointed Treasurer of the Association.

2. The following members were nominated, members of the Executive Committee of the All-India Veterinary Association, on behalf of the U. P. Veterinary Association :—

1. Mr. Khan Sahib Sh Niaz Mahammad Sahib, Supdt, C. V. D., Allahabad.
2. „ T. S. Davis, Supdt., C. V. D., Agra.
3. „ Babu Hirachander, Vety. Inspector, Allahabad.
4. „ M. Mushtaq Ahmad, Vety. Inspector, Basti.
5. „ Sirdar Udhan Singh, Vety. Asst. Surgeon, Agra.

3. Mr. Munshi Tahir Mirza was appointed associated Editor of the Indian Veterinary Journal.

4. Mr. K. S. Sh. Niaz Mohammad was nominated for the deputation on behalf of United Provinces to wait on the Government of India.

5. The proposal of the Punjab Veterinary Association to amalgamate the U. P. Vety. Journal with the Punjab Veterinary Journal was rejected with thanks.

6. The resignation of Mr. Zia Abbas Hashmi, Joint Secretary, was accepted with great regret. The committee places on record the valuable services rendered by him as Joint Secretary.

7. Mr. Babu Hirachander was elected as Joint Secretary, in place of Mr. Zia Abbas Hashmi.

8. Read the letter of the Government of India asking representation on Lee Commission Report, and it was resolved that the memorandum submitted on behalf of the All-India Veterinary Association be submitted on behalf of the U. P. Veterinary Association.

9. It was resolved that the Committee of the U. P. Veterinary Association should take to the notice of the Government of United Provinces through the Veterinary Adviser, that the conveyance allowance of district veterinary assistant surgeons has been reduced in the new T. A. Rules (*vide* Appendix VIII) to Rs. 8 while in the old rules (*vide* C. V. D. Manual Rule No. 9) their allowance was fixed not less than Rs. 10 and that actually they used to get Rs. 15 to Rs. 25 according to the conditions of each district; and request the Government that their conveyance allowance may be raised to Rs. 25 as has been done in the case of Sub-Assistant Surgeons.

10. Since the posts of the third Superintendent, C. V. D. and of the Veterinary Assistant Surgeon, are such, in which the possession of a conveyance or horse is advantageous for the efficiency of the service, it was resolved to request the U. P. Government, to add these posts in the Appendix IV of new T. A. Rules.

11. Before the introduction of revised scale of pay ever since the creation of the posts of Veterinary Inspectors in these Provinces, they have been classed as second class officers and have drawn their travelling allowance as such irrespective of their pay, but now by virtue of the new T. A. Rules, the travelling allowance is to be calculated on the actual pay, whereby some of them are classed as second class and others as third class officers, and on some railway lines they will be entitled to draw only 3rd class fare equal to that of their peon. Consequently they will have to draw their T. A. according to the class they are placed in by the new T. A. Rules, which means breaking up of old standing uniformity in the one and the same class of service, and thereby it will seriously affect the well-earned efficiency of the service and will also impair their respect in administrative control or capacity. Therefore

it was resolved that this Association should request the Government to declare that all Veterinary Inspectors are 2nd class officers under the new T. A. Rules irrespective of their pay as has been done in case of other services of equal importance in the nature of work and administrative control over the subordinate staff which is one and the same. The same difficulty arises with regard to the daily allowance of these officers and it may also be fixed at Rs 2 (without any consideration to their actual pay), to which the Veterinary Inspectors drawing the maximum of the appointment *viz.* Rs. 160 are entitled.

12. It was resolved that the Head-quarter of the U. P. Veterinary Magazine shall remain in the same place as at present and the number of pages will be reduced to 15 or 20 pages.

13. If the Secretary is transferred permanently, then the arrangement for a new secretary will be made, otherwise the present arrangements will continue.

14. That, as great discontentment and dissatisfaction is prevailing among the subordinate staff of the department owing to their stoppage of annual increments without giving them any chance of explaining the charges (*vide* Fundamental Rule No. F. 24), it was resolved that this association should request the Veterinary Adviser to Government to pay his personal attention in their cases. That under orders of the Government, para 372 Manual of Government Orders, the advantage of this irregularity may be given to the subordinates whose increment has been stopped, by allowing them their increment, and in future officers of the department may be ordered strictly to observe Government orders on the subject.

15. In view of the recommendations of the Public Service Commission for the Indianisation of the services, it is resolved that at least one out of the three existing posts of Imperial Officers may be given to an Indian.

16. The letter of the Veterinary Adviser about the restrictions of the Veterinary Assistant Surgeons was read and it was resolved that the matter should be discussed at the deputation.

17. It was resolved that a deputation headed by Khan Sahib Sh. Niaz Mohamad should wait upon the Veterinary Adviser to Government, United Provinces and the Hon'ble the Minister-in-charge of Agriculture and Industries to discuss the utility and enhancement of the Veterinary activities in these provinces and also to lay before them the grievances of the subordinate veterinary service. The following will be the members of the deputation:—

1. Mr. T. S. Davis, Supdt., C.V.D., Agra.
2. „ M. Mohammad Tahir Mirza, Vety. Inspector, Cawnpore.
3. „ B. Hirachander, Vety. Inspector, Allahabad.
4. „ S. Uday Singh, V.A.S., Kheri.
5. „ S. Ejaz Hussain, V.A.S. Fyzabad.

THE BENGAL VETERINARY ASSOCIATION.

The Executive Committee of the Bengal Veterinary Association, waited on a deputation before Mr. C. R. Das, the Mayor of the Calcutta Corporation on the 20th June last, for the Corporation to open a City Veterinary Department. The deputation submitted the urgent reasons for the same. Mr. Das, agreed with the views of the deputation and the matter is now under the consideration of a special committee appointed for the purpose by the Corporation.

It is hoped that the Calcutta Corporation will be able to open this important department from the next year and the citizens undoubtedly will appreciate the benefits of the department.

For some time past, grave and serious charges were being brought against the administration of the Calcutta Society for the prevention of cruelty to animals in the public press. It is an old institution and the main object of the society is implied from its name, nobody will dispute the fact that qualified veterinary men are fittest to administer its works, but unfortunately although the society is fairly rich with an annual revenue of Rs. 1,80,000 it never employed, except a few, on its large

staff, qualified veterinary graduates and ignored the claims of the profession in various other ways.

Now the Calcutta Corporation in their meeting held on the 6th August 1924, appointed a special committee to enquire into the working of the S. P. C. A. and Mr. A. D. Mac Gregor, I. V. S., Principal Bengal Veterinary College, and Mr. G. N. Roy Chaudhuri, Secretary, Bengal Veterinary Association, have been elected as co-opted members of this committee and it is now hoped that veterinary profession will find its proper place in the management of this society.

The Bengal Veterinary Association made recently a representation to the Hon'ble Minister who held charge of the Veterinary Department. The cases of the unemployed veterinary graduates were specially mentioned and some suggestions were made where these unemployed men may be absorbed if their question is growing serious every year and if means are not found to employ them, recruitment of students in veterinary colleges is bound to fall. It is a pity that in an agricultural province like Bengal, so many veterinary graduates do not find any work. Bengal is fortunate in having Mr. Mac Gregor, who is very sympathetic and who is doing his best to find employments for his passed students. We wish him success.

THE ALL-INDIA VETERINARY ASSOCIATION, MADRAS BRANCH.

Members are informed that a deputation was arranged to wait on the Hon'ble the Minister for Development, Madras and the Chief Superintendent, C. V. D., Madras, as per Resolution No. 9 of the last Provincial Conference. M. R. Ry. V. P. Subramaniya Mudaliar Avargal was to lead the deputation.

The following replies are published for the information of members :—

T. VINAYAKA MUDALIAR,
Secretary.

Copy of letter No. 2331 III/24-1, dated 27th August 1924, from G. H. Cooke, Esq., I. C. S., Under Secretary to the Government of

Madras (Development Department), to M. R. Ry. V. P. Subramaniya Mudaliar Avl., G. B. V. C., Retired Deputy Superintendent, Civil Veterinary Department, Vellacal, Surandai P. O.

With reference to your letter to the Hon'ble the Minister for Development dated the 5th August 1924, requesting him to receive a deputation of Veterinary graduates, I am directed to request you to forward an advance copy of the representations which the deputation wishes to present.

On receipt of the above reply, the following draft of our representations was submitted to the Government as an advance copy :—

We, the members of the Deputation representing the Veterinary Officers in service in this Presidency beg to submit the following for the sympathetic consideration of the Hon'ble the Minister for Development, Madras :—

I. That since the abolition of the cadre of Veterinary Inspectors, even the remote hope of the Subordinate staff entering that grade on Rs 150-5-200 has been removed. In its place a selection grade on Rs 125-5-175 has been instituted. Thus (a) the maximum pay of the subordinate staff was reduced by Rs 25.

(b.) The chance of substantial promotion from Rs 120, the maximum pay of the Veterinary Assistant Surgeons of the ordinary cadre to Rs. 150 the minimum of the Veterinary Inspectors Cadre, has also been lost.

(c.) What works even harder is the number of posts sanctioned in the present reduced selection grade. Only 10 posts are sanctioned in that grade for the whole of this Presidency, i. e. out of a total of nearly 200 Veterinary Assistant Surgeons only 10 persons can get Rs. 125 when the rest are to remain on Rs. 120 indefinitely. It is interesting to note the present condition of this selection grade. The old Veterinary Inspectors who were drawing Rs. 150 to 200 were retained in the selection grade with the result there are about 18 of them in that grade while its sanctioned

strength is only 10. Thus even for the seniormost man amongst the officers now drawing Rs 120, to get an additional 5 Rupees in way of pay at least 9 men must retire from service or vacate their seats by other circumstances. The Department itself being young, the officers also are young and the prospects of retirement in the near future are absolutely nil. This is the condition now obtaining in the Civil Veterinary Department for the seniormost man on Rs 120. The prospects of others are better left unsaid.

II. Hence we submit that at least 20 per cent. of the Veterinary Assistant Surgeons must be placed on the selection grade and that grade itself must be Rs. 200-10-250, the maximum pay of the non-gazetted subordinate service in other departments. The minimum pay is the lowest paid to any professional man in this presidency. We respectfully invite a verification of this statement. A matriculate or an S. S. L. C. with three years professional training gets nowhere only Rs. 60 to start with. A comparison with prospects obtaining in other departments will justify the validity of our claim for increased scale of pay. Therefore the grade that we suggest is:—

Ordinary Grade Rs. 100-5-200.

Selection Grade Rs. 200-10-250 (20 per cent. of the cadre).

This is also the scale put forward by the rank and file of the department at their last provincial conference held under the presidency of the present Acting Chief Superintendent, Civil Veterinary Department, Madras. This is not at all a large claim considering the general qualification, professional training, arduous nature of work, status in life of a Veterinary Assistant Surgeon in other departments. We submit more will be laid bare on this point in the interview.

III. The house rent allowance which the profession was getting has also been stopped and what more a similar amount is withheld from the pay of the Veterinary Assistant Surgeons where quarters are provided. It is not merely a loss but a double loss in as much as the staff are to pay as much again as they were getting. May we

hope that the house rent allowance will be revived to the eternal gratitude of the profession? The touring officer also is provided with Government samans which are varied and many and on account of which he has to engage a big house. It is but fair that he should be paid a fair share of the rent he pays. He has been bearing half the contingent charges incurred on his official tours for the simple reason that his personal samans are allowed to be carried in the same bandy as the Government samans. On the same principle he sets up his claim for a fair share of the rent he pays.

IV. While thanking the Government for instituting the post-graduate course, the present system of holding an examination at the end of the course is hardly doing justice to the aged officers who undergo the course. They have done away with this examination at the Madras Medical College after an extensive trial. The course should at the most be a "Refresher Course" and nothing more and nothing less. We pray for the immediate cancelling of this examination so that the men who undergo the course now at the College, may get the benefit of the order of the Government.

V. The officers employed at the Madras Veterinary College as Lecturers and Assistant Lecturers are denied the privilege of drawing any teaching allowance as allowed to officers in similar positions in professional colleges or schools either in the metropolis or in the mofussil. This distinction is keenly felt by the staff of the college. A teaching allowance is a desideratum in the case of these officers.

VI. The minor dispensary system must replace the present touring Veterinary Assistant Surgeons. "The Radical," a local weekly of some eminence and noted for its sobriety of views in an article on "Medical Relief in Rural Areas" writes as follows:—
"The other suggestion having travelling dispensaries is equally impracticable. This method is costly and unsatisfactory also. Travelling Doctors may be of some use in cases of chronic disease but they cannot be of much use in cases of acute illness. They will generally arrive too late to be of much use. To rely on a

doctor who visits the village once a week or even twice a week is to rely on essentially unreliable agency. He cannot generally be had when wanted, and when he is present there may be nothing for him to do in the particular village. This alternative must therefore be ruled out of account, as one involving a good deal of expenditure without the corresponding advantage. Thus the utter futility of any itinerating staff is well brought out in the article quoted above. The touring Veterinary Assistant Surgeons are asking in despair whether they have to end their lives on touring work alone at the present rate of opening new dispensaries. The wholesome order of opening six new dispensaries every year is not given effect to. These officers are asked to tour continuously for 20 days and during outbreaks of disease throughout the month, without a permanent peon even. Therefore the posts of the present touring officers may be converted into minor dispensaries without much additional expenditure. As funds permit more dispensaries may be opened. This will lead to efficiency of the department, its expansion, and better utility of the profession to the ryots at large.

VII. Recently the Agricultural College has been affiliated to the University of Madras under the tenure of Ministership of Sir K. V. Reddy Naidu Garu. May we hope that the only other College under the Development Department will receive a similar recognition at the hands of the present Minister?

VIII. In the interest of public health, it must be made binding on all Municipalities and Local Boards to avail of the services of Veterinary Assistant Surgeons for the inspection of their abattoirs and dairy farms.

IX. The deputation prays that an early effect as far as this department is concerned may be given to the recommendations contained in the report of the recent Royal Commission on superior Service presided over by Lord Lee.

X. The question of unemployment is disturbing the peace of our little profession. Young men are turned out of our college every year only to find that they are to remain without employment for years to come. Their lot is pitiable. That the Hon'ble the Minister be pleased to consider their case favourably is our earnest

prayer. There is need for development of veterinary aid in country parts and we only hope that this most essential department to the economic interest of the country will receive its due share of recognition for development at the hands of the Government.

The All-India Veterinary Association,
Madras Branch, Tiruvannamalai.

Date 29—8—1924.

From

M. R. Ry. T. Vinayaka Mudaliar, G. M. V. C.,
Secretary,

The All-India Veterinary Association,
Madras Branch, Tiruvannamalai.

To

The Chief Superintendent,
The Civil Veterinary Department, Madras.

Sir,

In pursuance of Resolution No. 9 of the Third Veterinary Graduates' Conference held under your presidency during December 1923, I beg to request you that you may be pleased to arrange with the Hon'ble the Minister for Development, Government of Madras, to receive a deputation of ours to lay before him "all matters of importance to our profession."

This request I make of you both as the official head of the C. V. D., Madras, and the President of the Conference under reference. I request you, Sir, to do your best to get us a hearing from the Hon'ble the Minister.

I enclose herewith a copy of the proceedings of the last conference.

I beg to remain,

Sir,

Your most obedient servant,
(Sd.) T. Vinayakam,
Secretary.

Copy of letter Dis. No. 539—A/24 dated 9th September 1924, from the Acting Chief Superintendent, Civil Veterinary Department, Madras, to the Secretary, All-India Veterinary Association, Madras Branch, Tiruvannamalai.

Reference :—Your letter dated 29th August, 1924.

I shall be glad to assist the Veterinary Graduates' Association in any way which is open to me. It is not however open to me to receive any deputation other than from a Service Association. The All-India Veterinary Association is not a Service Association and it is not officially recognised by Government. Government have recognised the Madras Veterinary Assistant Surgeons' Service Association and that is the only association from which I am allowed to receive a deputation officially. Having this channel through which to represent views I do not understand why advantage is not taken of it.

Copy of letter No. 2331—III/24-2, dated 9th October, 1924, from G. T. H. Bracken Esq., I. C. S., Secretary to the Government of Madras, Development Department, Fort Saint George, to M. R. Ry. V. P. Subrahmanya Mudaliar Avergal, Retired Deputy Superintendent, Civil Veterinary Department, Vattacal, Surandai P. O.

With reference to your letter dated the 16th September 1924, I am directed to state that, as the proposed deputation is from an association which has not been recognised by the Government, the Hon'ble the Minister regrets that he is unable to receive it.

THE A.I.V. ASSOCIATION, COIMBATORE DIVISION, MADRAS BRANCH.

A meeting of the association was held on Sunday the 22nd June 1924, in the London Mission Elementary School Hall, Coimbatore.

Present :—Messrs. A. M. Richards, A. Castelino, S. A. Sastry, C. Madhava Nambiar, L. Subramanya Iyer, M. Ponnaya, T. R. Rajagopala Rao, A. Ramaiya, C. V. Padmanabhan, A. S. Mahadeva Iyer, B. Seetharama Rao.

Messrs. C. N. Subbaraman, Touring Veterinary Assistant Surgeon, Tekkali and K. Laxminarayanan, Touring Veterinary Assistant Surgeon, Kamalapuram who were on leave attended the meeting as visitors.

The proceedings commenced at 9-30 A. M. with the election of the President. Proposed by Mr. L. Subramanya Iyer and seconded by Mr. M. Ponnaya and supported by Mr. Rajagopala Rao, Mr. A. Castalino was duly elected President. The newly elected President then took the chair and delivered his Presidential Address.

PRESIDENTIAL ADDRESS.

GENTLEMEN,

I thank you very much for the honour you have done me in electing me as President of this meeting. But I think you have not made the best choice. For I know there are here members present who would have occupied the position more creditably.

It is now a little over a year since we formed this branch of the Association and we have met here to-day for the third time. And in this short period we can say that we have done useful work both from the social and professional standpoint.

But I am afraid that our interest in the welfare of the association is on the decline; many more members were expected here to-day and it is a matter for sincere regret that none of the members even from the neighbouring district—I mean the Nilgiris—has responded to our invitation. With dwindling numbers it is not possible to hold meetings which will benefit us professionally. If we could keep a few clinical notes of the cases treated and meet together in larger numbers we will have sufficient material to discuss at these meetings.

Gentlemen, you will therefore agree with me that we should take more lively interest in these meetings and meet together in

greater numbers in order that the two main objects of the association *viz.* the advancement of the profession and the promotion of *esprit-de-corps* among the members may be achieved.

Before concluding I should like to say a few words about the Service Association. Since we met last, this association has been formed with the sole object of dealing with questions relating to the service. This was done on the advice of the Chief Superintendent C. V. D., who presided at the last Annual Conference of Veterinary Graduates' Association, Madras. It was also pointed out by other well-wishers that the Service Association would be of great benefit to us. The only fear that was expressed in some quarters was that the advent of the Service Association will be a death blow to the Veterinary Graduates' Association. This ought not to be and I sincerely hope it will not in any way interfere with the activities of our Veterinary Graduates' Association.

Gentlemen, we will now proceed with our programme. I hope you will all take a lively interest in every item and make this function a success.

READING OF LETTERS.

The Secretary, Mr. C. Madhava Nambiar, then read letters from absentee members regretting their inability to attend the meeting and wishing the function every success. It was resolved that the letter from Mr. Thammaya should be forwarded to the Secretary, parent association for necessary action as this branch could not take the initiative in discussing matters relating to the welfare of the whole body.

The minutes of the previous meeting were then read and confirmed.

A microscopical demonstration of Anthrax Bacilli and Pyroplasma was given by Mr. A. Castalino, with which the morning function came to a close.

The evening function commenced with the reading of some more letters from absentee members which were received after the morning function was over. Reading of professional papers was then taken up. Mr. C. V. Padmanabhan read a few clinical

notes on (1) amputation of penis in a pig, (2) the cure of snake poisoning by Hariyali grass.

The clinical notes on snake poisoning created a lively discussion. Mr. A. M. Richards enlightened the members on poisoning by various kinds of snakes.

Mr. S. A. Sastry read a paper on the use of (a) antimonium tartaratum and its application in veterinary practice—(1) in nasal granuloma, (2) Epithelioma of eye, (3) Cancer of horn, (b) Saline injection in ophthalmic practice; (c) Intestinal lavage in canine practice.

All the members present took active part in the discussion of these three-items.

The next item of the programme was the election of the Secretary. Mr. C. Madhavan Nambiar was proposed by Mr. L. Subramanya Iyer and seconded by Mr. A. Ramaiya for Secretaryship but he regretted his inability to accept the office. Mr. A. Castelino was then proposed by Mr. M. Ponnaya, this proposal having been seconded by Mr. C. V. Padmanabhan, Mr. A. Castelino was elected Secretary.

With the President's speech and a vote of thanks to the Chair the meeting came to a close.

The members then adjourned to a tea party and spent an enjoyable evening.

A. CASTELINO,
Divisional Secretary,
Coimbatore.

THE THIRD ALL-INDIA VETERINARY CONFERENCE, MADRAS, 1924. AN APPEAL.

BROTHERS,

During our last Conference at Lucknow we accepted amidst great acclamation the invitation of Madras to hold the third session of the All-India Veterinary Conference in that presidency. Now our Madras Colleagues have decided to hold that session during the ensuing Christmas holidays, and the 29th, 30th and 31st December, 1924, have been provisionally fixed for the Conference.

2. The services of Madras to the cause of our profession are only too well known to need any repetition here. It has the proud privilege of running the biggest provincial Veterinary Association in the whole of India on very efficient lines. Madras has been supplying us with men and money for all our undertakings. In Madras we have the strongest of our supporters. They have contributed not a little to cement the inter-provincial friendship by deputing their delegates not only to attend the A. I. V. Conference, but the Provincial Conferences as well. Their enthusiasm and sustained work are really praiseworthy. I am sure every province will feel in duty bound to honour Madras by sending a large contingent of delegates.

3. Our Madras friends have decided to treat all the delegates as their honorary guests. Hence boarding and lodging will be free. Their only wish is that the response might be hearty and in large numbers.

4. Many important subjects are to be brought forward at the Conference. The considered opinion of the profession will be requisitioned to a very great extent. From my personal experience of our Madras friends I venture to say that they will make it a grand success. In every way the Conference promises to be a record one.

5. Brothers! Fail not to stand by the profession during these days of her struggle for existence. It is not given to every generation to sacrifice their little so that many may be benefitted in the succeeding generations. Such an opportunity is ours; realise it and "Act, act in the living present." India's sons in every field of work are up and doing. Let us not rest on our oars. Hence I beseech you to attend the Conference at Madras without fail and take that opportunity to visit the oldest of presidencies, the nursing home of British Raj, full of history and full of natural scenery. Mr. Mac Gregor, Veterinary Adviser, Bengal, has kindly consented to preside.

Jhansi, }
15.11.24. }

(Sd.) S. M. Raza Hussain,
General Secretary.

The Third All-India Veterinary Conference, Madras 1924.

BULLETIN NO. II.

1. At a meeting of the Reception Committee held in Madras on 25-10-24, M. R. Ry. K. Kylasam Iyer Avargal, G. B. V. C., officer-in-charge of V Circle, C. V. D., Coimbatore, was unanimously elected as Chairman of the Reception Committee. Messrs T. Vinayaka Mudaliar and V. Janakirama Iyer were elected as Secretary and Joint Secretary and Treasurer respectively.

2. M. R. Ry. K. Kylasam Iyer Avargal has kindly accepted the office.

3. The Managing Committee of the A. I. V. Association has elected A. D. Mac Gregor, Esq., M. R. C. V. S., Principal, the Bengal Veterinary College, Calcutta, as the President of the Conference and he is pleased to accept the office.

4. The Conference as already announced will take place on the 29th, 30th and 31st December, 1924 at Madras.

5. The time for sending professional papers and resolutions intended for the Conference has been extended to 15th December, 1924.

6. Members will please note that the fee for a Reception Committee Member is Rs. 10 and for a delegate Rs. 5. The success of the Conference depends upon the financial support it receives from the profession. Therefore it is expected that many will join the Reception Committee and attend the Conference.

The above fees are invited only from the professional colleagues in the presidency of Madras *including the Indian States*. No fee of any kind will be charged to the delegates from outside the presidency of Madras. All remittances should be sent to the Joint Secretary and Treasurer at Saidapet, Madras.

(Sd.) T. Vinayaka Mudaliar,
Secretary, Reception Committee.

VEST AND CO., MOUNT ROAD, MADRAS.

The Indian Veterinary Journal.

A quarterly record of Medicine, Surgery and of
General Veterinary Intelligence.

DEVOTED TO THE CAUSE OF THE VETERINARY PROFESSION
IN THE INDIAN EMPIRE.

EDITED BY

P. SRINIVASA RAO. G. M. V. C.,
Veterinary Surgeon, Madras.

Contents :

Original Articles, Reports of interesting cases, Editorial, Veterinary Society Reports, Extracts, Reviews and Notices of Books, New Veterinary inventions in Medicine and Surgery, Therapeutic Notes, Service Notes and Correspondence.

Amongst the Contributors to the Indian Veterinary Journal are some of the most eminent men in the profession in India and abroad.

The Indian Veterinary Journal circulates among veterinary men of all classes and ranks in Civil, Military, Municipal, Local Fund and Mission Services, Private Practitioners, etc.

The Indian Veterinary Journal visits Government, Municipal and Local Fund and Private Hospitals, Dispensaries, Charitable Institutions, etc., etc., in India and abroad.

The Indian Veterinary Journal affords a very powerful medium for all advertisements appealing to the veterinary profession in these countries.

It is especially suitable for advertisements relating to:—

DRUGS	SOAPS	OPTICAL GOODS
FINE CHEMICALS	VETERINARY BOOKS	VETERINARY PUBLICA-
SURGICAL INSTRU-	HOSPITAL FURNITURE	TIONS
MENTS & DRESSINGS	APPLIANCES	DIETETIC PREPARA-
INDIA RUBBER	PROPRIETARY	TIONS
SURGICAL GOODS	MEDICINES	LABORATORY FITTINGS
DISINFECTANTS	TOILET GOODS	ETC.

Advertisements of a select character only are admitted into the Journal.

2

All correspondence relating to Advertisements should be addressed to:—

The Editor, 18, Wallajah Road, Mount Road, Madras.

Remittance and Cheques should be made payable to the Editor.

N.B.—The Editor reserves the right to exclude from the Journal any advertisement which, in his opinion, is contrary to the ethics of the veterinary profession.

SIZE OF PRINTED PAGE OF THE JOURNAL.

Scale of Charges for Advertisement:—

Whole page per insertion	Rs. 20.
Half page . do.	12.
Quarter page do.	8.
One-eighth page do.	5.

1. Payment must be made in advance, except when approved accounts are opened and in such cases all bills are to be paid within 15 days of presentation.

2. The Editor declines any responsibility in the event of one or more of a series of advertisements being omitted from any cause whatever and he also declines to account any responsibility for damage to or loss of blocks.

3. No guarantee is given that an advertisement will appear in any special issue, but care will be taken to meet the advertiser's wishes.

4. No deduction may be made from advertisement bills on account of alleged defective insertions; claims on such account will be adjusted by extra free insertion.

5. All extra space used during the period of the contract will be charged *prorata* to the existing contract.

6. No advertisement contracted for a certain period shall be withdrawn by the advertiser before the expiry of such period and if withdrawn shall be charged at a rate at the discretion of the Editor.

7. All sums due under the contract shall be recoverable either from the advertiser or from the Agent.

VOUCHER COPY FREE.

SPECIMEN COPY FREE.

Customs duty, to and fro postage on blocks, cost of mounting unmounted blocks, preparing blocks from matrices and bank commission on cheques will be charged to the advertisers' account.

94472