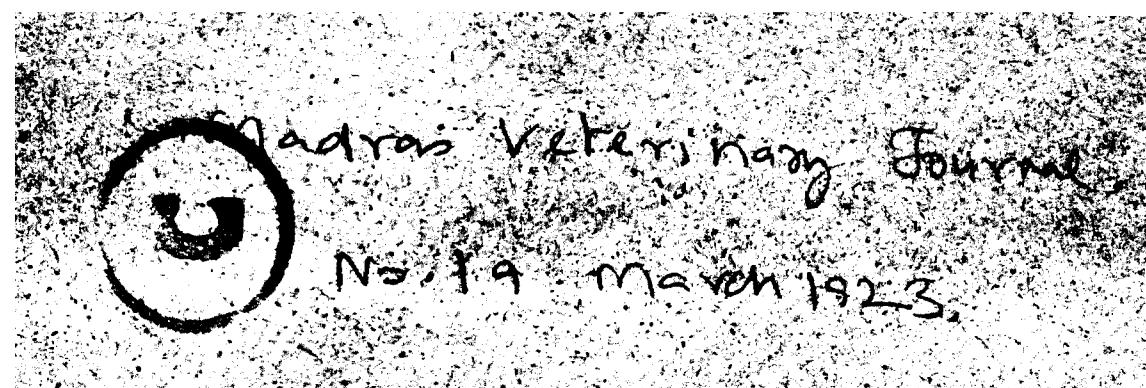




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THE MADRAS VETERINARY JOURNAL

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EDITOR

THE DEPUTY SUPERINTENDENT, CIVIL VETERINARY
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THE SECOND VETERINARY CONFERENCE.

The second Conference of all-India Veterinary officers was held at Calcutta from 25th February to 2nd March, 1923. Delegates attended from each province; Col. Walker, Principal of the Lahore Veterinary College, was in the chair, and Mr. T. J. Edwards, Director of the Muktesar Laboratory acted as Secretary.

The most important item on the agenda again was Veterinary Education, and after a very lengthy discussion it was decided to pass rather different resolutions to those approved at the last Conference in 1919. Since that time the Principals of the different Indian Veterinary Colleges have met and drawn up a curriculum for a higher grade course of Veterinary study to extend over 4 years. The Conference which has just met recommended that this be instituted at the Lahore Veterinary College only and that graduates of this course should be eligible for direct recruitment into the Provincial services. As regards the courses at present being held at the different Veterinary Colleges, it was recommended that their curricula be modified, but that the length of the course remain the same.

It remains to be seen if the Government of India accept these recommendations. Several of the more important contagious diseases were also discussed, including Anthrax, Tuberculosis, and Surra. Of these, probably Anthrax took up the most time, owing to the finding of a Committee of enquiry recently appointed in England to investigate the source of human Anthrax in that country.

Col. Hutchinson, Commissioner of Public Health with the Government of India, who attended the conference, stated that most of the infected goat hair came from this country and that it was recommended by the Committee that while this state of affairs existed such hair should be disinfected before export at a special disinfecting station, which would have to be put up at great expense by the Government of India. The great amount of work before this department in the future in connection with anthrax alone is therefore obvious.

F. W.

NASAL GRANULOMA.

BY

P. A. Parthasarathi, G. M. V. C., Veterinary Hospital, Ellore.

With reference to the above disease and its treatment with intravenous injection of Tartar Emetic I wish to record the following two cases

CASE NO. I.

Subject.—An aged white bullock of medium size brought from a village "Vasanthavada" at a distance of 8 miles from Ellore was admitted on 22nd May, 1922.

History and symptoms.—The animal was making the characteristic snoring noise during ordinary respiration and it was said to be distressed during feeding and severe exertion. Thick whitish discharge was seen sticking in the nostrils and examination revealed the presence of raised ulcerations. He was said to have lost his condition after the onset of these symptoms.

Treatment.—22nd May, 1922. Temperature 100° 2°F. He was given an intravenous injection of 10 grains of Tartar Emetic in 20 C. C. of boiled rain water at 9 a.m. Temperature at 5 p.m. rose to 104° 2°F. He went off feed; slight diminution of the snoring was noticed, nostrils became dry, the animal had rigors and a staring coat, pulse was ranging from 25 to 30 and the respiration 10 to 13, per minute and the dung was constipated. He was given the following drench after the rise of temperature.

Re.

Ammon. Carb.	... 1 ounce
Spt. Aetheris nitrosi	... 2 ounces.
Tr. Nux Vomica	... 1 ounce
Aqua.	... 1 Pint
Mft. mist.	.

S. $\frac{1}{4}$ part to be given in cold gruel every 3 hours.

23rd May, 1922 :—Temperature at 7 a.m. was 101° 0°F. The animal resumed feeding at 5 a.m. and drank some conjee. There was slight snoring and the ulcers partially dried up and less rosy in appearance.

25th May, 1922 :—Temperature at 7 a.m. was 100° 6°F. He was given 15 grains of Tartar Emetic. Temperature at about 5 p.m. rose to 103° 2°F. Symptoms were the same as those observed on the evening of the first injection. The same stimulant drench was prescribed.

26th May, 1922 :—Temperature at 7 a.m. was 99° 8°F. He began to feed at about 2 a.m. Snoring sound was absent, greyish patches were seen in place of previous ulcers.

30th May, 1922 :—Temperature at about 7 a.m. was 100° 2°F. injected intravenously 20 grains of Tartar Emetic. The temperature rose to 104° 6°F. at about 7 p.m. together with the appearance of other concomitant symptoms. Stimulant drench was prescribed.

31st May, 1922 :—Temperature 101°F. Resumed feeding at about 5 a.m. and he was discharged cured.

CASE NO. II.

Subject.—An aged, black, Ongole bullock.

History and symptoms.—This bullock similar to case No. I presented all the typical symptoms of the disease and was said to be suffering for about a year.

25th September, 1922 :—The bullock received an intravenous injection of 15 grains of Tartar Emetic in 20 C. C. of boiled rain water at about 8 a.m. when the temperature was 99° 6°F. At about 8 p.m. the temperature rose to 102° 4°F. He went slightly off feed. A staring coat and a dry muffle were marked though slight. The snoring noise lessened to a perceptible extent.

26th September, 1922 :—Temperature about 7 a.m. was 101° 2°F. Feeding was resumed at about 6 a.m.

28th September, 1922 :—Temperature at about 7 a.m. was 100° 2°F. Owing to the mild reaction he was given an injection of 20 grains. This time, the reaction being severe the temperature rose to 104° 4°F. at about 3 p.m. and the animal exhibited all the symptoms of reaction. Snoring completely disappeared, ulcers became dry and he was given the stimulant drench.

29th September, 1922 :—Morning Temperature at about 8 a.m. was 99° 6°F. Commenced feeding at 5 a.m. and presented other healthy symptoms.

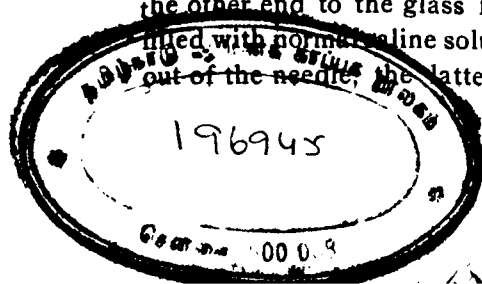
4th October, 1922 :—Temperature at 8 a.m. was 100° 2°F. Injected 25 grains of Tartar Emetic in 20 C. C. of boiled rain water. Temperature rose to 103° 8°F. at about 5 p.m. He presented the symptoms of reaction in a less severe form than he did on the day of the 2nd injection, all the same, stimulant drench was prescribed.

5th October, 1922 :—Temperature at 8 a.m. was 101° F. Resumed feeding at about 3 a.m. and other normal symptoms. Snoring was not observed whitish grey patches were seen in places originally occupied by hard ulcers and the animal was discharged cured.

These are the two cases I have come across after the contribution of my previous article on this disease. Hence more statistics cannot be given until I meet with any more cases in future.

In the 15th issue of the Madras Veterinary Journal, Mr. V. Krishnamurthi Ayyar was pleased to aid us with an interesting and instructive article regarding several cases of snoring disease that he met with in the south of the Presidency. His discovery of ray fungus as the cause of the disease commends itself to the attention of the profession. I beg to hope that I may not be taken amiss when I aver that the failure of his treatment with Tartar Emetic is due to the fact of his not having tried according to the course I have adopted and by which successful results have been obtained. It is neither my intention nor my desire to decry his contribution but I wish to make a frank and simple statement of certain facts in support of my views originally expressed in connection with the disease and its treatment. Otherwise it is not unlikely that faith will be lost in my treatment, which has given gratifying results and has been appreciated and endorsed by other enthusiastic and sympathetic co-workers.

During my first attempt with this drug I tried 20 grains in the form of a 2 per cent solution, not by means of a Salvarsan apparatus but with a crude appliance which served the purpose intended. It consisted of a hypodermic needle, long unused stethoscope rubber tubing and a glass funnel. After due sterilisation one end of the rubber tubing was fixed to the needle and the other end to the glass funnel. The whole apparatus was filled with normal saline solution and as the solution was flowing out of the needle, the latter was passed into the Jugular vein



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after necessary antiseptic precautions. The entrance of the needle into the vein was evidenced by the decrease in the quantity of the solution in the glass funnel and the absence of bulging at the seat of puncture. This was followed by the pouring in of the 20% solution little by little as the fluid in the glass funnel gradually lowered down. Thus completely emptying the funnel was avoided with the object of preventing the rushing of air into the vein. After all the Tartar Emetic solution was poured in the glass funnel kept full with the physiological solution till all the Tartar Emetic solution passed into the vein. The needle was withdrawn when the glass funnel was full of the physiological solution. I find this short explanation is necessary to attest to my original attempts made with this drug and also to dispel any doubts that may be entertained regarding its veracity. The result was that neither any reaction nor any favourable symptoms were noticed. The same animal after an interval of 4 days was given an intravenous injection of 20 grains in a concentrated form of 20 C. C. solution. Seven hours after injection all favourable symptoms were noticed and the animal injected resumed his normal habits next morning. Just about that time I was transferred from Parlakimedi and the Veterinary Assistant who succeeded me repeated the injections and informed me that the Ongole breeding bull of the Parlakimedi palace (for that was the animal that underwent the above treatment of 2 per cent solution) is perfectly all right. This case I have already made mention of in my first article in this Journal No. 10 of 1921 page 6.

It is my earnest appeal that Mr. V. Krishnamurthi Ayyar will try this drug in 20 C. C. solution and record his observations and pronounce his opinion in this journal, for any opinion from such a source will greedily be taken up by practitioners.

The treatment of this disease by Mr. A.S. Mahadeva Ayyar, Veterinary Assistant i/c Veterinary dispensary, Manjeri in his case No. 2 is in accordance with the views suggested up to the end of 23-6-1922. When he noticed sufficient therapeutical reaction on 22-6-1922 and some slight improvement in the symptoms on 23-6-1922, he ought to have allowed an interval of at least 4 days before he gave another injection with the increased dosage. His administration of 30 grains the very next day after reaction, resulted no doubt in toxicity and death of the animal.

It has been clearly stated in my first article that an interval of 4 or 5 days between injections is advisable when an animal reacts and when the injection is repeated with an increased dose. But in case of dire necessity, for instance, when the owner wants to go away to attend to some other pressing work, the same reacting dose may be repeated within shorter intervals of 2 or 3 days at his own risk. It is requested that Mr. A. S. Mahadeva Ayyar will please adopt these suggestions and record his experience.

I request through the medium of this Journal Mr. Samira-simha Rao, to give his experience of a case of snoring disease which he was treating during the beginning of August, 1922 when he was in charge of Cocanada hospital and also request Mr. Krishnamurthi, Veterinary Assistant i/c Veterinary Dispensary, Masulipatam to inform the result of intramuscular injections of Tartar Emetic which he gave to a calf suffering from this disease during November, 1922.

It is my fond hope that by an earnest and sympathetic co-operation of the profession, at least this disease which is setting us at defiance will be effaced from the category of incurable diseases affecting cattle.

Resume:—(1) I always begin with the minimum dose of 10 to 15 grains for adult cattle according to size, to study the idiosyncrasy or special susceptibility of the animal and then gradually increase the dose according to circumstances and find the actual reacting dose. For if an animal is treated with a 20 grain dose at the onset it may either prove toxic or produce an unnecessarily severe reaction.

(2) If no reaction is noticed after the administration of the first dose it may be repeated with an increased dose of 3 to 5 grains according to the size of the animal at an interval of 2 days.

(3) If the reaction is observed after the first dose, an interval of 4 to 5 days is advisable before another injection is given with an increased dose.

(4) It is dangerous to make heroic attempts to cure the disease with increased dosage at shorter intervals than 4 or 5 days. The object of allowing the interval is not only to avoid the cumulative effect, but to allow sufficient time for the tissues of the body to obtain a toleration for the drug.

(5) It is invariably safe to prescribe stimulants in small repeated doses when the animal displays signs of reaction.

(6) More than 3 reacting doses are rarely necessary to effect a cure.

(7) A dose of 25 grains for a medium sized bullock and 30 grains for an animal of the Ongole type is the maximum and this limit need not be exceeded under any circumstances. If the disease is not cured after the administration of the maximum dose, the same dose may be repeated at short intervals of 2 or 3 days and the animal carefully watched.

FOREIGN BODY IN THE CHEST.

BY

*K. V. Raghavachari, G. M. V. C. Veterinary Hospital,
Coimbatore.*

A country-bred cow was under treatment in the hospital for a sore in the vulva. On one day a big swelling just inside and posterior to the point of the right elbow was noticed and on manipulation it was found as hard as a fully inflated foot-ball. It sounded like a drum and pressure over the region caused pain to the animal. When, the owner was questioned as to the duration of this swelling, I was informed that it appeared as a small swelling two days prior to that on which I examined and that no particular notice was taken of it, as it did not much interfere with the action of the animal.

On exploration, a small quantity of sero-sanguineous fluid came out, but the swelling remained the same. With the abscess knife an incision about 4 inches long was made which caused the escape of a good quantity of a foul swelling gas and some more fluid. The cavity was then syringed out and was searched for foreign bodies but none could be seen. An antiseptic dressing was applied this day and on the following day a further search in the cavity disclosed a hard point projecting out of the chest cavity between two ribs. With a pair of forceps it was removed and found to be a steel pin about $3\frac{1}{2}$ inches long. After the removal of this the cavity began to close rapidly and the cow made an uninterrupted recovery without developing any sort of systemic disturbance.

COBBOLDIA ELEPHANTIS.

BY

S. D. Devadoss, G.M.V.C., Ag. Inspector of Live-stock,
Forest Dept. Calicut.

Cobboldia elephantis is a fairly large Black and yellow fly like a bee. The adult fly cannot bite and does not feed at all. Its flight is noiseless. It seeks out the elephants to lay its eggs. This egg-laying is very peculiar and continues, in my experience, all the year round in the forest.

The fly, while laying eggs, issues also some glutinous material which causesthem to adhere firmly on to the tusks and tushes of elephants (both males and females). The eggs are usually found on the under-surface of tusks and tushes at their insertion in rows which look like piles of coins arranged. The shell is extraordinarily thick and tough. Each live egg, when pressed between the thumb-nails, burst with a noise exuding out a gelatinous fluid. Each row, so far counted by me, invariably numbers from 13 to 18 eggs. I have observed that ordinarily 2 such rows are laid at a time and the time taken by the fly to accomplish this is but a matter of a few seconds. 4 to 5 rows of eggs have been noticed by me on elephants which get no bath on account of diseases such as indigestion, diarrhoea, dropsy, etc.

Some of the eggs escape into the mouth by licking, and with food and drink, and aided by warmth and moisture, hatch out in the stomach. Others either get dropped from the mouth or crushed in the fodder during mastication. I have noted immature maggots or larvæ in numbers in the tumours and ulcerations in the mucous membrane of the stomach. The mature maggots or Bots of *Cobboldia elephantis* look like whitish red grubs about $\frac{3}{4}$ to an inch in length.

The Bots attach themselves to the walls of the stomach with their two-cephalic hooks which they insert into it and live on the inflammatory products. Once they leave their hold, they pass on to the intestines where they may re-attach themselves. If they re-attach themselves in numbers, they cause intestinal irritation. They finally come out with the ~~faeces~~ and fall to the ground. There they then bury themselves underneath the earth. In a week, they get hardened up assuming a reddish brown colour

and attain their pupal stage. In about 40 to 42 days, they finally emerge out from their pupal envelope as full-grown *Cobboldia elephantis*. The fly, as captured by me together with specimens of other biting flies of elephants have been sent to Major W. S. Patton the late Director of the Pasteur Institute, Coonoor now retired.

A systematic and daily search for the eggs at the insertion of tusks and tushes of elephants and scraping them off, when observed, and application of Carbolic or *Dikamali* oil as antily dressings, twice daily, to the parts, should prevent Bot-infection. For Bot-infected elephants, a course of Turpentine treatment will be beneficial.

EPISTAXIS

BY

P. M. Thillanayagam, G. M. V. C., Veterinary Assistant, Ranipet.

I propose to bring before you a subject which though not very interesting in itself, has attracted my attention for the past few years, and thus come into great prominence in my practice.

Before entering into the subject proper I wish to point out that bleeding from the nose should not be confounded with "Hæmoptysis", or "Hæmatemesis" and the following points, if borne in mind will be a sort of guide for proper diagnosis.

Epistaxis.—The blood in epistaxis results from capillary oozing or diapedesis. The mucous membrane of the nose is deeply congested and there are often capillary angiomas situated usually in the respiratory portion of the nostril and upon the cartilaginous septum. Blood is alkaline in reaction, not frothy and usually trickles from one or both nostrils.

Hæmoptysis.

1. Cough or signs of some pulmonary or cardiac disease precedes the affection.

2. The blood is coughed up. If vomiting occurs in canine patients it follows the coughing.

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3. The blood is frothy, bright red in colour, and is mixed with mucus and it rarely clots, and has an alkaline reaction.

4. The cough persists : physical signs of local disease in the chest may usually be detected and the sputa may be blood-stained for many days.

Hæmatemesis.

1. Previous history points to gastric, hepatic, or splenic diseases.

2. The blood is brought up by vomiting, prior to which the patient may experience a feeling of giddiness or faintness.

3. The blood is usually clotted, mixed with particles of food and has an acid reaction. It may be dark, grumous and fluid.

4. Subsequent to the attack the patient passes tarry stools and signs of disease of the abdominal viscera may be detected.

Etiology of Epistaxis. Causes may be 1. Local or traumatic
2. General or constitutional.

Among local causes small ulcers, picking or scratching the nose, new growths or tumours and the presence of foreign bodies may be mentioned. Bleeding due to injury to extensive venous plexuses that invest the mucus membrane of the nose and the septum nasi in horses and the bleeding in some cases of chronic nasal catarrh are also very common.

Among general causes the following are very important :—

1. Hereditary tendency.

2. Animals of plethoric habit commonly get this affection.

It is stated that epistaxis sometimes precedes or indicates a liability to apoplexy.

3. It is frequent in cirrhosis of the liver.

4. In balloon and mountain ascensions in the very rarefied atmosphere, hæmorrhage from the nose is a common event.

5. It also occurs in all forms of anæmia.

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6. In Hæmophilia the mucous membrane of the nose is the first from which bleeding arises.

7. Certain diseases like Glanders, Anthrax, Purpura, etc., also give rise to nasal bleeding.

8. Dusty and irritating fodder occasions bleeding.

9. Ulcerative changes occurring on the mucous membrane of the nose and the septum nasi in mercurial poisoning give rise to nasal bleeding.

10. More and above all, it is generally induced by the severe exertion of galloping and occurs suddenly during work more in the delicate horses than in the strong and vigorous ones.

Symptoms. Slight bleeding is not associated with any special features, but if the hæmorrhage is protracted serious constitutional disturbances of loss of blood may be manifested. These may be enumerated as follows:—

The animal becomes dull and depressed day by day; loses condition and weight gradually. Coat becomes staring and hide bound and the abdomen is tucked up. Visible M. M. becomes pale and petechiated; M. M. of the nose is highly congested. General appetite is impaired bowels become costive; eyes sink, and the usual work of the animal is disturbed. Weakness and emaciation prevail. Pulse becomes slow and feeble: respirations shallow. Temperature is normal but at times falls below. The animal always seeks a recumbent posture being unable to stand. While standing it is unable to bear weight steadily on all four legs; pointing and alternate pointing take place.

Prognosis:—This is commonly favourable as death from ordinary epistaxis is very rare.

Treatment. In a majority of cases bleeding ceases of itself when the animal is kept quiet and the head elevated. Various simple measures may be employed such as application of ice to the nose or injection of cold water into the nostrils. Astringents such as Sulphate of Zinc, Alum, and Tannin may be used. Tincture of perchloride of iron diluted with ice water may be

introduced into the nostrils, Inhalation of carbondioxide, insufflation of finely powdered alum and injection of 5 per cent., solution of gelatine or a solution of adrenalin into the nostrils may be tried. Ergot may be given internally or hypodermically. If bleeding comes from ulcers they should be cauterised. If bleeding occurs from the lower portions of the nostrils plugging the nostril with tampons of tow saturated with turpentine may be necessary but when this is resorted to the patient must be carefully watched and tracheotomy should be performed, if found necessary. Hypodermic injection of adrenalin chloride is recommended with success in spontaneous bleeding in race horses.

THERAPEUTICS OF SAPONIFIED CRESOL.

BY

*A. R. Venkatachala Ayyar, G. M. V. C., Veterinary Assistant,
Veterinary Hospital, Tanjore.*

This is a drug which appears to be gaining some importance at the hands of Veterinarians. It is needless here to enumerate the uses of this drug externally and its action in combination with Sulphuric acid has already been brought to light by one of our friends sometime back. I only endeavour here to supplement a few more to what he has done. When administered internally in doses of half to one drachm well diluted with one to one and a half pints of water, the drug appears to be a specific in several ailments in cattle. Animals coming with a slight rise of temperature either due to any specific or contagious cause or from any derangement of the digestive system, soon get relieved with the administration of a couple of doses. Diet prescribed is only Rice Conji and straw. In cases where mere high rise of temperature alone is seen either in the beginning of ordinary fever or in fever which is associated with any contagious disease before the onset of any special set of symptoms, this drug plays a beneficial part. In cases of ordinary diarrhoea, 15 to 30 minims of it added to the astringent mixture gives good results. As regards the treatment of contagious diseases, this drug in suitable doses appears to exert a more marked result than Carbolic acid.

In fine, it appears to have the astringent and digestive property in addition to the antiseptic one. I request the professional brethren to try this drug and add their observations to mine.

ASCITES IN DOGS.

BY

K. V. Raghavachari, G. M. V. C., Veterinary hospital, Coimbatore.

A bull bitch aged about 8 years was brought to the hospital with her abdomen greatly enlarged. The animal was otherwise quite all right, eating and drinking as usual. Treatment was commenced by the administration of a pill containing aloes and calomel. This was continued for 3 days, the animal had motions and the abdomen was slightly reduced in size. Then the patient was put on a course of Pot. Iodide and Tr. Digitalis for a week, but to no effect. The abdomen again returned to its original size. So tapping was resorted to and about 2 pints of fluid removed. The course of Pot. Iodide and Tr. Digitalis was continued again for another fortnight, but yet the abdomen again filled. On a second tapping about $1\frac{1}{2}$ pints of fluid was removed and a mixture containing Pot. Iodide, Tr. Digitalis, Mag. Sulph and Pot. Nitrates was continued for a fortnight. This time the abdomen did not bloat up to that extent as on the previous occasion and on the 3rd tapping about $\frac{3}{4}$ pint of fluid was removed. The above mixture was continued for about a month and the abdomen never filled in again, the patient having apparently got over the trouble completely. It is now one month since the treatment was stopped and the animal, I understand, is perfectly healthy.

CASE NO. II.

A Spaniel puppy, 6 months old was brought to the hospital for treatment. She was diagnosed to be suffering from dropsy and she was also given a pill containing aloes and calomel for 2 days. She had good motions and the abdomen appeared to have decreased in size, but it filled in again. On the 3rd day the pill was discontinued. So tapping was resorted to and a pint

of fluid was removed. The puppy was then kept under a course of Pot. Iodide and Tr. Digitalis for a fortnight when the abdomen was seen to contain some more fluid. A second tapping removed about $\frac{1}{2}$ pint of fluid and the Pot. Iodide and Tr. Digitalis was now continued with Mag. Sulph and Pot. Nitrates for a week and the abdomen did not fill in again. As the puppy was very weak and its skin dirty, she was put on a course of Burgoyne's Iodised Sarasaparilla with Tr. Nuxvomica and she has perfectly recovered from the disease.

FRACTURE OF HUMERUS IN A BULLOCK.

BY

K. S. Ramachandran, G.M.V.C., Veterinary Assistant, Saidapet.

On the 12th of July while in Tanjore I was called in to see a case of fracture in a young bullock.

History of the case :—In the morning the bullock was taken to the field for ploughing. Hardly had the animal gone about 400 yards when he got frightened at the sight of an umbrella and ran off from the clutch of the boy leading it and the boy also ran with him to catch the neck rope which was within the two hind legs. After great difficulty he caught hold of the rope and pulled it backwards suddenly when the bullock fell down in the slope of a tank-bund. Then he tried his best to get him up but could not. With the help of some more people he got him raised from the ground when he observed the animal not able to walk even a few yards. The animal was taken home slowly.

Symptoms :—I found the right fore-limb raised pretty well from the ground, On my trial to make the animal walk I found him hopping on 3 legs and he did not at all put any weight on the affected limb. On manipulation at the region of humerus it evinced pain which induced me to examine the region well. Standing near the shoulder I examined well and heard a crepitant sound at the humeral region and I felt two projections one superior and the other inferior to the shaft of the humerus. By pressing the two projections the upper one downwards and the lower one upwards, I was able to keep the part in tact when I diagnosed it as "*an oblique fracture of the shaft of the humerus.*"

Before my arrival there a quack had diagnosed it for "shoulder-slip".

Treatment :—I informed the owner that the case is hopeless even though I attempt to cure it. On his persuasion and as the animal was young and quite healthy, I thought of attempting to cure it by putting on a charge consisting of Burgundy pitch, Resin, Beeswax and ordinary country wax. All these drugs were obtainable at the local medicine shop. I got all of them at the cheapest rate of 8 annas. While I asked one of my assistants to melt them, I cast the animal and set right the fracture and asked another assistant to hold the leg as I kept it. I put three layers of charges with nicely cut tow. After I finished my work, I advised the owner not to meddle with the case either by walking it or seeing whether the fractured bone is in tact or not for about a fortnight.

Some time later, I was told that the animal was able to put weight and walk a little distance easily when a shepherd came and displaced the adhesion that took place while he was trying to see whether the fractured bone was intact. At once the leg was shortened and the animal was unable to walk.

Again I put on another charge the next day, similar to the one given on the first day.

After some days I found the animal walking easily bearing weight on the fractured leg. I have advised the owner not to work the animal heavily for about 6 months to come but to give light exercise daily for about an hour, and give good nourishing food.

SPLINTS IN HORSES AND THEIR TREATMENT.

BY

N. R. Banaji, G.B.V.C., Officer in charge, Civil Veterinary Hospital, Gulbarga.

A liver chest-nut horse, entire, $5\frac{1}{2}$ years old, was admitted into this hospital, for treatment. He had a splint on the outside of the off fore as big as a lime. Generally splints are found on the inside, but I found this exostosis on the outside. While

walking he showed no signs of lameness. On being trotted the animal went dead lame. I tried blisters and firing, but these were of no avail. As a last resource I tried the following :—

One dram of milky juice of the leaf of *Callotropis gigantea* (in Kanarese *Ekkada yele*) and 2 drams of cocoanut oil were well mixed up and applied to the part with friction for 15 minutes. The next day I found the large eminence was getting dissolved with a serous discharge oozing out. In about 5 days' time the animal was perfectly cured and went quite sound without any lameness. Similarly I have treated 5 more cases of splints with the above with great success. I therefore request you to kindly give publicity to this in your journal.

THREE DAYS' FEVER OR BLACKQUARTER?

BY

M. S. Ramachandra Ayyar, G.M.V.C., Veterinary Hospital, Kuppam.

Subject and history :—A country-bred heifer, aged 2 years, of good condition, was brought to the hospital on 15th January 1923 for treatment. The history of the case was that the animal had not passed dung the previous night. There was stiffness in the right hind leg and the animal was not taking feed from the previous evening after returning from grazing. The temperature was 102°F. and the breathing was hurried. The pulse was rapid and the animal, if walked, did not flex the right hind leg and carried it stiffly. When touched, the limb was hot and there was no characteristic symptom of Blackquarter. Further as this was not the time for Blackquarter outbreak, I was puzzled about the diagnosis. I gave a febrifuge mixture and asked the owner to keep the animal tied separately as a precautionary method.

When the animal was brought in the next morning, it showed some improvement as it was taking some grass and the temperature was only 101°F. The owner also told me that it took some cold water in the night and passed dung once and it was of normal consistency. But the stiffness of the hind leg remained same as in the previous day without any swelling or

crepitation. Again I gave a drench with a large quantity of Magnesium Sulphate to loosen the bowels and asked the owner to give some green grass and water.

On the third day the animal was all right and the motion of the right hind leg and the temperature were normal and the animal was working all right at plough. The owner told me that some call this disease "*Kunthu*" or 3 days' fever and similar cases may occur now and then in the village, but there is no mortality in the disease. As I was not able to decide whether the same has anything to do with Blackquarter or not (because the hind leg showed stiffness from the quarter downwards) I request my professional brethren to clear my doubts if they have come across such cases.

EXTRACTS.

THE VETERINARY CURRICULUM.

BY

*Veranus A. Moore, Dean, New York State Veterinary College
at Cornell University, Ithaca, N. Y.*

FOR MANY YEARS this association struggled to raise the entrance requirements for recognised veterinary colleges to a reasonable standard. There were then two clearly defined groups among veterinarians on that subject. One, knowing what the practitioners had done and still were doing, was content to have progress checked and practice continue as it was. The other recognised that we were in the midst of a constant discovery of facts and new truths that could be understood and applied only by educated and trained minds. These latter insisted on a preliminary education sufficient to enable a student to understand the sciences on which the art of veterinary medicine rests. The outcome was the declaration by the association, and later by the Government, that four years of

high school, or its equivalent in academic work, was the minimum preparation for matriculation. The colleges that could not require it have closed their doors.

In like manner the length of the course of study was slowly and grudgingly extended from two sessions of five months each to four full academic years. The methods of teaching also have changed. At first the full curriculum was given each year, as in human medicine, and after a student had repeated it he could take the examination and graduate. At present the course is graded and the subjects are taken in what to the teacher seems to be a logical sequence.

Today our colleges are confronted with educational problems more difficult to solve than the raising of the entrance requirements and the lengthening of the course of study. In fact, the prerequisites may have to be reconsidered and the time devoted to the curriculum extended before a satisfactory solution is obtained. Fortunately there are no longer opposing groups of men, each seeking a different verdict. We are unanimous in the belief that the curricula that are to be followed should be those that will best prepare our students to meet the ever-increasing and exacting demands on the veterinarian.

Our veterinary colleges are no longer schools to prepare men to diagnose and treat the ills of individual animals alone, but rather institutions where not only instruction in animal diseases and their treatment is developed highly but also where animal hygiene and sanitation, animal husbandry, dairy and meat-inspection and the relation of animal diseases to public health are given proper consideration. The veterinarian must cease to be merely a doctor, a "tinker" of sick and injured animals. He must become the leader in the animal husbandry of his community and the protector of the human family from the diseases of animals communicable to man. His services are needed constantly by the livestock owners to solve the problems in breeding and feeding to the end that the losses from disease may be lessened.

Those of us who are charged with the responsibility of directing veterinary education feel that the curricula now followed do not meet fully the obligations of the schools either to the profession or to the animal owners. We are all too often disappointed in the degree of success attained by young graduates whom we believed to be capable, qualified and enthusiastic in their work. Again, we are often told by those who have followed the prescribed course and have gone into the practice of their profession that they do not find themselves as well prepared for their duties as they should be. Further, animal owners not infrequently make the observation that the recently graduated veterinarians are not as well disciplined in the principles underlying their work as they had expected to find them. These rumblings, suggestive of imperfection, are signals that should be heeded. They do not indicate necessarily that there is violation of any fundamental principle in pedagogy, but that readjustments are called for. The profession occupies a more important position in the eyes of the public than at any previous time. It is operating under different conditions than heretofore, and, consequently, changes of procedure are required to articulate it with the varied interests served.

At the present time the veterinary profession is in a somewhat critical state. The growth of knowledge in animal husbandry and agriculture generally has been quite as rapid as it has been in medical lines. The public has a better understanding of the symptom—complex of disease, its cause, prevention and treatment, than heretofore. For that reason the wealth of new knowledge in the basic sciences and the more thorough courses in veterinary colleges have not given veterinarians much actual advancement over the time when both they and the public were less informed. Nevertheless, the opportunities for veterinarians to establish points of contact with animal husbandry on one side and public sanitation on the other are greater because of a keener appreciation for the helpfulness of one to the other. This does not lessen the obligations of the schools.

They must teach the subjects necessary to qualify their graduates to do efficiently their professional tasks and to satisfy their owners that they have been done properly. The efforts of the practitioner are being judged by a public far better qualified to pass on the character of his work than it was before the advent of agricultural colleges. The employers of veterinarians are often thorough students of breeding, feeding, hygiene, or the principles of preventive medicine, and therefore intelligent judges of the work of the practitioner. In these circumstances the securing of a training broad enough in its range of subjects and thorough enough in the details of each to meet the present-day demands is a difficult task to be accomplished in a four-year curriculum with only a high-school preparation.

In trying to analyze the subject I soon found that it was not a matter for a single person or school to adjust. The importance just at this time of being secure in the educational part of our profession convinced me, perhaps without sufficient evidence, that the curriculum was the cornerstone of veterinary service. I was so deeply impressed with the necessity of ascertaining if our courses of study conformed to the progress that is being made in animal husbandry and sanitation that I decided to bring the subject before this section for analysis, and I hope constructive criticism. In the forward movement of veterinary education and service the curriculum seems to be the first factor for each of us to deal with. In this connection I am assuming that the teachers possess a full measure of knowledge, that the students have been prepared properly and have lofty ideals, and that adequate facilities are provided. Each of these is an integral part of the composite of college training and if one is missing, the true value of the others cannot be determined.

The preliminary education of the student has much to do with the success of a curriculum. Many of the failures on the part of graduates are traceable not to the course of study in the professional school, but to the lack of preliminary training and discipline. The character of the teaching the boy has had

determines to a large degree his ability to profit by the instruction in technical schools. It is essential, for the student to have a good general education as a background of his special training. However, we must be careful in adjusting a course of professional studies not to expect more than can arrive through the approach provided. There is an eternal "fitness of things" that cannot be removed and which always should be taken into account. The good preparatory schools, as President Hadley said of liberal arts colleges, are institutions "where students learn things that they are not going to use in future life by methods that they are going to use. The former element gives the breadth, the latter element the training." I believe it is the mental training that comes through good and inspiring teachers rather than the subjects taught that prepares the boy for the serious study of medicine.

The curricula that are being followed in the veterinary colleges are the products of a long evolution of ideas of what an efficient veterinary course should be. Each faculty has tried to make its course comprehensive and thorough. Each of the eleven curricula examined has a tinge of provincialism that is characteristic of the college or university from which it sprang. These evidences of individualism are to be commended, for they are expressive of local needs or the genius of strong men in the teaching staff. Notwithstanding the excellence of the individual courses, I am constrained to call attention to a few matters of much concern to the veterinary profession because they bring its members in closer contact with the problems they have to solve. It is not my purpose to attempt to formulate a standard curriculum, but rather to call attention to a few modifications that I believe may be made with profit to all.

The first change I would suggest pertains to the organization of our curricula. My thought in this connection is to arrange the subjects that are common to all schools in the same sequence thus securing uniformity in the year of the course for each subject. I recognise that there are honest differences of opinion

as to the logical prerequisites for the basic subjects, but that does not preclude the desirability of uniformity in the order of study. The strongest argument against an inviolable sequence of subjects is found in the variation in the order in which they are given in the existing courses.

My reason for urging this uniformity is to simplify the transfer of students from one college to another. It happens frequently that, for good and sufficient reasons, students, especially from States where there is no veterinary school, find it advantageous to change from the college they are in to another. Such students find, quite to their dismay, that in the college they wish to attend there are basic subjects taught in the year or years they have passed and which they have not had. This difference in the mechanism of the curricula is perplexing, for in spite of the desire of the student and the willingness of the faculty, the transfer is made difficult or impossible.

Another reason for easy transfer is that there are, and there probably always will be, outstanding men among the teachers of the different subjects in the various colleges. It is not likely and it should not be, that any one school will have in its faculty the most thorough, inspiring or influential teachers in all of the subjects. From the very nature of things veterinary practitioners must do a general practice. To render service they must deal with all the diseases of all species of animals in their community. There are opportunities for, and there should be, a few specialists. They must depend very largely, however, on clients who can afford to call a veterinarian from a long distance, and on small-animal practice, where the patients may be sent to the specialist as in human medicine. The veterinarian who serves a community must go very largely to his patients, and there are not sufficient cases of a single disease in a restricted locality to support a specialist. The development of community interests is tending gradually, and in many places already obtains, to unify the livestock industry of localities so that the dominating business in livestock is dairying, raising of beef cattle, swine,

sheep or poultry. As a rule, the dominating species of animals in a community determines the specialization of the practitioner who serves it. The colleges, therefore, must furnish instruction adequate for all of the so-called specialties and include it in the regular course. The tendency towards this limited specialization is stimulating students who are preparing for a particular line of work to transfer, when they come to this subject in their course, to the college that has in its faculty the most distinguished teachers in that field. If the colleges are to serve the public by preparing veterinarians, it would seem that they should make such transfers as easy as possible. There may be other reasons, but those I have mentioned are quite enough to justify reasonable effort to unify the sequence of subjects in our curricula.

The second question is in relation to the subject matter to be taught. Those who have watched the growth of new knowledge in their particular field of study, with the point of view of the teacher, realize that the time devoted to the subject in the curriculum is becoming rapidly out of proportion to the number of facts the teacher feels should be imparted to the student. While this statement may not be applicable to all departments, in some it is a matter of much concern. A hurried, superficial survey of the entire subject does not discipline the student in the fundamental facts and principles that he is to utilize in practice. If a thorough drill is given in the foundation facts the time is consumed before the subject is covered. Which course should be followed? Would it not be better to select, through a committee of teachers, the topics that should be presented?

Another point intimately associated with the choice of topics is the subdivision of departments dealing with fundamental subjects into separate departments and general courses into separate units of instruction. For example, in the subject of bacteriology, should separate courses be organized to teach the different integral parts such as "the life conditions, function and classification of bacteria," "serum and vaccine therapy"

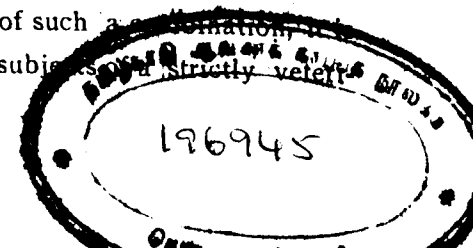
and "immunology," or should they all be combined in a comprehensive course in microbiology? Again, should microbiology, be in a department separate from pathology? The latter includes both etiology and tissue changes, while the former deals with the causes only. Can these subjects be taught better, from the veterinarian's point of view together in one department or in separate and independent departments? Again, the teacher of anatomy is confronted with a like problem. For years the study of this subject was restricted to the horse because the practice was confined to the equine species. Today practice includes all farm and pet animals. The diseases of cattle, swine and poultry are being studied and treated quite as thoroughly as those of the horse. With this change in practice, what anatomy shall be taught in the time allotted to the general subject and what shall be omitted? As the general practitioner cannot be a specialist in all of the sciences that contribute to the sum total of his professional knowledge, it behoves us as teachers to bring forward the facts and principles in our respective sciences that will be most useful to the graduate. The practical parts of a subject can be taught just as scientifically as any other. I believe, therefore, that the choice of topics is a matter of vital importance for the curriculum. Until recently the need for selection has not been serious, but now that the wealth of knowledge in every subject is so vast that the teacher has not time to present it or the student capacity to learn it, the choice of subject matter has become a veritable problem. For these reasons I have made bold to raise the question and to appeal to the teachers to differentiate the topics to be taught in the subjects called for in the curriculum and those that must be acquired later.

The third and last question I wish to raise is whether or not we are including topics enough in animal husbandry, dairy industry, poultry culture, milk hygiene, meat and food inspection and possibly others that correlate veterinary medicine with agriculture and the public welfare. A study of the curricula

now in operation shows that many of these subjects are taught in some of our colleges and omitted in others. Again as only a high-school diploma is required for entrance, should there be included in the curriculum such subjects as English, economics, business law, modern languages or public speaking as part of the professional course? One or more of these subjects are taught in a few of the colleges. If they are to be included, as an aid to general culture, which of the technical courses should be omitted? The pedagogical principle that too many subjects cannot be taken successfully at one time precludes overcrowding the schedule. In our experience professional studies and those in liberal arts when taken together have not been compatible. The curricula of eleven of our colleges show that, as a rule, general cultural courses are not numerous, although the need for them, as well as those of technical agriculture, is strikingly in evidence.

The opinion has been expressed that the veterinary curriculum should contain more subjects pertaining to agriculture. There are those who have encouraged the substitution of a limited number of such subjects for an equal number of hours in the veterinary curriculum when the candidate is a graduate of an agricultural college. We cannot deny that such graduates are entitled to consideration and that men of such training are needed greatly in veterinary medicine. However, it is not easy to select subjects of a professional nature that could be replaced to advantage by agronomy, advanced botany, entomology, floriculture or farm management. The appeals that often come for veterinarians to locate in small country places where their services are needed and where a well-prepared practitioner can easily become the leader of the animal husbandry, suggests the wisdom of at least some compromise with agricultural subjects. Notwithstanding the attractiveness of such a combination, it is wise, when the approved technical subjects are strictly veterinary.

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nary nature are more than enough to fill a four year curriculum, to introduce others? The veterinary schools are confronted with a serious problem—the rebuilding of a curriculum to conform to the rapid progress in the sciences on which the art of veterinary medicine rests.

* * * *

(From the Journal of the American Veterinary Medical Association, December, 1922.

DEPARTMENTAL NOTES AND NEWS.

Government have ordered the following changes:—

- (a) Mr. Hurley to be Superintendent, I Division, Vizagapatam.
- (b) Mr. Saunders to be Professor of Pathology and Bacteriology at the Madras Veterinary College.
- (c) Mr. Krishnamurthi Ayyar on relief by Mr. Saunders to proceed on training for two years.

The second Veterinary Conference was held at Calcutta from 26th February to 2nd March, 1923. Mr. Ware and Mr. V. Krishnamurthi Ayyar attended this Conference under the orders of Government.

Serum Simultaneous inoculations against Rinderpest were carried out on the Agricultural Farm Cattle at Coimbatore and Chintaldevi during January and February 1923 respectively. Similar inoculations are now being carried on at Naduvattam and Sankar. Mr. Ry. C. Suryanarayanamurthi has been

appointed as Veterinary Inspector on Special duty in charge of these inoculations.

We regret to record the death on 1st February, 1923 of Veterinary Inspector V. Ayyaswami Pillai at Cuddalore while on medical leave. In this vacancy Mr. A. Castelino has been promoted as permanent Veterinary Inspector and M.R.Ry. K. M. Subbaraman as subprotem Veterinary Inspector in the place of M.R.Ry. C. Venkataratnam Chetti lent to the Corporation of Madras.

Another of the Veterinary graduates of last year has been given an appointment in the department in the vacancy caused by the death of Veterinary Assistant K. S. Sitaraman.

Three new touring billets have been made at Sattur, Dindigul, and Karur and three more will be opened shortly at Kumbakonam, Tiruvannamalai and Yellamanchili.

M.R.Ry. S. Ramanathan was granted leave for six months from 10th December 1922, and we regret to record the death of this Veterinary Assistant at Calcutta on the 3rd March, 1923.

STUDENT'S CORNER.

The Annual Sports of the Madras Veterinary College were held on the College grounds on the 17th March with great success. There were 15 events on the programme. The One Mile race open to all Colleges in the city was again won by the Christian College represented by P. R. Kuppuswami and the

second and third prizes went respectively to the Engineering and Presidency Colleges. The Obstacle Race was another interesting event which attracted not less than eight entries, and after a strenuous competition, Ramamurthi won. Hardly less interesting was the Bare back Race and this was won by Ramamurthi and his partner. Yet another unique feature was that the C. Class of the College swept away all the Challenge Cups assigned for Cricket, Football and Hockey, while Srihari of the same class carried away the Championship Cup by scoring the highest number of points in the individual competitions. At the close of the Sports Mrs. Turing gave away the prizes to the winners. The Principal then thanked Mrs. Turing for having presided over the happy function and for distributing the prizes. He also congratulated Mr. M. S. Nathan, the energetic Secretary for the way in which he conducted the Sports. Cheers were then called for Mrs. Turing, Mr. Aitchison and the Secretary and there was a good response.

Appended are the results of the Sports:—

100 Yards Flat Race—1. V. S. Kuppuswami; 2. Moberly; 3. Austin.

High Jump—1. K. G. Subramaniam; 2. Samuel; 3. V. S. Kuppuswami.

Long Jump—1. Srihari; 2. Moberly; 3. K. G. Subramaniam

Slow Cycle Race—1. Rama Mahana Rao; 2. Samuel; 3. Joseph.

Hurdles—1. Srihari; 2. Abdul Kadir; 3. V. S. Kuppuswami.

Sack Race—1. Thiagaraj; 2. M. Kuppuswami; 3. Vela-yudan Nair.

Throwing the Cricket Ball—1. Gopalan; 2. Ramamurthi; 3. Hayath Sheriff.

¼ Mile Race—1. Srihari; 2. Thiagaraj; 3. K. G. Subramaniam.

Servant Race—1. Pigmore; 2. Arumugam; 3. Raghavan

Inter-Class Tug of War—Class C.

One Mile Race—Open to all Colleges;—1. P. E. Kuppuswami (Christian College); 2. Panchanadhan (Engineering College); 3. Syed Sirajudin (Presidency College).

Bare Back Race—1. Ramamurthi and Srihari; 2. Austin and Abdul Kadir; 3. Gopalan and Gopala Rao.

One Mile Race—1. K. J. Subramanian; 2. Ramamurthi; 3. Thiagaraj.

Obstacle Race—1. Ramamurthi; 2. Abdul Kadir; 3. Austin.

Inter-class challenge cups for cricket football and hockey—C Class.

The Wilson's Foot-ball tournament attracted many entries and our team after beating the Muhammadan College, the Leather Trades Institution and the Engineering College met the Christian College in the final. After a strenuous contest the Christian College won by the narrow margin of one goal and thus won the cup. On the 16th instant, our College competed in the Inter-Collegiate Annual Sports. but won no prizes.

CORRESPONDENCE.

(The Editor does not guarantee to publish all or any letters received and those sent under a nom-de-plume will not be printed unless the writer's name is sent separately but not for publication, nor does he hold himself responsible for the views expressed by correspondents).

To

THE EDITOR,
THE MADRAS VETERINARY JOURNAL,
CHEPAUK, MADRAS.

Sir,

The Madras Veterinary Journal is the only Veterinary Journal published in English in India. It contains very useful original articles and extracts from foreign journals. It is also very cheap, and many Indian Veterinary Graduates take advantage of it.

May I request you to be kind enough to publish in this Journal useful summary of the annual reports of the Indian Veterinary Colleges, Civil Veterinary Departments of the various provinces of India, Departments for animal breeding in India and Imperial Bacteriological Laboratory, Muktesar, and extracts on Veterinary subjects from the Indian Agricultural Journals and reports, so that your readers can remain in touch with what is being done in different parts of India for the practical application of up-to-date methods of Veterinary science.

I remain,

Sir,

Yours faithfully,

M. C. JOSHI, C. B. V. C.,
Veterinary Assistant, Dhulia.

DHULIA

Dated 14th Feb., 1923.

MADRAS VETERINARY COLLEGE,
Vepery, Dated 17th February 1923.

To

THE EDITOR,
THE MADRAS VETERINARY JOURNAL,
MADRAS.

Sir,

In advertance to my statement of finding Anchylostomes in a pup seven days old, (vide:—Madras Veterinary Journal, page 5. No. 11 of November, 1921) I feel glad that my observation of intrauterine infection has been confirmed by Adler & Clark (of Sir Alfred Lewis Jones Research Laboratory, Sierra Leone) vide page 353, No. 4 volume XVI of Annals of Tropical Medicine and Parasitology.

Yours faithfully,
M. ANANTNARAYAN ROW,
Assistant Professor and Personal
Assistant to the Principal,
Madras Veterinary College, Vepery.



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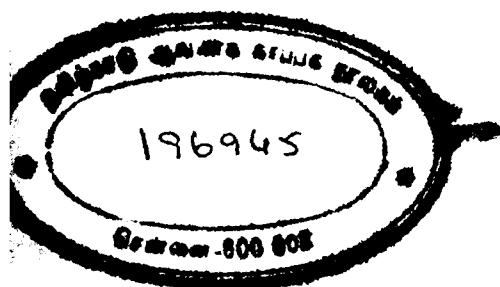
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