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MADRAS RECORD OFFICE

GOVERNMENT OF MADRAS

Revenue DEPARTMENT

G.O. No. 572 Press
~~B.P. No.~~ ~~Miss~~

Dated 3-5-1876 196- .

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Not to be folded or roughly handled

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*Proceedings of the Madras Government, Revenue Department,
3rd May 1876.*

No. 28. Read the following letter from C. MACAULAY, Esq., Officiating Under Secretary to the Government of India, Department of Revenue, Agriculture, and Commerce (Studs, Cattle-disease, &c.), to the Secretary to the Government of Madras, dated Calcutta, 17th April 1876, No. 3/43:—

In continuation of the circular from this department, No. 2, dated the 14th February last, I am directed to forward, for the information of His Grace the Governor in Council, copy of a letter*

* No. 1375, dated the 25th March 1876. from the Junior Secretary to the Chief Commissioner of Oudh, and of its enclosure, a report by Mr. Anderson, Veterinary Surgeon, on special duty in that Province, on the subject of the trial of Colonel Davies' prescription for the treatment of foot-and-mouth disease in cattle and on the general features of that disease as it occurs in Oudh.

ENCLOSURE No. 1.

From A. MURRAY, Esq., Junior Secretary to the Chief Commissioner of Oudh, to the Secretary to the Government of India, dated Lucknow, 25th March 1876, No. 1,375.

With reference to your letter, No. 2-22, dated 14th February last, forwarding copy of despatch from the Secretary of State for India, enclosing a correspondence with the Veterinary Department of the Privy Council, regarding Colonel Davies' mode of treatment of foot-and-mouth disease in cattle, I am directed to forward, for the information of His Excellency the Governor-General in Council, the accompa-

* No. 113, dated 14th March 1876. nying copy of a letter* from Mr. Anderson, Veterinary Surgeon, on special duty in Oudh, and of its enclosure, on the result of the trial of Colonel Davies' prescription and on the treatment of cattle-disease generally.

From Mr. T. ANDERSON, Veterinary Surgeon on special duty in Oudh, to the Junior Secretary to the Chief Commissioner of Oudh, dated 14th March 1876, No. 113.

In compliance with your letter, No. 4,914, dated 21st October 1875, I have the honor to state that I have had Colonel Davies' prescriptions fully tried in the Oudh Province.

2. Before discussing the results I beg to submit a few remarks on the disease itself, which may somewhat elucidate the subject in question.

3. If Colonel Davies' prescription for the foot-and-mouth disease in Burma be correct, it is one of an entirely different nature from that designated by the same name in India, in England, and on the Continent, and no inference of any value can be drawn from a trial of his remedies in cases attacked by the ordinary disease.

4. With regard to the parasitic animalculæ "which," Colonel Davies states, "cause the disease," and whose destruction is the aim of his treatment, I beg to make the following extract from Professor Williams' Principles and Practice of Veterinary Medicines (page 157), a work which is the latest and most reliable authority on diseases of domesticated animals. "Some," he observes, "have thought that the contagium was contained or existed in the form of a vegetable parasite fungus, whilst others, speculating as to its source of origin, have advanced the idea that it is due to the development of organic germs having independent movements, in fact, to living particles of animal matter. These are, however, speculations which cannot be confirmed by examination with high microscopic powers; they therefore fall to the ground. Microscopic examination of the blood, saliva, tears, and the contents of the vesicles have failed to detect any substance to the presence of which the disease might be ascribed."

5. Foot-and-mouth disease is simply "a highly contagious and infectious febrile disease associated with a vesicular eruption in the mouth, between the pedal digits and around the coronets" (Williams); and, being so, it must run its course, while the most successful treatment will be one which will best alleviate the symptoms and best preserve the patient under

healthy sanitary conditions. In hot climates where wounds and sores have a tendency to take an unhealthy action, thereby attracting the attacks of flies, it is a point of the utmost importance, in cases of this disease, to prevent the sores from becoming fly-blown, which they are most apt to do. In fact, the rapid generation of maggots in the wounds associated with this disease is the chief difference exhibited between it as it occurs in India and in England, and possibly their very frequent occurrence in these sores may have led Colonel Davies to attribute the cause of the disease to their presence.

6. During my experience of many hundreds of cases I have found that the disease has been one of a decidedly benign type, and the mortality not exceeding one or two per cent.; the loss to the stock-owner being one resulting from his animals getting into low condition, and remaining unfit for work for a considerable time after the attack. When this occurs at seasons of the year when a few days are of the utmost moment regarding the ploughing and tillage of the land previous to sowing, this loss is doubly heavy, first to the Assamee himself, and secondly to Government in the matter of assessment. On this account I beg most respectfully to urge the advisability of special legislation for preventing infected animals from being permitted to go from place to place, thereby spreading the disease, which is one of a most infectious nature.

7. Having submitted these remarks, I beg to state that the following has been the result of a trial of Colonel Davies' prescriptions in about 100 cases. The prescriptions appear to have no specific value, but are beneficial on account of their stimulating and astringent properties. They however rapidly dry and fail to preserve the wounds from the attacks of flies. On this account their action is much inferior to the prescription noted in the appended report on the disease, viz., camphorated oil. This application retains its properties for a much longer period than the others, which is a matter of the utmost importance in a district of wide extent containing hundreds of cases, each one of which cannot be dressed by the few veterinary attendants in charge oftener than once in every two or three days, the Assamees being too apathetic, ignorant, and suspicious to be trusted with treating the cases themselves.

8. I beg to append a few remarks on the nature, symptoms, and treatment of foot-and-mouth disease as it occurs in the province of Oudh, in order to facilitate comparison between it and the disease described by Colonel Davies.

Foot-and-mouth disease.

A febrile disease of a highly contagious and infectious nature, associated with a vesicular eruption about the lips, the inside of the mouth, on

Definitions.

the tongue, gums and cheeks, and sometimes extending to the nose. It also occurs between the pedal digits, and at the junction of hair and hoof around the coronets and heels. In some animals the mouth only is affected, in others the feet are the seat of disease, the latter case being most common in Oudh; in such cases sometimes only one foot is affected and sometimes all four, and in very bad attacks there is separation of the hoof from the feet.

The ravages of this disease are most extensive amongst the working bullocks, they being particularly exposed to the contagium which is contained in the discharge from the feet or mouth as the case may be and thus impregnates roads, pastures, watering places, and, in fact, every place to which they may go. It is of such an infectious nature that it is easily conveyed from place to place by game, vermin, and dogs.

Symptoms.

The disease is generally ushered in with a shivering fit, followed by fever, loss of appetite, disinclination to move, stiffness and swelling of the legs; and in four or five days vesicles make their appearance, varying in size from a two-anna bit to a rupee, and if the mouth is the seat of disease, saliva flows freely. There is smacking of the lips, and, if the feet are affected, there is lameness and a peculiar action of the affected limbs, which the animal frequently and suddenly picks up and lashes to the rear, a quivering motion being given to it on the completion of the kick, while the limb is held out in a state of tension. When the vesicles burst, sores are

left that either heal up immediately or turn into ulcers, form, maggots are generated, and in very exceptional cases

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The treatment should be alleviative, the dis-

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Treatment. ever save cleanliness: however, when it is practicable the

Common salt	...	...	...
Chiretta	...	...	...
Ginger	...	...	...
Water	...	...	...

should be divided into two portions, one to be given in If it be not convenient to administer the drench twice at one time. If purging ensues, the salt should be dissolved in water. When the mouth is affected, it should be washed as often as possible with alum water. When sinuses form, they must be removed with a sharp knife or scissors, and the sores washed with healthy action cannot set in. This operation is best done by a probe, knife, or in camphorated oil made as follows—

Camphor	...	...	...	4 parts
Oil of turpentine	...	...	...	1 "
Linseed oil	...	...	...	16 "

(to be well mixed together)

Should, if possible, be applied and kept on by means of a bandage. When this cannot be done, the sore and all round it should be smeared with the oil. Two or three such dressings I find sufficient to render the most unhealthy sores healthy. The oil removes maggots and keeps away flies. I consider it a most valuable dressing for foot-and-mouth disease in this country. As far as my experience goes, in such cases the great object is to prevent the sores from becoming fly-blown and maggoty. The natives are alive to this and tie the affected animals in a pool of water or mudhole which has the desired effect, a practice that is neither so speedy nor so effectual as the treatment I have recommended. In fact, I have seen some very bad cases of sloughing brought on by it through the sand or mud working into sensitive parts of the foot.

The recipe for the camphorated oil is given and recommended by Inspecting Veterinary Surgeon F. H. B. Hallen in his manual on the more deadly forms of cattle disease in India.

No. 29. ORDER THEREON, 3rd May 1876, No. 572.

Miscellaneous.

COMMUNICATED to the Board of Revenue in continuation of G.O., dated 9th March 1876, No. 348.

(True Extract.)

(Signed) D. F. CARMICHAEL,
Secretary to Government.

To the Board of Revenue.

Exd. J. W. Fischer.

Foot-and-mouth disease in cattle.—Continued.
According to the Board of Revenue letter from the
Government of India forwarding papers having
reference to the subject of the trial of Colonel
Davies' prescription for the treatment of— and
on the general features of that disease as it occurs
in Oudh.

G.O., 3rd May 1876, No. 572.

Recd.

Encl.

Dated May, 3rd.

THE BOARD OF REVENUE.

REVENUE.

Obdt. of 1876: 344 adrus.

No. 1375, dated Lucknow, 24th March 1876.

From—A. MURRAY, Esq., Junior Secy. to the Chief Commr. of Oudh,
To—The Secretary to the Government of India.

WITH reference to your letter No. 2-22, dated 14th February last, forwarding copy of despatch from the Secretary of State for India, enclosing a correspondence with the Veterinary Department of the Privy Council, regarding Colonel Davies' mode of treatment of foot-and-mouth disease in cattle, I am directed to forward, for the information of His Excellency the Governor-General in Council, the accompanying copy of a letter* from Mr. Anderson, Veterinary Surgeon, on special duty in Oudh, and of its enclosure, on the result of the trial of Colonel Davies' prescription and on the treatment of cattle disease generally.

No. 113, dated 14th March 1876.

From—MR. T. ANDERSON, Veterinary Surgeon on special duty in Oudh,
To—The Junior Secretary to the Chief Commissioner of Oudh.

IN compliance with your letter No. 4914, dated 21st October 1875, I have the honour to state that I have had Colonel Davies' prescriptions fully tried in the Oudh Province.

2. Before discussing the results I beg to submit a few remarks on the disease itself, which may somewhat elucidate the subject in question.

3. If Colonel Davies' prescription for the foot-and-mouth disease in Burma be correct, it is one of an entirely different nature from that designated by the same name in India, in England, and on the Continent, and no inference of any value can be drawn from a trial of his remedies in cases attacked by the ordinary disease.

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5. Foot-and-mouth disease is simply "a highly contagious and infectious febrile disease associated with a vesicular eruption in the mouth, between the pedal digits and around the coronets" (Williams); and being so it must run its course, while the most successful treatment will be one which will best alleviate the symptoms and best preserve the patient under healthy sanitary conditions. In hot climates where wounds and sores have a tendency to take an unhealthy action, thereby attracting the attacks of flies, it is a point of the utmost importance, in cases of this disease, to prevent the sores from becoming fly-blown, which they are most apt to do. In fact, the rapid generation of maggots in the wounds associated with this disease is the chief difference exhibited between it as it occurs in India and in England, and possibly their very frequent occurrence in these sores may have led Colonel Davies to attribute the cause of the disease to their presence.

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The ravages of this disease are most extensive amongst the working bullocks, they being particularly exposed to the contagium which is contained in the discharge from the feet or mouth as the case may be and thus impregnates roads, pastures, watering places, and, in fact, every place to which they may go. It is of such an infectious nature that it is easily conveyed from place to place by game, vermin and dogs.

The disease is generally ushered in with a shivering fit, followed by fever, loss of appetite, disinclination to move, stiffness and swelling of the legs; and in four or five days vesicles make their appearance, varying in size from a two-anna bit to a rupee, and if the mouth is the seat of disease, saliva flows freely. There is smacking of the lips, and, if the feet are affected, there is lameness and a peculiar action of the affected limbs, which the animal frequently and suddenly picks up and lashes to the rear, a quivering motion being given to it on the completion of the kick, while the limb is held out in a state of tension. When the vesicles burst, sores are left that either heal up immediately or turn into ulcers, which, if neglected, spread, abscesses form, maggots are generated, and in very exceptional cases death is the result.

I have seen sloughing of the hoofs and bones of the foot, and in one case that of the nostrils and cheeks with disease of the bones of the head, the sinuses being infested with maggots extending to the brain.

The treatment should be alleviative, the disease being one that runs through a regular course generally terminating in recovery. Mild cases require little or no treatment whatever save cleanliness; however, when it is practicable the following drench—

Common salt	...	4 to 8 ounces
Chiretta	...	1 to 2 "
Ginger	...	1 to 2 "
Water	...	1 to 2 quarts.

should be divided into two portions, one to be given in the morning and one in the evening. If it be not convenient to administer the drench twice a day, the whole quantity may be given at one time. If purging ensues, the salt should be discontinued and may be resumed, as the state of the bowels may indicate. When the mouth is affected, it should be washed as often as possible with alum water. When sinuses form, they must be well opened up in order to prevent matter burrowing into the sensitive parts of the foot, all detached pieces of skin and horn must be removed with a sharp knife or scissors and the sores washed and cleansed thoroughly. Maggots are invariably present in bad cases, and until they are removed healthy action cannot set in. This operation is best done by a probe, knife, or forceps, then a pledget or two well soaked in camphorated oil made as follows—

Camphor	...	4 parts.
Oil of turpentine	...	1 "
Linseed oil	...	16 "

(to be well mixed together)

should, if possible, be applied and kept on by means of a bandage. When this cannot be done, the sore and all round it should be smeared with the oil. Two or three such dressings I find sufficient to render the most unhealthy sores healthy. The oil removes maggots and keeps away flies. I consider it a most valuable dressing for foot-and-mouth disease in this country. As far as my experience goes, in such cases the great object is to prevent the sores from becoming fly-blown and maggoty. The natives are alive to this and tie the affected animals in a pool of water or mudhole which has the desired effect, a practice that is neither so speedy nor so effectual as the treatment I have recommended. In fact, I have seen some very bad cases of sloughing brought on by it through the sand or mud working into sensitive parts of the foot.

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1876.

GOVERNMENT OF INDIA.
DEPARTMENT OF REVENUE,
AGRICULTURE, AND COMMERCE.

STUDS, CATTLE-BREEDING and CATTLE DISEASE.

FROM

THE JUNIOR SECY. TO THE CHIEF
COMMR., OUDH.

Dated 25th }
Reed. 30th } March 1876.

No. 1375.
2 Enclosures
Spare copies.

D. No. 23. }
L. No. 22. }

Pros. { No.

SUBJECT.

With reference to this office letter No. 2-22, dated 12th February last, forwards, for the information of His Excellency the Viceroy in Council, copy of a letter from Mr. Anderson, on the result of the trial of Colonel Davies' prescription in the treatment of cattle disease.

No. $\frac{3}{43}$

FROM

COLMAN MACAULAY, Esq.,
Offg. Under Secretary to the Government of India,

TO

*The Secretary to the Government of
Madras.*

Department of Revenue,
Agriculture, and Commerce.
Studs, Cattle disease, &c.

Dated Calcutta, the 17th April 1876.

SIR,

IN continuation of the circular from this Department, No. 2, dated the 14th February last, I am directed to forward for *the information of*

* No. 1375, dated the 25th March 1876.

His Grace the Governor in Council
copy of a letter* from the Junior Secretary to the Chief Commissioner of Oudh, and of its enclosure, a report by Mr. Anderson, Veterinary Surgeon, on special duty in that Province, on the subject of the trial of Colonel Davies' prescription for the treatment of foot-and-mouth disease in cattle, and on the general features of that disease as it occurs in Oudh.

I have the honour to be,

SIR,

Your most obedient Servant,

C Macaulay

Offg. Under Secretary to the Government of India.