

leaving to the credit of the former method the saving represented by the cost and risk of megass houses and the cost of the labor it takes to fill and empty them, a saving which is, without doubt, well worth trying for. I remain, yours very truly,

ROBT. CATTON.

GENERAL SANITARY MEASURES TO BE ADOPTED IN OUTBREAKS OF DISEASE.

(B. M., Deer Lodge, Mont.)

During the last twelve or sixteen months a disease has prevailed among the horses at Garrison, the junction of the Northern Pacific and Utah Northern railroads in Deer Lodge Valley, twelve miles below this place, that during the last two months has been generally pronounced glanders. We have no skilled veterinarian here, no one that has gone through a regular course in a veterinary college, and I am satisfied there is none in the Territory. At a meeting of the horse-breeders of this vicinity, held about a month ago, it was decided to make an autopsy of one of the horses affected, which was done about a week after the meeting. The animal killed was a gray mare, some seven or nine years old, and affected with what was considered a fair type of the prevailing disease. She was killed by shooting through the heart, the head taken off and opened with a saw, straight down the face (after the lower jaws had been removed). The membrane lining the nose showed plenty of ulceration, all the small bones especially the turbinated were decayed and easily broken down, separating (on being pressed with point of knife) easily and without sound, like thin plates of tallow. Farcy buds were found on the inside of hind legs; ulcers were also found inside of the neck, where the head had been taken off. I should think that there were at least twenty horsemen present at the autopsy, and nearly all were satisfied it was a very clear case of glanders. The owner of this animal also owns, say, from 60 to 100 head of horse stock, which, as a rule, run together on the range, i. e., public domain, prairie, and foothills. He tells me that about a year ago he took one up, supposed to have lung fever. It was stabled in a close, warm and roomy barn. Soon after more were found in the band affected the same way. These were taken up as fast as they appeared unwell, until the barn was full. Still another and another would be found affected, and occasionally one would be "fired out" of the barn as being better, and another put in its place. Sometimes during the winter the mares commenced aborting. Twenty-three mares were in foal, the twenty-three lost their colts (aborted), not one escaping, and the owner says that in every instance when the mare slipped her foal she at once commenced to improve. I don't think one died last winter. "As soon as green grass came they seemed to get all right." Most of them looked quite well during the greater part of the summer. I failed to state in a proper place that during the winter all these sick animals had a nasal discharge. The fact of these animals being affected in this way seems to have been known only by the owner and a few of his nearest neighbors. I certainly never heard of it till the last of September, 1883, although my business necessarily brings me in contact with all the horsemen within, say, forty miles in every direction. Had probably heard that "— had lost lots of colts," but this is no unusual thing, and in this country horses run out all winter, and sometimes get pretty thin. During September of this year this man stated out his horse power (dresher among the neighbors), and soon the stock began to discharge again at the nose. This thoroughly alarmed the people of the neighborhood, and he was requested to take this diseased stock home. My impression is that this was about the first that was known of his having had this disease last winter. The animal killed and examined was one that had been on the threshing, only two to four weeks before traveling all over the neighborhood, averaging more than a day at a place during the threshing season. After the above mentioned autopsy, the breeders (and that means several hundred residents of the Deer Lodge Valley) came to the conclusion that

"something has got to be done," but the great trouble was to get any one to act as inspector or examiner; that is any one in whom the public had confidence. Finally, at a meeting of the Board of Health, held Oct. 26, your correspondent was appointed Stock Inspector, and has been acting in that capacity since. I have been among horses constantly for the past twenty-five years, but have seen comparatively few cases of glanders. I have quite a library of horse books, such as Mayhew, Youatt and Spooner, Doid, Cole, Jennings, and Manning, etc., which I have studied more or less during the last fifteen years, and from the teachings of which I have practiced on my own stock with fair success, together with what I have learned from the "Veterinary Department" "The Spirit." Now, of course, the object of all this trouble I am giving you is to have you suggest what is, in your opinion, the best plan to pursue in order to stamp out this disease, and prevent its spread. As there is much at stake in this matter, I will probably ask your indulgence again in the near future. This man, that has the glandered stock, has had post mortem examinations made of two cases, and has some six or nine cases on hand; in fact, the general belief is that it is spreading right along, but as yet confined to a radius of, say, six miles. He tells me that last winter they frequently had to help some of the mares up, and were constantly working about them when they, the animals, were comparatively covered with the discharge, and he knows to a certainty that himself and helper frequently had their hands skinned, and quite sore. Was it glanders that they had last winter? None of these horses look bad until they have discharged a long time, even after the defluxion has become quite thick; their coats look well, and skin feels surprisingly loose, free, elastic, and healthy. This was the case of the last two I examined, yet both had ulceration of the nostrils, glandular swellings under the jaw, and discharging thick pus, with, in one case streaks of blood. Certainly no one, at a glance, would take them to be sick (except judging from the discharge); yet, a careful scrutiny at a distance, and unobserved by the horse, would detect a position or movement of the ear, that indicated the reverse of perfect health. Can you tell me how to detect this disease in its earliest stages? This ulceration of membrane, and even glandular swelling seems to accompany other diseases besides glanders. Is the disease considered by you to be highly contagious from the start? At what stage would you recommend the destruction of the animal; that is, on the appearance of what symptoms? What steps should I take to guard against contracting the disease myself, as I will, doubtless, be exposed to a great deal of it? What disinfectant, and how used? What general precautions? Do you believe the breath of a glandered horse to be infectious? Must there, or not be direct contact with the glandered matter before the disease can be propagated? What are the chances of our getting a skilled veterinarian—not merely a graduate of a veterinary college, but a man of some practice and experience—to either spend the winter here, or locate permanently, as I feel confident this is a good field? All horse stock is being bred up to the best blood obtainable, and the field is simply immense, there now being railroad communication with all the principal towns in the Territory. Do you believe it was glanders that ailed them, or was it some other disease, such as catarrh, scarletina, or nasal gleet that ran into glanders? Do you doubt its being glanders? If so, what other symptoms would assist you to determine? *Answer.*—From the general history given, we do not think the animals last winter suffered from glanders, from the facts shown that there was no evidence of inoculation on the part of the attendants who were exposed to the contagious elements by immediate contact, where no extra precautions were taken to guard against contagion. This, to our mind, is the strongest evidence of the non-existence of the virus of glanders. The next evidence of import is the fact that where no extra sanitary or therapeutic measures were adopted, the disease did not become malignant and destroy life to the extent that, under the circumstances, might have been anticipated. We are of the opinion that a catarrhal affection of the

respiratory organs, confined principally to the nasal passages, was what was in existence, which degenerated into an ozena-nasal gleet. We frequently find the characteristic symptoms of structural changes occurring in the nasal mucous membrane, which to the ordinary eye, would present a thickened, greasy appearance, like fat pork, with here and there a spot of ulceration, which might be mistaken by the ordinary observer for something malignant, and which, by the way, many veterinarians have classed as glanders; but, to the expert, are not pathognomonic of glanders, but of simple catarrh, which has degenerated into gleet. These are the cases that, under appropriate treatment, recover from the severe symptoms, but the membrane affected having lost a certain amount of tone, owing to the degenerative process which has taken place in its cellular structure, is weakened to that extent, that a little exposure to certain changes of atmosphere will cause a weeping and discharge of mucous and pus to follow. The fact of hemorrhages occurring is due to vessels opened up by the ulcerative process in existence. Abortion following is only evidence of lowered vitality, and common to all debilitating disease. Glandular swellings occurring as a complication, and leading on to the formation of abscesses, is common to all disease where a materia morbus is in existence, and can be found as a sequel to many diseases. In order to remove all doubt, inoculation ought to be practiced on some worthless animal, in order to demonstrate, beyond doubt, the chance of glanders, and the accompanying characteristic lesions. We would in this, as well as all other outbreaks of disease, strongly advise a system of quarantine, strictly enforced, in order to guard against spread; the animal, as soon as discovered ailing, to be separated at some distance from the healthy ones; animals not affected, but that have been exposed, to be removed into healthy quarters, and carefully watched for any developments. We would advise stables carefully and thoroughly disinfected by burning sulphur for several hours, with closed doors and windows, then to be opened and carefully lined with caustic lime containing one ounce of carbolic acid to every pailful of water. Of course, when animals have not been housed, this does not apply. We would also advise attendants to observe cleanliness, and disinfect by weakened solutions of carbolic acid, one part to eighty parts water, to wash their hands with. Animals that are comparatively worthless ought to be destroyed and buried six feet deep, with slaked lime thrown over the body previous to covering over with earth. In answer to the question proposed, the disease glanders would be detected in its early stages by a general unthrifty appearance of the coat, and rise of temperature, as shown by thermometer, followed by discharges from nostrils and accompanying glandular swellings, which, breaking down, would form pus. The characteristic lesion would be the chancre peculiar to the disease; the positive proof, where any doubt exists, would be by inoculation, which would develop both the characteristic chancre and farcy, with a breaking down of all the glandular structures of the body, the lungs and kidneys principally. Should inoculation develop these symptoms, the sooner all the diseased animals are destroyed, the better for the rest of the stock and the community at large, as this disease cannot be cured, and can be transmitted to all who come in contact. Careful quarantine and sanitary measures, recommended above, to be carried out to the letter, both as regards animals involved and attendants' own persons. We believe that germs of disease in certain cases can be carried by means of the breath when a breaking-down process is going on in the respiratory passages. You could certainly obtain the services of competent veterinarians for a short time, provided the remuneration was adequate. About permanent location some may offer in time through this communication, advertised through the wide circulation of the *Spirit*. The question about glanders could be best proven as suggested by inoculation. Quarantine and sanitary measures should be enforced.—*Spirit of the Times*, Nov. 17, 1883.

The light of other days—whale oil and mutton tallow.

AMERICAN COMMERCIAL UNION.

In compliance with a request preferred to us we publish below in full the proposals of the U. S. Senate Committee on Foreign Affairs on this subject and the letter from the Secretary of State which were alluded to in our editorial article on Saturday last.

WASHINGTON, April 10, 1884.—The Senate Committee on Foreign Relations today reported adversely, and recommended the indefinite postponement of two bills introduced by Senator Cockrell to provide for the appointment of a commission to visit the principal countries of Central and South America for the purpose of collecting information looking to the extension of American trade and commerce, and the strengthening of friendly and mutually advantageous relations between these countries and the United States, and one introduced by Mr. Sherman to authorize the President of the United States to extend invitations to the governments of the Republics of Mexico, Central America and South America, and of the Empire of Brazil to send delegates to a convention to be held in Washington to consider questions relating to the establishment, upon a firm and lasting basis of peaceful and reciprocal commercial relations between the countries named and the United States; and also to adopt such measures as might be considered the most practicable to carry forward the construction of railroads between the countries in the interests of peace, commerce and mutual prosperity.

SUBSTITUTE REPORTED.

In place of these bills they reported an amendment to the Consular and Diplomatic bill, which provides that \$100,000 be appropriated to enable the President to compensate a commission to be appointed to examine and report upon the relations of the United States with the several countries of Central and South America and upon the best modes of securing intimate national and commercial relations between them and the United States; to enable him to defray the expense of such commission, should it be deemed advisable for it or any members of it to visit any of said countries, and also to enable him to compensate delegates of the United States to a congress of these States, to be held in Washington, should it be deemed advisable to convene such a congress after the report of the commission shall have been made, and to meet such portions of the expenses of said congress as it may be proper for the United States to pay.

LETTER OF SECRETARY FRELINGHUYSEN.

In submitting this proposed amendment which it asks to have referred to the Appropriations Committee, the Foreign Relations Committee presents as a part of its report a letter from the Secretary of State dated March 20, 1884, indorsing the proposed amendment. The letter is addressed to Senator Mills, of California, chairman of the committee, and is as follows: I have the honor to acknowledge the receipt of your letter of the 5th inst., inclosing copies of the proposed amendments to the Consular and Diplomatic bill for an appropriation to defray the expenses of a conference of independent American nations to promote commerce and general peace, and in which you inform me of the courtesy of the committee in submitting the amendments for my consideration, with the request, if the President approve of the proposition, to place it within his power, as far as expenses are concerned, to invite such a conference that I submit a draft of an amendment such as I regard as proper or that I indicate which of the two I prefer.

I am thoroughly convinced of the advisability of knitting closely our relations with the States of this continent and no effort on my part shall be wanting to accomplish a result so consonant with the constant policy of this country and in the spirit of the Monroe doctrine, which, in excluding foreign political interference, recognizes the common interest of the States of North and South America. It is the history of all diplomacy that close political relations and friendships spring from unity of commercial interests. The merchant or trader is the forerunner and aid to diplomatic intimacy and international amity. With the spirit of the proposed amendments I am in harmony.

PRACTICAL OBJECTIONS.

But certain practical objections to the mode suggested occur to me. I fear that a congress so soon to meet, without previous conference with the several governments and without the preparation of a well digested programme for discussion, might be unable to accomplish a valuable result. The views of the States which are to be parties to the conference should be obtained, their wishes and aims carefully considered, and thereupon the scope and

purpose of the congress carefully defined and outlined in the invitation.

The disadvantage of summoning a congress without some definite assurance of general accord and without an announcement of its programme was shown in 1880 when the Colombian Government convoked a congress of Spanish-American States at Panama to concert measures for preserving peace between them by means of international arbitration. Few States were represented, and the conference failed to develop unity of views and broke up without accomplishing anything except, perhaps, a prejudice against the renewal of the project.

Moreover, it is probable that the other States, certainly the smaller and less powerful among them, would desire a treaty of alliance requiring of the United States protection and defence in case of attack, not only by European Powers, but by their more powerful neighbors on this continent. Material aid also in the construction of their railroads and other similar public works would be expected, neither of which propositions could be entertained by us. In the conference the smallest State would have a voice equal to that of the United States, and while we need not necessarily be bound by the conclusions reached, it would weaken rather than strengthen our influences with these countries if we should feel forced to reject measures adopted by the conference.

Considerations of much this character influenced the failure of the notable project for an American congress at Panama during Mr. Adams' administration in 1828-29. The congress was proposed by the South American States, then recognized by us as independent, but still nominally at war with Spain. Its purposes were mutual alliance and preservation of peace among them. President Adams and Mr. Clay favored the project, but continued opposition, in and out of Congress, developed the general belief that the only result would be to make the United States the responsible protector of the whole republican system of the continent—thus giving the minor States the benefit of a special protection which the United States did not need for themselves and could not adequately expect from the rest. The United States Commissioner, although appointed, did not attend the Congress, and, owing to the disordered condition and conflicting interests of the Spanish-American States, it attained no result. (See note to Dana's Wheaton, page 99 *et seq.*)

RECIPROCITY TREATIES.

The true plan, it seems to me, is to make a series of reciprocity treaties with the states of Central and South America, taking care that those manufactures, and as far as is practicable, those products, which would come into competition with our own manufactures and products should not be admitted to the free list. By these treaties we might secure, for valuable consideration, so as not to violate the most favored nation clause of other treaties, further substantial advantages—such, for example, as the free navigation of their coasts, rivers and lakes.

Indiscriminate reduction of duties on materials peculiarly the production of Central and South America would take from us the ability to offer reciprocity, and we would thus lose the opportunity to secure valuable trade. Removal of duties from coffee, without greatly cheapening its price, deprived us of the power to negotiate with the coffee growing countries of Spanish America highly advantageous reciprocity treaties, and indiscriminate reduction of duties on sugar would complete our inability to establish favorable commercial relations with those countries which form our natural market, and from which we are now almost entirely excluded. If we confine the reduction of duties on such articles as sugar and coffee to those Spanish American countries which are willing to negotiate with us treaties of reciprocity, we cheapen these products for our own people, and at the same time gain the control of those markets for the products of our fields and factories.

Another point seems well worthy of consideration. The United States are great producers of silver, and every market which can be opened for this valuable product is to our direct advantage. Great Britain, on the other hand, strives to disparage and exclude it as a means of exchange, for its use in this way depreciates her wealth and works to her disadvantage. The States of Central and South America are also silver producers, with interests like ours. It would therefore be advantageous, and is probably practicable, to agree upon a common silver coin equal in value, say, to our gold dollar or to some other appropriate standard, which, under proper regulation as to coinage, etc., should be current in all the countries of this continent. Thus value would be