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REPORT

UPON THE

Convention of Cattle Commissioners,

HELD AT

SPRINGFIELD, ILLINOIS, DECEMBER 1, 1868,

AND UPON THE

TEXAS CATTLE DISEASE,

BY EDWIN M. SNOW, M. D.,

DELEGATE FROM RHODE ISLAND.

PROVIDENCE

PROVIDENCE PRESS COMPANY PRINTERS TO THE STATE.

1869.

State of Rhode Island, &c.

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HOUSE OF REPRESENTATIVES, MARCH 3, 1869,—ORDERED TO BE PRINTED.

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REPORT.

To His Excellency Ambrose E. Burnside, Governor of Rhode Island :

SIR:—In accordance with your appointment, I proceeded to the city of Springfield, Illinois, as a delegate to the Convention of Cattle Commissioners, arriving there on the morning of the first day of the meeting, Tuesday, December 1, 1868.

The convention met, by invitation of the Governor, in the State House at Springfield, and was composed of delegates from thirteen of the United States, and from the Province of Ontario, in Canada: in all thirty-six delegates.

The convention was organized by the choice of Hon. Lewis F. Allen of New York, as President, with one Vice President from each State, and four Secretaries. There being only one delegate from Rhode Island, he was on the list of Vice Presidents, and was placed on the prominent committees, and was also chosen as one of the Secretaries.

The name of the convention was officially decided to be the "*American Convention of Cattle Commissioners.*"

A committee of one from each State was appointed to arrange and present business for the action of the convention. This committee gave much time to the subject and finally presented a series of resolutions for the consideration of the Convention. These resolutions were carefully considered; were discussed at considerable length, and were finally adopted with some amendments. They

contain the deliberate opinion of the Convention in regard to the action necessary, not only to prevent the introduction and spread of the Texas Cattle Disease; but also with reference to the more generally important subject of preventing the introduction and sale of diseased and unhealthy animal food in our markets.

By request of the Convention a copy of these resolutions has been forwarded by His Excellency the Governor of the State of Illinois, to the Governors of the other States in the Union. The resolutions are as follows :—

“SECTION I. *Article 1.* Three Commissioners, or such other number as the Legislature may deem proper, shall be appointed by some competent authority, to hold office for five years, and shall report annually to the Legislature.

2. Such Commissioners shall watch over the general welfare of the animals within the State for which they are appointed, and particularly to prevent the spread of dangerous diseases among them, and to protect the people of the State against the dangers arising from the sale of diseased meat.

3. They may, from time to time, appoint such Assistant Commissioners to aid them in the discharge of their duties, as the welfare of the public may require.

4. They shall have power to administer oaths, and to prescribe, from time to time, such rules and regulations as may be necessary to accomplish the objects of their appointment.

5. They shall give public notice of the outbreak of any dangerous disease among animals, and shall publish such practical directions for its avoidance as they may deem necessary.

6. They may either place such diseased animals in quarantine, or cause them to be killed, as may seem to be necessary for the public protection; but in the latter case they shall cause an appraisal of such animals to be made, and the county or State shall pay such proportion of the appraised value as may be provided by law.

SECTION II. *Article 1.* The Commissioners, or any assistant Commissioner, located on the frontier of any State, shall, at such times as may be prescribed by the Commissioners have power to inspect all the animals brought into such State, whether by railroad cars, vessels, or common roads, and shall have power to detain such railroad cars, vessels, or droves of animals on common roads, long enough to make a proper inspection of them for the purpose of ascertaining their sanitary condition.

2. No animal shall be permitted to enter the State, which shall be deemed by such assistant Commissioner to be capable of spreading a dangerous disease, or of injuring the health of the inhabitants; but an appeal shall be allowed to the Commissioners in all such cases.

3. No train shall be allowed to proceed unless the animals contained therein have been supplied with food, water, and rest, within twenty-four hours next preceding the time of such inspection.

4. All animals shall rest and have access to food and water for twenty-four hours after having traveled for a similar period.

5. The railroad companies shall provide suitable yards for feeding, watering, and resting the animals traveling on their trains, and for quarantine purposes, which shall be kept in a cleanly and wholesome condition, to the satisfaction of the Commissioners.

6. Each train, on leaving its point of departure, shall have a certificate, signed by a Commissioner, or an Assistant Commissioner, which shall certify that all the animals contained therein were in a healthy condition at the time of departure, and shall also state the exact time of its leaving; and such certificate and endorsements thereon of the time of resting and the time of departure of the train, at subsequent resting and feeding places, shall be exhibited to the proper authorities whenever required.

7. Proper penalties shall be inserted in the law to prevent the bribery of officers charged with the execution of its provisions, and also to punish those who interfere with, or resist the officers in the performance of their duty.

SECTION III. *Whereas*, a malignant disease among cattle has been widely disseminated, by the transit of Texan and other south western cattle, through the western and north western States, during the warm weather of the present year, occasioning great loss to our farmers, and possibly endangering the health of our citizens, therefore,

Resolved, That this convention earnestly recommends the enactment of stringent laws to prevent the transit, through these States, of Texas or Cherokee cattle, from the first day of March to the first day of November inclusive.

Resolved, That the interests of the community require the enactment of laws making any person responsible for all damages that may result from the diffusion of any dangerous disease from animals in his ownership and possession.

At a subsequent period the following explanatory resolution was adopted:—

Resolved, That all Texas and south western cattle that have been ascertained to have been wintered in the States north of Texas should be considered as native cattle.

A committee was appointed to select a name by which the disease among cattle should be known. The committee recommended the name of TEXAS CATTLE DISEASE, and this name was unanimously adopted by the convention.

The following resolution was also adopted :—

Resolved, That this convention appoint a committee of six of its members, for the purpose of memorializing Congress to make sufficient appropriation to enable the War Department to fully and thoroughly investigate and report upon the nature, causes, mode of development, propagation and treatment of the Texas Cattle Disease.

This committee consisted of Dr. Clendenin, of Ohio, Dr. Snow, of Rhode Island, Dr. Rauch, of Illinois, Mr. Gould, of New York, Dr. Townshend, of Iowa, and Dr. Miles, of Michigan.

A committee was appointed to aid the Secretaries in supervising the publication of the proceedings of the convention, and by request of Gov. Oglesby, of Illinois, this committee was instructed, after carefully preparing the report of the proceedings, to forward it Gov. Oglesby, who offered to see to its publication and distribution.

This brief synopsis of the results of the convention is sufficient to show their general character, and the full official report, which will probably be received very soon, will give all further needed information.

But the official action of the convention shows only a small portion of the actual results. Besides the delegates, there were many gentlemen present who had had a large experience in the cattle disease; others who were interested in, and knew all about the cattle trade in Texas, and the transportation of cattle from Texas to the north western States; others who own immense prairie farms, and purchase Texas cattle by hundreds and by thousands to fatten them for the eastern markets. A vast amount of information upon the subject was obtained from these gentlemen, and I have no doubt that all the delegates, at least those from the eastern States,

were impressed, as they never were before, with the enormous magnitude of the interests involved in the cattle trade, and with the great importance to all classes in the community, that it should be properly regulated.

Every portion of the country from Maine to Texas is vitally interested in this subject. The time has been when railroads were opposed in New England from fear that they would ruin the price of horses, and when the settlement of the great West was looked upon with dread, from fear that it would cheapen the price of provisions, and ruin the farmers of the East. So in Illinois, stringent legislation has been adopted to prevent the introduction of Texas cattle, from fear that it would ruin the cattle raising interests of Illinois.

But the price of horses has been constantly increasing with the increase of railroads, and the value of provisions and the prosperity of New England farmers never were so great as since the West has been settled, and the introduction of hundreds of thousands of Texas cattle into Illinois, in spite of legislation, has only seemed to increase the value of Illinois cattle, and the prosperity of Illinois cattle growing interests.

The time is probably past, in this country, when serious attempts will be made to check the inevitable course of events, with respect to the laws of trade, by legislation. The time has come when the hills of New England, the richer farms of the middle States, and even the boundless prairies of Indiana and Illinois, are all insufficient to supply the demand for beef. We must have Texas cattle, and a considerable portion of our beef must, even now, come from Texas, or we must suffer from the deficiency. I saw, in one establishment in Chicago, the beef of one thousand cattle which were feeding on the plains of Texas only two weeks before. The same cattle could have been delivered in New York in less than twenty days from Texas. When New York wants, seriously wants beef, and Texas has an abundant supply which can be delivered in New York in twenty days, it is folly, it is worse than folly, to attempt to stop the supply by legislation. But if the cattle are cruelly treated, and the quality of the beef is seriously injured in the transportation, it becomes the duty of the government to interfere.

To return to the action of the convention at Springfield. An examination of the series of propositions adopted, shows that, with reference to the transportation of cattle, though they are of the highest importance to the people of Rhode Island, we have very little to do with their practical enforcement. We are located at the terminus of the line of transportation of cattle, and all laws regulating this transportation will be put in force and will produce all needed results upon the cattle, before they reach us. Our safety from the Texas Cattle Disease, as well as our protection from the sale of unhealthy and diseased beef, depend to a very great extent, upon the vigilant guard of our friends in Illinois and New York. If the recommendations of the convention are adopted, and strictly enforced by those States, very few cases of the Texas Cattle Disease will probably reach us.

The recommendations, in section first of the series of propositions already given on page four, relating to the appointment of Cattle Commissioners, are, however, of the utmost importance in every State. A judicious Board of Commissioners, by giving "public notice of the outbreak of any dangerous disease" among domestic animals in the State, and by giving "such practical directions for its avoidance as they may deem necessary" would accomplish much good in the community. But aside from this duty with reference to the outbreaks of disease among domestic animals, there is a constant and increasing necessity for the appointment of such a Board of Commissioners "to protect the people of the State against the dangers arising from the sale of diseased and unhealthy meat," and also to prevent cruelty to animals. Facts upon these points are occurring every day in this city, and elsewhere in the State, which if generally known in all their enormity, would and ought certainly, to arouse the people to action.

There is also in this State a great and pressing need of regulations concerning the treatment of cattle in cars after they arrive within the limits of the State, and requiring railroad companies to provide better facilities for unloading cattle, sheep, and swine, and also requiring such corporations to provide food, drink, and shelter for animals when they cannot be removed immediately after their arrival. I cannot refrain from expressing the earnest desire that

this subject may receive the attention of the General Assembly at the present session, and that efficient action may be taken in relation to it. If nothing more is done, a Board of Commissioners might be appointed to examine the subject and report such legislation as they may deem necessary, at the next session of the General Assembly.

It will be noticed that the official action of the convention, as already given, says nothing whatever respecting the nature, cause, mode of propagation, or treatment of the Texas Cattle Disease. These subjects, however, occupied much time in the convention, and the discussion upon them gave rise to the most opposite and conflicting opinions. In fact it would be extremely amusing to read a correct list of the directly antagonistic statements upon these points made to the convention, and all proved to be true "beyond all possible controversy." As nothing approaching a decision in relation to them was reached, it might perhaps be the wisest policy to omit all reference to them.

There were, however, certain very important statements and information brought before the Convention, which seemed to be well established, and to which I think the members of the Convention would very generally give their assent. Some of those statements which seemed to be established, are as follows :—

1. Texas cattle do not have the Texas Cattle Disease in Texas, and very rarely after being brought to more Northern States.

2. A similar disease is common among the horses in Texas.

3. Texas cattle, when brought to the more Northern States, though apparently healthy themselves, do communicate the disease to the native cattle of those States.

4. Cattle, whether brought by the river route or driven over land from Texas, communicate the disease to the native cattle of the more Northern States; but much the greater portion of the disease in Illinois, during the year 1868, was communicated by the very small portion of the cattle that was brought by the river route.

5. Cattle, native of the more Northern States, though they take the disease, and die from it, very rarely if ever, communicate it to other cattle.

6. Grown up native cattle are much more susceptible of the disease than calves or yearlings; and sucking calves very rarely take it, though their mothers may die with it.

7. Native cattle kept in pastures, or yards adjoining those in which Texas cattle are kept, do not take the disease.

8. As a general rule, for native cattle to take the disease, it seems to be necessary that they should graze where Texas cattle have grazed.

9. Generally, no ill effects are known to have followed the use of the milk or flesh of the diseased cattle, though there are a very few apparent exceptions to this.

10. The disease as seen in New York would seem to have been of a more aggravated character than at the West.

11. The enlargement of the spleen is found in all cases of the disease, and is perhaps the only easily detected change that is found in all cases.

12. No cure for the disease has been found. Carbolic acid is very valuable as a disinfectant, and as a preventive; but should be used with caution.

With reference to the *Cause* of the disease, the official action of the convention says nothing, and there was no settled uniformity of opinion in relation to it. The subject was, however, discussed at considerable length, and two prominent theories were presented, concerning which certain facts seemed to be well established. These two theories of the cause of the disease, may be called the *Spore* theory, and the *Tick* theory.

With regard to the first or Spore theory, the investigations of the New York Board of Health under the direction of Dr. Harris, and those of Dr. Rauch, the able Sanitary Superintendent of Chicago, established certain facts as follows:

In the blood of all native cattle sick with the Texas disease,

without exception, there were numerous microscopic spores, the blood was disorganized, the corpuscles were broken down, and largely diminished in quantity. The same spores were also found in the gall and other secretions of the sick cattle. These same spores were also found, to some slight extent, in the blood of apparently healthy Texas cattle; but never in the blood of healthy native cattle. So much for established facts.

It was supposed that these spores were similar to those found on certain plants in Texas, but this was not established. Dr. Morris, of New York, in a series of very interesting experiments, took the spores from the blood of diseased cattle and placing them on certain substances, in certain conditions of heat and moisture, succeeded in propagating them and even making them bear fruit, which again produced the spores.

But these experiments did not establish the connection between the spores, and the destruction of the blood corpuscles and the disorganization of the blood, in the Texas Cattle Disease; nor did they show whether the spores were the cause or the result of the disease, and there is, apparently, as good reasons for believing the one as the other.

The theory that the spores are *the cause* of the disease, supposes that these spores are brought from Texas, in the blood of the Texas cattle, that they escape in the excretions of these cattle, that they are received, of course very few in number, into the systems of native cattle, grazing on the same ground, and that when thus received into the blood of the native cattle, they increase in quantity by natural growth, with great rapidity, destroying the blood corpuscles, disorganizing the blood, and producing this terribly fatal disease.

It might be difficult to explain why, the spores that are acknowledged to exist in the blood of Texas cattle, do not increase and produce disease in them as well as in the native cattle. According to the usual laws of disease, we should expect that the Texas cattle, debilitated and broken down by the terrible effects of their transportation from Texas, would suffer from the disease much sooner, and much worse than the native cattle, in the full vigor of

health, on their native soil. But the facts are, that the Texas cattle remain healthy, and yet communicate this terrible disease to the native cattle who die from it by thousands.

I think it must be admitted that farther investigation and more experiments are necessary, before placing full faith in the theory that the spores are the cause of the Texas Cattle Disease.

With regard to the second, or Tick theory of the cause of the disease, it seems to be established that all or nearly all the Texas cattle, on their arrival in Illinois, were infested with ticks; that the cattle which came from Texas by the river route, had many more ticks than those which came by the land route; that these ticks on reaching their full growth, fell off and perished, each tick producing myriads of eggs; that when these eggs fell on the ground it required a period of from six weeks to two months for them to hatch; and that at this time the small ticks were found in immense numbers, covering every blade of grass and other vegetation where the Texas cattle had been kept.

The supposition of the supporters of the Tick theory is, that at this time, when the vegetation is covered with these minute ticks, the native cattle eat them in large numbers and are themselves soon covered with them, and that by the internal and external effects of these myriads of ticks, the disease is produced.

In support of this theory it is said that the disease appeared in all cases simultaneously with the appearance of the small ticks. Many instances are given in which native cattle were kept in the same pastures with the Texas cattle, with no ill effects whatever until the end of six weeks when the disease appeared. Portions of the same lot of native cattle which were removed from the pasture at different periods up to thirty days, all escaped the disease, without exception. Other native cattle which were put into the pasture with the Texas cattle previous to the end of six weeks, became sick at the same time with those that had been in the pasture all the time, namely when the small ticks appeared.

Other reasons in favor of the Tick theory of the cause of the disease, may be given as follows:

1. The Texas cattle that are brought in crowded boats by the river route, have infinitely more ticks, and also produce much more disease among native cattle; than the Texas cattle that are driven overland.

2. Native cattle do not take the disease from being driven over dry roads where Texas cattle have been driven, nor from transportation in cars where Texas cattle have been transported, nor from being kept in cattle yards with Texas cattle; it is necessary that they should graze where Texas cattle have grazed and some weeks after the Texas cattle are placed in the pasture.

3. The disease, and the ticks, disappear when the weather becomes cold and frosts are seen, and the transportation of Texas cattle and their mingling with native cattle are perfectly safe during the winter season.

4. The tick theory explains how the Texas cattle, though apparently well themselves, may give this terrible disease to native cattle.

5. Sucking calves do not eat grass, and very rarely have the disease though their mothers die with it.

6. The disease itself has more the characteristics of a disease resulting from animal than from vegetable poisoning.

So much for the Tick theory: If it be true, the question arises why the ticks produce such terrible effects upon the native cattle, and none whatever upon the Texas cattle in the same pastures. It is also important to make the proof of the theory complete, to show that eating the ticks will really produce these effects.

It is evident that further investigation is necessary before believing implicitly that the ticks are the cause of the disease, though it must be confessed that so far as we can judge, from our present information, the tick theory gives a more reasonable explanation of the facts than the spore theory.

If the ticks are the real cause of the disease, its prevention will be comparatively easy. It will only be necessary to prohibit the transportation of cattle from Texas, during the hot weather, and this happens to be the measure which the delegates to the con-

vention generally believed would be sufficient to prevent the disease, and the measure which was officially recommended by the convention.

If the ticks are the cause of the disease, it is probable that the free use of dilute carbolic acid, about the cattle yards, in the cattle cars, and upon the cattle, would destroy the ticks, and entirely prevent the disease. The experiment is certainly worth a trial.

If the ticks are the true cause of the disease, we are not called upon to believe the most absurd doctrine, that cattle suffering from abuse and privation, and weakened by hunger and thirst will communicate a malignant epizootic typhus to fat, healthy cattle, in their native pastures, while the debilitated and suffering cattle escape the disease entirely.

If the ticks are the cause of the disease, the disease itself is the result of an animal poison, and is not an epizootic disease which is liable to spread through the country, and become acclimated at the North.

It is certainly important to the whole country, that the true cause and nature of the Texas Cattle Disease should be speedily determined beyond all controversy, and it is to be hoped that the investigations already proposed and commenced will accomplish this object.

Respectfully submitted,

EDWIN M. SNOW, M. D.,

Delegate from Rhode Island.

Providence, March 2, 1869.

APL 3, 1869.

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