# MAINE STATE LEGISLATURE

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# PUBLIC DOCUMENTS OF MAINE

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## ANNUAL REPORTS

OF THE VARIOUS -

# Public Officers Institutions

FOR THE YEAR

1890.

VOLUME I.

AUGUSTA:
BURLEIGH & FLYNT, PRINTERS TO THE STATE.
1892

# REPORT OF COMMISSIONERS

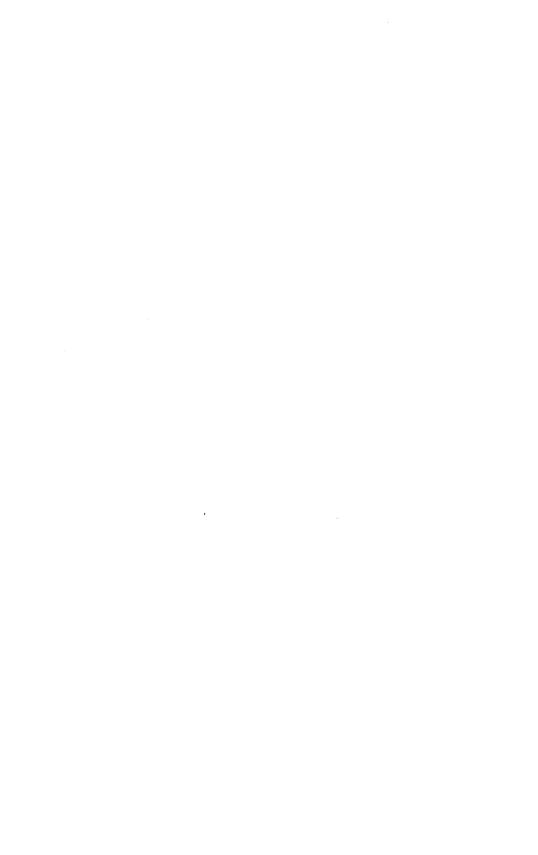
ON

# Contagious Diseases of Animals.

Under the Law of 1887, Chapter 138, of Public Laws of Maine.

F. O. BEAL, President.W. W. HARRIS, Secretary.GEO. H. BAILEY, Veterinary Surgeon.

AUGUSTA:
BURLEIGH & FLYNT, PRINTERS TO THE STATE.
1890.



# REPORT.

## To His Excellency, the Governor of Maine:

In presenting our annual report for 1889, we have thought best, in view of frequent inquiries as to the application of the present law as compared with that "approved March 17th, 1887," to publish the present amended law in full for the benefit of all concerned. In our annual report of 1888, we recommended to the Governor and Council that certain changes in the law of 1887 were in our opinion not only desirable, but if not modified or amended, were liable to entail much unnecessary expense upon the State in disposing of cases in the future, to which our attention might be called. committee by whom the present bill was referred to the Senate and House of Representatives, reported in favor of all the changes we at that time recommended, although the new bill did not become a law in season to avert the payment by the State of a large amount of money in the case of the herd of Hereford cattle destroyed at Kennebunk in January before the amended bill was passed in March, 1889.

We copy from report of 1888, pages 24 and 25: "The new cattle bill passed at the close of the last session of the legislature, in 1887, entitled 'An Act to extirpate contagious diseases among cattle,' should, in the opinion of our Board, be so changed or modified as not to give in certain sections of the law, especial prominence to the disease known as tuberculosis, to which the public mind had at that time been pointedly directed in consequence of the unprecedented outbreak of the disease at the State College farm at Orono. At the time the report of

the Orono cases was published (although the entire herd had then been disposed of and destroyed), there were still outstanding quite a number of young animals (mostly bulls) that had been sold from time to time from the college herd, that by order of the Committee of Investigation, were afterwards inspected, and being found in almost every instance thoroughly diseased, were also destroyed, so that we are now able to report the State free from any suspicious cases that trace directly to the college herd, with possibly the exception of a single bull in the town of Lee, that was out of one of the worst diseased and condemned cows at Orono.

In view of this fact we have to recommend that there be left out of section 1, chapter 138; the words 'especially tuberculosis,' and out of sections 2, 5, 6 and 7, such portions as recommended the 'quarantine and destruction of such animals as have been exposed to the disease known as tuberculosis, but not themselves actually diseased,' as being contrary to all well recognized authorities and precedents in dealing with and disposing of cases of tuberculosis among cattle. It has been repeatedly proven in this State that some one or more cases may be found present in a large herd, (which being destroyed) no other cases ever afterwards developed, and the three cases destroyed the present year show conclusively that although summered and wintered with other cattle, no suspicious cases remain in the herds from which they came, while should a single case of contagious pleuro-pneumonia be discovered in a herd of cattle, the only rational means to insure its extermination would not only be to destroy such an animal, but all others that had been herded with it. The frightfully contagious nature of this disease, and its treacherous and fatal character, have long since proved that to be the most economical and only certain manner of extermination. instances in the past our Board have been notified of supposed cases of contagious pleuro-pneumonia, and it should perhaps, be stated in this connection that an animal affected with common lung fever or pneumonia presents appearances so nearly identical with those of the contagious form, that it is often impossible to distinguish them as different while the animal is living, but that by a post-mortem it at once becomes apparent. Up to the present time, however, no case of contagious pleuro-pneumonia has ever made its appearance in this State, and it is believed that if the same watchful care and prudent legislation be exercised and continued in the future as in the past, this dread disease will never make its appearance in Maine."

We reproduce the recommendations as made in 1888, which show that the facts then existing are reflected in our present report, that whenever we have been called to inspect a herd of cattle in this State, and have found one or more cases of tuberculosis, they have been disposed of, and we have never afterwards had occasion to revisit the same herds to inspect or dispose of other animals.

The first case called to the attention of the Cattle Commissioners the present year was on January 7th, when an inspection was ordered of the herd of Hereford and Jersey cattle belonging to Hartley Lord, Esq., of Kennebunk. This is the herd already referred to, where we were met upon the very threshold of the new year with just such a case as we had anticipated and attempted to guard against in our recommendations to the legislature of 1887, and where a special appropriation was asked for and obtained to pay for the entire herd, which was condemned under the old law.

Mr. Lord's herd consisted of seventeen animals (all thoroughbreds), fifteen of which were Herefords and two Jerseys, five of the number being calves, and at our first visit a yearling heifer was condemned and destroyed, the post-mortem disclosing the fact that a portion of the right lung, together with the bronchial lymphatic glands were affected with tubercular deposit.

Our next visit to Mr. Lord's herd was on January 10th, when we condemned and destroyed a registered Hereford cow, found to be clearly affected with tuberculosis.

January 26th. The "full board" met at Mr. Lord's farm to decide what disposition should be made of the balance of

the animals, the owner having demanded, under the Contagious Act of 1887, that he be paid "three-fourths of their value as determined upon the basis of health before infection. and the full appraised value in case of animals exposed to either of such diseases, but not themselves actually diseased, out of any moneys appropriated by the legislature for that purpose; provided, however, that they shall not pay more than two hundred dollars for an animal with pedigree recorded or recordable in the recognized herd books of the breed in which the animal destroyed shall belong, nor more than one hundred dollars for an animal which has no pedigree." The Commissioners, finding they had no alternative but to appraise and condemn the entire herd, "under section 2, chapter 138, defining the powers and duties of said Commissioners," appraised the herd at seventeen hundred dollars, and the legislature then in session made an especial appropriation in payment of the award.

January 12th. The Commissioners inspected the herd of Addison True of Mechanic Falls, and condemned a grade Jersey cow, appraisal \$25.00.

January 23d. An inspection was ordered at the farm of C. B. Dunn, East New Sharon, where a grade cow was found diseased and was condemned and appraised at \$25.00.

February 2d. An inspection was ordered at Charles M. Haynes' stable at Bucksport, but no contagious disease was found.

March 14th. A case of glanders was reported at Milo, at the stable of William Mayo, which proved to be chronic catarrh.

March 16th. An inspection was held of the cattle belonging to Henry Merrill of Garland, and a grade Jersey cow found to be badly diseased; appraisal, \$25.00.

March 21st. An ox belonging to Sprague Keene of Harrison was found badly affected with tuberculosis and condemned; appraisal, \$35.00.

March 23d. An inspection was ordered in a "lumber camp" at Danforth, Washington county, for supposed glanders, which proved to be a case of chronic catarrh.

March 25th. Inspected the herd of Nelson Harmon, of Scarboro' Beach, who had lest several calves. A post-mortem revealed the fact that they had died of impaction of the third stomach. No appraisal.

March 26th. Inspected the herd of Leonard Stevens, South Windham, and condemned a Jersey cow found badly diseased with tuberculosis; appraisal, \$25.00.

March 29th. Inspected the cattle of George W. Knight, of South Waterboro', and found a "grade Jersey cow" diseased; appraisal, \$16.00.

April 6th. Inspected cattle of James I. Payne of Standish, but found no contagious disease.

April 9th. A reported case of glanders, at Unity, was found upon inspection to be chronic catarrh.

April 10th. Inspection was ordered at farm of F. F. Irish of Buckfield, but no contagious disease was discovered.

April 12th. The "Mayor of Calais" reported a case of glanders at Red Beach, which proved to be chronic catarrh, but the following day, April 13th, a case of glanders was found in the stable of Frederick J. Young, at Calais, and condemned. Appraisal, \$40.00.

April 30th. A case of glanders was reported at the stable of Frank G. Connor at Richmond, which proved to be catarrh.

May 3d. A case of tuberculosis was reported upon the farm of Henry Smith of Troy, which proved to be emphysema.

May 6th. Inspection was ordered of cattle at farm of E. J. Waterhouse of Groveville, but no contagious disease was found to exist.

May 13th. The cattle of Charles W. Smith of So. Orrington were inspected, but no tuberculosis found.

May 18th. A post-mortem was held upon a cow that had died under suspicious circumstances upon the farm of James L. Carter of Scarboro'. No contagious disease.

May 27th. The herd of cattle belonging to Levi Jordan of East Raymond, was inspected and a grade Jersey heifer found affected with tuberculosis. Appraisal, \$25.00.

May 22d, May 26th, May 27th, June 4th, June 27th and September 21st, the Commissioners visited the premises of C. E. Winslow at Falmouth, to inspect upon the dates above set forth, a large herd of milch cows, reported to be affected with some contagious disease, and as these cases have proved to be of especial interest through various post-mortems that have been had from time to time since the first inspection was ordered, they will be taken up at the close of this annual report, and the various visits and post-mortems described in detail.

June 3d. A case of glanders was reported at the stable of Jacob Levi at Portland, and a chestnut gelding found badly affected with the disease. He was condemned and appraised at \$100.00.

June 8th. The Society for the Prevention of Cruelty to Animals reported a case of glanders at Cumberland Mills, which proved upon inspection to be chronic catarrh.

June 11th. An inspection was ordered of the cattle of Frank Hart of Howard, and a Jersey cow was quarantined.

June 14th. A case of tuberculosis was discovered in a Holstein bull, belonging to George W. Reed of South Orrington, and he was condemned and destroyed. Appraisal, \$40.

June 15th. Inspection ordered of herd of cattle belonging to A. S. Forbes of Brooks, but no contagious disease discovered.

June 17th. A herd of cattle were inspected at Bowery Beach, but no contagious disease was found to exist.

June 18th. The herd of cattle of Wm. H. Cole of Paris, was inspected, and an ox found badly affected with tuberculosis and condemned. Appraisal, \$50.00.

June 19th. Inspection ordered of the cattle of Herbert J. Holt, of North Norway, but no contagion found.

June 21st. A post-mortem was held at Burnham, upon an ox that had died upon the farm of John Sayward, when the ox was found to have died of "congestion of the lungs."

June 24th. An inspection was ordered of the cattle of Messrs. Bonney and Jewell at Mechanic Falls, but no contagious disease was found to exist.

July 15th. The herd of Albert A. Young of Auburn was inspected, and a registered Holstein cow found badly affected with tuberculosis. She was condemned and appraised at \$100.00.

July 18th. A case of glanders was reported at Hampden, which proved to be a case of chronic catarrh.

July 26th. The herd of cattle of J. W. Powers of Brewer, was inspected, which resulted in finding a case of emphysema.

July 29th. A case of glanders was reported at Gray, at the stables of John Merrill, which proved to he catarrh.

July 30th. The cattle of Mr. Bemis of Hermon, were inspected, but no contagious disease was discovered.

July 31st. The Commissioners visited Danforth, Washington county, and found a case of glanders in a mare and colt belonging to White Brothers, which were condemned and appraised at \$90, and the same day condemned a horse belonging to George O. Frye of Brookton, which was appraised at \$60.

August 1st. Inspected the cattle of Robert P. Smart of Monroe, and found several head of young cattle affected with emphysema.

August 7th. Inspected the herd of Mr. Chapin of Hermon, but found no contagious disease among his cattle.

August 13th. Visited the farm of Hiram Towle of Belgrade Mills, and found a case of tuberculosis in a grade cow. Appraised \$35.

August 19th. A case of glanders was reported by Mr. Luce of Hermon, where two horses were found to be affected with lymphangitis. No appraisal.

August 24th. Inspection was ordered of the cattle of Staples & Berry at North Auburn, but no contagious disease was found.

September 12th. A case of glanders was reported by the selectmen of Porter, at the stables of David S. Hurd, which proved to be catarrh.

September 13th. A post-mortem and inspection was held at Lewiston, upon the premises of John Bolton. No contagious disease was discovered.

September 28th. Inspection was ordered at the farm of George W. Stone of Lewiston, but no contagion was found among his cattle.

October 7th. A case of glanders was reported at Eddington, at the stables of E. G. Hepworth. The horse was condemned and appraised at \$100.

October 9th. The cattle of J. M. Knight of Otisfield, were inspected, but no contagious disease was found.

October 11th. The "Board of Health" of Leeds reported a case of glanders, which proved upon examination to be chronic catarrh.

October 15th. Inspection was ordered of the cattle of Llewellyn Norton of Farmington, but no contagious disease was found.

October 16th. Inspection was ordered upon the farm of Mrs. J. Hood of Wayne, but no cases of tuberculosis were found.

October 17th. A bad case of tuberculosis was discovered in a Jersey cow belonging to Frank Warren of Livermore Falls, which was condemned and appraised at \$25.

October 23d. Commissioners Beal and Bailey visited the premises of S. S. McCallough of Hermon, and found an advanced case of tuberculosis in a Jersey cow that had for a long time been furnishing the milk for a family of small children. The cow was condemned and appraised at \$28.

October 25th. Commissioners Harris and Bailey visited the farm of Rev. Samuel Poindexter at Shapleigh, who had lost several head of cattle, and reported others sick with the same symptoms. A post-mortem on an ox that had recently died disclosed the fact that it was a case of poisoning, and the history of the previous cases all go to confirm the same diagnosis. No appraisal.

November 4th. A case of "glanders and farcy" was reported by O. M. Cummings of Norway. Diagnosis confirmed; appraisal, \$100.00.

November 5th. The cattle of W. G. Everett of South Paris were inspected, but no contagious disease was found to exist.

November 12th. The cattle of William Harlow of Turner Centre were inspected, and a Holstein heifer found to be affected with tuberculosis. She was condemned and appraised at \$15.00.

November 13th. Visited the premises of A. H. Pratt at "North Turner Bridge," and condemned a yearling registered Holstein bull, the animal being appraised at \$35.00. This bull was the produce of the Holstein cow already described as belonging to A. A. Young of Auburn, which was condemned last July, and found to be a very bad case of tuberculosis; and this bull was disposed of in pursuance of the well settled policy of this State, to follow up and destroy the produce of tuberculous cows.

November 23d. Two cases of glanders were reported in the camp of George W. Day at Presque Isle, Aroostook county, but upon inspection were found to be bad cases of catarrh.

November 26th. A case of glanders was reported at Wytopitlock, Washington county, which also proved to be chronic catarrh.

November 30th. An inspection was ordered of the cattle belonging to N. Q. Pope of Poland. A Holstein cow, which had been brought into this State from New York last August, was found to be affected with tuberculosis, and condemned, although no compensation could be awarded to the owner, as section 2 of the present law provides "that in no case shall compensation be allowed for an animal destroyed under the

provisions of this Act, which may have contracted the disease in a foreign country, or on the high seas, or that may have been brought into this State, within one year previous to such animal's showing evidence of such disease."

December 6th. Inspection was ordered upon a Jersey cow, the property of Joseph A. Lamb of Lewiston, and found to be an advanced case of tuberculosis. Appraised at \$30.00. The above cow had dropped a bull calf the previous year, which was then in the possession of a gentleman at South Turner, who upon learning the facts in relation to his dam, promptly ordered the animal destroyed.

The same day a bad case of "glanders and farcy" was discovered at the stable of Dr. L. A. Bourque of Lewiston, and was destroyed. Appraisal, \$100.00.

December 7th. A case of glanders was reported at the stable of David Cram at Litchfield Plains, which proved to be a case of *pupura hæmorrhagica*.

December 13th. A case was reported at North Greene, said to be an advanced case of tuberculosis, but which proved to be non-contagious emphysema. The cow was the property of S. M. Rose, and there was no appraisal.

December 23d. Inspection was held at Bethel in the herd of L. A. Hall, but no contagious disease was found.

December 26th. The selectmen of South Litchfield requested an inspection of the herd of Granville A. Palmer of that town, and two grade Jersey cows were found to be affected with tuberculosis, and were condemned after having been appraised, one at \$20 and the other at \$18.

The last case of the year reported was supposed glanders, in a mare at Bingham, but which proved to be catarrh, and the attention of all parties interested is again directed to pages 17, 18, 19 and 20 of our report of 1888, in which the symptoms of glanders and farcy are so clearly given that if these are carefully compared with supposed cases as they arise, it would save our Board much trouble and expense in going long distances to render decisions, in which the owners them-

selves ought to be able to determine whether they have glanders or catarrh.

Emphysema among cattle also seems to be on the increase in this State, and a large majority of the herds visited the past year have disclosed such eases, which are entirely noncontagious. This condition of emphysema, which is analogous to "heaves in horses," has been found to exist in a large number of cases where tuberculosis was suspected. Any considerable pressure or violent concussion of the lung may produce a laceration of that viscus and give occasion to the infiltration of air into the areolar texture, called "interlobular pulmonary emphysema," or we may have excessive dilation of the air cells, some of which ultimately break and give rise to irregular vesicles at the surface of the lung, known as "vesicular emphysema." The inspiratory efforts are increased and somewhat suppressed, while the expiration, which is more frequently audible, is prolonged, laborious and wheezing. These symptoms, together with the accompanying cough, often confuse an owner, and your Commissioners believe that much of this trouble is caused by overfeeding bulky and innutritious food, causing extreme pressure of the lungs and its consequent results.

We now come to deal in detail with the "Falmouth herd" of Charles E. Winslow, about which much public and private comment has been heretofore iudulged in, and of which we now make our first and only official report. From a pathological stand-point these cases have proved of so unusual a character as to deceive several so-called experts in the human and veterinary profession, and have presented (for the first time since the Cattle Commission of Maine was organized) certain lesions of the abdominal viscera of animals which cannot fail to prove of special interest to all future investigators to whose care is committed the health and welfare of our domesticated animals.

Our attention was first called to these cases by Mr. Winslow on May 22d, at which time he reported the recent loss of a milch cow, and an autopsy was then held to determine the

cause of death, which resulted, after hearing a history of the case, in a diagnosis of "parturiant apoplexy," which was fully confirmed by the post-mortem examination. At this visit I examined the herd (about twenty in number), my attention being particularly called to a "black cow" that Mr. Winslow claimed was showing as plainly as any animal he owned, the symptoms of cough, unthriftiness, etc., of which he com-The temperature of this animal was 101.3-5; her inspiratory efforts were increased, and upon auscultation the expiration was prolonged, laborious and wheezing, and I made a diagnosis of emphysema as accounting for the cough, and decided, after taking the temperature of quite a number of other animals, that there was no evidence of tuberculosis My diagnosis was evidently not satisfactory to Mr. Winslow, for he soon after killed the "black cow" on his own account, and upon submitting a portion of the intestines and other viscera to Dr. Charles D. Smith of Portland, obtained from Dr. Smith an opinion that the lesions were unmistakably tubercular. These specimens presented for examination a number of nodules, varying in size from a pin head to a marrow-fat pea, irregularly scattered about, some upon the serous coat, some beneath the mucous coat and a few of the smaller imbedded in the intestinal wall. Some were dense in structure; others distinctly softer, with a cheesy feeling when crushed between the fingers.

My second visit to Winslow's was made on May 26th, upon his representations that a lame cow had fallen in his pasture, and was unable to get up; when, accompanied by Mr. Harris, we examined the cow as best we could, and ordered her destruction for the purpose of an autopsy, after having appraised the animal at \$40.00.

Upon post-mortem no evidences of tuberculosis were then discovered, the lungs and abdominal viscera being perfectly sound. My next visit was made on May 27th, accompanied by Dr. Smith, to determine positively from which cow of the two already killed the specimen of intestine furnished Dr.

Smith had been procured, also to obtain other specimens, and to dissect the joint of the lame cow.

On May 28th Dr. Smith, at my request, furnished our Board with a written opinion in which he concludes "I am satisfied that the specimens above described, except the portions of lung and liver, are in a condition of undoubted tubercular degeneration." But wishing to get all the light we could upon a subject that thus early bid fair to result in conflict of opinion, I submitted to Dr. H. G. Beyer, now of this city, a portion of the same intestines that were submitted to Dr. Smith, and on June 8th I received from him the letter which I give below:

PORTLAND, ME., June 8th, 1889.

Mr. George H. Bailey, D. V. S., Veterinarian of Board of Commissioners on Contagious Diseases:

Sir—The specimens of liver and intestine which you requested me to examine microscopically, prove to be non-tuberculous; no bacilli, characteristic of tuberculosis, have been found in a large number of specimens made from them. From the pathologicoanatomical appearances presented by the specimens, the disease, whatever it is, may be of recent origin.

Very respectfully,

H. G. BEYER, M. D.

The fourth visit to Mr. Winslow's was on June 4th, when we were solicited by him to hold a post-mortem upon two cows that he proposed to kill, upon condition that they should be paid for by the State if found diseased with tuberculosis; if not, at his own loss. Accompanied by Mr. Harris, we held a post-mortem upon a red cow, appraised at \$40.00, but failing to find any evidence whatever of disease, Mr. Winslow declined to have the other animal destroyed. The next visit was on June 19th, when, in answer to Mr. Winslow's persistent claims that some contagious disease was still present in his herd, it was decided to hold another postmortem, that should finally dispose of our connection with his case; and to this end the services of Dr. H. G. Beyer

were again secured, and having selected an animal presenting all the typical characteristics of those already disposed of, the cow was appraised at \$40.00 and killed, after all aseptic precautions had been taken to insure an absolutely correct result. We hereby publish the certificate of Dr. Beyer, in which it will be seen he fully confirms the diagnosis of our Board, that no tuberculosis exists in the Falmouth herd:

#### REPORT OF THE POST-MORTEM.

Heart and lungs were found to be not only normal but in a very excellent condition; spleen and liver normal throughout. only lesion found about the animal was confined to the alimentary canal. Here a number of small tubercles were found all along the small intestine. The tubercles varied in size all the way from a pin's head to a large pea. The smallest ones were very hard; the largest ones somewhat softer. All were made up of a thick and dense capsule of connective tissue, with contents varying in consistency as follows: The contents of the smaller were extremely hard and almost calcareous. The larger ones were softer and contained a thick greenish yellow mass not unlike that seen in the tuberculous nodules of tuberculosis, and, therefore, well calculated to deceive. A mistake would indeed seem very excusable, were it not that the very thick and dense connective tissue capsule would, perhaps, be one of the first features to arouse the suspicion of the non-tuberculous nature of the nodule.

In situation these nodules are sub-mucous, projecting a little more towards the free serous surface of the intestine than towards the lumen of the canal; they were distributed rather sparsely and irregularly throughout the greater part of the small intestine; none were seen about the stomach or large intestine. Every other organ of the animal seemed perfectly normal.

#### MICROSCOPICAL EXAMINATION.

For the purpose of a microscopical examination several sterilized test-tubes and vessels were used to receive specimens of spleen, liver, blood, intestine, etc., which tissues were removed from the animal under strictly aseptic precautions. So far as the spleen, liver, blood and blood vessels are concerned, nothing abnormal was found. A large number of preparations, made from the contents

of the nodules and strained according to Koch's method, were examined with entirely negative results; there was not a single bacillus characteristic of tuberculosis found in any one of them.

The contents of the nodules, however, examined with a low power of the microscope, soon revealed the presence of an animal parasite, belonging to the order of nematodes or the filamentous variety of worms. Although the presence of this parasite could not be established for every nodule, it was present in about one-half of the smallest ones. The entire absence of the bacillus characteristic of tuberculosis and the presence of the above-mentioned animal parasite in the nodules which were examined, warrants me in asserting that the disease is due to the latter, but has nothing whatever in common with the disease known as tuberculosis.

Respectfully,

H. G. BEYER, M. D.,

Dr. GEO. H. BAILEY,

Veterinarian of Cattle Commissioners, Portland, Maine. June 21, 1889."

I also publish in this connection, the letters of two gentlemen who stand in the very front rank of the medical profession of this State, as to the value of Dr. Beyer's investigations, written after having seen all the specimens submitted for his examination:

"PORTLAND, November 19, 1889.

This is to certify that I have been acquainted with Dr. H. G. Beyer for several years and know him to be one of the most scientific men of this country. When he made the examination for Dr. Bailey, he had just returned from Berlin, Germany, where he had been studying this department for six months. I saw this specimen before he made the examination, and while the nodules on the intestine had a suspicious look, their true nature could not be determined without a careful microscopic examination. Dr. Beyer made this examination and I have seen his report. I am confident that report represents the true nature of the deposit.

Very respectfully,

S. H. WEEKS, M. D.

"PORTLAND, November 10, 1889.

To Geo. H. Bailey, D. V. S., Veterinary Officer of Board of Cattle Commissioners for Maine:

DEAR SIR:—I have read with much care a report signed by A. G. Beyer, M. D., made to your Board, dated June 8, 1889, also one dated June 21, 1889.

While expressing no opinion as to the subject matter involved in that report, I am very glad to say that I have known Dr. Beyer for several years and have been associated with him in such relation as to give me frequent and abundant opportunities to judge of his qualifications as an expert in microscopical examinations where the highest skill and knowledge, such as science of to-day demands.

I can, without any reservation, say, that in my opinion he has, by long study both in this country and in Europe, with the best pathologists and with abundance of material, made himself one of the men who can strictly be called an expert in all such investigations.

I would further add that the report shows conclusive evidence that all the details of the examinations made, were done in strict accordance with the most critical demands of science of the present day.

Very truly yours.

S. C. GORDON, M. D."

It is but fair to Dr. Smith to say that having been presented by Dr. Beyer the slides containing "the parasite" he had discovered, that he now entirely agrees with Dr. Beyer, that the nodules examined contain a coccus instead of a bacillus, and were non-contagious instead of tubercular.

Our attention was not again called to this herd, until I received a letter from Mr. Winslow, post-marked Portland, August 1st, containing the certificate of Dr. J. F. Winchester of Lawrence, Mass., a copy of which I now produce:

"The examination of your herd of cows this day revealed the fact that the cows designated by the names of Star, Nell, and Jumbo showed symptoms which, owing to the fact that tubercular cattle had been killed from the herd, are characteristic of tuberculosis. The cows represented by the names of Pet, Topsy, Sukie and Blanket presented symptoms which are suspicious of tuberculosis. The rest, known as Bessie, Lew, Daisy, Brindle, Buttercup, and the bull, from their association, are to be looked upon as suspects.

J. F. WINCHESTER."

Dr. Winchester was at that time the State Veterinarian. attached to the Massachusetts "Board of Cattle Commissioners," and was employed by Mr. Winslow to examine his herd, upon hearing the statement of Winslow that tuberculosis had already been discovered by Dr. Smith in this same herd of cattle. The Selectmen of Falmouth thereupon addressed a letter to the President of our Board, Mr. F. O. Beal of Bangor, who came to Portland to investigate the case, and after a consultation of our "full board" a letter was addressed to the Selectmen in reply, that we declined to take any further action, as we relied upon our own diagnosis fully supported and confirmed as it was by Dr. Beyer, M. D., and also by five different post-mortems, while that of Dr. Winchester was entirely without such confirmation. Upon September 13th we received a notice from the Selectmen of Falmouth, that a post-mortem on one of the cows of the Falmouth herd would be held by Dr. Winchester on the following Monday at two o'clock in the afternoon.

Signed,

W. K. SWETT, Selectmen of D. O. MOULTON, Falmouth.

On September 21st Commissioners Harris and Bailey, accompanied by Dr. Williamson Bryden, D. V. S., Live Stock Inspector of the British Steamships of Boston, and Dr. Chas. D. Smith of Portland, visited Mr. Winslow's farm, where we met Dr. Winchester and the Selectmen of Falmouth, when a cow pronounced by Dr. Winchester to be affected with tuberculosis was slaughtered for post-mortem examination.

The lungs of this animal were found to be absolutely sound, while the intestinal track failed even to show any of the lesions of the cases that had preceded it, and not a single tubercle was disclosed during the examination. In this con-

nection we wish to state that up to the present time, we have seen seven post-mortems from this herd (two of which were conducted at the State's expense) and the lungs of every one of these animals have been (with the exception of the characteristic distension of emphysema) absolutely sound.

This statement is of especial significance when it comes to be considered that of the entire herd of fifty animals slaughtered upon the State College farm, every one of them proved to be cases of *pulmonary tuberculosis*, as has also every individual case thus far developed in the history of this State.

A few weeks ago the New York City board of health requested Drs. Prudden, Briggs and Loomis, pathologists to the board of health, to make a concise statement upon the subject of the contagiousness of tuberculosis and the means of protection therefrom. The following is their report and coming from so high authority as it does, is worthy of a careful reading by everybody:

The disease known as tuberculosis, and, when affecting the lungs, as pulmonary tuberculosis (consumption), is very common in the human being, and in certain domestic animals, especially cattle. About one-fourth of all deaths occurring in the human being during adult life is caused by it, and nearly one-half of the entire population at some time in life acquires it. The disease is the same in nature in animals and in man, and has the same cause.

It has been proved beyond a doubt that a living germ called the "tubercle bacillus," is the cause, and the only cause of tuberculosis. It does not seem necessary to state the facts upon which this assertion is based, for the observation first made by Robert Koch in 1882 has been confirmed so often and so completely that it now constitutes one of the most absolutely demonstrated facts in medicine.

Tuberculosis may often affect any organ of the body, but most frequently first involves the lungs. When the living germs find their way into the body, they multiply there, if

favorable conditions for their growth exists, and produce small new growths or nodules (tubercles), which tend to soften. The discharges from these softened tubercles, containing the living germs, are thrown off from the body. In pulmonary tuberculosis the discharges constitute in part, the expectoration. The germs thus thrown off do not grow outside the living or human body, except under artificial conditions, although they may retain their vitality and virulence for long periods of time, even when thoroughly dried. As tuberculosis can only result from receiving into the body the living germs that have come from some other human being or animal affected with the disease.

It has been abundantly established that the disease may be transmitted by meat or milk from a tubercular animal. The milk glands in mileh cows are often affected with the disease when their lungs are involved, and the milk from such animals may contain the living germs, and, if not thoroughly cooked, it is capable of transmitting the disease. Boiling the milk or thoroughly cooking the meat, destroys the germs. Although the meat and milk from tubercular animals constitute actual and important sources of danger, the disease is acquired, as a rule, through its communication from man to man.

Tuberculosis is commonly produced in the lungs (which are the organs most frequently affected) by breathing air in which living germs are suspended as dust. The material which is coughed up, sometimes in large quantities, by persons suffering from consumption, contains these germs, often in enormous numbers.

Dr. Winchester, after stating that he should not be satisfied until he had submitted some glands of the animal, he had ordered destroyed, to a microscopical examination by Dr. Peters of Boston, took a portion of them with him to Massachusetts, while we also forwarded some viscera from the same animal to Dr. Salmon of the United States Department of Agriculture, at Washington, D. C., and received from him the following reply:

"Bureau of Animal Industry, Washington, D. C., September 28, 1889.

Dr. Geo. H. Bailey, State Veterinarian, Portland, Maine:

DEAR SIR:—Referring to your favor of the 22d instant, would say, so far as we are able to discover, the specimens sent were not affected with tuberculosis; and judging from your statement of the appearance on post-mortem examination, tuberculosis would be out of the question.

While I have never been associated with Dr. Beyer, I know he is a well educated man and accustomed to scientific investigation. I think his conclusions are correct in regard to the investigation of the lesions found in the cattle, to which you refer, and I have every reason to believe that he is an excellent pathologist and perfectly trustworthy.

Very respectfully,

Signed,

D. E. SALMON, Chief of Bureau.

I am also in receipt of a letter from Dr. Bryden of Boston, who was present at the post-mortem held by Dr. Winchester, which explains itself.

"Boston, Mass., October 2, 1889.

Dr. Geo. H. Bailey, State Veterinarian, Portland. Maine:

DEAR DOCTOR:—I have been expecting to hear from you every day for a week or so, to learn if anything more had transpired in regard to the "Falmouth herd."

When inspecting bullocks for the "Bostonian" this morning I met Dr. Peters, and took the liberty to ask him about the samples Dr. Winchester had sent him for examination from the Falmouth farm. He told me that he had examined the soft parts and had not found any bacilli of tuberculosis and that he doubted whether he would be able to make a satisfactory examination of the cartilage and bone. He made the statement so unequivocally that I felt that it was a most substantial endorsement of your position in the matter which it would interest you to hear. Then it is quite in harmony with the history of the herd, the seven post-mortems from which no lung lesions could be discovered, and the careful microscopic examination made by Dr. Beyer, M. D.

I sincerely hope it may prove a good lesson to Winchester, and that he may profit by it. Permit me to congratulate you again on

your good judgment in refusing to recognize the condition of the animals as being due to tuberculosis or any other contagious disease.

The inferences you drew were clear and thoughts logical. It ought to be recorded to your credit and pass into history, not only in the interest of yourself and your splendid State, but as a most important feature of this very important subject, far too little understood, tuberculosis.

I remain yours very truly,

WILLIAMSON BRYDEN."

The next move upon the chess-board was an attempt of Mr. C. E. Winslow to impeach the entire board of Cattle Commissioners, by an application to his excellency Governor Burleigh for a public hearing of his case. On October 30th, the enclosed letter was received at Portland.

#### "STATE OF MAINE.

#### EXECUTIVE DEPARTMENT.

EDWIN C. BURLEIGH, Governor.

E. C. Stevens, Private Secretary.

Augusta, October 30, 1889.

Dr. Geo. H. Builey, State Board of Cattle Commissioners, Portland, Maine:

DEAR SIR:—The Governor is in receipt of a communication from C. E. Winslow of Falmouth, complaining that he has suffered wrongs, injustice, loss of property and business, on account of the action, or non-action of you and your commission; and asks permission to personally appear and state his complaint in detail; Wednesday, November 20th. 10 A. M., has been assigned for the hearing before the Governor and Council.

What is the cause of Mr. Winslow's grievance? Will you have the kindness to give Governor Burleigh full particulars by mail.

Very respectfully,

E. C. Stevens, Private Secretary.

November 20th. The full board of Cattle Commissioners attended the special session of the Governor and Council of Augusta, where we found Mr. Winslow who was represented

by Counsel, Hon. M. P. Frank of Portland. Dr. Winchester of Lawrence, Mass., was also in attendance.

Mr. Frank opened in behalf of the plaintiff, and introduced as witnesses Mr. Winslow and Dr. Winchester, and also read a lengthy affidavit from Dr. Smith of Portland, one of the members of the "Board of Health." The Commissioners appeared without counsel, and conducted their own case, at the conclusion of which, Governor Burleigh promptly announced that he did not care to further consider the case, but should sustain the action of our board and referred the case back into the hands of the Cattle Commissioners, for such action as in their judgment the case demanded. Since that time Mr. Winslow has made no demands upon us, but has killed another cow from his herd, the lungs of which were sound like all the others and we have heard no other report of his case.

In tracing the history of the "Falmouth Herd," and grouping together of such antecedents as would enable us to come to a correct decision, the fact has developed that not many years ago this same Mr. C. E. Winslow brought suit against the "Morrill Currying and Tanning Co.," of Deering, in which he complained in his first allegation, that "the said Morrill had erected upon Fall Brook, about half a mile above the plaintiff's premises, a certain wool pulling shop, in which he carried on the business of currying and tanning sheep skins, and in such business used certain noxious and poisonous mixtures, compounds and substances, and allowed the same. a large amount of which had been constantly produced, to flow, drain and wash into said brook, polluting, poisoning and infecting the waters of said brook flowing through the plaintiff's premises and pasture so that they were unfit for domestic use, &c." Allegation second of the plaintiff's writ is as follows: "And the plaintiff avers that, while he was ignorant of the nature of said waters, not knowing that they were being so poisoned, corrupted and polluted by the defendant, but believing that they were in their natural state, and fit and suitable for his said stock of cows, oxen and

other animals to drink, as they of right should and ought to be, and by reason of there being no other water for said stock of cattle, and by reason of their drinking said poisoned. corrupted and polluted water, they shrunk in flesh, and became and were of less value, and were of less profit to the plaintiff, and the quantity of milk obtained during all that time was much less, and was of a poor and inferior quality, so that the plaintiff's customers would not purchase it, and his trade fell off, and his sales diminished, and he lost many good customers, and much trade, and a large amount of milk from said cows, during said time, by reason thereof spoiled and became of no value. And by reason of the aforesaid wrongful acts of the defendant in so polluting, poisoning and corrupting the waters of said stream, as above set forth, not only have the plaintiff's premises been of less value to him, but he has been greatly damaged in his business, as herein set forth, and has suffered much loss in the products of his said stock and in the value, all to the damage of two thousand dollars."

### STATE OF MAINE.

CUMBERLAND SS.

CLERK'S OFFICE, SUPERIOR COURT, Portland, November 9, 1889.

I certify that the foregoing are true extracts taken from the declaration in the writ now on file in the Superior Court in and for said county of Cumberland in an action entitled Charles E. Winslow versus Charles E. Morrill disposed of in said Superior Court at the April term thereof, A. D. 1881.

In witness whereof I have hereunto set my hand and Seal. Seal of said court the day and year above written.

B. C. STONE, Clerk.

It is a most significant fact that the same set of symptoms among his cattle, of which Win-low complained in his writ against the Morrill Company in 1881, viz: ("that they shrunk in flesh, and became of less value, and the quantity

of milk obtained was much less, and was of a poor and inferior quality, and his trade fell off, and his sales diminished, and he lost many good customers, and much trade, and by reason of the aforesaid wrongful acts of the defendant, he had been greatly damaged in his business, and suffered much loss &c.") have all been resurrected and rehearsed in their entirety and original declarations before the Commissioners, and the Governor and Council of Maine in the present case, and we respectfully submit, if it is not a fair and impartial inference to be drawn from Winslow's former and present statements, that if his allegations were true in the former case, the same old trouble may be still lurking in his herd, or else, that this is a counterpart and reproduction of another unsuccessful and abortive attempt to sell a lot of worthless and half starved cattle to the State of Maine.

Accepting either "horn of the dilemma" no one will for one moment pretend that Winslow has any just claim against the State, other than for the two cows condemned by the Cattle Commission, and for which payment has already been tendered and returned to the Treasurer of our Commission.

We have been thus particular in setting these facts before the public, as the only vindication we shall need in the eyes of any intelligent men, that the Commissioners have not only performed their whole duty in this case, but they will come to the conclusion, we have ourselves from the first entertained, that no tuberculosis or other contagious disease, is now, or ever has been present in the herd of Mr. Winslow. there was some trouble among his cattle we have never doubted, and as a matter of public as well as private interest, we investigated the case at the expenditure of more of the State's funds than we really felt justified in doing, in the face of the combined and hostile opposition we have met with from the start, but which has fully confirmed our first opinion (we have never had occasion to change) that the low condition of the herd was due to lack of proper nutrition, and that the disease, whatever it was, was due to some

abdominal disorder, in no instance pulmonary, that it was parasitic and not tubercular, and entirely non-contagious.

In summing up the business of the year, aside from Mr. Lord's herd at Kennebunk for which a special appropriation was ordered, seventy-two cases were reported in 1889, scattered from the New Hampshire line to the St. Johns river; fifty-five herds of cattle were inspected and seventeen stables and "lumber camps" were visited; seventeen cows, two bulls, and two oxen were condemned at an appraisal of \$702.00 and seven horses were condemned at an appraisal of \$590.00, making a total of \$1,292.00. At the close of the year, we are able to report that all the expenses of the Commission, as well as payment for horses and cattle destroyed, have been kept within the appropriation, and a check of \$241.43 has been returned to the State by the Treasurer of our Commission.

A summary of the whole number of cases reported to the Commissioners in 1888, was found to number fifty-three, embracing cities and towns distributed from the sea-board at Portland, to the backwoods of Maine. Eighteen herds of cattle were inspected, and thirty-five stables and "lumber camps." Two head of cattle were condemned and destroyed at an expense of \$85.84, and nineteen horses were also condemned and destroyed at an expense of \$1,300.50 making a total of \$1,386.34 as compared with 1887, forty-eight herd of cattle were inspected, and thirteen head of cattle were destroyed at an expense of \$309.75, while eleven horses were destroyed (seven of them being traced to one lumber camp) at an expense of \$626.50, making a total of \$936.25.

It will be observed that the number of horses destroyed . for glanders has materially decreased from last season, which is no doubt owing to the salutary change in the law of 1887, which now provides, that "no compensation shall be allowed for an animal destroyed under the provisions of the present act, that may have been brought into the State within one year previous to such animal's showing evidence of

such disease," while the Massachusetts authorities in 1889 destroyed fifty-seven horses, just fifty more than were condemned in this State.

From the statistics just completed at Augusta, the present number of cattle in this State (excluding Portland from which no returns have been received,) is found to be three hundred and four thousand, nine hundred and sixty-nine, of which nearly one hundred and fifty thousand are milch cows of the valuation, five million, eight hundred and eighty-nine thousand, three hundred and twenty-six dollars; while the horses number one hundred and twenty-five thousand, seven hundred and twenty-one, of the valuation, eight million, five hundred and thirty-eight thousand, eight hundred and eighty-nine dollars.

The census of 1880 gave the number of cattle in this State as three hundred and twenty-three thousand, five hundred and sixty-nine, and of horses one hundred and three thousand, nine hundred and ninety-nine; while that of 1870, gave the number of cattle as three hundred and forty-three thousand and sixty-one, and of horses as seventy-one thousand five hundred and fourteen.

It will be seen that the number of cattle in this State has decreased eighteen thousand and six hundred since 1880, and thirty-nine thousand and seventy-two since 1870; while the number of horses has increased twenty-one thousand, seven hundred and twenty-two since 1880, and fifty-four thousand, two hundred and seven since 1870. These figures are exclusive of Portland, which decrease the number of cattle and increase the number of horses materially. When these statistics are analyzed they become pregnant with inquiry as to the causes that have led to this large decrease in the number of cattle in this State, and the wonderful increase in the number of horses in Maine.

The enormous production of cattle in the western states and territories within the past twenty years will at once suggest itself as accounting for a decrease in our neat stock of twenty thousand head since 1880, and of forty thousand since 1870—while the unprecedented increase of one hundred and nine thousand, seven hundred and sixty-two in the number of our horses since 1880, and of one hundred and forty-two thousand, two hundred and forty-seven since 1870, speaks volumes for the foresight and intelligence of our breeders in producing and developing a class of horses that have acquired a national reputation, in all the markets of the world."

The moral of it all is, that it pays to raise horse stock in Maine, while we cannot compete at the present time with the great West in the production of beef.

In December last Governor Burleigh received a communication requesting him to send a delegate from our "Board of Cattle Commissioners" to the National Conference of "State Board of Live Stock Commissioners and State Veterinarians," to be held in the city of Springfield, Illinois, on the 18th and 19th of December, and Dr. Geo. H. Bailey, State Vetermarian, was appointed to represent the State at that Convention. The delegates met in the State House at Springfield, at the time designated in the call, which was largely attended by representative men from all parts of the country. After effecting a permanent national organization, to be known as the "Inter-State Live Stock Sanitary Association," the objects of the association were declared to be "for the purpose of arriving at and establishing, from time to time, a basis of co-operation among the various State boards of live stock sanitary commissions, State veterinarians, and other boards having in charge the suppression and prevention of the spread of infectious and contagious diseases among domestic animals, for the discussion of methods best adapted for the accomplishment of such work, and for the discussion of views and theories entertained which are the result of scientific investigation and experience gained in the conduct of our work."

The subjects discussed were contagious pleuro-pneumonia, Texas or splenic fever, antinomycosis and tuberculosis, but as the latter disease was the only one in which our State was directly interested, I publish the resolutions adopted on that subject:

Resolved, That it is the sense of this convention that tuberculosis in cattle is a dangerously contagious and infectious disease, destructive to human life when the milk or meat of animals so affected are used for human food.

Resolved, That towns, villages and cities should pass an ordinance requiring all persons who exercise the calling of dairymen, and who keep cows for the purpose of selling their milk, or who shall ship milk into such town, village or city, should, before they are allowed to sell or in any way dispose of such milk, procure a certificate from a competent veterinarian, to be designated by such corporation, stating that the cows in such dairy and from which such milk is drawn are free from said disease, and that such certificate should be renewed semi-annually under such penalties as may be fixed by such corporation.

Resolved, That the legislatures of the different States should pass laws requiring all persons who keep cows and milk the same, and sell such milk to cheese and butter factories, should procure certificates from some competent veterinarian designated by the Live Stock Sanitary Commission of that State, or other proper official of such State, that their cows are free from tuberculosis, and that such certificate should be renewed semi-annually under penalty for failure.

Resolved, That where there is no suitable legislation upon the subject in any State, then the legislature of such State should at once pass ample and sufficient laws for the suppression of the same, and place the execution of such laws in the hands of officers empowered with authority to suppress said disease, and that suitable appropriations should be made to carry out the provisions of such laws.

Resolved, That in States where suitable laws for the suppression of said disease have been heretofore enacted, it is the sense of this body that the properly constituted authorities of such State should proceed at once to inaugurate the work of suppressing and extirpating said disease in such State.

The Board of Live Stock Commissioners of Illinois had, previous to this meeting, requested of their State Veterinarian his opinion as to the need of action of their board on the practicability and necessity of an effort to investigate and destroy tuberculous cows, and had received from him the following answer:

### To the State Board of Live Stock Commissioners:

Gentlemen:—Tuberculosis is more dangerous and more widely spread, than any other disease known to Veterinary Science; few species of the animal kingdom are exempt from its ravages, even rats and mice which infest slaughter houses where tuberculous animals are killed, contract the disease. It is conveyed through the medium of the atmosphere, in the food we eat, in the milk we drink. It can, and has been, propagated by inoculation.

This disease should be stamped out, but how? We can kill the diseased animals, as we find them, but this disease is hereditary as well as contagious. It is insidious in its nature; an animal may have the germ of the disease in its system and not show the slightest sign of disease during life—its progeny may.

An animal may have the disease in so slight a form as to escape detection by the best diagnosticions.

It is claimed by some veterinarians that the milk of a tuberculous cow is innocuous if the mammary gland be free from the disease. I do not want to try the experiment on myself.

It is useless and impossible to quarantine against a disease of this character. All animals showing the slightest symptoms of this disease, should be at once removed from other animals, and as soon as the disease can be diagnosed, should be slaughtered.

It is the opinion of some authorities that if the tubercle has not commenced to break down the flesh of the animal is not injured, but Prof. Orth of Gottengen, found, when experimenting with the disease, that freshly developed gray tubercle conveyed the disease to nine animals out of fifteen experimented on.

If this Commission would undertake to destroy every animal in this State which showed plain symptoms of the disease, they would be doing all, in my opinion, that can be done towards keeping it in check. Its extermination is almost, if not quite, impossible.

I am, gentlemen, very respectfully,

Your obedient servant,

JOHN CASEWELL, M. R. C. V. S.,

State Veterinarian."

The subject of tuberculosis is but just beginning to be urgently agitated in the great State of Illinois, but none too soon if the statement of ex-Commissioner Judge Wilson, is to be accepted, that "in his opinion fifty per cent of the high bred herds of Illinois are affected with tuberculosis." That State makes an annual appropriation of \$75,000 for the payment of damages for domestic animals slaughtered under the provisions of law, and the further sum of \$15,000 per annum for the payment of the per diem and expenses of the Board of Cattle Commissioners, and in view of the increased expense attendant upon the extermination of tuberculous herds, will ask the forthcoming legislature for an appropriation of \$250,000. Illinois paid out in 1888, \$2,753 for condemned cases of glanders alone, which is more than the whole appropriation of this State.

These facts are more pregnant with meaning when compared to the limited appropriation in this State of \$2,500 per annum, which for the past three years, has not only paid all expenses of the Commission, and for all animals destroyed, but has left each year an unexpended balance in the hands of our treasurer, together with the further fact, that on January 1st, 1890, there was not a single notice remaining in the hands of our Commission of any suspected cases of contagious disease among either horses or cattle in this State, and we claim for Maine, that we not only continue to "lead the way," in the almost absolute condition of health of our horses, "flocks and herds," but that we are in this respect at least the model State of the Union.

Our neighboring State of New Hampshire, has also just begun to make investigations of the herds that are supplying their citizens with milk, and some very interesting cases have recently developed in the vicinity of Rochester, and the services of our State Veterinarian have been secured several times recently to assist in the inspection of large herds at Strafford, Barrington and Meaderborough. New Hampshire pays the full amount for all cattle destroyed, "at the value thereof at the time of the appraisement, one-fifth of the expense to be paid by the city or town and four-fifths by the State."

Dr. Irving Watson, M. D., secretary of their "State Board of Health," in a recent number of the Sanitary Review, says:

The last legislature enacted a very important measure for the restriction and prevention of contagious diseases among domestic animals, which we herewith give in full. would suggest to town and city authorities that this measure is one that may be made to accomplish a vast deal of good, or it may be rendered so obnoxious as to cause its repeal at the next session of the legislature. The good which it will accomplish, both for the health and stock-raising interests of the State will depend almost entirely upon the wisdom of the several town and city authorities. Other States have passed laws which, at least in part, reimburse the owner of an infected animal for his loss. But under this law the owner is to be fully reimbursed upon the award of a disinterested committee. There are two ways in which there is danger that the law may be rendered odious; first, the attempts of unprincipled parties to make it appear that worthless creatures in their possession are suffering from a contagious disease, and in this manner seek an opportunity to get a little cash out of valueless animals. Second, from the difficulty which may be experienced in many places in obtaining a correct diagnosis of the disease with which the animals appear to be suffering.

It is a lamentable fact that thoroughly educated veterinary surgeons are very scarce in this State, while it is a wellknown fact that many persons who advertise themselves as veterinary surgeons are the veriest quacks so far as that profession is concerned, and are not competent to make a clear diagnosis in many diseases; especially is this true of glanders and tuberculosis in the early stage of the disease.

In Massachusetts, as far as any action of the State authorities is concerned the subject of tuberculosis remains in statu quo, and no appropriation is made for its suppression.

The annual report of their Cattle Commissioners, just published, says "boards of health and private individuals have with great frequency notified us of suspected cases of contagious pleuro-pneumonia. These notices are from all parts of the State, indicating that pulmonary trouble of some kind is prevalent or that stock owners are more alert in its detec-Most of the cases have been where but a single animal in a herd was affected, a very few where suspicion had fallen upon a number in the same herd, and supposed cases of death from this cause had been reported. It should perhaps be said that a certain form of pulmonary trouble is not uncommon among our neat stock, but in its virulence, rapidity of propagation and development, and in its results on a single animal or a herd, it is unlike and less to be feared than contagious pleuro-pneumonia, but so far as the commissioners know, there has been but one case of this latter disease in the State since 1864. It has been our endeavor to avoid this danger by quarantine regulations, and arrangements made with the U.S. Department of Animal Industry, that all animals coming to us from areas of infection, shall be inspected by the veterinary officers of the Department, and a permit for transportation given only to such as can receive a clean bill of health. We would not utter a word to encourage our stock owners or boards of health to relax their vigilance in relation to the health of their herds, but if they would bear in mind the facts here stated, they would see there is no occasion for serious alarm in the many cases to which our attention is called. If the trouble complained of is among their home stock, and they have not been in contact with fresh arrivals from Europe or the West, it cannot be contagious pleuro-pneumonia. Such cases are doubtless pulmonary tuberculosis, a destroying disease and one to be avoided if possible, but which is of minor importance when compared with the first named. Should this disease materially increase in those sections of the State where milk is produced for town and city markets, as a measure to guard the public health it may become the duty of the commissioners or of local boards of health, to cause the inspection of herds producing market milk, and the removal therefrom of all animals exhibiting the slightest symptoms of this disease."

The above is the major portion of what the commissioners of Massachusetts have to say about tuberculosis, in a State where the lowest estimate of the most conservative veterinarians places the number of milch cows affected with this disease at a minimum of ten per cent; others who have had superior advantages of information, claim that twenty-five per cent of all the cattle in the State would be much nearer the truth.

Taking the whole number of cattle in this State as three hundred and five thousand, and the whole number of cattle found affected with tuberculosis for the past three years as thirty-six, the average of all the cattle so condemned will be only twelve for each consecutive year. This will be found to be a percentage of less than one-twentieth of one per cent (in actual figures a little less than four one hundredths of one per cent), while if the same percentage prevailed here, as by the minimum estimates, prevails in Massachusetts, we would have to-day 30,500 head of cattle affected with tuberculosis in this State. In our milch cows alone nearly fifteen thousand of them would be the most susceptible, and most likely of our bovines to be attacked by this insidious disease, while the facts are, that we do not know of a herd in this State, kept for the sale of milk or dairy products, a single member of which is now under suspicion as being affected with tuberculosis.

Some of Massachusetts public spirited citizens, however, seem to be alive to the importance of eradicating this terrible disease from their milch herds, and Mr. Francis Blake a wealthy citizen of Auburndale, has recently related his experience before the "Thursday Club," in a valuable paper, extracts from which I copy.

#### "GERMS OF DEATH IN MILK."

My purpose to make a few remarks this evening on the subject of "Tuberculosis in Milch Cows," originated in a most disagreeable occurrence in my stable a few weeks ago. A veterinarian having been called in to prescribe for an ailing cow, reported his suspicion of tuberculosis and asked permission to arrange with a confrere for a thorough joint inspection of the herd. A few days thereafter the inspection was made and six of the ten animals in the stable were declared to be afflicted with tuberculosis, and within the next twenty-four hours were killed. Careful autopsies fully confirmed the diagnosis in each case.

The lymphatic glands of the neck, chest and abdomen were swollen and discolored. The lungs, liver and diaphragm were invaded by masses of tubercles of various sizes and stages of development, the smaller in clusters like grapes (a common name for the disease); the larger the size of a pea, yellow in color and filled with purulent, cheesy matter which in some cases had a distinctly sandy feeling when rubbed between the thumb and forefinger. In two animals the uterus, ovaries and fallopian tubes were affected, the worse of the two being a favorite cow which had aborted about two years before and had since remained barren. Abortion, followed by sterility, is often a symptom of the disease.

Before proceeding, let me say that up to the time of inspection I had supposed myself possessed of as fine and healthy a lot of animals as could be found in the State. None of them to the layman's eye had any outward symptoms of disease—in fact, a skilled veterinary surgeon who had been

familiar with the stable for years had not suspected trouble until a few days before. The autopsies had disclosed a state of physical rottenness most alarming to me, in view of the fact that the milk from two of the worst afflicted cows had been used in my household up to the day of the inspection.

On the moment I decided to have an analysis made of the milk from the cows we had kept, and knowing Dr. Charles Harrington as the inspector of milk for the city of Boston, I at once telephoned him a statement of my case, and asked if I should send the samples of milk to him. He advised me to send them to Dr. Henry Jackson, as a specialist on the subject of tuberculosis, and on further conversation it appeared that, although the city of Boston, through its inspector, is ever on the alert to detect and punish whoever adds a little harmless water to his merchantable milk, it is totally blind to a free sale of the germs of death which may be contained in the milk of infected cows.

From what I hear, my opinion is that it is hard to find a herd of cattle kept for the sale of milk in which there are not cases of tuberculosis. If this is so it seems to me there should be a strong movement toward securing legislation in the interest of the consumer.

In reply, under date of January 3d, Dr. Jackson, after acknowledging the receipt of the samples, wrote as follows:

I shall make a most careful examination for the presence of the bacillus of tuberculosis. As Dr. Winchester is much interested in the subject, and very ready to condemn any suspicious cattle, I feel that probably we shall obtain no positive results.

On January 14, Dr. Jackson made his report, as follows: After making a careful microscopic examination of the four samples of milk sent to me, I have failed to find any bacilli of tuberculosis (Nos. 1, 2, 3, 4.)

The facts connected with this analysis certainly justify the conclusion that negative microscopic results are of no value as testimony to the physical state of a cow. Dr. Bunker

assures me that rotten is the only word which fairly represents the condition of the animal whose milk was sample No. 2 analyzed by Dr. Jackson. Not only the glands, lungs and generative organs were affected—the udder itself was a mass of tubercles, some of which had broken through to the surface.

But a sense of duty to my fellow-men impels me to relate my experience to you, and to warn you of the danger to which every household represented here to-night is liable.

My experience is not, or rather ought not to be, an exceptionable one. A neighbor, attracted by it, has within the month had his herd examined, and three out of seven animals killed; and within the last two weeks my attention has been called to newspaper accounts of tuberculosis in cattle at Waltham, Mass., and Dover, N. H.

As to contagion as a cause of tuberculosis, Lydtin advances the following proposition:

"The morbific principle can enter the system either by the respiratory or digestive apparatus. The inspired air and the forages and drinks can act as vehicles. It may also be transplanted by way of the generative organs (coitus) or by wounds, accidental or experimental."

He cites a great many cases, the results of which force the conclusion that his proposition is true. Among them are many of calves sucking diseased cows and dying in six to twelve months; and pigs of healthy parents dying in one month after feeding unboiled milk of diseased cows. Many cases are cited to show that the addition of a single tuberculous animal has resulted in disease throughout the herd. From Stahl is quoted a case of infection to four stud bulls by a newly bought tuberculous one of different blood. In the field of experimental transmission of tubercle, 650 experiments were cited with convincing results.

The manifestations of the disease are entered on fully showing that after the preliminary slight fever there may be little sign of illness for months or years. The flow of milk may be abundant, and the animal may breed, work or fatten without suspicion. The affliction may prove fatal in less than three months, or it may last for an ordinary life-time. Climate seems to have much effect, as the disease is virtually unknown in northern and arctic climates, and very common in the temperate and tropical regions. Countries formerly free from tuberculosis have now by the influx of consumptive patients, become extensively affected with the disease.

Tuberculosis in animals tends to concentration in the large dairies and feeding establishments which supply the great centres of population. The farmer, watching closely the animals he has owned since their birth, is led by the instinct of self protection to sell off those that show symptoms of failing, and these usually go to the large establishments near the cities, there to be crowded in close buildings with many others, to which they in turn convey the infection. If in a dairy, these supply milk for the population at large, including the susceptible infants and invalids, and finally all or nearly all such animals find their way to the butcher's store, when they can no longer be utilized for other purposes.

One stands appalled at the immensity of this evil, covering as it does, the entire country, threatening at every step the health of the community, and crying loudly for redress. A single case of cholera, yellow fever or small-pox, or even a harmless cucumber taste to the water supply in a large city is considered good cause for excited editorials in the newspapers, and for extraordinary efforts on the parts of boards of health, while every day from January to December scores are perishing unnecessarily from the more insidious and far more deadly tuberculosis.

Mr. President and Gentlemen: I shall feel that my paper has not been prepared in vain if it leaves you asking yourselves the question: "What are we going to do about it?" for I am confident that each one will work out an answer which will tend to lessen the evil I have attempted to portray.

Those of you who derive your milk supply from your own estates will inquire into the health of your herds. Those of

you who are supplied from well known farms will insist that the proprietors thereof shall monthly furnish you, with their bills, a circular letter from a reputable veterinarian certifying that a careful examination has shown the non-existence of tuberculosis in the herd. And finally, all of you will use what influence you may have in affairs of State to secure prompt and decisive legislative action in the interest of humanity.

In the proceedings of the twenty-sixth annual meeting of the United States Medical Veterinary Association, held September 17th, 1889, the report of the Committee on Contagious Diseases says:

"According to these reports the deaths in the human family from tuberculosis during the past year were, in the State of Rhode Island 750; in the State of New Hampshire about 1,000. Massachusetts reports for 1886, 5,897.

In the report furnished me by Dr. Geo. C. Faville, Chief of the Bureau of animal Industry for Maryland, it appears that 169 cows, coming within a radius of six miles from the City Hall in Baltimore, were proven to be tuberculous, by post-mortem examination, within the past year. This refers principally to pulmonary tuberculosis, as nearly all of these were dressed for beef, and as it is the business of the inspectors to look out for contagious pleuro-pneumonia almost exclusively, the lungs as a rule are the only organs examined. Were it possible to make a careful post-mortem examination of a large number of the cows comprising the milk dairies in Baltimore or in any of our larger cities, I am certain that the percentage would run very high.

I am informed on very good authority that fully fifty per cent of the post-mortems in our hospitals and in private practice show lesions of tuberculosis. Yet while proper surroundings may do much toward the cure of this disease, the fact remains that one in every seven of the people born die of tuberculosis.

How much the prevalence of tuberculosis among people is due to infection from the lower animals either from the consumption of meat or milk, or from association, is hard to say. Certain it is that the consumption of milk containing the bacillus is to blame for much of the tuberculosis seen in young children. The presence of the bacillus in milk has been demonstrated by Bollinger even when there were no nodules to be found in the udder. We have no less an authority for the statement than in a series of experiments made by him he found that in a lot of cows affected with extensive tuberculosis no less than 80 per cent of the cases showed infection of the milk. In cows with moderate tuberculosis the milk was infected in 66 per cent. and in cows with slight tuberculosis 33 per cent of cases.

Dr. Austin Peters, of Boston, Mass., in a letter to me dated August 23, 1889, reports that at the experimental farm at Mattapan, Mass., where, in connection with Dr. Ernst, he has been making some interesting observations, they have had in all eighteen tuberculous cows, from ten different herds. representing eight towns, all within a radius of twenty-five miles from Boston, except in one instance where a cow came from Newport, R. I. He has killed thirteen calves and seven pigs which had been fed upon the milk of these cows for a period of from three to six months. Two pigs and six calves were tuberculous. Nine of the eighteen cows have been killed and all proved by post-mortem examination to be tuberculous. Tubercle bacilli were found in the milk of six of these cows. He says further, that he has found the bacillus in three other cows that were never in his posession. He has also visited several herds in the State and has found the disease existing in from 1 to 100 per cent of the animals. He also mentions a case which came under his observation where a pet dog became infected by eating the sputum of a tuberculous woman.

It is, therefore, the opinion of your committee that the individual members of this association should use every opportunity to impress upon the people the danger arising from the consumption of the meat or milk of tuberculous animals. All of our cities should have public abattoirs and there all of

the cattle to be used for beef should be killed under the supervision of competent veterinarians. In no other way than by the centralization of the slaughtering can food supply be examined. It is either worth doing well or it is not worth doing at all. To inspire false confidence in the people is a crime. Yet this is done to-day in many of our large cities where men who have no qualifications for the office are employed as so-called meat inspectors, whose duty it is to walk about and go into a shop here and there, examine a piece of meat to see whether it smells bad or not, not knowing that the most foul smelling organisms are, as a rule, the least dangerous.

Our milk dairies should be inspected often, and where there is the least suspicion the milk should be subjected to a microscopic examination to determine the presence or absence of the tubercular bacillus. This should, obviously, be done at the expense of the community supplied, as they are the ones most interested. Whenever it is found necessary to condemn an animal that animal should be paid for out of the common fund unless it can be proved that the owner put it there with malicious intent, when the law should make him suffer severely.

The following resolutions were also presented to the meeting: Whereas, We, the members of the United States Veterinary Medical Association, being sensible of the prevalence of bovine tuberculosis in the United States, particularly in the dairy stock of the eastern states, it being computed that at least from 10 to 15 per cent are so affected in one form or another, and being satisfied of its infectious and contagious character and of its identity with tuberculosis, or consumption, in the human family, and that it can be conveyed to others both by inoculation and ingestion, believing that a large percentage of this disease in mankind can be traced to this source.

Resolved, That we strongly condemn the use of the milk or flesh of animals so affected in any form, as an article of diet.

Resolved, That this association urgently protests against the employment of empirics as meat or dairy inspectors; that such duties should be confined to duly qualified veterinarians having a comprehensive knowledge of comparative pathology.

Resolved, That all dairies should be periodically visited, the cows carefully examined and their condition reported upon to the local authorities.

Resolved, That a committee of three be appointed by the Chair to place these resolutions before the Secretary of Agriculture, so that national measures may be adopted by which this disease can be placed under the same category as contagious pleuro-pneumonia, and to be similarly dealt with.

Our late lamented Gov. Bodwell in his first inaugural address, struck the key note when he said:

"Fuller authority should be given to the State to destroy at once all cattle known to be affected with the disease. The owners will not do the work of destruction themselves on account of the direct loss incurred, and therefore the government, as a general safeguard to the herds of the State, should assume the task and the cost of instant destruction when the disease is ascertained to exist. One neglected case, that might have cost the State fifty dollars to destroy, would possibly entail a loss of many thousands of dollars to our cattle growers. It has cost England millions of dollars in her effort to extirpate the disease, and if the contagion should break out among our vast herds on the western plains, the loss would be incalculable. Beside guarding our own State by proper enactments on the subject, I recommend that Congress be memorialized to take the utmost care and precaution, through the national power, to prevent the importation and spread of the disease."

F. O. BEAL, W. W. HARRIS.

GEO. H. BAILEY, D. V. S., State Veterinary Surgeon.

PORTLAND, Jan. 7th, 1890.

## Rules and Regulations.

An Act to extirpate contagious diseases among cattle, passed by the last Legislature of Maine, is now in force, and the following rules and regulations have been adopted.

Chapter 138, sections 4, 5 and 7, are as follows:

Section 4. That any person or persons who shall knowingly and wilfully refuse permission to said Commissioners, or either of them, to make, or who knowingly and wilfully obstructs said Commissioners, or either of them, in making all necessary examinations of and as to animals supposed by said Commissioners to be diseased as aforesaid, or in destroying the same, or who knowingly attempts to prevent said Commissioners, or either of them, from entering upon the premises and other places hereinbefore specified where any of said diseases are by said Commissioners supposed to exist, shall be deemed guilty of a misdemeanor, and, upon conviction thereof, or of either of the acts in this section prohibited, shall be punished by fine not exceeding one hundred dollars, or by imprisonment, at the discretion of the court.

Sect. 5. That any person who is the owner of or who is possessed of any interest in any animals affected with any of the diseases named in section two of this act, or any person who as agent, common carrier, consignee or otherwise, is charged with any duty in regard to any animal so diseased, or exposed to the contagion of such disease, or any officer or agent charged with any duties under the provisions of this act, who shall knowingly conceal the existence of such contagious disease, or the fact of such exposure to said contagion, or who shall knowingly and wilfully fail, within a reasonable time, to report to the said Commissioners, their knowledge or their information in regard to the existence and location of said disease, or of such exposure thereto, shall be deemed guilty of a misdemeanor, and shall be punishable as provided in section four of this act.

SECT. 7. That no person or persons owning or operating any railroad, nor the owner or owners, or masters of any steam, sailing or other vessels within the State, shall receive for transportation or transport from one part of the State to another part of the State, or to bring from any other State or foreign country affected with any of the diseases named in section two of this act, or that have been exposed to such diseases, especially the disease known as tuberculosis, knowing such cattle to be affected or to have been so exposed; nor shall any person or persons, company or corporation, deliver for such transportation to any railroad company, or to the master or owner of any vessel, any cattle, knowing them to be affected with cr to have been exposed to any of the said diseases; nor shall any person or persons, company or corporation, drive on foot or transport in private conveyance, from one State to another part of the State, any cattle, knowing the same to be affected with or to have been exposed to any of said diseases.

Any person or persons violating the provisions of this section shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be punished by fine not exceeding the sum of two hundred dollars, or by imprisonment not exceeding six months, or by both fine and imprisonment.

Whenever the Commissioners shall inspect and condemn an animal as diseased, they will cause the appraisal of the animals affected with, or that have been exposed to said diseases, and the same shall be destroyed and paid for as provided in section 10, out of the moneys appropriated by this act, upon requisition made by the Commissioners or a majority of their board. Whenever the Commissioners shall decide animals to be diseased, or to have been exposed to contagion, and the owner refuses to accept the sum authorized to be paid under the appraisement provided for in this act, the Commissioners will declare and maintain a rigid quarantine of such animals at the expense of the owner, and also of the premises or places where such cattle may be found. All notices of diseases among cattle provided for in this act shall be made directly to the veterinary inspector of this board, who will by himself or some other member of the board, give the same immediate attention.



### APPENDIX.

## PUBLIC LAWS OF 1889

RELATING TO

Contagious Diseases Among Cattle.



# Law Relating to Contagious Cattle Diseases as Amended in 1889.

#### CHAPTER 177.

An Act to extirpate contagious Diseases among Cattle.

Be it enacted by the Senate and House of Representatives in Legislature assembled, as follows:

- That for the purpose of facilitating and encouraging the live stock interests of the state of Maine, and for extirpating all insidious, infectious and contagious diseases, now or that may be among cattle and other live stock, and especially tuberculosis, the governor of the state is hereby authorized and required, immediately after the passage of this act, to appoint a board of cattle commissioners consisting of three persons of known executive ability, who shall be charged with the execution of the provisions of this act, and who shall be known and designated as the State of Maine Cattle Commission, and whose powers and duties shall be those provided for in this act, and whose tenure of office shall be at the option of the governor. The compensation of said commissioners shall be at the rate of three dollars per day during the time they are actually engaged in the discharge of their duties as commissioners. The said commissioners shall respectively take an oath to faithfully perform the duties of their office, and shall immediately organize as such commission by the election of one of their number as president thereof, and proceed forthwith to the discharge of the duties devolved upon them by the provisions of this act.
- SECT. 2. That it shall be the duties of the said commissioners to cause investigation to be made as to the existence

of tuberculosis, pleuro-pneumonia, foot and mouth disease, and any other infectious or contagious diseases. commissioners or their duly constituted agent, are hereby authorized to enter any premises or places, including stock yards, cars and vessels within any county or part of the state in or at which they have reason to believe there exists any such diseases, and to make search, investigation and inquiry in regard to the existence thereof. Upon the discovery of the existence of any of the said diseases, the said commissioners are hereby authorized to give notice, by publication, of the existence of such disease, and the locality thereof, in such newspapers as they may select, and to notify in writing the officials or agents of any railroad, steamboat or other transportation company, doing business in or through such infected locality, of the existence of such disease; and are hereby authorized and required to establish and maintain such quarantine of animals, places, premises or localities as they may deem necessary to prevent the spread of any such disease, and also to cause the appraisal of the animal or animals affected with the said disease, in accordance with such rules and regulations by them as hereinafter authorized and provided, and also to cause the same to be destroyed, and to pay the owner or owners thereof one-half of their value, as determined upon the basis of health before infection, out of any moneys appropriated by the legislature for that purpose; provided, however, that no appraised value shall be more than two hundred dollars for an animal with pedigree recorded or recordable in the recognized herd-books of the breed in which the animal destroyed may belong, nor more than one hundred dollars for an animal which has no recordable pedigree; provided, further, that in no case shall compensation be allowed for an animal destroyed under the provisions of this act, which may have contracted or been exposed to such disease in a foreign country, or on the high seas, or that may have been brought into this state within one year previous to such animal's showing evidence of such disease; nor shall

compensation be allowed to any owner who in person, or by agent, knowingly and wilfully conceals the existence of such disease, or the fact of exposure thereto in animals of which the person making such concealment, by himself or agent, is in whole or part owner.

That the said commissioners are hereby author-SECT. 3. ized and required to make record, and publish rules and regulations providing for and regulating the agencies, methods and manner of conducting, and the investigations aforesaid, regarding the existence of said contagious diseases; for ascertaining, entering and searching places where such diseased animals are supposed to exist; for ascertaining what animals are so diseased, or have been exposed to contagious diseases; for making, reporting and recording descriptions of the said animals so diseased or exposed and destroyed, and for appraising the same, and for making payment therefor: and to make all other needful rules and regulations which may, in the judgment of the commissioners, be deemed requisite to the full and due execution of the provisions of this act. such rules and regulations, before they shall become operative, shall be approved by the governor of Maine, and thereafter published in such manner as may be provided for in such regulations; and after such publication said rules and regulations shall have the force and effect of law, so far as the same are not inconsistent with this act and other laws of the state, or United States.

SECT. 4. That any person or persons who shall knowingly and wilfully refuse permission to said commissioners, or either of them, or their duly constituted agent to make, or who knowingly and wilfully obstructs said commissioners, or either of them, or their duly constituted agent in making all necessary examinations of, and as to animals supposed by said commissioners to be diseased as aforesaid, or in destroying the same, or who knowingly attempts to prevent said commissioners, or either of them, or their duly constituted agent from entering upon the premises and other places herein before specified

where any of said diseases are by said commissioners supposed to exist, shall be deemed guilty of a misdemeanor, and, upon conviction thereof, or of either of the acts in this section prohibited, shall be punished by fine not exceeding one hundred dollars, or by imprisonment, not exceeding ninety days, or by both fine and imprisonment, at the discretion of the court.

- That any person who is the owner of, or who is SECT. 5. possessed of any interest in any animals affected with any of the diseases named in section two of this act, or any person who is agent, common carrier, consignee, or otherwise is charged with any duty in regard to any animal so diseased, or exposed to the contagion of such disease, or any officer or agent charged with any duties under the provisions of this act, who shall knowingly conceal the existence of such contagious disease, or the fact of such exposure to said contagion, and who shall knowingly and wilfully fail, within a reasonable time, to report to the said commissioners their knowledge or their information in regard to the existence and location of said disease, or of such exposure thereto, shall be deemed guilty of a misdemeanor, and shall be punishable as provided in section four of this act.
- SECT. 6. That when the owner of animals, decided under the provisions of this act, by the proper authority, to be diseased, or to have been exposed to contagion, refuses to accept the sum authorized to be paid under the appraisement provided for in this act, it shall be the duty of the commissioners to declare and maintain a rigid quarantine as to the animals decided, as aforesaid, to be diseased or to have been exposed to any contagious or infectious disease, and of the premises or places where said cattle may be found, according to the rules and regulations to be prescribed by said commissioners, approved by the governor, and published as provided in the third section of this act.
- SECT. 7. That no person or persons owning or operating any railroad, nor the owner or owners, or masters, of any

steam, sailing, or other vessels, within the state, shall receive for transportation, or transport from one part of the state to another part of the state, or to bring from any other state or foreign country any animals affected with any of the diseases named in section two of this act, or that have been exposed to such diseases, especially the disease known as tuberculosis, knowing such animals to be affected, or to have been so exposed; nor shall any person or persons, company or corporation, deliver for such transportation to any railread company, or to the master or owner of any vessel, any animals, knowing them to be affected with, or to have been exposed to, any of said diseases; nor shall any person or persons, company or corporation, drive on foot, or transport in private conveyance, from one part of the state to another part of the state, any animal, knowing the same to be affected with, or to have been exposed to, any of said diseases. Any person or persons violating the provisions of this section, shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be punished by fine not exceeding the sum of two hundred dollars, or by imprisonment not exceeding six months, or by both fine and imprisonment.

- SECT. 8. That it shall be the duty of the several county attorneys to prosecute all violations of this act, which shall be brought to their notice or knowledge by any person making the complaint under oath; and the same shall be heard in any supreme judicial court having jurisdiction in the county in which the violation of this act has been committed.
- SECT. 9. That the said commissioners are hereby authorized to appoint or elect one of their number as secretary of said board, who shall receive a reasonable compensation for his services during the time in which, under the provisions of this act, the services of the said commissioners shall be required. The said commissioners shall make and preserve a full record of all rules and regulations promulgated under the provisions of this act, of all payments and expenses hereunder incurred, and all other transactions performed by said

commissioners in the discharge of their duties as herein provided; and the said commissioners shall, on the or before the first Wednesday in January of each year, during their continuance in service, and at other times as they may deem conducive to the public interests, or as they may be required so to by the governor of state, report to said governor full and accurate accounts of their expenditures, and other proceedings under the provisions of this act, and of the condition of said diseases, if any, in the state, to be communicated by him to the legislature. Whenever the functions of said commission shall be suspended or terminated, it shall turn over to the secretary of state all its books, papers, records, and other effects, taking his receipt therefor, and he shall remain the custodian of the same until such time as the functions of said commission may be restored.

SECT. 10. That the commissioners shall have power, and are hereby authorized to employ skilled veterinarians, and such other agents and employes as they may deem necessary to carry into effect the provisions of this act, and to fix the compensation of the person or persons so employed, and to terminate such employment at their discretion; and they are authorized out of the moneys by this act appropriated, to make such expenditures as may be needed for the actual and necessary traveling expenses of themselves and their said employes, stationery, expenses of disinfecting premises, cars and other places, destroying diseased and exposed animals, and paying for the same, and such other expenses and expenditures as they may find to be actually necessary to properly carry into effect the provisions of this act.

SECT. 11. That the moneys appropriated by this act shall be paid over to the secretary of said commission, from time to time, as the same may be found to be needed, upon requisition made by the said commissioners, and shall be disbursed by the said secretary of said commission only upon vouchers approved by said commissioners or a majority of them. The said secretary shall before entering upon the

duties of his office, take an oath to faithfully discharge the duties thereof, and shall enter into a bond to the state of Maine, with sureties to be approved by the treasurer of state, in such sum as he may designate, for the faithful accounting of all moneys received by the said secretary of the commission, under the provisions of this act.

SECT. 12. That for the purpose of carrying into effect the provisions of this act, the sum of five thousand dollars, or so much thereof as may be necessary, is hereby appropriated out of any moneys in the treasury not otherwise appropriated.

SECT. 13. That all acts and parts of acts inconsistent or in conflict with the provisions of this act, be, and the same are hereby repealed.

Approved February 14, 1889.