ELEVENTH ANNUAL MEETING
of the
Inter-State Association
of
Live Stock Sanitary Boards

Held in the Parlor of
the Murphy Hotel,
Richmond, Virginia.
September 16-17, 1907
COMPLIMENTS OF

The United States Livestock Sanitary Association

R. A. Hendershott, Secretary-Treasurer
Eleventh Annual Meeting of the Inter-State Association of Live Stock Sanitary Boards

Held in the Parlors of the Murphy Hotel, Richmond, Va., September 16-17, 1907
Officers 1906-1907

President
Dr. D. F. Luckey, Columbia, Mo.

Vice-president
Dr. Chas. C. Lamb, Denver, Colo.

Secretary and Treasurer
Dr. S. H. Ward, St. Paul, Minn.

Officers 1907-1908

President
Dr. Chas. G. Lamb, Denver, Colo.

Vice-president
Judge S. W. Hudson, Buckner, Mo.

Secretary and Treasurer
Dr. Chas. E. Cotton, Minneapolis, Minn.
Report of the Proceedings
OF THE
Eleventh Annual Session, Interstate Association
of Live Stock Sanitary Boards

Meeting called to order by President D. F. Luckey, Columbia, Missouri, at 10 A. M.


The President introduced the Honorable John Lamb, member of Congress from Richmond, for an address of welcome.

Address of Welcome by Hon. John Lamb:

Gentlemen of the Interstate Association of Live Stock Sanitary Boards:

It becomes my very pleasant duty to welcome you to Richmond. We are glad that your annual meeting has been arranged for this city. Many of you have not seen it before, though you know its history, and may be, for all I know, the sons of men who tried for four long years to come within its walls.

It has been said that the days of miracles have passed, but you behold a miracle here. A little over forty years ago this city was a mass of smoking ruins, with only 37,000 population—her resources

NOTE—We regret that some very valuable discussions of the various papers are necessarily omitted from this report, because of the fact that we were unable to secure the services of a stenographer except for the afternoon session of the first day.
and credit gone, and many of her best sons sleeping in bloody graves. Today you see a city of over 100,000 population, over three hundred manufacturing establishments, working 15,000 hands; 30,000 males and 20,000 females are employed in gainful occupations. The assessed value of property for 1905 was $86,000,000 and the per capita of wealth the fourth or fifth in the country. This, too, when we have over 30,000 negroes. These are perhaps the best and most law abiding of their race in the United States. We invite you to view the points of historic interest here. You will see one of the finest monuments in the world erected to the memory of the Father of his Country. You will see a splendid equestrian statue of the world-wide soldier, Robert E. Lee, and another to the Prince of Cavaliers, J. E. B. Stuart. You must not fail to visit old St. John's Church, and listen to Patrick Henry's famous speech, proclaimed from the very spot where he stood when it was delivered.

In the State Capitol, the Confederate Museum and the Custom House, you will see the relics and reminders of two revolutions that wrought momentous changes in the Government and progress of the new world. Do not fail to visit our "City of the Dead," where lie two of our Presidents. Secretary Wilson, whom you all know in the spirit, and some of you in the flesh, said to me that it was worth a trip to Richmond to visit that place, as well as St. John's Church.

Personally I am glad to meet and welcome you here, because I think my friend, Dr. Ferneyhough of Virginia, and some others whose faces and names I recall, will bear witness to the fact that I have rendered you some service when you needed a friend in court; when you have destroyed the last cattle tick, and nearly, or entirely, wiped out the quarantine line, you will, I am sure, credit me on your ledger by some services rendered.

Then I can sympathize with you in your responsible and arduous duties, because I know you are confronted with the problems of State and Federal jurisdiction. You need, as representatives in Congress do, all the judgment, patience and forbearance you can command.

Where the States heartily cooperate with the Agricultural Department at Washington, and each is willing to yield something for the general good, your success is assured. The great good you have accomplished is unquestioned. Through the agencies you employ, the foot and mouth disease, and many others, have been wiped out. The hog cholera and cattle tick must in the near future yield to treatment.

It is to be hoped that the States will heartily cooperate. These States must preserve their rights and maintain their autonomy. You
representatives from the great Central West fully realize how much is involved for you and your children in this contention. I know your interest through the well expressed and forcible utterances of your representatives in Congress. Take from our States the right to control our domestic affairs; destroy our police regulations and educate our people to appeal to the Federal Government for a remedy for every wrong, and we will see the "man on horseback" within the next half century.

The subjects you will discuss are of vast importance to the American people. Their health, wealth and future development depend in great measure upon the satisfactory solution of many of these questions. May your stay in this city be pleasant to each of you personally, and your deliberations produce results gratifying to your Association and productive of good to the common weal.

Voicing the sentiments of a brave and patriotic people, I welcome you to the capital city of this old Commonwealth.

The President asked Dr. Chas. G. Lamb to respond to the address of welcome.

Reply to Address of Welcome.

Mr. President and Gentlemen:

I have been asked to respond to the very eloquent address of welcome by the Hon. Mr. Lamb, not because of any ability to do so better than any of the other gentlemen present, every one of whom is a direct descendant of Daniel Webster or Patrick Henry, but because I am far from home without any protector.

I am sure we all appreciate our very hearty welcome and shall enjoy our stay in this beautiful and historic city. Personally I feel as though I was on hallowed ground and should only move about with uncovered head. I trust we may have an opportunity to visit the many points of historic interest, and shall no doubt embrace every opportunity to do so; but we realize we are here to transact business of the most important character. We appreciate the fact that in our hands are placed interests of stupendous magnitude, and that upon the manner in which we conduct our business both here and at our respective homes depends the health of live stock amounting, in financial value, to many millions of dollars, and we are convinced that, owing to the very intimate relation of very many animal diseases to diseases of the human family, we are, in a measure, responsible for the public health. With this conception of our responsibilities I am sure that during our short stay in this city our time will be so fully occupied that we shall have but very little time to enjoy the proverbial hospitality of this
delightful city and people. But I wish to assure you, Sir, that we all fully appreciate our welcome, the kindness which prompted it, and the very eloquent manner in which it was presented, and in the names of the various Commonwealths represented, I wish to thank you.

President Luckey then called for the report of the Secretary and Treasurer. Dr. S. H. Ward having been called to a position in Canada, had transferred his duties to Mr. W. P. Smith of Monticello, Illinois, and Mr. Smith later turned the work and papers over to President Luckey, who submitted the following report, which was approved:

Report of Secretary-Treasurer.

Dr. S. H. Ward, Secretary-Treasurer,

In account with Inter-State Association Live Stock Sanitary Boards:

Dues received from

<table>
<thead>
<tr>
<th>Commonwealth</th>
<th>Amount</th>
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<td>Virginia</td>
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<tr>
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<td>Iowa</td>
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<td>Minnesota</td>
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Balance on hand August 1st, 1906... 87.20

Dues received by Mr. Smith from

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<tr>
<td>Massachusetts</td>
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</tbody>
</table>

$217.20

1906 and 1907

Paid for Stationery by Dr. Ward...$ 3.50
Stamps .................................. 6.00
Express ................................ 1.95
Express on MSS.......................... 35
T. McCoy, Reporter.................... 20.00
Printing Reports....................... 98.50
Exchange ................................ .40

$130.70
Paid for express by Mr. Smith...... .85
    Stamps ......................... 3.00
    Stationery ................... 2.40
    Stenographer .................. 6.00

                                $ 12.25  $ 12.25

Paid for express by Dr. Luckey...... .70
    Printing Programs ............ 2.00

                                $  2.70  $  2.70

                                $145.65  $145.65

Balance..................$  71.55

President's Annual Address.

The President then delivered his annual address.

Gentlemen of the Association:

We have come together again today to further plan the siege of battle against the many contagious diseases of live stock. We have already witnessed the banishing from this continent of two very important ones, namely: contagious pleuro-pneumonia and foot and mouth disease. We have witnessed the almost complete annihilation of glanders, and have watched the control of Texas fever to the point of such perfection that few of the stock raisers of this country today realize there is any danger of loss from it. Yet, we still have before us three great foes which are worthy of our best mettle, and there is little doubt that these are, named in the order of their importance—tuberculosis, hog cholera and the fever tick. Worthy of mention we also find contagious abortion, rabies, black-leg, actinomycosis, and dozens of parasitic diseases.

Progress.

We cannot stop to enumerate the steps of progress made in the scientific study of contagious diseases, nor to relate the volumes of facts which hard-working scientists have brought to light in the last few years and made available for the use and benefit of the public in their eradication. I believe that all of us, who have kept pace with the recent developments, are now prepared to believe that the great Pasteur spoke the truth when he said years ago that all germ diseases
might be exterminated. Indeed, much of that truth has already come to pass. In all civilized countries, all of the rapidly fatal contagious diseases of both man and beast have been stamped out almost as fast as they have made their appearance. Yellow fever, cholera, Bubonic plague, smallpox and leprosy have taken their turns at the human family of our own country, and each in turn has bowed before the power of science and made its exit ere its presence was scarcely felt. Contagious pleuro-pneumonia and foot and mouth disease of cattle both quickly gave way before an intelligent effort in their extermination and were banished from this continent in short order, probably never to return. Only a scientist can begin to comprehend what misery has been spared to the human family by keeping down the diseases of this kind, nor what financial loss has been saved to the livestock producers.

Until recent years, all efforts at the control of contagious diseases, especially of the lower animals, were made more or less in the dark. Yet, a great deal of good has been accomplished. Today we are apparently equipped with all scientific information necessary to proceed with confidence to the final extermination of any and all contagious diseases. This throws a greater responsibility upon those of us who are now in public positions and responsible for results, and should surely bring upon us the greater condemnation if we fall short of doing our duty.

Public Education.

One of the greatest tasks before us is the education of the public. By that, I do not mean that every farmer or livestock owner must be expected to understand the various contagious diseases from the standpoint of a scientist. It is said that the highest end of education is to bring the general public to the point where it can appreciate the efforts of those who are doing any of the many special lines of scientific work and know whose advice to follow. It is our particular duty to do our work so well and so accurately that the public will have confidence in our purposes and comprehend the benefits that accrue from our efforts.

The public pays a high price for its reluctance in accepting scientific truth. As an example, as far back as December 1st, 1868, at a meeting of cattlemen in Springfield, Illinois, it was prominently brought before the public that the fever tick was the carrier of Texas fever. That fact was not accepted by the public until 1889 or 1890—over 20 years thereafter—and then only with the greatest reluctance. This is a shining example of the lack of public education and the pen-
ality can be summed up in the thousands of head of cattle lost from Texas fever during those twenty years. The annual loss to this country caused by the presence of fever ticks in the South is conservatively estimated at $40,000,000.00. It is but a question of the public accepting the truth and following intelligent instructions in the tick eradication work when the fever tick will be promptly driven from this country and this enormous loss prevented. Today, practically all of the important facts concerning tuberculosis, the Great White Plague, the methods by which it is spread and by which it may be prevented, are well known to scientists, and I believe that the directions could be written in ten brief sentences which, if followed closely, would without any great cost or inconvenience to anyone, result in a few years, in the extermination of this disease, both in the human family and among lower animals. Yet, simply for lack of education of the public, and the proper cooperation with public officers, we drag along from year to year with an annual loss of 50 to 60 thousand human lives, with an expenditure of millions of dollars in nursing and burying consumptives, and a loss of millions in meat condemned on account of tuberculosis. I do not hesitate to say that if the public were sufficiently educated today to allow scientific men to carry out sensible and practical ideas, based upon well established facts, that in a very few years a case of consumption would be a rare sight, instead of one which haunts the eyes of every passerby. It is hardly necessary to refer to hog cholera in this connection. The losses from this disease are apparent to all, and in the aggregate amounts to millions each year. Suffice it to say that the lack of public information in regard to it is so complete as to tax the courage of the bravest sanitarian if he should presume to contemplate a campaign for its eradication. It need not be excepted, however, from the rule that, with sufficient public education, all contagious diseases will be eradicated. Just how much of the responsibility of bringing about this public education rests upon official veterinarians and live stock sanitary boards, it is hard to say. We probably comprehend more thoroughly than any one else, the need of such education, and it is our duty to do all that we can in the premises. I believe that we would be making no mistake if all of the official veterinarians of all the states and territories of this great Union, should make it a regular practice to assemble annually and engage in a serious study of plans for the control and eradication of all live stock diseases. I believe that those diseases of the lower animals, which extend to the human family, should be studied jointly with those who are in charge of the preservation of the health of the human family.
State Meat Inspection.

During the present year we have witnessed the installation by the Federal Government of the most perfect system of meat inspection now in existence in the world. The results from it, both good and bad, are already apparent. The meat produced by American farmers and packers is at a premium all over the world and the demand therefor, is almost without limit. The guarantee that our inspected meat products are wholesome, gives them access to every part of the world and creates a demand and a market from which our farmers are reaping a rich harvest. The good coming from the protection of the human family from diseased meat and the effect of the present system in extending our markets, far out-weighs all objections to the system. On the other hand many animals, that from any cause may be expected to be condemned on Federal meat inspection, are sold for slaughter in packing houses doing only an intrastate trade and having no meat inspection. The diseased products are sold to the public. The evil effects of this are three-fold. First, it endangers the public health. Second, it drives the more intelligent classes to buying meat from plants doing an interstate trade and having Federal meat inspection, which practically means from the financially powerful packing concerns, usually referred to as the packing trust. Third, the placing of diseased meat on the market, educates large numbers of those who have abundant means with which to buy it, against the use of meat at all. The outrageous practice of a few packers, without meat inspection, selling diseased meat reflects discredit upon all of that class. In a long run the best class of trade is bound, under present conditions, to patronize the powerful concerns which already have all the foreign trade. It seems inevitable that the drift of affairs is to the final annihilation of packing concerns that have no meat inspection. Although it may seem objectionable to some to advocate the creation of a system of meat inspection in every state, there is no alternative save to let independent packing concerns go out of existence and leave the live stock producers but one market in which to sell their fat stock. The cost of maintaining competent meat inspection by each state would be well repaid in the protection of its citizens from diseased meat; and if, as an investment it returns a high per cent. of profit by way of good, wholesome competition, the inauguration of a system of meat inspection by each of the states ought to be promptly undertaken.

Co-operation.

In the control and eradication of contagious diseases of animals and the encouragement of live stock protection there ought to be
perfect co-operation between various states and the Federal Government. I believe that regulations which pertain to the interstate movement of live stock should be left to the Federal Government alone and thereby make one set of regulations serve for what 48 would otherwise be required to do. I do not hesitate to say that the Federal Government should maintain regulations preventing, at any cost, the interstate shipment of hogs with cholera, and cattle with tuberculosis, as it now does cattle carrying Texas fever ticks. Then the states would each hold their entire emergency in reserve for the eradication of local outbreaks of disease. I do not mean to infer that such cooperation can be brought about in a day or a year, but that such a consummation should be our ultimate aim and that we should plan to that end and that we should bring it about as rapidly as possible.

The social feature of a meeting of this kind is of great importance. We get inspiration from one another, and learn from one another how to deal with the various vexatious problems which arise in our work. We learn from one another what contagious diseases exist in the different parts of the Union, and are often able to afford one another assistance in controlling them. I hope that all of the principal objects of this meeting will be obtained and that we will hereafter press on to the accomplishment of our purposes with renewed energy and with greater hopes of success.

It was moved by Mr. Wilson, and seconded by Dr. Lamb, that all dues paid since the last meeting, be considered dues for the fiscal year ending with the date of this meeting. Carried.

MR. WILSON: I move that the Chair appoint a committee of one, to secure the services of a competent stenographer.

DR. LAMB: I will second that motion. Carried.

Dr. J. G. Ferneyhough was appointed to serve as this committee.

Moved and seconded to adjourn until 1:30 P. M. Carried.

SEPTEMBER 16th, 1907.

Afternoon Session.

THE PRESIDENT: Gentlemen, the first paper on the program this afternoon is on “State Control of Hog Cholera,” by Dr. J. H. McNeil of Iowa. Dr. McNeil found it impossible to be here, or prepare a paper and send it, and we have arranged for Dr. Cotton of Minnesota, and Dr. Koto, of Iowa, to discuss the subject, more or less impromptu.
Dr. Cotton of Minnesota will discuss the subject.

**State Control of Hog Cholera.**

DR. COTTON: Gentlemen, I hope you will bear with me in the opening of this subject, as I come entirely unprepared. The President asked me this morning to undertake to tell what I know about state control of hog cholera.

In the past fifteen or twenty years, our state has suffered great losses from the ravages of this disease. It would appear, in so far as official knowledge is concerned, that we have had less hog cholera during the last year, than ever before. I think this is true, but I am satisfied that outbreaks occur and we do not get reports of them, unless they become widespread.

Every farming community has a number of primitive farmers, who expect certain losses from this disease each year, and have no faith in modern methods of control. They do not want to get their neighbors into trouble, and therefore they do not report an outbreak on their own or surrounding farms. I think it is our duty as sanitarians, to educate this class of farmers to understand that it is for their own good and that it will redound to their financial benefit, to report and help us in the control of these outbreaks.

We have a very stringent law, enacted a number of years ago, which makes it a misdemeanor if a man does not report the existence of any contagious or infectious disease.

We have a large territory to cover, and heretofore have had to depend on the chairman of the Town Board, who is the local health officer, to report the existence of the disease, and to establish the quarantine. The chairman is elected by his neighbors, receives no remuneration, and if he reports an outbreak and we ask him to establish a quarantine and carry out our regulations, he hesitates and often fails, because he thinks he is working a hardship on his friend and neighbor.

Up to the last three years, when our office received a report of an outbreak of the disease, one of the field veterinarians was immediately sent to the locality. He established a quarantine on infected farms ordered the carcasses burned or buried, the healthy hogs removed from the infected pens, the infected pens thoroughly disinfected, all dogs in the neighborhood confined, and that the farmer should not visit his neighbor’s farm nor allow his neighbor to visit his. The veterinarian would then visit the chairman of the Town Board, instruct him as to his duties, and order him to see that the farmers had carried out his instruction and that the quarantine was enforced.
He would then post the laws and regulations in conspicuous places and leave the locality. We found this, in the majority of cases, to be a farce, as neither the farmer nor the chairman would carry out our orders and instructions, and as a result the outbreak would spread.

Since this time, we have adopted the policy of keeping a representative of our board in the locality, and having him personally see that the above instructions and orders are carried out, giving special attention to the disinfection of the infected premises. This policy has been very satisfactory, and I am satisfied that any state can control and limit the spread of this disease, if given a sufficient appropriation to enable them to keep a representative in each locality where an outbreak occurs.

We have a law in Minnesota, making it a gross misdemeanor for railroads and transportation companies to import any animals for dairy, work, breeding or food purposes, into the state without a certificate of health from a qualified veterinarian recognized by the board.

I have a copy of our rules and regulations, but before I take them up, I wish to state that I heartily agree with the statement of President Luckey, when he said that the time is coming when we must depend on some general law, which will take care of the inter-state transportation of these animals. But there is no need of there being a clash between the authorities of the State and the Federal Government, or between the authorities of one state and those of another. If you wish, I can read these rules; they are very short.

**Regulations.**

1. All persons, excepting the owner, duly authorized attendants, or medical advisers, are forbidden to enter any enclosures where hogs are kept on quarantined premises.

2. Hogs must not be removed from any quarantined premises, except in the following cases: 1st, by permission in writing given by the State Live Stock Sanitary Board; and 2nd, dressed carcasses of healthy hogs killed under inspection of the State Live Stock Sanitary Board or Local Board of Health.

3. No hogs, excepting those hereby quarantined and their offspring shall be allowed upon any quarantined premises until quarantine has been officially released. During the period of quarantine no other domestic animal shall be permitted in any quarantined premises.

4. The period of quarantine shall extend for a period of six months after the last sick hog has died or recovered, unless sooner
terminated by an order in writing signed by the Secretary of the State Live Stock Sanitary Board.

5. Parties living on any place whereon hogs have been quarantined on account of hog cholera must not go near the pens or yards where hogs are kept on other premises.

6. All railroad shipping pens in this state are hereby declared to be probable or possible sources of infection for hog cholera.

7. Hogs must not be removed from any railroad shipping pen located in this state except for immediate shipment by rail to some point for slaughter.

8. Hogs shipped from point to point in Minnesota, or from an other state into Minnesota, and not intended for immediate slaughter, must be crated, shipped in other than stock cars, and, accompanied by a certificate stating that they were free from disease when shipped, and that there had been no hog cholera in the neighborhood from which they were shipped for a period of at least six months previous to the shipment. This certificate must be signed by a recognized veterinarian or health officer, and must be delivered to the local health officer of the district into which the hogs are shipped.

9. Hogs for shipment in crates must not be permitted in, or loaded from, stockyards.

10. Managers of county and district fairs held in counties where hog cholera exists, are requested not to have swine exhibits in connection with such fairs.

11. All dogs in a township where hog cholera exists must be confined to the owner's premises, and this requirement must be strictly adhered to.

12. Carcasses of hogs dead from any disease must be buried deeply or burned immediately.

13. Any sickness or death among hogs must be promptly reported to the State Live Stock Sanitary Board, St. Paul, Minn.

Dr. Koto—Discussion on Hog Cholera.

Mr. President, and Gentlemen, I hope you will pardon me for not being prepared to make any remarks that perhaps might be in line with those of the author of this paper. I was anxious to hear what he might have to say on this subject.

I will say to you, however, gentlemen, that during the last few years we have perhaps had less hog cholera than in former years.
In fact, we have had very few outbreaks of any serious consequence. We are not able to account for this, unless it is due to the manner of inspection and sanitary precautions taken. For instance, during the last few years, we require all hogs brought to our State and other fairs, be inspected by our department. Before the beginning of the fair, we disinfect all of the pens thoroughly, and we also inspect all of the swine upon arrival, and during the fair, inspect them daily, twice a day if possible. If there is any indication of hog cholera, or any other disease, these swine are moved to a place of safety where there is no opportunity for spreading the disease. I am told that in years gone by, many breeders after exhibiting their animals at the State fair, would, shortly after returning home, find their animals diseased, and would not only spread it among his own herds, but the neighboring herds.

I think I can truthfully say, that during the last five years, we have only had two or three cases of hog cholera among exhibits at the State fair. Undoubtedly, many of these exhibitors realize what is being done, and for that reason, are very cautious about bringing diseased or exposed swine to be exhibited, and perhaps, that has quite an influence in reducing the number of outbreaks of hog cholera in the State.

In speaking about the shipment of hogs from our State into other States that are infected with cholera, we have heard of but very few instances out of the thousands exported, and being perhaps, the largest hog raising State in the Union, we naturally would expect cholera among some of the swine imported. This last year at our State fair, we had on exhibition, something over thirty-one hundred hogs, and I am informed that some of the other States who consider that they have a large exhibit, have from six to eight hundred.

If I am correctly informed, one of our border States, had on exhibition about eight hundred swine. You can readily see that our State, being such a large hog raising State and having such large exhibits, would necessarily have more or less swine diseased, and we can reasonably expect there would be some exported to other States.

In regard to the suppression of disease when found. Whenever we have knowledge of an outbreak of any contagious disease among swine, some member of our department would visit the place and see that all the animals that die from the disease, are burned or buried, and the premises thoroughly disinfected, and placed in quarantine if necessary. Those are the precautions taken, and they have been very satisfactory.
In regard to transportation, my understanding is that very few States prohibit the shipment of swine into their State, except for breeding purposes, and this does not apply to swine shipped into and through States for exhibition purposes. I believe I am correct in this statement.

DR. COTTON: Yes, sir.

DR. KOTO: If such a rule or law should be adopted by other States, it would work a hardship on such States as ours, that undoubtedly ship their best exhibits to neighboring States. I know several exhibitors at our State fair last year became anxious, and some understood, and that they could not enter other States without a certificate showing they were free from disease. More uniform laws should exist, and exhibitors correctly informed.

In regard to legislation pertaining to the duties of the local board, we have often found that many refuse to do anything, even after their attention has been called to the fact that hog cholera or other contagious diseases existed in the neighborhood. At the last session of our legislature, in order to overcome this, we purposely included in the other laws enacted, that it should be the duty of the local boards to take action whenever they were informed of any contagious disease among domestic animals in their locality, to co-operate with the State Veterinarian and notify him at once. That not only applies to hog cholera, but to any other disease. So far, it has not been thoroughly enforced, but we intend to enforce it in the future. I think that is the only way we can make local health departments do their duty. Whatever rules or regulations are adopted, they will be regarded as only rules (not statutory laws).

Our State has done some work along the line of experimenting in the preventative treatment of hog cholera. A few years ago, there were two inspectors appointed by the Bureau to do the work of this kind in our State, and I understand there is still one retained. The work done along those lines, during the last two years, has not been to any great extent, but with some success.

I am informed by the inspector in charge, that the immunizing of the serum is quite satisfactory, and I trust that in the near future, a serum will be obtained that will be a positive success.

Dr. Lamb—Discussion on Hog Cholera.

Mr. President, this matter is one in which I am personally very much interested. I live in a State that is a little different from the States of a good many gentlemen present. I represent a State that
up to about the present time & has not been a hog raising State, and consequently we have had very few outbreaks of hog cholera, and those of very minor importance and localized, and in all of those cases where hog cholera has existed, we have been able to trace it directly to swill fed hogs or infection invariably coming from improperly cooked portions of pork—more especially from chicken crops and such garbage as that infected with cholera. We have been able to take care of it satisfactorily. Our packers are clamoring for pork; 75% of the hogs killed in our State come from Kansas, Nebraska and Iowa. Our packers have come to see the advantage of raising their own pork. We have one valley in which they claim to be able to fatten one million hogs and it was up to me to see that those men were able to get those hogs and get them safely. They were as anxious to keep the cholera out as we. We have had several meetings with the hog men in that valley, and have implored them and plead with them to raise their own hogs and not import them. If once the cholera is introduced into that valley the Lord knows where it will stop. They raise immense crops of peas, and they must feed them to something, and they saw an elegant opportunity to go into hog raising. Our board passed a resolution that the importation of hogs into Colorado from east of the one hundred and second degree—that is the western boundary of Kansas—should be prohibited except for immediate slaughter. A shipment could be made by first obtaining the permission of my office for such shipment. I have blank forms of the applications which may be sent to the prospective shipper, in which he says that he agrees to ship such hogs in a thoroughly clean and disinfected car, or in crates, to be inspected by the State Veterinarian upon arrival at destination, and he proceeds to put them in quarantine for thirty days. The railroad companies are prohibited from receiving for shipment any hogs unless they are accompanied by this permit. It was not what I wanted, but it seemed to be the best I could think of at that time. Now, when I have an application to ship hogs in any number, I make the quarantine restrictions so onerous and expensive, that nobody can afford to ship any stock hogs. Somebody wants to bring in a brood sow or boar for breeding. I make it necessary to ship in crates, and they are kept in quarantine for thirty days on arrival at destination. We also prohibit shipment out of any public stockyard of hogs for any other purpose except for immediate slaughter.

But I am very much interested in the requirements of other States, and the success they meet with, not only in suppressing it when it is in, but more especially in keeping it out. We are beginning on the ground floor in Colorado, and we can build up our hog
industry with good clean stock and then keep it out. And I am very anxious to hear from other States, what means they have for keeping it out. That is what I am interested in.

Hog Cholera—By Dr. Tait Butler.

Mr. President, we have heard a great deal about States Rights and maintaining State identity, and we have had a discussion of hog cholera in relation to the hog industry from the standpoint of the different States without looking back through the history of control, or perhaps I had better say eradication, of other infectious diseases. I have been struck by one fact, that is that it is necessary to consider these problems from a broader standpoint, with a more comprehensive vision, than any one State can possibly take. Gentlemen, I am not going to discuss the question of States Rights or anything of that sort, but I will say that there is something which sometimes comes into conflict with States Rights, and that is common sense. Let us look back. While Maryland and Illinois and other States sought to control pleuro-pneumonia, how much did they accomplish? We continued to have it until it became a national problem, and we continued to have pleuro-pneumonia until we recognized the fact that it was a national problem and took hold of it on the broad, comprehensive scale of a problem which the National Government should handle. When foot and mouth disease came into this country, did we leave it to the individual States to handle it? No, sir; the Federal Government ignored States Rights. Why? Because it was necessary. And they have done it in every case, whenever a problem came up of sufficient magnitude to justify it, they have ridden rough shod over States Rights and the Constitution, and that is what they ought to do, and that is what the American people will do every time, when the Constitution stands in the way of anything they want and want hard. We should not let States Rights stand in the way of a proper consideration of the hog cholera problem; it is a national problem; it exists in every State in the Union more or less, and until we look upon it as a national problem and grapple with it in a national way, I do not believe we will ever handle the hog cholera problem. I agree with you that it is a great big problem. It is going to take millions and it is going to take time, it is going to take wisdom to handle it. But I want to say to the sanitary officers here assembled, that if we continue to live under the curse of hog cholera, we will not be doing our duty and living up to our responsibilities.

We lose millions of dollars a year by hog cholera. I have seen it stated at from ten to twenty millions. The State of Iowa in the
last census is reported as having nine million hogs, or one-seventh of all the hogs in the Union. If we suppose they are worth only eight dollars apiece, that is seventy-two million dollars. I wonder what Dr. Koto could do with hog cholera if it was handled from a national standpoint, with one hundred thousand dollars a year to handle it? That would be only a little over one per cent of the value of the hogs. Until we go after it from that large and comprehensive standpoint we will never stamp it out.

Again, when it is apparent that it can be stamped out, when it is apparent that such diseases can be controlled, I do not believe in dealing with them in a half-hearted way. Of course, we will have to have public sentiment back of it, but we should take these problems up from the broader standpoint and mould public sentiment to a proper appreciation of them.

Now, many of you older ones will remember that European sanitarians told us that we would never stamp out pleuro-pneumonia in this country. We said to the world that we could. Why? Because our interests that were jeopardized were so great that just as soon as we arose to an adequate conception of the extent of the damage that was being done, we could do it. And just as soon as we can get the people to realize the amount of loss resulting from hog cholera we can stamp it out of this country. We demonstrated to the world that we could stamp out pleuro-pneumonia and we did something that had rarely been done before when we stamped out foot and mouth disease. We can stamp out hog cholera, but we can not do it if we are going to quibble about States Rights.

I shall offer you later a set of resolutions that cannot be misunderstood, calling upon the Federal Government to take charge of this question.

I understand that we must have public sentiment back of us and I understand that we fail very often as sanitary officers because we disregard that.

What we want in handling this hog cholera question and in handling every one of these large sanitary questions, is a campaign of education. I do not mean a desultory campaign, with here and there an article. I want to tell you that if I had two hundred thousand dollars to expend this year in the line of work that I am particularly interested in, tick eradication, and I was going to have two hundred thousand dollars again next year, I would rather spend every cent of the two hundred thousand dollars I was to have this year in sending lecturers into every nook and corner where I was going to work next year, than
to spend it in attempting to eradicate ticks this year where no public sentiment had been aroused.

I hope this meeting will be the starting point of taking up this question of hog cholera from a national standpoint, taking it up from a broad standpoint, which we must do in order to make our influence felt. We want to stop dealing with it as a local disease. Let us take hold of it as a large problem involving every State of the Union. Then, if we can get uniform regulations in the main, and get the people aroused to what hog cholera is doing for them, it will disappear. I may be utopian in my ideas, but I expect to live to see hog cholera wiped out of this country, because I have too much confidence in the common sense of the breeders of this country to believe that they will go on submitting to losses year after year. We have tackled the lesser problems of foot and mouth disease and pleuro-pneumonia. We have tackled tick eradication and just as soon as we went to work on tick eradication on the broad plane that it was a national problem, tick eradication was at once put on a footing where you couldn't stop it. Just as soon as we put the hog cholera question on the same basis, it is going to go; it is a bigger problem and it may take a long time, but we need not bother ourselves about that. What we have to do is to bring the people to a realization of what it is doing for them, and then we can move in such a way as to put in operation influences that will settle it.

I believe that hog cholera, tuberculosis and tick eradication are the three large problems before the sanitarians of the United States today. I believe they are going to be solved, and therefore I believe that the sooner we get on the right line and the sooner we start at it, the better it will be for us.

THE PRESIDENT: We would like to hear from all of you.

DR. FERNEYHOUGH: Mr. President and gentlemen, I was forcibly struck with Dr. Butler's remarks just then, as I have had some experiences very similar to his—that is to say, I have had to disagree with the Federal authorities at times to be honest with my own opinion, and to do what I thought was my duty as State Veterinarian.

For example, I have thought best to leave certain territory in quarantine, when Dr. Curtice thought best to release it. Yet I have not meant to disagree with the Bureau authorities, except where I thought the local conditions were such that I was in a better position to judge the same than anyone just coming into the State and not very well acquainted with the people in general.
I have now nearly sixty local inspectors at work in Virginia (there were sixty-one, but I do not remember just the number I have dropped lately), and these men have to be dealt with according to the vicinity they are at work in, and the number of cattle in the said vicinity, etc. My practice has been to place all of the police work possible on the local county authorities, supervisors, Commonwealth's attorney and the other proper county officials, though I do some through my local inspectors. I have found that the local officials can catch a man violating the law much easier than I can, and the said officials can certainly have the said party who violates the law, brought to justice much easier than I; thus my reason for pushing this work on the local inspectors is to get the constant support of the people in each section of the State and County in which I am at work.

Since the Federal authorities naturally expect me to do the police work, I have suggested that it be left entirely to my judgment, and I know this to be the best policy from past experience.

The question of States Rights comes up in this connection as follows: Some infection is found and reported to this office by the Federal authorities, with the suggestion that I go to the particular place at once. I often consider it best to notify my local inspector and leave it to him, for a while at least. Here again I do consider it best to leave the matter to the State alone for a definite period after reporting it, as the Federal man will say to the local man, "I can do no more than report it." Then, if you can do no more than report it, I think it the best policy to leave the case in the hands of the State after reporting it to the State Veterinarian (and not tell the people how it should be done), because the burden falls on his shoulders; then let him do it his way.

The Bureau of Animal Industry, on the other hand, has been of the greatest help to the State of Virginia, and I appreciate the good work of this department, and our work together has been entirely satisfactory on the whole. We have simply differed at times as to how the local men should work and as to how was best to proceed in certain territory where it looks as if the stock owners are very indifferent to the work of sick eradication.

While the State work I think, is often just as effectual as the work of the Bureau, yet it is not the best policy to have the local inspectors for the State, work in exactly the same manner (as to their daily duties), as the Bureau men do, for more than one reason, the details of which is best understood by a man who is in close contact with the local force.
DR. COTTON: I agree with everything Dr. Butler said with regard to Federal control in the stamping out of these diseases. But, gentlemen, we are all here representing State Governments, being employed by the various States to control these diseases. We hope that eventually the Federal Government will come to our rescue and help us to control these diseases; but in the meantime the people of our States are expecting us to do our part in the handling of their money for this work.

We must not forget that we are spending our State's money and that we must do our duty so far as lies in our power.

DR. LAMB: Mr. President, I would like to tell the way we do it in Colorado, and so far it has worked satisfactorily. Our law provides that the State Board has the power to appoint inspectors to handle this work. I speak more especially of the mange proposition in cattle, and scab in sheep. Whenever the Government sends any men to Colorado for the extermination of sheep scab for instance, we furnish each one of those with an appointment as State Inspector, which gives him all the rights and privileges that I have, or any other inspector has. They go out in the fields and inspect these sheep, and if they find one that is scabby they do not act as Government men, but they flash their appointment as a State Inspector, and require the man to clean it. We do not want any friction, and we haven't had any, we have worked in perfect harmony, and I hope we always may. By giving the Government man a State Inspectorship, he is able to do the work which as a Government official he cannot do, and he does a great deal of good for us and, we hope, for the Government.

DR. BUTLER: Mr. President, inasmuch as special mention has been made of my reference to that subject, I want to say that I have been working along in a bordering State to Virginia and I have yet for the first time to find a single serious point of friction to come up between the State and Federal officers. I want to pay my tribute to the good sense and broad, liberal manner of doing business of the Federal Inspectors. I have never worked with any class of men who have been more liberal and who have looked at things in a more broad-minded way. I have never asked them for anything that I thought myself reasonable which they did not grant.

Now, then, we have handled the question like Dr. Lamb said he did. I think they have had some twenty-four or twenty-five men in our State this year, and we issued twenty-four or twenty-five commissions to those men, and I have had them do some State work. I would not get along without them for anything if I could help it.
When I have had reports of outbreaks of tick fever or other diseases perhaps in a county where these men were, I never hesitated to ask them to act for me. I have acted along this line in tick eradication with them, and I cannot imagine anything that is less likely to bring up friction than the manner in which we have worked together in this matter with the Federal authorities.

We cannot afford to wait until the people get ready for any measure we want to carry out, because if we do they will never get ready. As Dr. Lamb said this morning, the enthusiasts have got to push this thing along; if we wait for the people throughout the country to get ready for these measures they will never get ready. We must go out and educate them, we are paid to do it, we are not paid only to control a disease that happens to break out in this particular herd or that particular herd, but we are paid also to bring the people up to a point where they will permit us to do better work and broader work in the prevention of disease. I do not think we can wait for them to get ready, but if we will start and act today here, they will get ready. I do not see any chances for Federal and State friction in the control of these matters so long as they have the same men on the Bureau of Animal Industry that I have been dealing with for the last six years.

DR. PFLAEGING. Mr. President, in speaking of co-operation with the department, I think there is no State in the Union that has had as much experience in that line as Wyoming.

Nearly six years ago, the State gave to every Federal Inspector working in the State, the same power that the State Veterinarian had. Forty men were put in, and they, working in conjunction with the State Board, and especially with the commissioners in the State Veterinarian's office, cleaned up the disease in two years.

Fifty per cent. of the sheep in the State had mange or scabies, and they practically cleaned it up in the first year, following up by a little dipping the second year. In two years we dipped every one of six million head of sheep.

We have co-operated with the department and there has never been any friction between the Federal Government and the State. As soon as their work was done, they stepped down and out, and the State took charge.

This is probably the last season they will inspect any sheep at all. We are doing the same thing with cattle.

A MEMBER: What is the matter with the cattle?
DR. PFLAEGING: Mange or scabies in cattle. That is our experience, and we feel proud of the work the department has done.

DR. LAMB: Mr. President, referring back again to the hog cholera question, will any of you gentlemen who have had vast experience in controlling hog cholera, detail for my information at least a little of the modus operandi? Suppose you go into a community where there are three or four different herds of hogs infected, what do you do, and how do you do it? I may sometime run against an outbreak of hog cholera in my own State, and I would be very glad indeed to learn from the gentlemen who have had vast experience, what to do, and why to do it.

Dr. Whitcomb.

MR. PRESIDENT: I have been connected with the State control of hog cholera for nearly three years. When an outbreak of hog cholera occurs it is reported by the chairman of the local board, who notifies the Live Stock Sanitary Board, and a Field Veterinarian is at once sent to investigate, and make a diagnosis, and if the trouble is cholera or swine plague, quarantine is established at once, owner notified to keep dogs tied up, and all dead hogs to be buried at once, other hogs not allowed to run at large. If we are fortunate enough to locate the first outbreak, or all the outbreaks that occur in that locality at our first visit, then the quarantine is quite effectual, but very often some outbreaks are not reported, owners are careless, and carry the disease from place to place, often causing quite an extensive outbreak before any places are quarantined.

The chairman of the township board is the local health officer, and is required to carry out the orders of the State Board, investigate, report, and quarantine all new outbreaks, etc., but often they are quite timid about enforcing quarantine, in that case one of the Field Veterinarians visits the township, and often prosecutes parties for violating the regulations.

I think our State could easily stamp out hog cholera, if we could prevent it from being imported into the State. We have traced outbreaks to imported hogs that have been exhibited at State fairs.

DR. WRIGHT: Mr. President and Gentlemen: Although I have been in my present position but a very few months, yet I have been in sufficiently long to have had a few outbreaks of swine plague. In every instance, so far, I have been able to stamp it out completely, by shipping all apparently healthy hogs to the packing house for immediate slaughter and by placing a strict quarantine on the premises, and
thoroughly disinfecting them. It has been two months since the last one alluded to and no further trouble has occurred, consequently the work must have been thorough and complete. Swine plague is a national instead of a local question; if swine plague only existed in one State, county or community, we with our present knowledge of the disease, could easily control or easily stamp it out, or at least we could keep it within certain bounds, but we are confronted with the fact that it exists everywhere all over the country and probably other countries as well. The exchange of hogs of all classes from one section of the country to that of another, has a tendency to keep the country seeded with disease constantly. It is impossible to inspect a lot of hogs and determine whether they are all free from disease; they may have the disease in the incipient or chronic stages, and no one can detect it. You may in theory, but in practice it won't work.

On account of these conditions, it seems to be worse than folly for us to try and stamp it out in any community county or State, unless we could stop all importations of hogs. I don't believe that any one State will ever be able to keep her domain clear of hog cholera even if she should succeed in stamping it out, unless all her sister States would do likewise, and that they will not do, consequently it is a Federal question. The U. S. Government should open a warfare on every point in the Union where it exists, and stamp it out completely and every State in the Union should be in harmony with the Government in its good work. If any of the States have laws which would prohibit the Federal people in coming into their State, for such purposes, then the sanitarians of the Government should be commissioned by those States. I do not think that the States Rights question should come in here at all; there should be a concerted action all along the line by everyone, for the accomplishment of a common good. Until this is done hog cholera will exist and millions of dollars lost annually.

DR. ALLEN: Mr. President, in Oklahoma we can easily control hog cholera, which has shown itself there, if it were not for the hogs shipped in from other States. In the last few years we have raised more corn and alfalfa than we need, and we feel the need of hogs. We had a regulation in Oklahoma, prohibiting hogs from being shipped in from other States, until they had first been inspected by an inspector from the Bureau of Animal Industry.

In spite of this regulation, there was a shipment of hogs to Guthrie, Oklahoma, without such inspection; the railroad had accepted them without a certificate; they were stopped there by Mr. Morris, Secretary
of the Live Stock Sanitary Commission. Mr. Morris was sued for damages for stopping the hogs, and the Federal Judge, acting as a Territorial District Judge, upheld the claimant in his contention, that it was an unreasonable rule. This Judge looked up some old law establishing the Bureau of Animal Industry, and found, he said, that there were only two inspectors of the Bureau of Animal Industry in the United States, and therefore the rule was unreasonable.

He is one of the District Judges which constitute the Supreme Court of the Territory, and he is the Chief Justice of that Court.

THE PRESIDENT: In planning the program for this meeting, it was hoped that a paper on "The State Control of Hog Cholera" might bring out such a discussion as would result in the formation of definite and successful plans for the control of this disease. The public is rapidly coming into the proper spirit of co-operation in the control of virulent contagious diseases. The immense loss from hog cholera during the past five years has stimulated a vast interest in this subject in particular. It seems now that any reasonable plan of warfare against hog cholera ought to meet with immediate and general favor. In order to get the best results a practical plan must be outlined and put into operation in every State. The Federal Government must be prepared to do its share in preventing the interstate shipment of diseased hogs. I am heartily in favor of State and Federal co-operation in the control of all contagious diseases of live stock. I believe that Missouri is the pioneer in conferring State authority upon Federal Inspectors, and I regretted very much to learn that our State Constitution forbids us to continue the practice. What we want is results. It don't seem to me to matter whether a State officer works single-handed or in conjunction with Federal officials just so we get results. One thing is certain: If the ravages of hog cholera are ever stopped it will require thorough and prompt action on the part of the officials of every State, directed along practical and uniform lines. It will also require State and Federal co-operation.

THE PRESIDENT: Gentlemen, the State control of hog cholera has been pretty well discussed. Now we don't want to cut anybody short, but the time is passing rapidly and we have another subject for this afternoon.

The next article on the program is, "Immunizing Cattle Against Tuberculosis," by Dr. Leonard Pearson, of Pennsylvania. Dr. Pearson is not present, so we will pass that until another time.

The next is "Milk Inspection," by Dr. F. T. Eisenman, of Kentucky. Dr. Eisenman is not present, so we will have the paper on "Tick Eradication," by Dr. Tait Butler, of North Carolina.
"Tick Eradication"—By Dr. Tait Butler.

Mr. President and Gentlemen, I had hoped that others who have had charge of tick eradication in this part of the country, for the Bureau of Animal Industry, would be here before I took up this subject, but I do not feel like asking you to pass it over, because your program is pretty full anyway. I have talked to every one of you before, perhaps, and certainly to most of you, on this subject of tick eradication and not all of you are interested in it, therefore I feel some difficulty in attempting to discuss it fully before this meeting because of these facts, but as I am down on the program under protest I will say a few words on the subject.

This question of tick eradication, the manner of its inception or the manner in which the movement has progressed from the beginning, seems to me to be worthy of relating just briefly in order that we may draw a lesson in regard to some other matters we want to bring up later on.

I want to say that six years ago the veterinarians and sanitarians all through this country not only believed that the idea of tick eradication was visionary and impracticable, but they did not hesitate to tell me so. That was six years ago. If we had waited until now before we began work upon that subject, we would be in the same position that we were six years ago, and the same position we are now in with regard to hog cholera. I attended a meeting four years ago where there were six veterinarians and three said it was impracticable and were opposed to taking the matter up at all. Two years ago at the meeting of this Association of Live Stock Sanitary Boards it became my duty to cast the deciding vote in the committee on resolutions asking the Federal Government to take it up as a national undertaking.

Two years ago I had to go before the committee on resolutions of the American Veterinary Medical Association and make the best argument I could possibly make to get them to endorse the proposition.

Now, gentlemen, when you wish to start any movement of this sort you must make the start just as soon as you are convinced it is practicable and expect opposition, but you must go about it in a conservative way and keep everlastingly at it. I might say further that even the men in charge of the Bureau of Animal Industry, up to two or three years ago, appeared to have little faith in this proposition of the extermination of the cattle tick from large areas. Today, I do not believe you can find a man who has been in the work for the last year who does not believe that it is entirely feasible and will be profitable.

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to drive cattle ticks out of every section of the country where cattle are controlled.

Any person who from practical experience knows how easy it is to eradicate the ticks from any given farm and maintain that farm tick free is convinced at once of the practicability of eradicating the ticks from the whole country. If you can do it in a herd you can do it in a township; if you can do it in a township, why not in a county? If you can do it in a county, why not in a State? And if you can do it in a State, you can certainly do it in the United States. All you have to do is to broaden your vision and your grasp of the problem in the same proportion. That is all it took to start the matter of tick eradication on a proper basis. The Federal Government has already made it a national problem by drawing a quarantine line from the Atlantic to the Pacific oceans across the continent.

The first obstacle that comes up in the control of these diseases and particularly in tick eradication, is the legal machinery necessary. Gentlemen, all the legal machinery we had in North Carolina—and you will pardon me if I do say this for the State Board of Agriculture of our State, that I believe that by the work it did it demonstrated to the world the feasibility of tick eradication over a large territory—was the power to quarantine animals and prevent the driving of tick infested cattle on the public highways. During the entire time when progress was being made, slow, it is true, but sufficient to demonstrate the practicability of the work, it was a question whether I, as State Veterinarian, even had the right to quarantine an animal in North Carolina. The Commissioners of Agriculture had the power to quarantine, but it was doubtful whether he could confer that power on me. Yet with that lame, broken down old machine we did do something. While it is better to have a perfect law and perfect legal machinery, let us not wait until we get that before we go to work to do something; take what we can get and make the best of it and do something. Therefore, I think that a good many people are wrong in hanging back on this matter of tick eradication because of the lack of legal machinery to their liking.

Methods of Tick Eradication.

Before any method can be successfully applied a campaign of education is necessary. No mistake can be made in thoroughly familiarizing the people with the work, before attempting to apply coercive or restrictive measures. The plan which I have found most effective and satisfactory is to begin the work by calling ten to fifteen meetings in a county, asking the farmers to attend and hear a free and full dis-
discussion of the whole question. In talking to the stockmen at such
meetings I attempt to cover the whole question in a brief, plain
and simple manner. I first show the injury caused by the ticks, as
parasites, as disease carriers and as the cause of the quarantine
restrictions and make it plain that with the ticks exterminated
these injurious influences will be removed. Before giving them
methods for eradicating the ticks I give them sufficient of the
life history and habits of the cattle tick in simple language to enable
them to at once see how helpless a pest the tick is and consequently
how easily he can be killed on the pastures and those pastures kept
free, for in reality I know of no parasitis pest that does damage at all
comparable with that done by the tick that is so easily controlled or
destroyed.

After discussing the habits of the tick, methods for his destruction
at once suggest themselves and these are briefly stated with the advan-
tages and limitations peculiar to each method fully discussed, but I
may here state that we are still fully convinced that the easiest, most
economical and best method of tick eradication, either on a large or
small scale, is by vacating the pastures for a sufficient length of time
to ensure the death of the ticks from starvation.

After these methods have been clearly stated the matter of inspec-
tions, farm quarantine and other restrictive measures are discussed.
It is stated that every farm in the county will be inspected and where
ticks are found pains will be taken to fully acquaint the owners with
the best methods of eradicating these ticks. It is also stated to the
owners of tick infested farms that a second inspection will be made at
given time, and if the cattle are still infested with ticks or in the in-
fested pastures all the cattle on the farm will be quarantined thereon
until such time as it is reasonably certain all the cattle fever ticks on
the place are dead.

But while it is the aim to make it plain that those who do not
make an effort to get clear of ticks will have their cattle quarantined
indefinitely, it is also stated that those who do make proper effort will
be given every assistance and our State Inspectors are during the first
year's work in a county always instructed to release animals for imme-
diate slaughter, or for movement to clean pastures under such condi-
tions as will prevent the spreading of infection, providing the grant-
ing of such privileges can be made the means of securing the efforts
necessary to the complete eradication of the ticks remaining on the
farm.

All this pains to acquaint the people with our plans and the ex-
pected results are taken because we know we cannot enforce a quaran-
tine against a farm, a county, or another State unless the people are in sympathy with the work and support and sustain us.

The first and most important consideration in this work is a full realization of the necessity for education and co-operation among the farmers themselves. After this campaign of preliminary education is completed inspectors are sent into the territory and the first inspection in addition to locating most of the infection is also used as a means of thoroughly acquainting the people directly interested with all the details of the work.

In regard to inspection work I desire to state that it is difficult, laborious and disagreeable and withal frequently unsatisfactory in that it is practically impossible to find all the infection on one inspection of a territory no matter how efficient the inspector or when the inspection is made. If seventy-five per cent. of the infection is found on the first inspection we regard the work as reasonably efficient.

Methods of Destroying the Ticks on the Pastures.

Perhaps there are some in this audience who at some time during the past few years have heard me state that no substance had yet been found that would give satisfactory results when applied to cattle as often as was necessary to eradicate ticks from a pasture. While I am still of the opinion that this is the least satisfactory method of tick eradication, I am willing to modify my former statements to the extent of admitting that if properly put on, which will only be done by trained workmen, an emulsion of Beaumont crude oil applied to the cattle every three weeks may be used as a fairly satisfactory but expensive method of eradicating ticks from a pasture. But nothing has yet been found which can be safely applied to the cattle that for eradicating ticks from pastures is as easy, economical, certain and satisfactory as our method of vacating the pastures for a sufficient length of time to ensure the starvation of the ticks.

The twenty odd counties which have been practically cleaned in our State, some having a good deal of infection and some having only a small amount, have been largely cleaned through the vacating of pastures; by taking the cattle out of the pastures on the first of September and leaving them out until the first of May. Now, I know it is said that this won't do it because, forsooth, some men can keep ticks alive in a laboratory for six or seven, or even nine, months; but against these laboratory tests I have had the experience of hundreds of cases where it does work, and it has failed in very few cases, less than two per cent., and I can afford to put up with those. On the other hand,
I have vacated pastures from the first of May to the first of September, the other part of the year, but we have used the winter period more frequently where a man had only one pasture, because it was the time of the year when less good was obtained from the pastures than the other period of the year. I have used both periods in conjunction where a man had only one pasture and could be induced to divide his pasture. Yes, divide it with a barbed wire fence if you want to. I have recently seen a case where on one side of a barbed wire fence was a tick free pasture, while there was a herd on a pasture to the south of it and a herd on the north of it that were infested, and yet only once in two years have ticks crossed that woven wire fence and then only two or three of them. Usually it will be best to move the fence ten to twenty feet on the section that has been vacated and therefore is clean. I believe this is the cheapest, best and most certain way. It is the cheapest way because the loss of pasture is not so great as the work necessary to make the applications to the animals, and there is injury to the animals if we succeed in killing the ticks. Yet I use other methods because I cannot use this all the time, but I believe the rotation method is the cheapest way even if we have to buy every cow on an infested pasture on the first day of September, dip them or in some way make them safe for shipment, ship them to markets, sell them and stand the loss, if any, and pay rent for the pastures. I believe that even this plan is feasible and I know it is cheaper than dipping, spraying or any other method of killing the ticks in the pastures by applications to the cattle running on them. Did not the Government go to Massachusetts, take the cattle and kill them, burn down the stables that were not worth keeping and disinfect the others and stamp out foot and mouth disease? We might do it if we wanted to, if we believed that was the way to do it.

While I believe thoroughly that the vacating of pastures is the best plan, still for the present we may sometimes work along other lines. I am not going to discuss tick eradication from the standpoint of the western section of these United States, nor shall I attempt to state the measures which may be necessary to eradicate ticks from the large pastures of the West. I realize thoroughly that the men who are there and are dealing with that problem are the men to solve it. But in our section of the country I am convinced that dipping is out of the question, because our cattle are in small herds of three, ten, fifteen or twenty, and frequently in territory where you cannot take a movable dipping apparatus, and certainly each man could not have a dipping or even a spraying plant. So I am not going to discuss that. But we have been using, in co-operation with the Federal workers in
our State this year, a method that has proved fairly satisfactory. I believe it is a little too early to speak positively, but it certainly gives promise of fairly satisfactory if rather expensive results.

I went into Anson county in March and made some talks to the people. Later in the spring the Federal authorities went there and made a house to house canvass locating infection, and every three weeks since they have aimed to go to each infested farm and spray every animal on the farm. They are in small herds; the cattle are driven into the yards, are roped and snubbed up to the wheel of the wagon and sprayed. They do not use the Beaumont crude oil but a twenty per cent. emulsion of it. You ask, “Will that kill the ticks?”

Our experience seems to show that it will not kill the big ticks. the fully engorged ones or those nearly so will not be killed; but by picking the big ticks off and going over them thoroughly the first time and then spraying, in most instances after that they do not see any more large ticks. It does kill the small ones and stays on and prevents others from getting on and becoming large enough in three weeks to withstand the next application. To my surprise and gratification this method seems to be working better than expected. Although we had over three hundred infected farms in that county this spring, my prediction is—it is only a prediction—that we will not have more than fifty next spring. If that can be done in one county it can be done in ten counties. I am thoroughly convinced that whatever method a man takes, whether it is spraying, whether it is keeping the cattle out of the pasture for a portion of the year, or whether it is disposing of every animal on the place, that the cost of doing it will be more than made up in two years, and I am not sure but that it will be made up in one year. There is no question of its paying, there is no manner of doubt about that, and I want to say to you gentlemen here who happen to have experience along these general lines, that we need your help, whether you are working on the tick question or not. For instance, this organization exerts an influence over public sentiment in this country, and you men in Texas, or those in any other State doing good work along these lines, exert a large influence in North Carolina or any other State similarly situated.

We need to disabuse our minds and the minds of the public of the idea that the eradication of the tick is a difficult problem. It is only difficult because thirteen large States are largely covered with them. It is only difficult on account of the immense amount of territory and the large number of cattle. The eradication of ticks from a small number of cattle on an individual pasture is so easy that every man when he has done it is likely to say, “I had no idea I could get rid of
them so easily." I have never seen a man who did not admit when he was once rid of them that he would not have them back for ten times the trouble.

And when the ticks are once out they are easily kept out. I will give you an illustration from my own experience on one of our State farms of how easy it is to keep them out. We had on one of the State test farms, or sub-stations of the Department of Agriculture, a farm that was purchased before I went to the State, on which they placed some pure-bred Aberdeen-Angus cattle. They were put in a ticky pasture and each year they carried ticks. They were kept there for five years. It was my duty to sell the progeny of those four cows and bull to the farmers of the State in order to induce them to raise better beef cattle, but not one single calf did I sell of that herd. Why? Simply because when they presented a calf for sale I said, "No, sir, I am not going to send that out as a representative of a beef cattle breed."

Two years ago I convinced those in charge that the pasture could be cleaned, that it ought to be cleaned, and when once cleaned, it could be kept clean. We took the cattle out of the pasture until the ticks were dead and then they were put back the next summer, and there was only a barbed wire fence between our pasture and another pasture where the cattle were grossly infected with ticks. That the infected cattle came right up to the fence you could plainly see, because they had a beaten path there. On another side and above was a pasture that overflowed, and about two-thirds of ours overflowed; they said I could not keep the ticks out. I said, "Sections of the country that overflow are usually free of ticks (although I admit that an overflow might possibly bring them down and reinfect a pasture). As I said before, for two years we have had ticks on only one or two of those cows, and then there were only two or three ticks on them that we could find. I now have for sale for the first time from those cows four heifer calves worth three hundred dollars; the others had brought about ten or fifteen dollars apiece. The difference in the price the first year would have covered the cost of getting rid of the ticks three times over.

In conclusion I wish to say that we must go among the people of this country where we are working and we must first convince them that it is not a difficult matter to eradicate the ticks from any one particular pasture, second that it will pay, and third that it is easy to keep them out.

THE PRESIDENT: You aim to make a point of the fact that ticks on cattle make them scruffy?
DR. BUTLER: Yes, sir. I want to say that my experience has been that in the section of country where ticks do work, it is practically impossible to raise cattle successfully without making an effort to keep the ticks down. You cannot raise cattle and ticks in that pasture together successfully. It is possible that where you have cattle running over a large territory they don't get so badly infested, but in restricted pastures I say it is impossible to do it, impossible to do it profitably, anyhow. In any of the States east of the Mississippi River, if I had to sell my cattle the first day of September, I would rather take them out of the pasture than have them there, because my experience is that ticks develop so rapidly during August that the cattle lose flesh rather than gain. It is difficult to make the man who has always had ticks see the difference, but if we once get them to get rid of them they will then see the difference.

We should spend more money in this work. If Dr. Luckey stated a fact when he stated that we were losing forty millions a year from the ravages of the ticks we are conservative if we ask for five hundred thousand dollars a year from Congress for this great work. Every dollar you spend on this you get immediate returns for. If you clean up a township or a county, you at once begin reaping the benefits, and you have no trouble in keeping it in condition to continue to reap the benefits. The Chairman on Agriculture of the House of Representatives at Washington asked me, "How long is it going to take you to do this work?" I said to him, "Perhaps five years, perhaps ten, perhaps twenty-five, perhaps fifty years." He said, "That is a tremendous work: how much money is it going to take?" I went back at him the same way, "Perhaps five, perhaps ten, perhaps twenty-five, perhaps fifty million dollars." But every dollar you put into the work you will get back with big interest and it will begin coming back at once and continue for all time.

DR. ALLEN: I would like to ask Dr. Butler about the percentage of ticks located on the first inspection. What time of the year do you make your rounds to locate the infection? Of course I know you don't do it in the winter.

DR. BUTLER: No, but it makes a difference when you make the inspection as to the percentage that will be located on first inspection. We make most of our first inspections for this purpose during the months of May, June and July. Now, if we make the first inspection during July, August and September, you would get a larger percentage of the infection. But I have found this, that we still find ticks after all the inspection work of the first year, that is, we find additional places the second year where we never found them the first year.
DR. ALLEN: We never work as early as May in locating infection. Last year we commenced on the 23rd of June. The first of July is, in our State, early enough, possibly, in the more southern part. In this work, the close observation of so many infested herds has taught us a great many things about ticks—nothing to revolutionize eradication work; but out of seventeen hundred herds quarantined last fall, and on which we had every reason to believe ticks still existed, ticks would appear on about 25% during March and April. In May so few ticks were found that many of the field agents believed that they had been practically eradicated. In June ticks appeared in many places where they had not been observed during any of the three months prior. A great many in July and a lesser number in August were found where we had been unable to find them in any prior month, although the places had been visited regularly as often, on an average, as every 20 days after April 10th. During the months of May and June, this year, we reviewed a section of country in which we had quarantined seven or eight hundred herds in a canvass made in August and September, last year, with the result of finding but very few additional infested herds. The infection on these were found to be, in most instances, due to cattle having been moved to the premises but a short time before the first canvass had been made.

I would like to ask further what supervision you hold over a pasture that has been divided; that is, where you are using the rotation method in some of its forms; how often do you visit that pasture to ascertain if they are carrying out your instructions?

DR. BUTLER: Before answering your question, I want to call attention to the fact that a great deal of our work has been done in a section where it is more difficult to find the farms than out in Oklahoma to find the cattle, for the simple reason that there is often nothing but a trail running up to a cabin in the foot-hills, with one cow up there. In fact, in some sections where we have worked we really did not find all the infested farms until the third year. I think there is another explanation, which is, that I have been obliged to employ laymen as inspectors and it is hard to get them to realize the necessity of doing the work thoroughly and doing it exactly right; it is hard for them to realize that they must not miss one tick; that so far as continuing the infection is concerned one may be as bad as a hundred.

In regard to your second question, the plan I have always taken heretofore is to keep a man in a county, give him a county to work in; sometimes I have had two and sometimes three on the first inspection, but after that I put a man in a county to stay there and look
after it until the work is completed. The frequency with which he visits these farms depends largely upon the number of infected farms in the county. Our aim is to get around once a month, and it is better if we can get around once in three weeks. Our instructions to inspectors have been not only to go to the farms where they have found infection, but in all neighborhoods where there is infection, to look further for new points of infection and if there are a good many infested farms in the county, sometimes they don't get around once a month. Our purpose this year has been to send them once every three weeks with the Federal help.

DR. ALLEN: Do you give a man a territory in which there are a certain number of herds quarantined, and make him responsible for results in that territory?

DR. BUTLER: I will say that I have worked both ways, and it depends somewhat on the man as to which is the better method. My first plan was to give one man a territory and make him responsible for it, and we work that way yet in a large measure, but I found early in the work that a man would get in a rut in making his inspections and that there might be other infected places and he not find them. So I have made it a practice, after I have had a man working in one place a couple of years, perhaps, to put another man in there for a time. I would not like to advise which is better. The advantage in keeping a man there is that he gains the confidence of the people, that he learns the herd and learns the territory. The disadvantage is that if he is not the right kind of man he will fall into ruts, get careless and overlook some places.

DR. ALLEN: We had some seventeen hundred premises on which infection was located last year. Early this spring we had scarcely any men at all; that is, we did not have one man for three hundred herd of cattle. Consequently we could not get around more than once in three months and the ticks were allowed to mature and drop off the cattle. I believe that when the force of men is reduced, say a third, it is best to abandon a proportionate amount of the territory, and concentrate your efforts on the remainder.

DR. BUTLER: I want to say just a word. I believe you are exactly right. Time is an element, of course. The Federal people began work last fall in our State, greasing and spraying; they began about the first of October. I tried to get them not to do it. We had ticks just the same this year. If they had begun the first of September, I believe they would have done much more good.

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I am glad that Dr. Allen brought out the point that it is best to begin in the spring of the year; and that if you can get at it early enough it is an easy matter to clean up all that are left from the year before. And then, in my judgment, spraying of the cattle may be advisable, because you do not have to keep it up very long before you get rid of the ticks. If you cannot begin in the spring of the year then I prefer to wait until September 1st before beginning the applications to the cattle or to take the cattle out of the pasture.

THE PRESIDENT: Gentlemen, we have covered the ground of tick eradication pretty thoroughly, more in detail than we have gone into a like subject before. Is there anyone else who has anything further to say on the subject? I think the gentleman from Texas is probably more interested than anyone else.

DR. WILSON: Mr. President, I appreciated Dr. Butler's talk very much, but we have it in Texas on a larger scale. We have pastures there with fifty or seventy-five thousand acres and thousands of cattle in them, and the rotation method has not proved very successful. We are dipping a good deal, using a preparation with a small per cent. of arsenic that we have found to be very successful for killing ticks. It has not been altogether as uniform as we would have liked, but we attribute that to the commercial arsenic not being as pure as it ought to be, because we have tested it and found it to be of different strengths. I have reports from the inspectors of the Bureau of Animal Industry that on the third day the ticks were all dead, and then I have had to wait several days; we have found that it did not kill the matured ones as quickly as the young ticks, but the small ones there was no trouble about. It is necessary in tick eradication to co-operate. We have a provisional area just above the county line; at the county line it is impossible to prevent them violating the quarantine, they will slip them across, and it is our purpose to keep this area open. It begins in Greer county, Oklahoma, and goes down to El Paso, a distance of some five hundred miles.

We have met so far with a great deal of success, and I have been agreeably surprised at the co-operation the stockmen have given us. We invited the Department of Agriculture at Washington to come in and assist us last March, and we have about twenty of their men, and the work has been very harmonious and satisfactory, but I don't know how we could have gotten along without them. Our appropriation is limited, but they have done very satisfactory work for us, and we feel that this is about the beginning of the ending of the ticks north of the quarantine line at least. It is not possible yet to take up the
matter south of the line. Childress county is free, King county with the exception of two or three ranches is free, and other counties are free with small exceptions, and we are wonderfully gratified with the success, and we feel that we owe a great deal of it to the Bureau of Animal Industry. Texas has killed more ticks than all the other States combined.

DR. BUTLER: Early in our tick extermination work, I think I learned this fact, that it was a good deal better to keep an entire county under quarantine and prevent the movement of cattle out of that county as far as possible, for the purpose of encouraging and assisting in the tick extermination work, than to release the county from quarantine and allow the inspection of cattle out, for I found that we lost at once the support of the people who owned cattle free of ticks.

Last year, I permitted Dr. Curtis to persuade me—where we had some infection left—into setting aside three or four counties and inspecting cattle out of them in the summer. I want to say if that is ever done again it will be over my vigorous protest, because it lost me the co-operation of those who were free of ticks; they could send their cattle out anyway. Moreover, it costs so much to do the inspection work that it lessens the work that can be done in eradicating the ticks and prolongs the time required to secure the complete eradication of the ticks. I want to know if that is the experience of others?

DR. WILSON: That is the idea.

DR. ALLEN: I want to say that in this you have struck a responsive note. We have found that when we have in a given community, say twenty herds, only one of which is is infested, when we give the owners of the nineteen an opportunity of moving their cattle inter-state for purposes other than immediate slaughter, we immediately lose their active support in our efforts in cleaning up the one herd.

We have also the cattle buyer, making the rounds of the country and in various ways discrediting the efforts of the inspectors, and placing the quarantine regulations in the most unfavorable light. They are thus able, in many instances, to buy cattle far below their market value. After they have thus secured cattle for a price below their real value, they either ask for inspection immediately for shipment north as natives, or feed them out and then ask for inspection. In the latter case, even if they were infested at the times purchased, they will probably be free after a few months in the feed lots.
It will at once be seen that they have added to their ordinary profits, the difference between what they paid and what they should have had to pay had they not had the quarantine restrictions to use as a club. This condition suits them. They don't want that condition brought about that will be the means of removing quarantine restrictions, and take from their hands the club by which they have coerced the less informed farmer to sell at quarantine prices.

The man who has received the greatest benefit from this inspection from a county in which there is a comparatively small percentage of the herds infested, is the man who finds it to his interests to oppose the cleaning up work. The better informed cattle raiser, knowing that he can ship his cattle out on inspection, if found free, is, as a rule, unwilling to become active in urging that the owner of the infested herd use heroic methods in the eradication of the ticks. So long as he is enjoying the benefits he prefers to remain neutral.

I think, therefore, that the cattle interests of the whole county should be made to feel the hardships resulting from the failure of the few to clean up the ticks. Then, and not before, will we receive its proper co-operation.

DR. BUTLER: Especially if that hardship is not an individual one, but is the fault of the whole county.

DR. FERNEYHOUGH: On behalf of Virginia, Mr. President, I desire to say that I have experienced exactly what Dr. Butler spoke of a while ago, and that for that reason I protested against inspecting cattle out of different farms. My chief idea was that it cost me as much to do this inspection as my official work, and that is what came between myself and Dr. Curtis last year.

DR. ALLEN: I don't think there is any question now in Dr. Curtis' mind. He was in Oklahoma last spring, and while there attended a mass meeting in Payne county, called, ostensibly, for the purpose of considering fairly the matter of tick eradication in that county. At that meeting, one man declared that no inspector should dictate to him how he should handle his cattle; that he would move his cattle how he pleased, where he pleased, and when he pleased, regardless of ticks, laws or regulations.

In one locality in this county, there were a few citizens who harbored a grievance, having its inception long before eradication work commenced, against a territorial inspector. These parties succeeded in securing the support of two small weekly newspapers of opposite political faith, which vied with each other in charging in a general
way, graft against all inspectors, and in discrediting eradication work by announcing absurd conclusions, based on erroneous chains of reasoning. Well, the opposition formed a regular organization to defeat the efforts of the inspectors, and so did, but in so doing they deprived the owners of some thirty thousand cattle, of the benefits that would be theirs for the privilege of native northern markets.

By reason of this organization, the territorial authorities were unable to make their quarantine effective, and so admitted. They released from quarantine the some two hundred infested herds. This gave these infested cattle the privilege of the public highways and stockyards. The logical result of that was, the Bureau inspectors could no longer certify to cattle that were required to use these highways and stockyards in reaching transportation lines.

DR. LAMB: Mr. President, there are a good many of us sitting back here thinking perhaps we have no interest in this tick proposition; but I live on the border of Texas, and I have seen dead cattle strewn along the Platte River until I could walk for miles and miles on dead cattle. And the same experience might come to any veterinarian in any other State, if the work is not conducted very thoroughly and systematically by the Government.

It seems to me that this association might well adopt the old motto of the D'Artagnan heroes, "All for one, and one for all." I am in favor of instructing the resolutions committee to draw up as strong a resolution as they see fit, to present to the proper authorities, because we have all heard of the immense depreciation in the value of cattle north and south of the tick line, and it amounts to millions. We can hardly object to the few millions that might be spent by the Government in the eradication of these ticks; it would amount to nothing compared to the value it would be to the country.

The President then appointed Dr. Lamb of Colorado, Dr. Koto of Iowa, and Dr. Butler of North Carolina, as a Committee on Resolutions.

The President then announced that the Committee on Line and Open Season would consist of one of those present from each State, and that where two representatives were present from any State, the representatives themselves should decide which one should be on the Committee.

The meeting then took a recess until the next day at nine o'clock A. M.
Tuesday, September 17th.

The meeting was called to order at 9:30 by President Luckey.

Dr. Ferneyhough stated that Mr. Winston, the stenographer whom we had employed, had been called out of the city and would be unable to report the further proceedings of the meeting. Dr. Ferneyhough said that he had scoured the city, but had been unable to obtain another stenographer.

The President announced that under the circumstances the program would be continued without a stenographer, and he requested all members taking part in the discussion to send a copy of their talks to the Secretary for publication.

PRESIDENT LUCKEY: The first paper on the program is that on "Federal Meat Inspection," by Dr. A. D. Melvin, Chief of the Bureau of Animal Industry. Dr. Melvin stated that he had prepared no paper; he gave a general talk on the subject.


Federal meat inspection was commenced under the Act of 1890. Additional authority was afterwards provided by Congress in the following year, and in 1895. The inspection under these laws was entirely permissive, except in the case of exported beef. This inspection referred to the ante-mortem and post-mortem inspections only, and gave no authority over the meat and meat food product after it had been passed at the time of slaughter, nor over the sanitary condition of the premises.

As you know, another Act was recently passed, effective on the first of July, 1906. This Act gives much greater authority to the Department, and inspection is necessary in the case of all interstate and export shipments of meat or meat food products, the only exceptions being made in the cases of retail butchers and retail dealers supplying their customers, and animals slaughtered upon the farm by the farmer. Even in these latter cases the Department is now making an investigation of the premises of these various retail butchers and dealers, and in some instances of farmers and requiring them to comply with the regulations of the Department which refer to sanitation, and to preservatives used in packing meat.

The service has increased tremendously from 764 employees, including 314 veterinarians, on July 1, 1906, to 2,280 employees, including 621 veterinarians on September 1, 1907. The number of establish-
ments having meat inspection has increased from 163 on July 1, 1906, to 677 on September 1, 1907.

The total number of animals inspected during the fiscal year 1907 was 50,937,216, of which number 149,792 were condemned. An additional number of 71,166 were slightly affected with disease and were passed for rendering into lard or tallow. Of primal parts 838,852 were condemned, while 30,489 were passed for rendering into lard or tallow. On reinspection 14,874,587 pounds of meat and meat food products were condemned.

Comparing the total number of animals inspected with a statement prepared by Mr. John Roberts, of the Bureau of Animal Industry, of the total number of animals slaughtered for the year 1900 (which information he obtained from various sources), it appears that about five-eighths of the animals slaughtered within the United States are inspected by the Bureau of Animal Industry. The point that I wish to bring to the attention of this meeting is that about 30,000,000 animals are slaughtered yearly which do not have Federal inspection, and which it is necessary for the various cities or States to inspect. If it is necessary for the Federal Government to conduct an inspection of meat animals, the products of which enter into interstate or foreign trade, it is equally necessary, if not more so, that the remaining animals be also as carefully inspected.

I wish to present the following table showing the great increase in the percentage of diseased animals slaughtered at establishments that did not have inspection prior to July 1, 1906, as compared with the percentage of such animals slaughtered at establishments that did have inspection prior to that date.

**Post-Mortem Inspections, July 1, 1906, to June 30, 1907.**

<table>
<thead>
<tr>
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<th>At establishments having inspection July 1, 1906</th>
<th>At establishments granted inspection after July 1, 1906</th>
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<tr>
<td><strong>Total number of animals inspected</strong></td>
<td>7,203,943</td>
<td>417,774</td>
</tr>
<tr>
<td><strong>Total number condemned</strong></td>
<td>25,308</td>
<td>2,625</td>
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<tr>
<td><strong>Per cent. condemned of total inspected</strong></td>
<td>0.35</td>
<td>0.62</td>
</tr>
<tr>
<td><strong>Number condemned for tuberculosis</strong></td>
<td>17,168</td>
<td>2,137</td>
</tr>
<tr>
<td><strong>Per cent. condemned for tuberculosis of total number inspected</strong></td>
<td>0.25</td>
<td>0.51</td>
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These figures plainly indicate to me that the second group of establishments in the table above had the practice of slaughtering animals affected with disease to a much greater extent than had the first group of establishments. It is my opinion that we may go further and say that the remaining slaughter-houses not now under Federal inspection are slaughtering even a greater percentage of diseased animals than are those at present under Federal inspection. It is but natural for those owning diseased animals to try to dispose of them at places where regular inspection does not prevail. It appears to me to be the duty of every member of this Association as a sanitary officer to make every effort to secure suitable State legislation so that all animals used for food purposes shall be slaughtered under competent inspection, and this inspection must be at the time of slaughter. When such an inspection is provided the work undertaken by the Federal Government will be completed.

The eradication of tuberculosis should receive the most careful attention by the Association, as the number of animals condemned on account of this disease is greater than all other condemnations combined. During the last fiscal year 70 per cent. of the condemnations of cattle and 62 per cent. of the condemnations of hogs were on account of tuberculosis. So far as possible, the Bureau is endeavoring to ascertain the location from which tuberculosis animals are shipped in order that the authorities of the State can be notified, with the expectation that efforts will be made by such authorities to eradicate the disease at that point. In the majority of cases, however, the identity of the animals is lost, so that we know only in a general way that the animal came from a certain State.

As previously stated, it is the duty of each State to provide competent inspection for the animals slaughtered for local consumption, and it is my opinion that no one can present this matter to the various States as intelligently as the members of this Association.

Dr. J. M. Wright of Illinois then gave a talk on "State Meat Inspection."


Gentlemen: I regret that I have no formal paper to offer you at this time, because of the shortness of the notice, but I wish to have something to say on the subject in an informal way. The subject of State Meat Inspection is to me a very important one for discussion—very important to the live stock producer, shipper, and to all the con-
sumers of the products of the meat-producing animals. We have lis-
tened to an excellent address by Dr. Melvin on Federal Meat Inspec-
tion. The work being done by him and his department is excellent
and should receive the highest praise by everyone, but there are fields
demanding action in the individual States where the Federal depart-
ment cannot reach; the wide gaps which exist between the producer
and the Government inspection, the loop-holes through which large
numbers of the worst diseased animals escape and are slaughtered in
small packing houses, and the gross evidences of their diseased condi-
tions are removed or disguised from their carcasses and then sold to
the innocent consumers of the State. Every State should step into
these gaps and stop this malicious practice, which is constantly going
on in every State in the Union. Gentlemen, I wish to confine myself
to Chicago and Illinois, because there is my field of action. In Chi-
cago, where there exist the largest livestock market and the largest
packing plants in the Western world, there is where we are receiving
at all times vast numbers of the worst diseased animals on earth. But
few of these, however, reach a point where the eyes of the Federal
Inspectors ever fall upon them. The figures quoted by Dr. Melvin
concerning his work in plants where inspection had existed for years
as compared to those that had only been under his department for a
short time are very significant to me. They show conclusively that
the shipper and commission men will separate the good from the bad,
send the good to the large packing houses where the Federal people
are and where they can get better prices, and the bad to the small
places where they can escape inspection. This condition would be inten-
sified if the large plants should be able to enforce the rule, plan or cus-
tom, to purchase everything subject to Federal postmortem examina-
tion. Just think of it: that which is good is shipped mostly to points
outside of the State, and the bad and diseased, we are compelled to eat
at home. This should be stopped: our people have made the demand,
the legislature has given us the law, and now we are at work, assisted
by the Live Stock Exchange at the Union Stock Yards. There is an-
other reason of equal importance as the one just alluded to, why a
State should step in the breach which has existed: that is, not to wait
for the shipper to separate the good from the bad and let him dispose
of the bad as he should see fit, but the State Inspectors should inspect
his product just as soon as it landed in the yards, seize all that is
not good, place them under quarantine and have them slaughtered
under the eyes of the State Meat Inspectors; by doing this you would
protect the producer and the shipper, they would have the State's as-
surance that they would realize from their quarantined stock all that
the markets would afford; you would prevent those objectionable deal-
ers in such stuff from doing business. We in Chicago have been do-
ing this work for thirteen years; in one class of diseased animals
(lumpy-jawed) during that period we inspected 175,000 head of cattle;
115,000 of this number were tagged as passed and permitted to pass
along with the herd as sound and fit for human food, and thus pro-
tecting the shipper from being compelled to sell them at a sacrifice;
60,000 were held for slaughter. We are satisfied that we have saved
for the producer and shipper during the period just mentioned over
$4,000,000, and at the same time we have protected the consumer. We
feel so gratified over the results of the work done on one class of ani-
mals, we have decided to seize all animals that don't appear to be in
a state of health and fit for human food and handle them in the same
manner as we have been handling the class of stuff already alluded to.
This work up to the present time has been confined to the Union
Stock Yards at Chicago, but just as fast as we grow stronger finan-
cially, we will push the work out in all directions and ultimately we
will have inspections established at every point in the State where ani-
mals are slaughtered.

DR. LAMB: Mr. President, regarding the condition of meat in-
spection in my own State, would say that the last legislature passed a
law which I hope will prove to be the beginning of a good system of
meat inspection under State control.

The present law puts all slaughtering, canning, packing or similar
establishments where cattle, sheep, swine, goats, poultry or fish are
slaughtered or prepared for food, and stores, markets, vendors' wag-
ons, and all places where such products are offered for sale, under the
control of the State Veterinary Surgeon, and he is empowered to
close any establishment which he finds to be in an unsanitary condi-
tion. And he is instructed to adopt the Government regulations re-
garding the slaughter of animals and prohibiting the slaughter of ani-
mals suspected of being diseased unless the State Veterinary Surgeon
or his representative is present.

The law at present only provides for one inspector, which makes
it impossible to inspect animals at time of slaughter, but it has enabled
us to pay strict attention to slaughter-houses, markets, etc., and a
vast improvement has been made in the sanitary condition of such
places.

I have made it a part of my business to confer with the city offi-
cials of various cities of the State and urge the necessity of municipal
control of milk and meat inspection, and several cities have passed
ordinances providing for such inspection, and others have it under consideration, and I hope soon to be able to report that all milk and meat offered for sale in Colorado has passed a rigid inspection, either Federal, State or municipal.

The President then called on Dr. Dyson for his paper on "Purchase of Cows for Slaughter Subject to Post-Mortem Inspection."

"Purchase of Cows for Slaughter Subject to Post-Mortem Inspection," by Dr. O. E. Dyson, Chicago, Ill.

Through the courtesy of your Secretary I have the pleasure of being with you today, and while I consider it a great honor to have received his request to address you upon the subject allotted me, that of the "Purchase of Cows for Slaughter Subject to Post-Mortem Inspection," I also realize the fact that he had a definite object in view when the invitation was extended, namely, that your Association acting as guardian of the live stock interests of the various States here represented, desired to sit in judgment upon facts relating to the cause of some difference of opinion regarding the disposition and purchase of dairy cows for slaughtering purposes.

The most serious problem now confronting the American packer who is conducting his establishment under the United States Meat Inspection Department is the losses sustained as a result of condemnations on account of disease, tuberculosis being the principal cause of the losses sustained, as it constitutes at least 95% of the total post-mortem condemnations of both cattle and hogs. For that reason, also that the disease is rapidly on the increase, I am sure that you in your official capacity are vitally interested and anxious to take such steps as would check a further spread of the disease and lead ultimately to its eradication.

That this could be accomplished by concentrated and well-directed efforts on the part of your Association through co-operation with Live Stock Exchanges and the United States Department of Agriculture there is no doubt, owing to the fact that tuberculosis comes well within the scope of most State and Federal laws enacted for the purpose of controlling contagious and infectious diseases of domesticated food animals. That being the case, it would only seem necessary to reason from cause to effect and exercise your authority as Live Stock Commissioners by acting in accordance with the law, in order that the best interests of a large majority of live stock producers might be served.
Much to my surprise, however, no definite policy toward the eradication of tuberculosis by either State or Federal authorities has up to this time been inaugurated, each apparently being unwilling to take a decisive stand or pursue an aggressive policy toward eradication of the principal disease, which, in the opinion of the officers of the United States Department of Agriculture, and most people, renders meat inspection imperative. Notwithstanding the law, the Department, and possibly many State Boards, consider it necessary to await the awakening of the people, who have little conception of their danger as compared between the milk of an infected dairy cow and flesh of tubercular animals; therefore, delay is considered necessary in order, perhaps, that a proper degree of public sentiment may be aroused before any definite action is taken. Just how long the necessary procedure will take I presume no one would care to predict, neither would it be necessary to estimate or take into consideration the increase in the number of animals that would become infected, or the danger to public health through the consumption of milk from tubercular cows in the meantime, or that during the awakening the result of post-mortem condemnations incident to the delay would amount to millions of dollars, as a tribute to the lack of initiative on the part of those upon whom the responsibility now rests.

If, as the U. S. Meat Inspection Department now holds, the flesh of the tubercular animal is dangerous to public health, what is the comparative risk run through the consumption of raw milk by thousands of infants and children in contrast to cooked and thoroughly sterilized meat products consumed by adults? And why should heavy losses be sustained by packers and the expense of meat inspection be borne by the Government, when a greater danger, and the primary cause leading to meat inspection, is being overlooked, or ignored awaiting the uprising of a public demand from a sleeping populace which no one had the temerity to awaken?

The cause of tuberculosis, thanks to Professor Koch, has long been demonstrated and its eradication is not a chimerical proposition in any sense of the word for the reason that tubercle bacilla never develop spontaneously, and infection always depends upon a pre-existing case; consequently destruction or isolation of affected animals effectively removes the cause, a sane and practical principle of modern hygiene. Therefore, a united effort on the part of State and Federal authorities toward eradication of tuberculosis upon a well-established principle would at least serve to arouse the public to their danger, or there be-
ing no danger would relieve the minds of those who now contend there is.

Can it be possible that the dairy interests of this country, at the expense of public health, are to be allowed to dictate the policy of the State and Federal Governments in the matter of eradicating tuberculosis? If so, then it would be useless to waste time and energy in that direction.

In this connection as pertinent to the question at issue, may it not be asked why milk as a food product has never received any consideration by the enactment of State or Federal laws requiring certification of its purity and wholesomeness when offered for sale, when the fact is generally admitted by recognized authorities that the consumption of milk from cows affected with tuberculosis is far more dangerous than consumption of the flesh of an affected animal. Such being the case, can it be considered reasonable or just that those responsible for the passage of the Meat Inspection Law should ignore the primary cause of the need of such a law by absolutely disregarding the health and products of the dairy cow and the notorious fact that she, being affected with tuberculosis, is exclusively responsible for disseminating the disease among others of her own species, and at the same time being a general distributor of the infection to hogs, not to mention the unsuspecting public at large? With this fact in view what, in the name of common sense, is the use of State and Federal Governments making experiments and studying any disease (and especially tuberculosis), from the standpoint of contagion or infection, if resulting knowledge of positive character cannot be applied by the way of preventing a further spread of the disease and lead ultimately to its eradication or its partial control at least?

The question of buying dairy cows subject to inspection that has recently been agitating the minds of the packer, the shipper, and the commission man, serves to illustrate and indicate the need of the establishment of some definite policy toward the eradication or control at least of tuberculosis. Viewing the situation from the standpoint of one with no financial interest involved, I can conceive of no particular or lasting benefits to be derived by the purchase of dairy cows for slaughter subject to post-mortem inspection, other than a saving upon the carcasses condemned. Slaughter and condemnation, of course, end the affected cow's career as a general distributor of infection, but in no way indicate the locality or premises where possibly she has for years been responsible for the infection of many of her own species, and perhaps hundreds of hogs which have been sold to packers only to have their carcasses condemned on account of tuberculosis resulting from
the infection possibly derived from a single cow whose owner may have had no occasion to suspect her infection; and who knows but what milk from the identical cow in question has been supplied to infants and children with the possible result of their infection and death on account of tuberculosis?

Now in the face of all the facts that can be brought to bear upon the question of transmissibility of infection from animal to man, is it reasonable or rational to ignore the dairy cow as a primary source from which a disease that causes one-third of the total deaths in this country may be in part derived? The first step, however, in the matter of attempting to eradicate or control the spread of any contagious or infectious disease would naturally be to locate the point from which the contagion or infection spreads. Therefore, with that object in view I have endeavored to formulate a plan which in my opinion seems feasible, and one that would tend to at least assist in solving the problem that now confronts everyone interested in the future welfare of the livestock interests, not to mention the welfare of mankind in general. The suggestions briefly stated are as follows:

1st. There should be a mutual cooperation between the U. S. Department of Agriculture, Live Stock Exchanges, State Boards of Live Stock Commissioners, and meat packing interests.

2nd. As it is only by making diseased cows unprofitable and healthy cows more profitable that any hope toward the eradication of tuberculosis in dairy cows may be had, laws both State and Federal should be passed, prohibiting the sale within the State, or interstate shipment of milk or milk products from cows unless they have been tested with tuberculin and found to be free from tuberculosis. The test should at least be repeated semi-annually. In order to prevent a scarcity of milk supplies as a result of the enactment of such laws, a provision should be made requiring the Pasteurization and sale as such of all milk products derived from untested cows.

3rd. All interstate shipments of milch cows or cattle for breeding purposes should be prohibited by State and Federal laws unless accompanied by a certificate of health and tuberculin test chart, issued under oath by a qualified veterinarian. The certificate should bear a date of not more than 30 days preceding the shipment. Each certificate should be filed in duplicate, one copy to accompany the shipment, the other to be filed with the State Veterinarian of the State to which the shipment is made. Such a provision, in view of the attempt to eradicate tuberculosis from cattle is absolutely necessary for the reason that many unprincipled breeders of pure-bred stock, in the absence of
such laws are doing more to disseminate the disease in this country than all the other forces combined, and so long as they are able to dispose of diseased animals at remunerative prices without interference, the practice will continue. Provision should also be made by managers of Live Stock Expositions, in the absence of such a law, to prevent the exhibition or the awarding of premiums to diseased animals.

4th. All tuberculin tests should be administered by a qualified veterinarian who should be required by law to file, with the State Veterinarian of the State in which the test was made, a duplicate record of all such tests. All cattle reacting to the tuberculin test should be branded with a permanent and uniform brand conspicuously located and easily recognized. Their isolation, if kept for breeding purposes, should be required by proper and perpetual quarantine regulations.

5th. All cows with well-developed udders and all bulls offered for sale at any public stock yards should bear a numbered tag and be accompanied by the shipper's manifest, showing the identity of the former owner and premises occupied by the animal for a period of three months previous to shipment to market centers; said manifest to be delivered by the shipper through his commission firm to the purchaser. With a view of securing their co-operation in the matter of eradicating tuberculosis, Live Stock Commission Firms should be requested to refuse to handle or offer for sale—except as subject to post-mortem inspection—all such cattle as do not bear a proper mark of identification.

6th. In consideration of such marking, all animals offered for sale at market centers should be purchased and paid for at their market value for slaughtering purposes, and in the event of condemnation of the carcass, the former owner and premises from which the animal was derived should be established by the U. S. Meat Inspection Department by means of the tag number and shipper's manifest, notice should then be given by the United States Department of Agriculture to the State Veterinarian of the State involved in the transaction. Upon receipt of such notice it should be the duty of such State Veterinarian to investigate the occurrence by placing in quarantine the premises from which the animal came until such time as the owner consents to a tuberculin test of all bovine species on the premises. In case of finding infection all cattle reacting to the test should be branded, and either isolated by quarantine for breeding purposes, or together with all swine upon the premises, should be required to be shipped in quarantine to market centers and sold subject to inspection. In this way
only the careless and indifferent stock raiser or dairy man would be affected, and the owner of healthy stock will no longer be required to pay tribute to the cause of disease for which he is in nowise responsible, through a general depreciation in the price of live stock as a result thereof.

7th. As public health is a State as well as a National liability, it should be safeguarded, partially at least, at the expense of each. A full price, however, should not be paid for diseased animals slaughtered and condemned on account of tuberculosis, as that would tend to encourage a continuance of the present practice of carelessness and negligence on the part of owners, which is now so largely responsible for the constant increase and spread of the disease. In view of this fact it would, therefore, seem just and equitable for the State and Federal Governments to apportion and pay not more than one-half of the value of the animal for slaughtering purposes; the owner, by collecting for the hide and offal of the condemned carcass, would then be well repaid for the loss of a diseased and dangerous animal, while at the same time public health and live stock interests in general would be safe-guarded from danger, or the spread of infection from that source.

8th. Last, but not least, is the general need of educating the public mind to see the danger to health through the milk supply from cows affected with tuberculosis. Breeders and dairymen will necessarily have to be forced to comply with laws enacted as a result of public education.

In proof of the fact that the future welfare of the live stock interests of this country demands your immediate attention in the matter of eradicating contagious and communicable diseases among live stock, it is only necessary to state that the losses now sustained by packers as a result of condemnations by the U. S. Meat Inspection Department on account of tuberculosis alone amounts to more than three million dollars per annum, and, as a result of the constantly increasing spread of the disease, an increase of 25% per annum would be a conservative estimate of the future losses under existing conditions, which could be attributed chiefly to inactivity on the part of the State and Federal authorities, in whose care the destiny of the live stock interests is entrusted. That there would be opposition to any effort on your part to eradicate tuberculosis, there is no doubt; but to those who take the initiative and carry into effect a practical solution of the problem, there will be erected in the minds of the thinking public a monument that
time will never efface. That now is the time in which to undertake the task before you cannot be denied, and I hope to see the day when every member of the various State Boards present will be the recipient of honor and praise for wise and vigorous action in the cause of humanity and the live stock interests by taking an active part in the eradication of tuberculosis.

DR. A. D. MELVIN: Replying to Dr. Dyson’s paper intimating that the National Government had been neglectful of its duty in not attempting to eradicate tuberculosis, I wish to state for the information of the Association that this statement is eminently unfair, in my opinion, for progress has been made as fast as public sentiment would permit.

In a work of this kind it is absolutely impossible to make permanent headway unless those in authority have the co-operation of a considerable proportion of the stock owners as well as the support of the general public.

In the eight provisions for a plan of campaign outlined by the writer, the last one is for the education of the public mind. My opinion is that it should have been given first place. It is our duty as sanitarians to point out to the people the danger to their live stock and to themselves from the various diseases; but to undertake radical measures before the people are ready to sustain them, would probably result in all work of eradication being done away with, at least for some time to come. This is particularly so with tuberculosis, which, on account of its insidious nature, does not produce the alarm which malignant diseases do.

The Bureau has for some months been endeavoring to locate the various centers of infection with the view of quarantining such centers in the event of the State authorities failing to take action, and it is probable that further steps will be taken in the near future looking to the prohibition of interstate shipments of stock known to be affected with tuberculosis. Whenever it is possible to trace disease from the slaughter-house to the farm, the attention of local authorities is called to the matter in order that they may take suitable action.

The study and experimental work that has been done by the Bureau; the testing of imported cattle, and the distribution of tuberculin should all indicate that there is no indifference upon the part of the Government to the seriousness of this disease.

DR. O. E. DYSON: Referring to Dr. Melvin’s remarks, my contention with reference to inactivity on the part of the Department is
that no effort is now being made to enforce statute laws with reference to interstate shipments of cattle affected with tuberculosis. While I fully appreciate the necessity of arousing public sentiment in favor of a crusade against tuberculosis in animals for the purpose of eradicating the disease, I do not consider that a crusade should be necessary to secure the enforcement of existing laws, especially so when the laws in question are vigorously enforced against other contagious diseases, namely, scabies in cattle and sheep, infections that are entitled to no consideration whatever when judged from the standpoint of public health. Furthermore, the Department is strenuously enforcing the post-mortem condemnation of the carcasses of animals affected with tuberculosis when slaughtered under the supervision of the U. S. Meat Inspection Department. It must also be admitted that the danger to public health from an affected milch cow through her products, or in fact, her mere existence when allowed to roam at large, is a thousand times greater than from the flesh of her carcass, for the reason that the live animal acts as a general distributor of infection to all species of animals as well as to mankind.

With the exception of my reference to inactivity on the part of the Bureau with a view to prohibiting the interstate shipment of cattle affected with tuberculosis, and thereby confining the disease as much as possible to circumscribed areas, I believe that Dr. Melvin fully agrees with my contentions as a whole, which, to be specific, are:

1st. That the greatest danger to public health from tuberculosis affecting live stock is the fact that dairy cows are universally permitted to act as general distributing agencies of the infection.

2nd. That in passing the meat inspection law, Congress ignored the primary cause of the need of such a law by failing to make some provision to stop the spread of tuberculosis in food-producing animals, especially in cattle of dairy breeds, thus preventing the infection from spreading direct to man through consumption of milk and butter products; an undisputed, constant, and notorious source of contagion to which the human family is constantly exposed to a degree that can only be appreciated by those familiar with the disease as it exists in dairy cows.

3rd. That in the absence of well-defined laws dealing specifically with the question of tuberculosis, there is an urgent need of cooperation on the part of State and Federal authorities with a view of enforcing such laws or regulations as are applicable to the present and urgent demand.
4th. Public sentiment may in time rise to the occasion of demanding the eradication of tuberculosis in dairy and food-producing animals; the act, however, may be delayed until it will then be practically an impossible task except by a complete destruction of the species.

In the meantime I contend that much can be accomplished by the full and complete enforcement of both State and Federal laws dealing with the question of contagious and infectious diseases affecting live stock. To exempt animals infected with tuberculosis from the operation of such laws would in my opinion be equal to ignoring or denying the fact that tuberculosis is a contagious disease.

Dr. Lamb then read a paper on "The Relation of the State Veterinary Surgeon and the Live Stock Sanitary Boards to the Public Health."

"The Relation of the State Veterinary Surgeon and the Live Stock Sanitary Board to the Public Health," by Dr. C. G. Lamb, State Veterinarian, Colorado.

I have chosen this subject for consideration today because I am positive we are prone to forget or overlook the great field that we, as sanitarians, are standing on the edge of, and which stretches out before us almost limitless in its extent of usefulness and possibilities, not only to ourselves and our profession, but more especially to the public at large. In almost every State there is a Sanitary Board and State Veterinarian appointed for the purpose of preventing the introduction into the State and the spread within the State of contagious and infectious diseases among animals, and also a State Board of Health to prevent the introduction into the State and the spread within the State of contagious and infectious diseases among the people of the State. Here are two boards working along parallel lines, both intent upon the same object, so far as it relates to their especial department. And when I say along parallel lines, I say so advisedly. The definition of parallel lines as it was taught me was "two lines in the same plane which will never meet tho' produced ad infinitum," and that seems to be a correct description of the sanitary boards as compared with boards of health—they never meet. Here are two boards, many interests of which are identical and still the boards remain parallel, i. e., they never meet. It is becoming more thoroughly understood, and the public generally, as well as the veterinarian and physician, are beginning to realize that very many of the diseases of the human family are contracted from or may be influenced by the health of some member of the animal kingdom. This is especially true of
that terrible scourge of the human family, tuberculosis. For many years the theory advanced by Koch that human and bovine tuberculosis were separate and distinct diseases and not inter-communicable has had many followers and the result has been that comparatively little attention has been paid to the bovine tuberculosis, as it was thought that it was simply a matter of dollars and cents affecting only the owner of the particular animal infected; but the more recent investigations have convinced me, and I presume a great many others, that bovine and human tuberculosis are identical and inter-communicable. The idea seems to be borne out not only by the experiments of the investigators, but by practical, every-day experience. I read that in the city of Rochester, N. Y., after pure, healthy milk was insisted upon and obtained the mortality among children decreased 50% during July and August, and 30% during the remaining ten months. While I have no means of knowing what the previous mortality had been, I assume that, in a city of the size of Rochester, a very conservative estimate would be one hundred a month. Assuming this to be approximately correct, we can see that during July and August one hundred children would be saved, and thirty a month during the other ten months, making during the twelve months 400 children saved in that comparatively small city. If this be true, and I have every reason to believe that it is true, how many children could be saved in the State of New York, if every child in that great and populous State could be given good, clean and healthful milk? What is true of the State of New York is more or less true of every State in the Union. Great though the monetary value of dairy cows is, who shall say how many innocent, helpless children it would take to equal that value? I say that though every dairy animal in the State of New York had to be sacrificed to obtain the result that was obtained in Rochester, that the price was small. We read from the report of Dr. Wiley that of one thousand mother-nursed children, the mortality is forty, or four per cent., while in un-mother-nursed children, the mortality is two hundred and twenty, or twenty-two per cent. per one thousand.

When we read from the Government reports that the increase of tuberculosis among hogs as shown by inspection at time of slaughter amounts to six hundred per cent. in the last five years, and when we consider that the probable source of this remarkable increase is the drinking of tuberculous-infected milk, or following tuberculous cattle, it must cause us to look with great suspicion upon the cow as a very probable source for this very serious condition, and while it is probable that a great many of the deaths among children were from causes
other than tuberculosis, still we must bear in mind that of all the
deaths from any cause at all ages, one in seven is caused by tubercu-
losis; it can be readily understood that a large majority of children
born are born with a tubercular diathesis, and only need an exciting
cause, such as would be furnished by the taking of tuberculous milk,
to produce tubercular peritonitis, tubercular meningitis, or tubercu-
losis in almost any of its various forms. Milk is of course the uni-
versal and sole food for children and they seem to be particularly sus-
ceptible to tuberculosis or any other disease that is carried through
this medium, and in all experiments where tubercular material is
obtained from several sources, that obtained from children seems to
be particularly active and virulent. That tuberculosis is extremely
prevalent among dairy cows is proven, or rather substantiated, as it
is proven wherever and whenever the tuberculin test is made, by the
recent action of the packers in refusing to buy this class of animals
except subject to post-mortem inspection; so many were condemned
and tanked on account of this disease that this action became neces-

What is true of milk is true in a very much lesser degree in meat;
while milk is the universal and sole food of children at a time in life
when they are particularly and especially susceptible to the influences
of their food, meat is simply one article of food for those of maturer
years when not so susceptible to the influences of their food.

Tuberculosis being primarily a disease of the glands and not of the
muscles, there are comparatively few cases that, in the ordinary pro-
cesses of dressing the animal, the entire diseased portions are not re-
moved and people eat every day the flesh of hundreds of animals that
in life were more or less affected with tuberculosis.

That the general public does not understand the difference be-
tween these two classes of food is demonstrated by the fact that they
demand that their meat be inspected both anti- and post-mortem, and
are demanding that their meat bear the mark of inspection while they
continue to use and to feed to their children milk from a source of
which they know and apparently care nothing. When this matter is
properly and thoroughly understood by the people generally, they will
rise up in their might and demand that they be protected in this matter
and demand that such means be taken as will assure them that all milk
offered for sale in their particular city comes from cows free from this
disease of tuberculosis and that it has not been contaminated by tuber-
culous milkers or others, and that in its coming it has been protected
from contamination from this or any other disease, and when the peo-

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ple demand these things they will get them and probably not before. And I venture the assertion that when the universal testing of dairy cows obtains and the public is served with milk absolutely free from this disease, and all tuberculous cows taken to the slaughter-house and again subjected to a rigid post-mortem examination and tanked if necessary, we shall see an astonishing decrease of tuberculosis among the people and we shall have taken a very long stride, I may almost say a leap toward the eradication of the dreaded white plague from the human race. This much-to-be-desired result can only come about by the education of the people and in this education the State Veterinarian and the Live Stock Sanitary Boards must take a prominent part.

Two things are necessary, it appears to me, to produce results in any campaign of education. First, an educator well informed himself on his subject and enthused with its importance and the necessity of imparting his knowledge to his pupils and imbuing them with some of his own enthusiasm; and secondly, pupils who are anxious to be informed of the subject under consideration, and I am sure in this work we have both of these conditions before us and I believe now is the proper time to avail ourselves of these conditions, and I believe that we, as sanitarians, are the proper persons to put our combined shoulders to this great wheel which is just at a balancing point and give it a move in what I believe to be the right direction. Physicians are almost as well informed on these matters as we are, but for some reason do not seem inclined to push the matter as they should; but, so far as my experience has gone, it has shown me that with the veterinarian to take the initiative they are ready to lend their aid, which is very considerable, and the public, viewed in the light of pupils, are certainly anxious to learn more of these matters—they are groping almost helplessly in the dark and constantly inquiring "cannot something be done to check at least in a measure this terrible scourge that is taking so many of our loved ones," and I think we can truthfully answer this despairing cry in the affirmative and say to them, "Yes, be sure your food, particularly the milk, is free from it, and the decrease in this disease will be astounding," and how eagerly they will grasp this raft that is to carry them over the slough of despond in which so many are sinking. But this can only come about by educating the people to its truth, if we believe it, and to the necessity of its universal adoption. In matters of this character pertaining in any way to the lower animals, the public gen-
erally look to the veterinarian for instruction and information, more especially to the State Veterinarian, if he is a man in whom they have confidence; hence I say that he, on account of his official position, is in a position to be of incalculable service to the people of his State by taking the initiative in this education, and one of his very first pupils should be the State Board of Health. The members of this Board are almost invariably physicians, who only need to be reminded of the supreme importance of healthful milk to the public health to make them coworkers with us in this matter, not only in their official capacity, but also as helpful missionaries, as practitioners, in their several communities. This assistance I consider invaluable, as the influence of the State Board of Health both politically and otherwise is far-reaching. It seems to me that the State Veterinarian should in all cases be an ex-officio member of that Board, if not an actual member; meet with them, consult and confer with them and they with him, to the end that instead of being parallel, their work shall merge to a much larger extent than it does at present, and at these conferences we should urge the importance of this matter; that we should confer with the various city health officers and insist that the dairy cows furnishing milk to their several cities be tested; that especial attention should be paid to the sanitary conditions of the dairy barns; to the character of the food and water of the cows; to the careful washing and sterilizing of all cans, bottles, etc., impressing upon them the readiness with which various diseases are disseminated with milk as a medium; give the matter publicity through the press and in every possible way increase the knowledge of the public upon this subject. We owe it not only to the public generally from the standpoint of health, but also to the owner of the cows who, in most cases, is ignorant of the fact that the presence of one or more affected animals in a herd may contaminate the entire herd; consequently he is interested in a financial way. The disposition of reacting animals has been a very serious handicap to the enforcement of these tests. In States where the reacting animals have been destroyed and a percentage of the appraised value paid by the State, the cost has been so great as to almost prohibit its being done. If it were proposed to kill reacting animals without reimbursing the owner the opposition would be so great that it would be practically impossible to enforce a test of this kind. In Colorado, the Stock Inspection Commissioners, at my instance, met the condition in this way. They passed a regulation that when any animal was tested by a qualified veterinarian and pronounced tuberculous, that the animal should be branded with a perpendicular line at least three inches long between the eyes. The location of the brand being an unusual one would at once attract the
attention of any intending purchaser, and the presence of an animal thus branded in any dairy would at once be observed and she would ever afterward be known as an animal that had been tested and found diseased. This would of course debar her from any dairy herd, but would not necessarily destroy her value, as she could still be fattened and sold for beef, the owner taking his chances on the result of the post-mortem examination.

Whatever means are adopted and however the details may be arranged, I think that we, as veterinarians and sanitarians, should be in the forefront in urging the importance, yes, the necessity, of testing all dairy cows for tuberculosis, and insisting that proper sanitary conditions shall prevail around all dairies both as regards the cows and handling of milk from the cow to the consumer.

I believe that we all realize that here is a large field for usefulness and in it we may do untold good for our kind. Let us roll up our sleeves and march into it determined to do our best and I am sure we shall be pleased with the results of our labors, and when we lay-down our work how gratified we shall feel if the verdict shall be, "He has done what he could."

The meeting then adjourned until 1:30 p. m.

**TUESDAY AFTERNOON.**

The meeting was called to order at 1:30 p. m. by the President. President Luckey introduced Dr. Levy, Health Officer of the city of Richmond, who addressed the meeting on "Local Milk Inspection."

The President then called on Dr. Austin Peters for his paper on "State Control of Rabies."

"Rabies and Its Control," by Dr. Austin Peters, Chief of the Cattle Bureau of the Massachusetts State Board of Agriculture.

Mr. Chairman and Gentlemen: Rabies and its control is a matter of great interest an importance at the present time to such an Association as this, owing to the prevalence of this dangerous and troublesome disease in various portions of the United States during the past few years.

In Massachusetts there has been an outbreak of rabies covering a period of nearly three years, assuming during the past winter proportions of almost an epizoötic character, and during this time it has prevailed quite as extensively in Rhode Island and Connecticut, and there have been a few cases in southern New Hampshire and Vermont. Prior to its reappearance in Massachusetts three years ago the coming
winter it was quite prevalent in New York State, and has also been in
evidence in many of the large cities in different parts of the United
States. The extent to which this disease exists in different parts of
the country is better known, of course, to those coming from localities
where it is in evidence. I can only give figures that are authoritative
from my own State.

The word rabies is derived from the Latin rabies. The disease
has been known since the earliest antiquity, and has been mentioned
in the writings of the oldest authorities upon matters connected with
medicine.

Aristotle describes it in the fourth century B. C. He writes:
“Dogs suffer from madness which puts them in a state of fury, and all
animals that they bite, when in this condition, become also attacked
by rabies.” Allusions are made to rabies in the works of Virgil,
Horace, Ovid and Plutarch. Aurelius Cornelius Celsius, a celebrated
physician who lived in the first century of the Christian era, was the
first to describe human rabies and to employ the term “Hydrophobia,”
a word derived from the Greek, and meaning “a fear of water.”

It has been stated that rabies has existed in England from time
immemorial, until within the last four or five years, and it still prevails
extensively in various parts of Europe. Rabies must have been quite
prevalent in London in the middle of the eighteenth century to have
inspired Oliver Goldsmith to write his “Elegy on the Death of a
Mad Dog:”

“Good people all, of every sort,
Give ear unto my song,
And if you find it wondrous short,
It cannot hold you long.

“In Islington there lived a man,
Of whom the World might say,
That still a Godly race he ran,
Whene’er he went to pray.

“A kind and gentle heart he had,
To Comfort friends and foes;
The naked every day he clad,
When he put on his clothes.
"And in that town a dog was found:
As many dogs there be—
Both mongrel, puppy, whelp, and hound,
And curs of low degree.

"The man and dog at first were friends;
But, when a pique began,
The dog to gain some private ends,
Went mad and bit the man.

"Around from all the neighboring streets
The wondering neighbors ran;
And swore the dog had lost his wits,
To bite so good a man.

"The wound it seemed both sore and sad
To every Christian eye;
And while they swore the dog was mad,
They swore the man would die.

"But soon a wonder came to light,
That showed the rogues they lied—
The man recovered of the bite;
The dog it was that died."

Whether or not Oliver Goldsmith foresaw that some day a means for preventing hydrophobia would be discovered we do not know; as a young man he studied medicine, but it is not thought that he knew very much about it.

When rabies was first imported into North America is not known, but the following clipping from the Providence Journal, which appeared in its columns during the latter part of August of last year, appears to indicate that it occurred here more than a hundred years ago:

"The following extract from the Boston Gazette, of Feb. 12, 1797, has been sent to the Journal by a correspondent in Washington who has been reading the recent stories about mad dog scares in various parts of Rhode Island:

"Mad Dogs."

"On the 22nd ult. there appeared in Providence Neck a strange Dog, which fought with another till beaten off; after this as a man
was riding his horse to Water through a footpath, he met the first-mentioned dog, which bit the horse near the breast. The dog went thence about a mile, and entered a barn by a window. The owner afterward going in was bit on the knee. He pursued the dog, accompanied by some neighbors, and found him engaged with a black woman, who defended herself with a tub she had in her hands.

"Being drove off he ran to a neighboring house, and crawled under the lintel, where he was shot. Happy for the person bitten he had on thick breeches, drawers and stockings, but it is hoped that the linen and the woolen, through which his teeth passed, so far cleansed them as to prevent the flavor communicating; the person is however so much alarmed as to have applied to several physicians for directions to prevent the dreadful effects which often ensue and is pursuing the remedies pointed out.

"The dog which fought with the mad one was much bitten and is secured. In Freetown, Swansey, and Bristol, several animals have been bitten by dogs supposed mad, and a child in the country northward is said to have died not long since from the bite of a mad dog. There being many more of these animals in Providence than are usual some further regulations seem necessary for the preservation of our citizens.

"No specific remedy has yet been published for the hydrophobia after it appears. It is recommended as soon as a person is bitten, to wash the part freely, and either cut out a piece of flesh, or dilate the orifice so as to make it bleed freely, washing off the blood for the same time, and then to keep open the wound by suitable dressings for a length of time, as no pains should be spared to prevent the poison being absorbed, this being to present almost the only hope of safety. Many in times past have been bitten and not affected; but when the affection has been so great as to occasion a dread of water, it is presumed none have recovered.

"Since the above was penned the writer was informed of a man at India Point having been bitten in the hand by a strange dog, possibly the one above mentioned. A cow bitten in the street about six weeks since by a strange dog, ran mad last week and has been killed. One or more dogs have been killed in town, on showing symptoms of madness. A bitch that attacked her pups, killed some and wounded others, was immediately shot. Great care and caution are recommended."

The disease is also known in South America and the West Indies. The present outbreak seems to be simply a case of history repeat-
ing itself, similar epizootics occur every eighteen or twenty years, and although the present one may seem to be more extensive than any previous one, it must be remembered that our population has increased amazingly, and with it the increase in the canine population has kept pace; furthermore, a better and more complete record of the cases has been kept during this outbreak than in any other heretofore.

Prior to the present outbreak, Massachusetts appears to have been practically exempt from rabies for several years. There was not a single authentic case reported to the Cattle Bureau from September, 1903, to November, 1904, when a case was reported in a dog owned in Somerville, and in December a case was reported in Milton. Since then a number of serious outbreaks have occurred in various parts of the State. While it was quite prevalent in 1905, it increased alarmingly in 1906, and up to the present time seems to be even more prevalent than in the two previous years.

During 1905 there were 98 cases in dogs, five in cattle and one in a pig; two persons died in Lowell after returning home from New York, where they had taken the preventive treatment, but these persons were badly bitten on their faces and hands.

In 1906, for eleven months ending Dec. 1, two hundred and eighty-eight cases occurred in dogs outside of Boston, 38 in cattle and 6 in horses. In Boston the veterinarian of the Boston Board of Health states that there were 38 cases in dogs. A dog quarantined in 1905 also died of this disease after Jan. 1st, 1906, making a total of 327 dogs to have rabies in the eleven months ending Dec. 1st, in Massachusetts and Boston.

One hundred and ten dogs were proved by Dr. Frothingham's examination to have been rabid in 1906, also seven cows, two horses and a boy. The other dogs outside of Boston reported as rabid were clear cases, most of them having a history of a bite from a rabid dog, and the cases diagnosed by agents of the Cattle Bureau.

Since the first of last December rabies has been fully as prevalent and troublesome in Massachusetts as it was before that date. The following figures, covering the period from Dec. 1, 1906, to August 31, 1907, inclusive, show how extensively it has prevailed during the winter and early spring:

<table>
<thead>
<tr>
<th>Cases or suspected cases reported, including animals quarantined because in contact with rabid dogs.</th>
<th>1534</th>
</tr>
</thead>
<tbody>
<tr>
<td>Persons .............................................</td>
<td>2</td>
</tr>
<tr>
<td>Dogs .................................................</td>
<td>1464</td>
</tr>
</tbody>
</table>
Horses ........................................ 11
Cattle ........................................ 27
Swine ......................................... 12
Cats ........................................... 18 1534
Released as healthy after inspection .... 294
Died, or killed as rabid ..................... 513
Killed after exposure, with owner's consent 456
Killed, suspicious stray dogs, etc........ 25
In quarantine, August 31, 1907 ........... 246 1534

Laboratory Examinations.
  Positive (including one man) ........... 165
  Negative ................................... 29
  Undecided .................................. 14

Total ....................................... 208

Besides the animals reported there were seven human deaths from this disease prior to Dec. 1, and two since. The history in most of these cases has been that the victims were bitten by stray dogs, which they did not know to be rabid, and developed symptoms later and died without realizing that it was necessary to take the Pasteur preventive treatment.

In spite of this array of facts many persons can be found in the community who do not believe in the existence of this disease, or if they do are so fond of dogs that they are opposed to muzzling or restraining orders for its suppression. Many of these persons are people of ordinary intelligence, of fair education, and are apparently sane in other respects. One would think that if these pseudo-dog-lovers have no regard for the lives and property of their fellow citizens they ought at least to realize that it is desirable to eradicate this disease in the interest of and for the protection of the very animals they profess to love, as it will be quite as much of a benefit to the dog population to have this outbreak terminated as it will be to other members of the community. If it could be explained to dogs of ordinary common sense and average unselfishness that if they would consent to wear an efficient muzzle or submit to restraint for the next six months the disease would practically disappear, any decent dog would gladly submit to these restrictions. Homeless and ownerless dogs would be quite as well off if humanely destroyed, as they are prowling about in a half-starved condition. The canine population is quite as much the victim of its friends as is the rest of the community.

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Symptoms.

There is little time to say much about the symptoms of rabies in dogs and other animals, but I will refer briefly to this phase of the subject. In Massachusetts the law requires owners of dogs to license them, and the law also provides that the Secretary of the State Board of Health shall furnish a description of the symptoms of hydrophobia to be printed on the back of each dog license. There is much useful information to be derived by reading the back of one of these licenses. First, attention is called to the fact that the law requires that every dog over three months old shall be licensed, and that each licensed dog shall wear a collar around his neck with a plate, upon which the owner's name and the license number shall be engraved. If this provision of the law were better enforced, and all unlicensed, homeless, ownerless dogs, and dogs whose owners did not provide collars prescribed by law were humanely destroyed, it would be a great safeguard to the public. Half or two-thirds of the dogs which have appeared in towns with rabies and bitten other dogs, animals or persons, have had no collar, or at least no collar with a plate upon it to show who owned the animal or where it came from.

Next on the license is some information upon the treatment of dogs, and the diseases of dogs, which does not seem essential to a dog license. Following this is a description of the symptoms of hydrophobia, which commences by stating that when rabies does not prevail it is a rare disease, and when it does it is not uncommon, and has a tendency to become epizootic; the symptoms then described give a very good idea of the behavior and appearance of a dog with either dumb or furious rabies. Then follows some excellent advice upon the course to be pursued by persons bitten by dogs supposed to be rabid, and also upon the treatment of a dog which has bitten anyone.

Persons are advised against the folly of calling a dog rabid because it bites someone and immediately killing it before it is definitely known whether it has rabies or not. In such cases the dog should be confined and kept under observation for several days; if at the end of a week it is apparently healthy no apprehension need be felt because of rabies. Never use a rope for tying-up a dog under these circumstances, as it may gnaw it in two and escape. The owner of a licensed dog is also cautioned not to turn a dog loose to shift for itself because it appears to be sick or acts strangely, advice that has been disregarded with unfortunate results in many instances. Josh Billings said, "the meanest thing a man can do to another except doing him an absolute injury is to do him a favor and then keep reminding him of it all the
"But it is meaner still to kick a poor sick dog out of doors when you don't know what ails him."

It is also recommended in conclusion that the head of a dog supposed to have had rabies should be sent packed in ice to the Cattle Bureau, or to any laboratory equipped for making an inoculation test, in order to determine whether or not the animal had this disease at the time of his death.

Dogs developing rabies often act as though there was an obstruction in the throat, due to the difficulty in swallowing because of the paralysis of the pharynx. In these cases don't put a finger down the dog's throat in an attempt to remove the obstruction, as it is often followed by disastrous results. It is dangerous to put the finger or hand in a rabid dog's mouth even if it should not bite, as the skin might be abraded by a scratch from a tooth, or the virus may be absorbed through a fresh cut or scratch on the hand not inflicted by the animal's tooth. Many a veterinary surgeon has found out the danger of such a procedure to his cost. There is also to be noticed the partial paralysis of the lower jaw, the staggering gait, snapping at imaginary flies, the tendency to swallow foreign bodies, such as bits of wood, small stones, feathers, bits of leather and the like. There is often a disposition to run away from home when the disease is about to manifest itself; the animal may be gone a day or two and then return, or may never come home. Rabid dogs frequently run many miles from home, from twenty to forty or fifty not being an unusual distance to travel. A change in disposition is another premonitory symptom, the animal acting more affectionate than usual, or becoming morose. There may also be a change in appetite, a fastidious dog becoming voracious, and vice versa.

It is not unusual when the disease is developing for the patient to become sensitive, acting affectionately, and if scolded by the owner for attempting to lick the face and hands to suddenly take offense and snap at him. The drooping of the lower jaw, and acting as though there were an obstruction in the throat, are not constant symptoms, and may be absent in some cases.

The change in the voice and some of the other symptoms are sufficiently described on the back of each dog license, already referred to. Rabies in other animals, such as horses, cattle, pigs and cats, is manifested by similar symptoms; that is, there is the preliminary excitement, paralysis of the pharynx, salivation, and later staggering gait from loss of nervous power, followed by complete paralysis and death. In cattle there is a tendency to paralysis of the lower jaw,
shown by its drooping, with salivation, inability to swallow, and excitement, the animal in the early stages having a tendency to be violent. Horses frequently tear at the seat of the bite with their teeth, and also may bite or kick at anyone who approaches. Pigs run around their pens squealing, and are also inclined to bite. The disease usually lasts in these animals from four to six days. Cats with rabies frequently have a desire to bite and scratch, and their bites are very dangerous; the disease usually lasts from two to four days.

There seems to be but little danger of rabies being spread except by dogs, or the dog family, such as wolves and foxes (possibly skunks), and not much danger from the bites of any except carnivorous animals, such as the canine family and cats. Out of twelve thousand persons bitten by rabid animals, Pasteur found that eleven thousand were bitten by dogs and over seven hundred by cats. The horse, ox and pig as factors in spreading rabies do not have to be considered.

There are many conditions that may be confused with rabies in dogs and other animals. Some of the affections in the dog that give rise to symptoms suggestive of rabies are: hyperaemia of the brain, parasites or tumors in the brain, distemper, epilepsy, inflammation of the stomach or intestines, intestinal parasites, pharyngitis, bones or other foreign bodies wedged between the teeth or in the throat, parasites (such as the Pentastomum taenoides) in the nasal passages, sunstroke, and a number of others. In the bovine, tuberculous meningitis, lead poisoning, indigestion causing symptoms of brain disturbance, and sunstroke, are some of the conditions that might lead to a mistaken diagnosis of rabies. In horses, cerebro-spinal meningitis, forms of indigestion causing symptoms of cerebral disease, abscesses in the brain, and sunstroke, are a few of the departures from the normal that may simulate rabies.

The importance of verifying a diagnosis of rabies in the dog as early as possible if it has bitten persons or other dogs is self-evident. The discovery of the Negri bodies has made it possible in most cases to do this within a day or two of the time of the dog's death, and thus valuable time is saved for persons who have been bitten, and it can be decided if it is necessary to have recourse to the anti-rabic treatment much earlier than formerly when the results of inoculation tests could not be known for about two weeks from the time the dog's head was received at the laboratory.

Great Britaïï furnishes the best demonstration that rabies is a disease that can be controlled and eradicated, as it has been entirely extirpated in England and Scotland, not a case having occurred there
since 1903, while prior to that year it had existed there for centuries. The number of human deaths from rabies recorded during fifty years, from 1848 to 1898 inclusive, was 1112; the largest number in any one year was in 1877, when 79 deaths due to hydrophobia were recorded as having occurred among people. (Vide 17th Annual Report U. S. B. A. I.) The number of cases of rabies in England reported among animals in 1895 was 672, a remarkable increase over any previous year. In 1894 the number of cases was 248. It is said the perpetuation of this disease was due to stray dogs. Of the 672 cases reported as occurring in 1895, two hundred and seventy-three were of this class, and it is suggested that the only means of eradication is to seize the ownerless animals. In the above total are included 55 other animals, five of them being cats. The seizure and slaughter of ownerless dogs as suggested in 1895, and muzzling those that had homes, materially reduced the number of cases of rabies in 1896. During this year 438 cases were reported, and 323 dogs were killed because they had been exposed to the infection. Nearly a third of those attacked were stray dogs. (Vide 14th Annual Report U. S. Bureau of Animal Industry.)

The 16th Annual Report of the U. S. Bureau of Animal Industry states that since 1897 the authorities in Great Britain have been endeavoring to eradicate rabies from the country, not only in the interest of the canine race, but also that of the human being. The muzzling order was enforced wherever necessary in the judgment of the authorities, and inspectors were employed to trace dogs that had been in contact with rabid dogs. Where such dogs were not killed they were isolated for a period of six months. The efforts in this direction are said to have met with marked success, and Dr. Cope (then Chief Veterinary Officer of the British Board of Agriculture) says that: "Unless the disease be again introduced from without, the date of its eradication is apparently not far distant."

In the 18th Annual Report of the U. S. Bureau of Animal Industry, it is stated that "Not a person died of hydrophobia in Great Britain in 1900, the first time in fifty-two years that there had not been a human death from this disease." Dr. Cope says: "It may truly be said that the board has never undertaken a duty which has rendered so great a service to the community of this country, from the point of view of human health, as the extinction of rabies in the dogs." In the 21st Annual Report of the U. S. Bureau of Animal Industry, Dr. Cope is quoted as follows regarding rabies: "The last case of rabies confirmed in this country occurred in the month of December, in the
year 1902, and as a diligent search has failed to discover any other, it is believed the disease is now extinct in the United Kingdom."

The above record of this great work and the results accomplished shows what can be done by the government when the people are thoroughly aroused to the importance of the situation. At present no one is allowed to bring a dog into England from any other country without keeping it in quarantine for six months, and having it examined from time to time by a veterinary surgeon.

Rabies has never been known in Australia, as every dog brought there must be kept in quarantine for six months after being landed.

Of course England and Australia are happily situated, as no dog can run in from any surrounding country.

For the sake of comparison the number of cases of rabies in France for a single year may be interesting. In 1904 there occurred there 2,393 cases of rabies.

In most of our older States I believe there is ample legislation for the regulation of the dog problem, such as laws requiring owners to license them, to provide collars bearing plates upon which are inscribed the address of the owner and the license number, and the appointment of a dog officer or officers in each city and town to see that ownerless, stray and unlicensed dogs are killed off each year, after giving owners a reasonable length of time in which to secure licenses for their canines. In many States the local authorities also have ample power in the event of an outbreak of rabies to require that all dogs shall be properly and securely muzzled or restrained from running at large.

The difficulty seems to be that in many communities the local authorities are lax in the enforcement of such orders, and while the laws are good they are rendered inoperative because of their non-enforcement.

The same difficulty was met with in England, where it was found that much more rapid progress was made in the eradication of rabies when muzzling and restraining orders were issued by the Board of Agriculture than when they were issued by the local government boards. Muzzling orders particularly are often not properly enforced, and dog owners use so-called muzzles that are inefficient because they do not prevent a dog from biting. A restraining order well enforced is better in many respects than an order to muzzle or restrain. Then the muzzling order does not as rule cover a sufficient length of time, and again one town may issue a muzzling and restraining order and the next town may not, and therefore the order does not cover a sufficiently large area of contiguous territory, especially when one takes
into consideration the distance a rabid dog frequently runs. In these cases the State authority should assert itself to secure co-operation between communities and a stricter enforcement of law.

One difficulty in managing rabies is due to the varying period of its incubacy, as a dog may develop rabies in two or three weeks after being bitten, or it may go four or five months or even longer before showing symptoms.

In Massachusetts there is an officer in every city and town known as the inspector of animals, who is responsible to the Chief of the Cattle Bureau, and who has authority to quarantine any domestic animal that is suffering from, or may be infected with, a contagious disease. After he gives the owner of the animal, or the person in charge, a notice of quarantine, he sends a duplicate to the Chief of the Cattle Bureau, who deals with the case according to the requirements of its condition.

When the danger and seriousness of such a disease as rabies is considered it would appear to be of sufficient importance to warrant the Bureau of Animal Industry of the United States Department of Agriculture to take the matter up under the authority given by Act of Congress to the Secretary of Agriculture.

If the various State Veterinarians, live stock sanitary boards, cattle commissioners, or whatever the authorities having control of the contagious diseases of animals in the different States may be, could be required to report annually to the Chief of the U. S. Bureau of Animal Industry upon the prevalence of contagious diseases among animals in each State, and then the United States authority could prohibit taking dogs from States in which rabies existed into any other State, it would be a great protection.

Of course in many States I understand that the State authority can prohibit bringing in dogs from any other State, but the sentiment of the community does not always support such regulations. Local sentimentality of this kind would probably have less influence with the United States Secretary of Agriculture.

The United States Department of Agriculture should, as the writer has said in a previous paper read at one of these meetings, prevent the shipment of tuberculous cattle from one State to another, and should also check the interstate shipment of glandered horses.

Although rabies has been stamped out in Great Britain, the English Board of Agriculture recommends a continuance of the rigid enforcement of the law requiring dogs to be duly licensed and collared, for the protection of cattle and sheep against worrying. It also has authority in localities where the necessity exists, to order all dogs,
or certain classes of dogs, to be restrained between sunset and sunrise. There is also a provision in the English law exempting owners of dogs from paying licenses on "dogs kept and used solely for the purpose of tending cattle and sheep on a farm." In 1906 in Great Britain, under this provision of the law, 1,664,824 dogs were licensed, and certificates of exemption were granted to 347,039.

The Year Book of the United States Department of Agriculture for 1906 gives the following figures for the live stock in the United States: Cattle, 74,150,422; Horses, 22,683,881; Mules, 3,990,908; Sheep, 53,471,301; Swine 56,612,114.

The report of the English Board of Agriculture shows the following number of farm animals in Great Britain in 1906: Cattle, 7,010,856; Horses, 1,568,681; Sheep, 25,420,360; Swine, 2,323,461.

That is, we have one sheep to 1.38 neat cattle, and one sheep to 1.05 swine, while in Great Britain there are more than three sheep to every head of neat cattle, and over ten sheep to every pig. With the present prices of wool and meat products it would seem desirable that a much larger number of sheep should be kept in this country than at present, but in many of the more thickly populated States one factor that acts as a deterrent is the ravages of dogs. The dog should be a luxury, and not a necessity, and a system of dog management that ruins the sheep industry in the older and more thickly populated portions of the country, and allows this privileged species of domestic animal to prowl around destroying human life and other domestic animals and fowls should be brought to a speedy termination.

DR. WRIGHT: Mr. President and Gentlemen: I have had a great deal to do with rabies. I have met with it in all of its forms and stages and have noted its destructiveness not only in dogs but in all classes of our domestic animals, as well as in man. I have probably handled more of it than any other man present on account of being located in a large city and of my official position. I dread rabies more than any other disease on earth: no other disease seems to frighten me so much. Many a time after having a narrow escape from it, or not being sure that I had escaped infection, I have been unable to sleep for many days and nights at a time; and, under such circumstances, one is not himself; he thinks of the hereafter and there appears suddenly before his eyes all of the bad things that should be charged up to him; it makes me shudder and feel nervous. Recently I have been called two different times to different parts of the State where rabid dogs had caused great disturbances and losses in each instance. The area in each instance would extend from five to ten miles long, and

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from one-half to one or more wide. The rabid dogs had bitten all other dogs which came within the range of their vision, also cattle and horses, and one of the dogs alluded to finally attacked a farmer and his son while out in the field. They succeeded in killing him with pitchforks. I succeeded in having all the dogs included in those districts either shot or tied up, and destroyed the cattle and horses as fast as they would show any symptoms of the disease. By following up these methods I hope to prevent further spread of the disease in the localities in question. I was deeply interested in the Doctor's paper, especially so in that part where he gave statistics and his advise as to the best means to control the disease or stamp it out. He has shown that great losses are constantly taking place from the disease and that it is practical to stamp it out. I agree with him when he says in order to accomplish the complete eradication of it, it must be done by State control. Experience has taught me that you cannot depend on local officials, or local government, such as municipal, township or counties, because they are not qualified to do the work; even if they were qualified, they would be swayed by local influence, which is always met and brought about by sentiment for their pets, and unbelief Unlike Massachusetts, we have no State control of the disease, therefore we have no means of determining the extent of our losses. I hope the time will soon come when we can have State control of rabies. I would advocate that every sanitarian strive to have his State at the earliest possible moment pass suitable laws for the purpose of stamping out this dreaded scourge.

DR. FERNEYHOUGH: I do not think we can give this subject too much of our attention; that is to say time is well spent in the discussion of the fatal disease which is so often spread in a vicinity by a worthless dog; in fact the absolutely worthless tramp dog is usually the individual which spreads this disease by his bite. The better class of dogs are owned and cared for as a rule, and when they are affected with disease the veterinarian is sent for and the disease properly diagnosed before the animal gets away to do his damage. The paper just read on this subject has been of the greatest interest to me, and for the sake of the of the public health of the domesticated animals, as well as for the protection of man from the dreaded disease, I think it is all important for every veterinarian in this country to remember that we must take no chances with a suspicious case, it matters not the value of the animal affected or the prominence of the owner.

The President then called on Dr. J. G. Ferneyhough for his paper on "Animal Parasites."
Dr. Ferneyhough stated that he had not had time to prepare the paper, but he promised to prepare one and send it to the Secretary for publication.

"Animal Parasites," by Dr. J. G. Ferneyhough, State Veterinarian of Virginia.

Just as the writer was thinking of preparing a paper on the above mentioned subject (Animal Parasites), as requested by the Secretary and President of the Association of Live Stock Sanitary Boards, he met with the misfortune to have his collar-bone broken, thus had to be excused from presenting the said paper at the meeting in Richmond, Virginia, on the 16th and 17th of September, 1907.

However, at the request of the Secretary, I shall now write a few lines on the subject in order that the same may be in the next annual report to help complete the program of the last meeting.

The subject of "Animal Parasites," as many of us know, is indeed a very, very broad subject, to say the least of it. Therefore I am going to mention only a few cases where my official work has caused me to investigate disorders, with the result that I found the cause to be the presence, and activity, of some of the well-known animal parasites, as it occurs to me that this will be of more interest to our Association than to simply prepare a general paper on the subject given me. To mention the cattle tick as a parasite here would simply be repeating what we have heard at every meeting of our Association for the last—well, ever since I have been a member, anyway—thus I shall say no more of the carrier of the much-dreaded Southern cattle fever.

Mange of the Horse (caused by the Sarcoptes scabiei).—Soon after the Spanish-American war, quite an outbreak of mange occurred in this State, and the first horses to have the disease were some animals which had been brought into the State from a shipment from Cuba. The horses were quarantined when upon inspection the above-mentioned parasite was found to be the cause of the disease. While some of the animals died from the effects of the disease, yet others yielded to the treatment of antiseptics externally and made a good recovery. While the treatment consists in the free use of antiseptics, yet it must be remembered that the parasite will protect itself constantly by concealment underneath the scabs on the surface of the animal's body unless the said scabs are removed by a thorough washing (for this green soap is good) of the entire surface of the body just
before applying the antiseptic. Of course disinfect the wash in the first place in order to destroy any of the parasites which may be washed off with the scabs.

**Verminous Bronchitis of the Pig** (caused by the *Strongylus Paradoxus*). Some time ago the writer was called to see some pigs which had died the night before, as the owner said, "very suddenly." Upon post-mortem examination he found the lungs giving forth a frothy discharge. Following the bronchial tubes, which organs showed considerable inflammation of the mucous membranes, many little knots of very small, thread-like worms were found in the smaller bronchi. According to Friedberger and Frohner this parasite is coughed up, often in considerable numbers, by the infected animals and thus the infection is spread and the larvae are ordinarily ingested with food and water and not by inhalation of the dust in which they may be suspended.

It is also interesting to note that while the infection takes place during the spring, from drinking from stagnant pools where infected animals have been and used, as well as from the pastures, yet the disease does not appear before the following fall or winter. When in the sexual condition, the Strongyles are said to be located in the trachea and bronchial tubes of the pig. As death often occurs soon after the first symptom is noticed, and in many before any sign of disorder is noticed except to see the animal fall and seem unable to breathe, prophylaxis must be the treatment, and must consist in keeping the animals from stagnant pools and wet pastures during the spring of the year. However, if an animal is thought to be affected it will be well to try fumigating with tar, or some such product, at once.

In the sheep we have the same trouble, or similar troubles, though here the *Strongylus Filaria* is found.

In the chicken we also have the *Syngamus Trachealis*. While the acute form of the disease produced by these parasites is rapid, and ends in death in a short time, yet in many cases the condition becomes chronic, "oftentimes lobular centres of broncho-pneumonia, in some instances neoformations of tuberculous appearance (pseudotuberculous or nematoid tuberculosis)" are observed.

It is said that in some countries the pest destroys one-third of the flock of sheep, when it is then termed "enzoötic vėrminous bronchitis" of sheep.

Dr. Butler then moved that the five-minute talks on conditions in the various States be dispensed with, and that each representative
present write out and send to the Secretary, the conditions in the various States.

Dr. Lamb seconded the motion. Carried.

Dr. R. P. Steddom, Washington, D. C., then read his paper on "Federal Work in Tick Eradication."


In a general way it is a true statement that prior to fourteen months ago the great preponderance of work in connection with the Southern cattle quarantine was of a defensive and protective character. The tick-infested area of the United States was separated from the tick-free area by an imaginary line which State, Territorial and Federal representatives were detailed to enforce, in order to protect the cattle of the North from the menacing tick common to the cattle of the South.

The occasional outbreak of Texas Fever, and the consequent losses occasioned thereby, merely served to emphasize the need of a closer observance of quarantine regulations,—a mere strengthening of the defenses—or made necessary an addition to the already large quarantined area.

The matter of maintaining an effective quarantine is always attended by difficulties and inconveniences to all interested, but in the case of owners whose live stock is close to the line, every difficulty and inconvenience is accentuated. The trading and interchange of stock are interfered with; owners are hampered and hindered in the use of their own pastures; and there is the constant liability of infection being carried across the line, either accidentally, unavoidably, or by the surreptitious movements of stock by unscrupulous persons.

In order to provide a market for Southern cattle, such cattle have at all times of the year been permitted shipment to points outside the quarantined area, for immediate slaughter, but such shipments were necessarily made under conditions that amounted to a ban upon all animals so shipped, and as a consequence the owner was at all times completely at the mercy of the buyers. In other words, the market for such cattle was not only restricted, but the prices were discounted in advance. This double disadvantage has, during the years, cost the owners of Southern cattle many millions of dollars.
The other phases of this question, viz.: The losses by death, the lack of thrift of tick-infested cattle, and the reduced yield of milk of tick-infested cows, constitute a good field for the expert statistician, as such losses doubtless run into the millions every year. And so, the strengthening of the defenses before alluded to, or adding to the quarantined area, while they have resulted in better protection to the Northern cattle, have just as truly operated against the Southern owner.

The work upon which the Bureau of Animal Industry is now engaged, looking to the eradication of the cattle tick, is not unlike other missions that have been performed by it, in co-operation with the State and Territorial authorities,—in fact, it was for just such purposes that the Bureau was brought into existence.

The first paragraph of the law approved May 29, 1884, authorized the organization of the Bureau of Animal Industry for the purpose of investigating and reporting upon the condition of domestic animals of the United States, their protection and use, and of inquiring into and reporting upon the causes of contagious, infectious and communicable diseases among them, and the means for the prevention and cure of same. The same law specifically authorized the Bureau to undertake the extirpation of contagious pleuro-pneumonia, and to provide against the spread of other dangerous, contagious, infectious and communicable diseases. That law authorized the preparation of rules and regulations for the speedy and effectual suppression and extirpation of said diseases, and provided for the certification of such rules and regulations to the executive authorities of each State and Territory, and for the invitation for such authorities to co-operate in the execution and enforcement of the law. It further provided that when the plans and methods of the Department were accepted by any State or Territory, or when the plans and methods of any State or Territory were accepted by the Department, and the Governor or other properly constituted authorities signified their readiness to co-operate for the extirpation of any contagious, infectious or communicable disease, the Department could expend money for such disinfection and quarantine measures as might be necessary to prevent the spread of the disease from one State or Territory into another.

It will be seen, therefore, that the basis for co-operation in this work is not a new thing. Every dangerous animal disease that has appeared in this country in the past twenty-three years has been fought under this law, and aggressive work against the tick might have been undertaken long ago had funds been provided.
In these days it is not sufficient to require isolation and quarantine, for a disease either of the human or of the animal. It is rather in order to go into the infected territory and fight the invasion at close range with the most approved and practical methods available. The time was, therefore, opportune for taking aggressive measures against the tick when Congress, in the early part of 1906, appropriated $82,500.00 with which to undertake experimental work in co-operation with State authorities, beginning July 1, 1906. The Bureau promptly set to work to ascertain what legal status such work would have in the various States, and to what extent State and Territorial authorities could be expected to co-operate in the work. This investigation developed that while some States and Territories had ample authority to enter upon such work, the laws of some others were so inadequate, or were so weak in certain vital points that effective co-operation was impracticable. It was then urged upon such States the necessity for more adequate and complete legislation, with the result that some States have, within the past year, placed upon their statute books laws under which the work can be carried on satisfactorily, and under which, with persistent work, such States will be rendered tick-free.

Preliminary to actual work, a program outlining the co-operative plan was submitted to and approved by the proper officials of States in which operations were to be conducted. This program provided:

First: For the continued Federal control of the interstate quarantine line, for State control of areas quarantined within the State, and for the location of interstate quarantine lines, and the designation of quarantined areas to be made by joint agreement between State officials and the Department.

Second: For movements of cattle from the provisionally quarantined areas of any State to points above the quarantine line, either in the same or any other State, for purposes other than immediate slaughter, only after inspection and certification of freedom from ticks.

Third: For the promulgation and execution by State authorities of all regulations governing the quarantine and control of cattle in the quarantined area of each State.

Fourth: For the examination of cattle and premises by inspectors engaged in the work of tick eradication, and for the enforcement of disinfection by said inspectors, as directed by the rules and regulations promulgated by State authorities.

Fifth: For the joint agreement between the State authorities and
the Bureau as to the counties in which inspectors of the Bureau should do eradication work.

Sixth: For co-operation between Bureau employees and State employees in disseminating information concerning cattle ticks and means of their eradication.

Seventh: For the extension of the co-operative scheme of work between the State and county officials, quarantining infected cattle and premises, and enforcing disinfection.

Eighth: For inspectors to be furnished by the Bureau, who should co-operate with State authorities and supplement the State work.

Ninth: For the inspection of localities by Bureau inspectors before such localities are finally released from quarantine.

Tenth: For such revision of State rules and regulations as would facilitate effective work along the lines indicated.

For a number of years the Bureau of Animal Industry and State authorities have been conducting experiments and making investigations, having in view the discovery and development of practical and inexpensive methods of fighting the tick, with the result that the pasture-rotation system has been evolved; the twenty-per cent. oil emulsion, either as a dip or a spray, has been successfully used; and recently such good results have been reported from the use of an arsenical solution that experiments are being conducted to determine its efficiency.

On December 5th and 6th, 1906, a meeting of Federal and State representatives was held at Nashville, Tennessee, for the purpose of discussing this question in its practical phases, and of planning further for the co-operative work which had so recently been begun. It was suggested at this conference that meetings be arranged for instructing inspectors who were to engage in the tick eradication work, relative to farm management, rotation of crops, and such other subjects as would better fit them for dealing with the question in the different localities where the work was to be done, and under the varying conditions of actual experience. Accordingly, two such meetings were held,—one the latter part of April, at Chattanooga, Tennessee, at which were present upwards of fifty employees engaged in the work in Tennessee, Alabama and Georgia; and another at Richmond, Virginia, the beginning of May, attended by over thirty employees engaged in the work in Virginia and North Carolina. These meetings were veritable schools of instruction. They were addressed by practical men who were familiar with the problems that would be encountered in each particular locality, and these addresses on definite topics, and
the discussions upon the general subject, were distinctly educational and of a very definite value to all who attended them.

In the light of past experimental work, therefore, and under the working plan above outlined, and with a further appropriation of $150,000.00 made by the last session of Congress, operations have now been conducted for more than one year. The methods employed have been various, the aim being always to adapt the method to the local conditions and requirements. In sections where large herds and large ranches are owned, dipping or spraying on a large scale has been done, either alone or in connection with pasture-rotation; while in other sections where a single cow, or an ox-team, is frequently the only cattle owned, hand dressing or spraying with oil emulsion has been the most practical method to enforce.

Reduced to figures and stated in round numbers, there have been upward of one and a half million individual cattle, making up over 100,000 herds, inspected; many of these animals have been inspected several times, so that the number of actual inspections made is far beyond the two million mark.

It is a strange fact that in many instances owners of cattle will not carry to completion the work of disinfection, but for the constant urging of inspectors. It is, therefore, not only necessary to locate the infection and instruct the owner how to get rid of the ticks, but it is quite as essential that the inspector go again, and keep on going, in order to see that instructions are carried out and the work made effective. As a result of the work done thus far, there have already been released from quarantine and provisional quarantine areas in a half-dozen States, amounting to approximately thirty-five thousand square miles; and twenty counties heretofore wholly in quarantine have been given provisional quarantine. Complete reports covering the work done since last spring are not yet available, but the indications are that a large number of counties, containing a vast amount of area, will be in condition to release from quarantine on or before January 1st, 1908, and thousands of owners will, for the first time, have an unrestricted market for their cattle.

It is recognized, of course, that as the work progresses to the southward climatic conditions will likely render it more difficult, but whatever is necessary to overcome the increasing difficulties will, when the time arrives, be done. If it means new and improved, or more radical methods, they will be ascertained and adopted. If it means more work and slower progress, we will be more patient, but persis-
tent. While the most work will doubtless continue to be done in areas contiguous to the quarantine line, thus forcing the line farther south each year, it will be the policy of the Bureau to encourage cleaning and disinfecting of any county in the quarantined area by releasing from quarantine the cattle of such counties as are found to be free from infection.

It has been proposed to prohibit the movement of cattle from the quarantined area for any purpose, unless and until they are inspected and found free from ticks. This seems to be a radical step, but it would doubtless yield good results. It would either force the owners of southern cattle to clean up their herds, or get along with a still more restricted market. Such a plan in operation would make necessary the disinfection of all cattle carrying ticks prior to shipment outside of the quarantined area. It would render unnecessary the cleaning and disinfection of cars, pens, chutes now used for handling shipments enroute, and the other expenses incident to maintaining strict isolation of such shipments. It would remove, to a great extent, the danger of infection being conveyed to northern cattle in infectious cars and pens, and it would, for these reasons, appear to be much to the interest of transportation companies to maintain the necessary facilities for disinfecting cattle.

Judging the work and its requirements from what has been done the present season, and in order that what has already been done may be made effective, and that the present reasonable pace may be followed to good advantage during the next year, Congress should appropriate for this specific purpose $350,000.00. With such a fund available, there could be kept in the field during the months of May, June, July, August, September and October, a force of about sixty veterinarians and one hundred and sixty other employees. This force might, during the remainder of the year, be reduced so that during the winter months a minimum of perhaps thirty-five veterinarians and fifty other employees would be engaged.

In conclusion, and at the risk of being accused of appropriating the President's idea, I desire to emphasize the responsibility of the individual; many cattle owners are ignorant of this responsibility because they have no cattle for sale, their only stock being a few cows or an ox-team. It is, therefore, essential first to educate them to the importance of the matter, and then to endeavor by reasonable methods to secure their cooperation; but it is also essential to have drastic measures that can be applied to those who will otherwise do nothing, as one shiftless, careless or conscienceless owner of a few
animals may otherwise cause the reinfection of a whole county or State, or can prevent or indefinitely delay its release from quarantine.

DR. LAMB: Mr. President, I attended the meeting of the committee on line and open season last night and I must say that I was amazed at the progress made in the work of tick eradication. When Dr. Ferneyhough asked that 8 or 9 counties in Virginia be placed above the line, followed by Dr. Butler with a similar request for North Carolina, and Dr. Allen for Oklahoma and Indian Territory, I was constrained to ask these gentlemen if it was possible that these counties represented districts from which the tick had been eradicated during the past year and was assured that they did.

Only a very few years ago when eradicating the tick was first suggested, most people, including many members of our own Association, and I confess I was one of the number, were inclined to think it was an impossibility, but when we consider what has been done since the work was first begun, especially during the past year, we skeptics must admit to conversion. Of course we realize that the worst section is still to be cleaned and that the progress will not always be so rapid, but the work already done has demonstrated the feasibility of the plan, and when we consider what it means to the farmer and stockman of the South in the possibility of the improvement to their stock and their enhanced value, which enhancement will amount to many million dollars a year, I think we should personally and as a body do everything in our power to encourage this work and use whatever influence we have to the end that this grand work may be continued and an increased appropriation be obtained from the Government for its continuation and enlargement.

President Luckey called for the reports of the committees.

The report of the committee on "Line and Open Season" was read by Dr. Butler.

Your committee on Line and Open Season representing the States of

Virginia, by J. C. Ferneyhough
North Carolina, by Tait Butler
Arkansas, by W. Linton
Missouri, by D. F. Luckey
Kansas, by Dean
Texas, by J. H. Wilson
Oklahoma, by L. J. Allen
begs to offer the following report:

1. That the counties of
   Patrick
   Henry
   Pittsylvania
   Halifax
   Charlotte
   Prince George
   Dinwiddie
   Chesterfield and
   James City

be added to the free or non-quarantined area of Virginia for 1908.

2. That the counties of
   Stokes
   Rockingham
   Caswell
   Person
   Granville
   Vance
   Durham.
   Orange
   Alamance and
   Guilford

be added to the free or non-quarantined area of North Carolina for 1908, and that the present restrictions requiring the inspection of cattle before movement from parts of the counties of

   Rutherford
   McDowell
   Davidson
   Rowan and
   Yadkin

in North Carolina be removed for the season of 1908.

3. That the counties of
   Greene
   Clay
   Randolph and
   Carroll

in the State of Arkansas, be released from quarantine or added to the free area, and that the movement of cattle be permitted from Benton county, Arkansas, on inspection.
4. That the following be added to the free or non-quarantined area of Oklahoma for the year 1908:

- Ponca Indian Reservation
- Logan and Oklahoma counties

and that a part of Cleveland county west of the Atchison, Topeka & Santa Fe Railway. That the movement of cattle be permitted from that part of the proposed new county of Beckham south of the north fork of the Red River, the proposed new county of Greer, and that part of Noble county east of the Atchison, Topeka & Santa Fe Railway not included in the Otoe and Missouri Indian Reservation, on inspection. That inspection be withdrawn from the counties of Payne, Pawnee, Lincoln, Pottawatomie; that part of Caddo county north of the Mangum branch of the Chicago, Rock Island & Pacific Railway; that part of Kiowa county north of the line between townships four and five; and that part of the present county of Greer included in the proposed county of Jackson.

5. That all quarantine restrictions be removed from the counties of Childress and King in the State of Texas and that the special privileges be withdrawn from Throckmorton county.

**Open Season.**

1. That the open season for Virginia and North Carolina be the same as last year—from December 15th to March 15th.

2. That the open season for Arkansas be the same as last year, except that the privilege of inspection of cattle from the two northern tiers of counties for movement into Missouri from February 1st to March 31st be withdrawn.

3. That the open season for Oklahoma begin December 15th, 1907, and end January 31st, 1908.

   That the Osage and Kansas Indian Reservations be placed under a special quarantine and cattle be allowed to be moved from same at all times of the year on inspection.

4. That the open season and inspection requirements be the same for that part of the State of Missouri south of the Missouri River as last year, but that no inspection be required during the open season for cattle to be moved into that part of the State of Missouri north of the Missouri River.

5. That open season for the State of Texas be the same as last year.

6. That during the open season uninspected cattle from south of the quarantine line be confined to southern or quarantined sections of
stock yards in order that, in case of re-shipment, destination may be controlled in conformity with open season regulations.

7. That in so far as applied to the States of Texas and Oklahoma the same restrictions be placed on the movements of horses, mules, jacks, jennets and burros as are placed on the movements of cattle.

(Signed) TAIT BUTLER, Secretary of Committee.

Moved by Dr. Butler and seconded by Dr. Lamb that the report of the committee be accepted and adopted as read. Carried.

The report of the committee on “Resolutions” was then read.

Resolutions Adopted by the Interstate Association of Live Stock Sanitary Boards at Its Annual Meeting in Richmond, Virginia, September 17th, 1907.

WHEREAS; The Federal Meat Inspection Laws now in force which are necessary for the safe-guarding of the public health make no provision for the inspection of meat for intra-state or local consumption, or the control and inspection of local slaughter-houses in small cities and towns, and

WHEREAS; The known fact that animals unfit for human food will be condemned if sent to the large slaughter-houses having Federal inspection, but may be slaughtered and put on the market when sent to these local slaughtering plants, causes those animals suspected of being diseased to be largely sent to such small slaughtering plants where there is no adequate inspection, therefore be it

Resolved, That it is the sense of this Association that the different States should organize and put in operation a system of meat inspection for the protection of local consumers of the character and efficiency of the present Federal inspection intended for the protection of the consumers of meat products which go into interstate traffic.

WHEREAS; The great losses to Southern cattle owners resulting from the presence of the fever tick (Boophilus annulatus) are now a well established and generally accepted fact, and

WHEREAS; The work already done has demonstrated the feasibility of the eradication of the fever tick, and the progress made with the funds recently appropriated by Congress has been very satisfactory, and

WHEREAS; The known facts regarding the life history of the tick and methods for its eradication justify the prosecution of the
work on a more comprehensive and extensive scale; therefore be it

Resolved, By the Live Stock Sanitary Boards of the United States in convention assembled, that the appropriation made for this work by the United States Congress for the next fiscal year should be increased to an amount commensurate with the magnitude and importance of the work to be done, which in our opinion should not be less than $500,000, and we respectfully urge the United States Secretary of Agriculture and the Congressmen of our respective States to use their best efforts to obtain such Congressional appropriation.

WHEREAS; The annual loss resulting from hog cholera and tuberculosis amounting in the aggregate to many millions of dollars, and

WHEREAS; These diseases are constantly being spread by shipments of affected animals to non-infected districts, and

WHEREAS; The great losses resulting from the diseases and their continual spread make them matters of national importance; be it

Resolved, That we call the attention of the sanitary authorities of each State and of the National Government to the fact that these diseases are assuming such importance; that their eradication can only be accomplished by the combined and concerted action of all sanitary authorities, and we urge that such steps be taken as will insure perfect combination of such authorities to the end that these diseases may eventually be wiped out.

WHEREAS; We appreciate the fact that many diseases of the human family, among others tuberculosis, may be conveyed by or contracted from the use of diseased or unclean milk; and

WHEREAS; No concerted or universal effort has been made to insure consumers that the milk offered for sale is from healthy cows and that proper sanitary conditions have prevailed in its production and handling, be it

Resolved, That this Association urge upon all State authorities and the public generally the absolute necessity of State supervision of the milk supply, and further that we recommend that all States pass laws requiring the testing of all dairy cows with tuberculin.

Resolved, That this Association extend to Co. John Murphy a hearty vote of thanks for the courtesy extended in furnishing us a room in which to hold the sessions of this meeting.

Resolved, That we extend our hearty thanks to Congressman Lamb for his interest and earnest efforts in behalf of the work of this
Association, and to the press of Richmond, and Dr. J. G. Ferneyhough, State Veterinarian of Virginia, for their efforts in assisting to make this meeting a success.

It was moved by Dr. Whitcomb and seconded by Dr. Wilson that the report be adopted as read.

Reports of Sanitary Conditions in the Various States

ARKANSAS.

Dr. W. Lenton.

Since the conference held at Nashville, Tennessee, last December, to consider plans for the eradication of the cattle tick, Arkansas has made a most decided step in the right direction as regards live stock sanitation.

The passage of Act CCCCIX by the last legislature gives to the Board of Control of the Agricultural Experiment Station, the duty of promulgating rules and regulations pertaining to contagious diseases of animals of the State. There is no regular State Veterinarian in Arkansas, the duties of such devolving on the Veterinarian of the Experiment Station and a special fund is appropriated for his travelling expenses while discharging such duties.

The Bill was directed primarily against the cattle tick, but also takes in contagious diseases of live stock, such as:

1. Glanders, which seems to be very prevalent owing to the lax legislation on the subject heretofore. Until this last winter, the owner could only be "advised" to kill his glandered stock: true, any individual could claim compensation for damages due to infection from his stock, but how difficult to prove the source of such infection. As a rule the owner did kill his clinically affected cases, but with the "in-contact" animals that had been exposed and possibly were already suffering from the disease, and chronic cases that were "good to work" or to palm off on some unsuspecting purchaser (the discharge, if any, being accounted for as "just recovering from distemper"), the outlook was quite different. Under the present law, clinically affected cases must be destroyed and all "in-contact" animals tested.

By education through Station Bulletins, the press, Farmers' Institute meetings and the practical inspection and testing, it is hoped that this State will in the future have far less of this disease than in the past.

2. Anthrax is present to a limited degree and outbreaks are usually reported early and advice asked and generally followed with
regard to quarantining sick animals, destruction of carcasses by
fire, etc. Of course this disease is the subject of special regulations
of the Board.

3. Hog cholera and swine plague also come under special rules
and regulations, but so far no cases have been reported since the
passage of the Act.

4. Tuberculosis is probably not a very important factor in the
cattle industry of this State, though occasional demands for tuberculin
tests are made at the Station. The Board of Health of Fort Smith
has resolved that all cows supplying that city with milk shall be tested
with tuberculin, and arrangements are being made to do this. Prob-
ably other cities will follow the lead of Fort Smith in this and I shall
be better prepared to say definitely to what extent the disease occurs
in Arkansas in twelve months' time than I am now.

5. Last, but by no means least, comes the question of tick fever
and tick eradication. A fund of $1,500 was appropriated by the last
legislature for the purpose of "investigating" the question of tick fever: very little confidence seemed to be placed in the possibility of
"eradicating" the tick, so the money was voted to investigate and eradicate. Two mounted men have been employed as State Agents in tick eradication, but most of the
work has, perforce, fallen on the inspectors and agents of the Bureau
of Animal Industry.

Eight counties have been worked—
In Randolph there were 5204 cattle inspected of which 95 were ticky.
In Lawrence there were 15325 cattle inspected of which 238 were ticky.
In Greene there were 5787 cattle inspected of which none were ticky.
In Clay there were 2166 cattle inspected of which none were ticky.
In Fulton there were 2998 cattle inspected of which none were ticky.
In Sharp there were 4504 cattle inspected of which none were ticky.
In Baxter there were 3311 cattle inspected of which 865 were ticky.
In Benton there were 17000 cattle inspected of which 3601 were ticky.
In Carroll there were 3780 cattle inspected of which 256 were ticky.

Work in some of these counties was discontinued partly because chances of success seemed remote and partly because retrenchment
became necessary on account of waning funds; but in Benton and
Carroll in the west, and in Randolph, Clay, Greene and Lawrence in
the east, inspection has been thorough and all ticky cattle quarantined
and an honest attempt at cleaning up made.
COLORADO.
Dr. C. G. Lamb, State Veterinarian.

I am glad to be able to report that live stock conditions in Colorado are very satisfactory.

Mange in cattle, which has been a source of considerable financial loss to stockmen during the past five or six years, is in a very much improved condition. The State and Government authorities have devoted much time and effort toward its eradication, with the result that at the present time it seems to be well in hand and I am confident that it is only a matter of a very short time before it will be a thing of the past, and I trust that in two or three years I shall be able to report its entire eradication from the State. Mange is the only disease of a contagious nature affecting the cattle of the State.

Scab in Sheep. For several years the sheep in certain sections of our State have been in a deplorable condition from scab, but during the past three years a determined effort has been made by the State authorities, working in conjunction with the Government, looking toward its eradication. Each year a dipping under supervision of all sheep in these sections has been insisted upon, and at least one and one-half millions of sheep have been dipped each season, and the result has been most satisfactory both to the sanitary authorities and the sheep men, and at the present time I am assured that the sheep of Colorado are practically free from scab.

Glanders. During the past year I have discovered and killed fourteen head of horses and mules affected with glanders. These cases have been destroyed in the various sections of the State, one or two in a locality, and in no instance has the disease assumed anything like the proportions of an epidemic, and the disease has been limited to cities and towns, and to the best of my knowledge, the range animals of the State are absolutely free from this disease.

Hogs. Colorado is practically free from hog cholera, and every effort is being made to keep it so. I appreciate that this is an up-hill proposition, and that I am probably doomed to defeat if hogs from cholera infected States are permitted to enter the State; but I am prepared to fight to the last ditch in my efforts to postpone to the last possible moment the introduction of this disease, as I realize the disastrous results of this disease to an industry which promises to assume very large proportions in our State.

While we are free from cholera, necrotic stomatitis causes a very serious loss to our hog raisers and promises to be a very serious menace to the industry.
On a whole, the live stock of the State is remarkably free from
diseases of a contagious nature.

The last legislature gave the State Veterinary Surgeon jurisdic-
tion and authority over all slaughtering, meat canning, salting, pack-
ing, rendering or similar establishments in the State, in which cattle,
sheep, swine, goats, fish or poultry are slaughtered, and the meat or
meat products thereof prepared and offered for sale as food, and much
time has been devoted to that branch of work with the result that
much improvement has been made in the sanitary conditions of these
establishments. Much remains to be done and much will be done
along these lines, not only affecting the sanitary conditions of the
establishments, but along lines of inspection of meat and meat food
products.

Several Colorado cities have passed, and others have under con-
sideration, the passage of ordinances requiring local meat and milk
inspection, and this subject is receiving every possible encouragement
from my office, and I hope to soon be able to report that a very large
proportion of meat and milk offered for sale in this State has been
subjected to an inspection either by State or city inspectors.

ILLINOIS.

Dr. J. M. Wright, State Veterinarian.

Mr. President and Gentlemen: It seems to me, judging partly
from what has been said here, that the basis of wealth and civilization
of a State depends on the number and quantity of the contagious
diseases which she harbors. If this be true, then I will contend that
Illinois is entitled to a seat in the front row of our great family of
States In carrying on the good work of sanitation we meet with
difficulties which you do not. Our State is the home of the greatest
live stock markets of the world; stock comes to these markets from
everywhere; with the healthy animals there come many diseased, many
of them finding their way leading from the large markets to our herds
scattered here and there all over our State.

Illinois has her share of tuberculosis in cattle and hogs: I have
found a few horses affected with it. The greatest amount of it is in
and around the large cities, located principally among the dairy herds.
There is not much of it in outlying districts where dairying is not
carried on as a business. A great many pigs contract the disease
where they follow a tuberculous herd of cattle, or are fed the tubercu-
lous products of a dairy herd.
Glanders exists in Chicago to a limited extent, and a few isolated cases of it have been reported at different parts of the State, but not to any alarming extent.

There is but little hog cholera in the State at present, but the time is about ripe for a general epidemic.

There has been but very little anthrax or black-leg during the past year.

Scabies in cattle has invaded our State recently, brought in by large herds of feeders, but has been nearly, if not completely, stamped out, due to the vigorous action of our Commission.

Several outbreaks of haemorrhagic septicaemia have been reported and investigated during the past year; also, I have found a number of deaths among cattle and horses due to toxins and vegetable poisons.

MARYLAND.

Dr. G. Allen Jarman, State Veterinarian.

Mr. President and Gentlemen: Sanitary conditions in Maryland at the present time, and for the past three years, have been such that our Live Stock Sanitary Board has been kept continually on the alert. No serious outbreaks have occurred, but the usual amount of investigating is done to allay the apprehensions of those who think they have some disease on their premises of a contagious or infectious character. Usually this alarm is groundless, but often we do meet with disease where the authority and knowledge of a sanitary official is of inestimable value to a community, by recognizing the seriousness of the trouble and taking measures to control and eradicate a disease, which if allowed to pursue an unobstructed journey would cause no end of inconvenience and serious loss to the parties or community involved.

Among the diseases brought to our attention in this way, we might mention Glanders, Hog Cholera, Texas Fever, Infectious Catarrhal Conjunctivitis in cattle, Sheep Scab, Rabies, and last but not least, Tuberculosis, which is the most serious proposition with which we have to contend.

Much is said and written just now about building and equipping sanitariums for the care and treatment of advanced as well as incipient cases of Tuberculosis in the human family; also about milk inspection, to see that you get quality, and that each cubic centimeter of milk contains only so many bacteria, but very little is said or done toward combatting the sale of milk from tuberculous cows. Next to tubercular infection in the home, by living with tubercular subjects, I consider milk from tuberculous cows one of the most prevalent
sources of infection. It is all right to care for and alleviate the suffering of those already infected, but why not take stringent measures to prevent the infection of the coming generations?

At a recent meeting of school officials, teachers and parents at McCoy Hall in Baltimore, a speaker of prominence said, “Investigators affirm that most, if not all, tuberculous infections enter the body in childhood. It may be eight or ten years before the effects of the infection manifest themselves, but the germ of the disease is planted in early youth. It bides its time, and gets in its work with disastrous results when the body is weakened by undue exertion, fatigue, dissipation, privation or illness. This being recognized, why not take more notice and try to prevent the infection by milk, of ‘Little Innocents’ who cannot help themselves, but are taking in the seeds of disease with every bottle of the sustaining fluid.”

The medical profession are slow in recognizing this mode of infection and some even dispute it, but they will eventually be compelled to acknowledge that the veterinarian’s advice was valuable, and thousands of lives were sacrificed because of narrow and bigoted views formed by reading and investigations of someone laying claim to fame.

My State is not as progressive as some of her sister States, but we will try to follow, if we cannot lead. We have some legislation in view at the next meeting of the general assembly that will lift us to the class of “Progressive States.” This legislation is on the line of “Meat and Milk Inspection,” the compulsory testing with tuberculin of all cattle coming into the State for dairy or breeding purposes, and the sterilization of skim milk from creameries before distributing to patrons. This is all on the line of progress, and if we are successful in getting this legislation, I think we can claim to be one of the progressive States, with every assurance of having our claim substantiated.

I wish to state, while I have the floor, that this is my first attendance upon a session of the Inter State Association of Live Stock Sanitary Boards, and as a representative of the State of Maryland, and representing our Live Stock Sanitary Board, I do, and think our Board should, feel proud that we have the honor of being a member of this Association. The character and ability of the delegates of the various State Boards here represented shows, to my mind, that their home States have placed the problems to be solved in the hands of men fully able and competent to handle even more weighty problems than those here presented. I have thoroughly enjoyed this meeting,
which has been a source of both pleasure and profit to me, and my sincere hope is, we shall all meet again next year and for many years to come.

MISSOURI.
Dr. D. F. Luckey, State Veterinarian.

The laws of the State of Missouri for the control of contagious diseases of live stock are still somewhat crude. Sanitary control work must, therefore, be more or less ineffective. However, what laws we have are in such shape that with a little revision they may be made to cover the ground thoroughly and provide a way for the most effectual control work.

The Missouri laws already provide for (1) The State Veterinarian or deputies to place in quarantine any animal affected with or capable of spreading a contagious disease, and to quarantine any barn, shed, stock-car, pen or field and prescribe a disinfection; (2) the Board of Agriculture to quarantine against any State or Territory, or municipality within this State; (3) granting indemnity for horses condemned and destroyed on account of glanders.

The laws of the State ought to be amended so as to provide for (1) granting indemnity for cattle condemned on account of tuberculosis; (2) granting indemnity for hogs which it becomes necessary to slaughter to prevent the spread of cholera; (3) requiring stock hogs to be shipped into and over the State subject to certain restrictions, among which is a quarantine of 30 days at point of destination.

It would ultimately benefit the State very greatly if laws were passed (1) requiring cleanliness in all slaughter-houses; (2) authorizing all cities of the State to provide by ordinance for city milk and meat inspection, including power to provide for municipal slaughter-houses; (3) authorizing the Board of Agriculture to place inspectors at the stock yards to prevent the slaughter for intra-state trade of "out of condition" animals except subject to post-mortem inspection.

In the near future a law must be passed requiring all dairy cattle to be tested for tuberculosis.

With the necessary legislation, and the favorable conditions that exist in Missouri for veterinary sanitary control work, splendid results are bound to come. We are anxious not only to stop all contagious diseases of live stock, but to promote the packing and dairy industries.
MINNESOTA.
Dr. M. S. Whitcomb of St. Paul.

Glanders is quite widely spread over the State, but seems to be on the decrease, although our figures for year ending July 31, 1907, of horses tested—1482, and horses killed—516, are not below the usual number. In Minneapolis and St. Paul the disease is practically stamped out, due principally to the closing of public watering places and also to better police control. These two cities have furnished the State a large percentage of the cases in glanders in previous years, and now that the disease is nearly wiped out in these two cities, it would seem that we would have it pretty well under control in a short time, but not wiped out in the State so long as the pineries last, as glanders makes its appearance there every year.

Tuberculosis is causing the State Live Stock Sanitary Board a great deal of work. There were tested in year ending July 31, 1907, 18,022 cattle, of which 516 reacted.

A large percentage of the pure bred herds have been tuberculin tested, and in some herds 75% are found to be tubercular; very few pure bred herds are free. Some dairy herds are found to be 100% tubercular. The State appraising registered cattle at $75.00 maximum appraisal, non-registered cattle at $35.00 maximum appraisal, 75% of all appraisals being paid by the State, undoubtedly has induced many cattle owners to have the tuberculin test applied to their herds.

Hog Cholera. A serious outbreak of hog cholera and swine plague was experienced during the past year. Renville, Watonwan, and Rock counties suffered most severely. The disease was traced to imported hogs in the Watonwan outbreak.

I am satisfied if the removal of hogs from stock yards for stock or feeding purposes could be stopped, a great many less outbreaks would be experienced.

Rabies. Notwithstanding the many outbreaks that were experienced during the past winter, it was impossible to obtain any legislation along any line looking to the control of this disease. The prevalence of this disease is a menace to both the human family and to domestic animals, and the losses and expense incurred to individuals is completely lost sight of.

The results are shown as follows:

Dogs, 75; Hogs, 10; Cows, 57; Sheep, 1; Cats, 4; Horses, 2.

Sheep Scab appeared in a few localities.
Haemorrhagic-Septicaemia has caused the Board considerable work in past years, but is decreasing, it would seem.

Swamp Fever has appeared in the northern part of the State in a few localities.

**VIRGINIA.**

By J. G. Ferneyhough, State Veterinarian.

While I hope the sanitary conditions of the live stock in the “Old Dominion” are as good as they are in the other States of this country, yet I am, with the assistance of the Bureau of Animal Industry, fighting the much-talked-of cattle tick (Boophilus Annulatus), which is yet infecting about nineteen counties in the southern portion of this State. (We hope we have cleaned a good portion of this territory this summer and fall.)

I have also had some glanders to contend with during the last year, which was brought into this State from the West by some railroad contractors. However, the mallein test was applied, and all suspicious animals, in this case with the consent of the owner, shot; thus the outbreak was quickly stamped out.

Black-leg in calves has been very much reduced by the use of vaccine sent out by the Bureau of Animal Industry.

We have more or less rabies every year, though I hope the condition is improved from what it was three years ago.

Hog Cholera has made its appearance several times during the last year, though in each case it has been stamped out before causing the loss of many animals.

I am inclined to think that we have our share of tuberculosis, especially among the dairy herds, though we are testing with tuberculin more and more each year.

Scabies in sheep is nothing like so bad as it was five years ago, and on the whole I feel that the sanitary conditions of the live stock in the State of Virginia are receiving more and more attention each year, with the natural result that the conditions are improving annually.

PRESIDENT LUCKEY: The next thing in order is the election of officers for the ensuing year.

Dr. Butler moved that Dr. Charles G. Lamb of Colorado be unanimously elected president for the ensuing year. The motion was seconded and carried.
The President then declared Dr. Charles G. Lamb duly elected by the unanimous choice of the convention.

It was then moved and seconded that Judge S. W. Hudson of Missouri be unanimously elected Vice-President for the ensuing year. Carried.

Judge Hudson was declared elected Vice-President.

It was moved and seconded that Dr. Charles E. Cotton of Minnesota be elected Secretary and Treasurer by acclamation, for the ensuing year. Carried.

Dr. Cotton was declared elected Secretary and Treasurer.

It was moved and seconded that the Secretary be instructed to pro rate any deficiency in the expenses of this Association, among the States having representatives at this meeting. Carried.

It was moved and seconded that the President, Vice-President and Secretary for the ensuing year, together with Dr. G. Allen Jarman of Maryland, act as a committee to designate the place of the next annual meeting. Carried.

A motion to adjourn until the next annual meeting at the place to be designated by the committee, was then carried.