LAW. (J.)

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THE RELATIONSHIP OF DISEASES OF THE LOWER ANIMALS TO MAN.[1]

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I ACCEPT the invitation to address you on this occasion as a tribute to the growing sense of the value of comparative medicine in the sanitary field. I shall therefore ask your attention shortly to a few points showing the relationship of diseases of the lower animals to the well-being of man.

A sense of the dangers attendant on the use of animal food appears to have been almost as old as history. The law of Moses distinguishes between the clean and the unclean, the beasts that may be eaten and those that may not. The prohibited animals are, in the main, the purely carnivorous and omnivorous — those that are especially liable to contract contagious and parasitic diseases from the flesh of their victims. In drawing a safe limit, the edible mammals were practically restricted to the ruminants, which are *par excellence* herbivorous. According to this law, however, even the *clean* animals were forbidden, if they died of disease, of strangulation, or with the blood in the carcass. Similarly, among many primitive peoples a dead body is tabooed, and in ancient Greece the priests of Zeus were polluted by touching uncooked meat.

The great sanitary importance of the Mosaic laws for

[1] Delivered before the Alumni of the University of Buffalo.

a pastoral people pitching their tents on the open, grassy plains, and living, in a sense, in common with their vast flocks and herds, is manifest without argument. The parasites and contagia that they mutually harbor increase and dominate in exact ratio with the close aggregation of their hosts—human and brute—and the facility of their transmission from one to another. The prohibition falls first on those flesh-feeders that are the most likely to reciprocate with man in the maintenance of parasites and infections. Then it denounces the sick as especially dangerous, and, finally, that which dies full of blood and is correspondingly liable to early putrefaction. The prohibition of blood was probably ritualistic rather than sanitary in its object, yet we need not ignore the experiments of Signol, who showed that the portal blood of a suffocated horse contained a poison that could be conveyed from horse to horse with fatal results through several successive generations.

The simple avoidance of the dead body and of uncooked meat in the case of many early peoples, though showing a similar precautionary tendency, is far less effective than the prohibitions of the Jewish code. We can still observe the good fruits of the latter in the comparative immunity of the Israelite from such diseases as trichinosis, the pork tapeworm, and tuberculosis.

These examples of tribal hygienic laws, however well-suited to an age in which the knowledge of disease and its causation was but as a glimmering spark, are sadly antiquated and ineffective in the strong electric glare of the nineteenth century; yet even now our hygiene of meats, as applied to our stockyards and markets, is far behind that which the Jews have practised for over three thousand years.

The Jewish system is a crude measure, feeling, as it were, in the dark for protection from an imminent danger, and was perhaps as perfect as could be understood by a people with the grade of knowledge possessed by the

Jews ; but it is capable of making no real discrimination between the dangerous and the harmless—whole genera of wholesome animals are prohibited to avoid the danger of a few of each genus conveying deadly poisons ; and the wholesome flesh of the imperfect or injured animal is condemned equally with that which is the subject of a fatal infection. Moreover, some of the most deadly diseases (like anthrax), affecting the blood and spleen only, may still pass as wholesome, because no solid tissue of the body has been observed to be diseased.

With our modern knowledge of the life-history of parasites and of the microbes of disease this crude and unintelligent selection and rejection must give place to a true scientific scrutiny ; and every available resort, microscopic and otherwise, must be brought into requisition to protect the public from the truly dangerous animal foods.

To illustrate the field that must be covered I shall name a few of the diseases of our meat-producing animals that are communicable to man, and I cannot begin the list better than with

Tuberculosis.—From this terrible scourge the sheep is almost exempt, while cattle, goats, pigs, rabbits, and chickens are extraordinarily susceptible. Among many wild animals also, the proclivity is strong, and thus at every hand man is liable to meet the redoubtable bacillus. The dangers of the disease are the greater that in many cases occurring in man and beast it assumes a chronic course, and its victims manifest a fair measure of health, so that their unsuspecting owners apprehend nothing and see no need of disposing of them, and of thus cutting short their career of plague-diffusion. The vitality of the tubercle-bacillus is also very great, so that it survives alike the lapse of time, the wetting, drying, freezing, and thawing of changing seasons, and even the curing of the meat and the heat of ordinary cooking. Toussaint and others have again and again infected

animals with meat that was believed to have been sufficiently cooked for safety. The dried-up expectoration is easily diffused with deadly effect on the air, to be inhaled by man and beast; and though for man perhaps the most common vehicle is the handkerchief, and for the beast the feeding or drinking trough, yet the dust of of our streets and stock yards, of our dwellings, stables, passenger and stock cars is a prolific channel of infection.

Milk is another common medium of infection, and, since the time of Gerlach, has been often used successfully to produce tuberculosis in previously healthy animals. Nor is the local disease in the udder essential to its conveyance through the milk. The tuberculous cow, with a still apparently healthy udder, frequently yields milk which, inoculated in other animals, produces tuberculosis. Irrespective of the escape of the microbe with the milk, however, it is a thousand to one that the tuberculous cow in licking her udder should leave upon it more or less of her infecting expectoration, to be dropped into the milk-pail as dust at the next milking. A frequent mode of propagation among pigs must not be overlooked. About abattoirs it is a common practice to feed to pigs the uncooked offal of the slaughtered animals. As in certain districts a considerable proportion of the cattle are tuberculous, this amounts to a systematic infection of the hogs. A few years ago, at a large public institution, where one-half the herd of cattle proved to be tuberculous, and where the pigs were fed on the offal of these cattle killed for beef, I found that the swine were, as a rule, similarly affected. I am informed that it is no uncommon thing here in New York for a cow, run down by tuberculosis, to be butchered in some out-of-the-way place, cut up into mince-meat, and put on the market as sausage.

Then, again, the danger of contamination through offal and expectoration, though great for pigs, is even

greater for chickens, which secure admission to every yard, and eat indiscriminately any organic refuse they can find—notably thick expectoration. Then, too, the course of tuberculosis is far more virulent in the chicken than in our larger mammals, and the product is proportionately infective to other animals. Is it wonderful that in the State of New York for a period of eight years ending 1888, every eighth death was from tuberculosis? We need not ignore or undervalue the accessory and predisposing causes of this dread disease. Many persons have undoubtedly a great power of resistance to tuberculosis, and the great majority escape death by this all but ubiquitous germ; yet the facts remain that none contracts the affection in the absence of the bacillus; practically no efficient measures are taken to restrict its prevalence, and 12 per cent. of our human mortality is caused by its ravages. Now, one word as to the diagnosis of tuberculosis in animals. Speak of consumption, and the average hearer conjures up a vision of extreme emaciation, a frequent, racking cough, profuse expectoration, with solid particles floating in a purulent medium, a heavy and somewhat offensive breath, inappetence, sunken eyes, and general wretchedness. In cattle, however, the majority of cases show no such symptoms, at least for a length of time—often for years—after the onset of the disease. The symptoms will vary extremely, and prove in the main absolutely unlike in different cases, according to the organ attacked. I cannot take time here to enumerate the symptoms of the different forms, so I shall content myself with naming the organs most frequently attacked, to the exclusion of the lungs:

1. The bowels and mesenteric or sub-lumbar glands.
2. The throat and pharyngeal lymphatic glands.
3. The liver, spleen, pancreas, or kidney.
4. The generative organs (ovary, womb, testicle).

5. The subcutaneous and intermuscular lymphatic glands.

6. The cancellated tissue of the bones.

7. The skin.

As the involvement of each of these may assume all grades of severity, it must be evident that great skill is required to diagnosticate many a chronic or subacute case of tuberculosis in the animal. In many occult cases, indeed, diagnosis is practically impossible by ordinary tests, and in the case of dairy herds in particular the reaction with tuberculin may be invoked to attest whether the milk-supply is wholesome or otherwise. Inoculations may further be resorted to in doubtful cases. These tests, however, together with the post-mortem examination in the abattoir, with the occasional resort to staining and microscopy, can only be conducted by the educated man.

To properly restrict such a disease as this, and to prevent its propagation to the human family from the brute, a professional supervision of dairy herds is demanded; also, of stock yards, but above all of slaughter-houses, and to make this last effectual every town should have its *one* municipal abattoir, where alone animals may be killed and where every animal killed must be inspected. Meat that has not been inspected by the authorities should be debarred from the market.

ANTHRAX.—To turn to another animal contagion—*anthrax* may be selected. Though most deadly to both man and beast, this, when once started, is not propagated indefinitely in a locality. Its germ—the bacillus anthracis—is one of the largest of the pathogenic microbes, and was the first to be identified as a cause of disease. The disease is rarely propagated except by contagion from diseased animals—either directly, or through the medium of flesh, blood, morbid discharges, hair, wool, hides, bones, litter, knives, or other solid bodies that have been stained with the diseased products. Its perennial home is in certain dense, wet, or septic

soils, in which its spores are preserved indefinitely, and which prove deadly to flocks or herds placed upon them. In open, well-aired soils it is soon rendered harmless. In man it is largely the disease of herdsmen, cattle-dealers, butchers, tanners, hair workers, felters, and wool-sorters, and, exceptionally, through the contaminated flesh, milk, or cheese of consumers. Though this wholesale poisoning of men is exceptional, yet on infected soils it sometimes reaches a high figure. In 1770 15,000 people died in six weeks in St. Domingo from eating anthrax flesh, and in the frequent anthrax years on the steppes of Russia a large percentage of the human population often perish in a single year. Besides this, the virus is carried and inoculated by mosquitoes and other blood sucking insects, and thus man is usually attacked on the face, hands, and arms—the parts which are habitually bare. The dangers to man are, therefore, coextensive with the prevalence of anthrax in animals. Anthrax may, however, appear as a general fever, with no local external lesion, or it may become localized in tongue, throat, bowels, skin, muscles, lungs, or elsewhere, and according to its seat will be its symptoms and morbid changes. At the autopsy the engorged spleen may indicate disease, but it requires professional skill to say whether that engorgement is due to the bacillus anthracis, the shorter bacillus of blackquarter, a bacillus of septicemia, or the plasmodium of Texas fever. From Texas fever, however, man is exempt, and he can eat the flesh of its victims without thereby sealing his fate.

BLACKQUARTER, or bloody murrain of cattle and sheep, has been alleged to be incommunicable to man, as anthrax has been said to respect swine, but there is a sufficient number of instances to the contrary to show that the immunity is by no means invariable.

DIPHTHERIA.—It may be a revelation to some that that dread of our nurseries—diphtheria—is also a disease of the lower animals, and that, among other parts,

it attacks the udder and milk-ducts of cows, and thus through the medium of the milk it can find an easy entrance to the throats of children. Whether, therefore, in the dairy cow or in the slaughtered ox, the educated eye should be ready to detect and remove the animal charged with such a terrible infection.

GLANDERS is usually supposed to be confined to the horse and man, and in both alike it is rightly considered one of the most painful, loathsome, and fatal diseases. It can be successfully inoculated not only in man and the horse, but also in the sheep, the goat, the pig, the rabbit, the dog, and the cat. The meat-inspector must, therefore, be acquainted with the affection as it occurs in each of these genera, and as it attacks the different regions of the body; for glanders may attack almost any portion of the system, to the exclusion, at first, of its common seats, the nose and skin. In this disease, too, as in tuberculosis, the germ (*bacillus mallei*) elaborates specific chemical poisons (ptomaïnes and toxines) which, when inoculated in the suspected animals, go far toward determining the presence or absence of the disease, by producing or failing to produce a febrile reaction in the subject. Again, as in tuberculosis, the germ of glanders can be cultivated on a large number of organic substances, as bread, potatoes, peptonized gelatin, etc., outside of the animal body, and hence its tolerance in any locality is a source of constant danger, and, in the present state of knowledge, nothing less than criminal.

CANINE MADNESS.—As we erroneously attach the idea of glanders among domestic animals to the horse only, so we connect the idea of rabies (hydrophobia of man) with the dog. Not man alone, however, but all domestic animals contract this disease when inoculated with the mad dog's tooth, and in all alike the carcass becomes infecting. I must add that the disease does not always present itself in the violent or delirious form, but that in a certain number the apathetic or paralytic symp-

toms predominate from the first, and in the absence of an intelligent inspection the meat of such an animal may be thrown upon the market and may fatally infect those that partake of it. That this disease can be prevented by inoculation with the toxines has been shown by the admirable work of Pasteur; yet the enthusiastic application of his method to the as yet sound animal is not without its drawbacks and dangers, unless the animal so inoculated is carefully secluded from others for a length of time. It is a notorious fact that where such inoculations have been most extensively adopted rabies has been unusually prevalent in animals, a circumstance that calls for intelligent supervision of our meat-products in this direction.

TETANUS, or LOCKJAW, is nearly related to rabies. Its germ (*bacillus tetani*) is conveyed from infected soil to man or beast, and from animal to animal indefinitely. Like rabies, it makes its localization in the great nerve-centers, as the general racking muscular spasms bear all too frequent evidence. Like rabies, too, it attacks all warm-blooded animals, and thus man may suffer by infection from any creature so diseased, or from contaminated dwellings, instruments, or soil. While it is true that this malady can be cured by the blood-serum of an animal that has survived an attack, and while it is further true that the system may be fortified against it by inoculation with the ptomaïnes and toxines produced during the disease, such truths can never justify the lack of such skilful professional inspection of our meats and meat-producing animals as shall protect the community from an affection at once so agonizing and so redoubtable.

MILK-SICKNESS.—In a number of localities that have fallen behind in the race of agricultural improvement there lingers a disease, indigenous to the soil, communicable to all mammals and affecting the nervous centers so as to nearly abolish the functions of the brain and

spinal cord. It produces, among other things, profound torpor of the digestive functions, general nervous tremors, loss of control of the voluntary muscles, and great depression of the intellectual functions, amounting in man to loss of the moral sense. If survival takes place at all, it is at the expense of rational and moral qualities, as a result of which continued existence is rendered altogether undesirable. A dangerous feature of this disease is that, if it attacks a milch-cow, most of the poisonous products are secreted in the milk, and the cow shows only slight signs of illness. The contaminated milk, butter, and cheese, however, prove most pernicious to those who consume them; hence the disease is known as *milk sickness*. Physicians practising in *milk-sick* districts say that such cases are not altogether absent from our large cities, being caused by the meat, butter, and cheese shipped from such contaminated districts, and that certain obscure cases of intestinal torpor, brain-prostration, and mental hebetude are to be thus explained. It is true that milk-sickness is an affection confined within very narrow limits, yet, like other deadly contagia, it could be largely obviated by a strict municipal professional control of all meats offered for sale.

FOOT-AND-MOUTH DISEASE is fortunately not a present denizen of this continent, but, when it does secure a footing on our shores, it threatens all mammals, and through the contaminated milk is liable to carry off our children by an acute digestive disorder.

ACTINOMYCOSIS, the LUMP JAW of cattle, is common in man and other animals, attacking not the jaws alone, but the tongue, face, throat, abdominal organs, the walls of the chest and belly, and even the brain. As the disease is due to a slowly growing cryptogam, it has been common practice in Europe to cut off the diseased portion and put the remainder of the carcass on the market *as sound beef* forsooth. Some great feeders and packers connected with the Whiskey Trust are contesting in the

courts of Illinois their right to do the same. A sound sanitary system, recognizing that this vegetable parasite can only proceed from the seeds of a similar preëxisting growth, that the seeds from any such growth may develop when planted on any susceptible raw surface or follicular recess of the body, and that its presence in isolated form in such a secluded organ as the brain proves the conveyance of the seeds by the animal fluids, must recognize that the removal of the visible deposits is no sufficient guarantee, and that the condemnation of the entire affected carcass is demanded. It is quite true that the thorough cooking of the meat would render it wholesome, but the same remark would apply to trichinous flesh or to any meat in which the dangerous factor is a living organism. That man suffers extensively from the disease is witnessed by reports in the medical journals of from two hundred to three hundred cases in the course of a few years past. The danger is, therefore, far enough from being a merely imaginary one.

I need not try your patience by following this list further. I might speak of *malignant edema*, and other forms of *septicemia*, of *erysipelas*, of *pyemia*, of *gangrene*, of *echinococcus*, of the *beef and pork tapeworms*, of *trichinosis*, of the *infective osteitis* of young animals, and of still other infections and parasites that we reciprocate with our brute possessions. I might speak of the leukomaïnes and toxines of overexertion and excitement, and of the ptomaïnes and other poisons of decomposing and putrid meats, of the inoculation of live stock with animal venoms, of the impregnation of the flesh with vegetable narcotics, which though harmless to certain herbivora, are deadly to man, and of the presence of certain inorganic agents, which, like phosphorus, are most injurious to the human organism. I might go on to show that in all conditions of high fever and in various other forms of disease the flesh becomes unwhole-

some and innutritious. Finally, I might go over the whole list of zymotic diseases that respect the human family, but are contagious from animal to animal, decimating herds, depressing agriculture, and reducing the quantity and raising the price of meat.

I have said enough, however, to show that the comparative pathology of the end of the nineteenth century is such as to justify and demand a scientific inspection of our live stock offered for food or furnishing dairy-products, and no less so of carcasses presented for human consumption. By scientific inspection I mean, not the untaught glance of the man who has graduated from the stock yards, the shambles, or the army commissariat, but the skilful scrutiny of the professional man, trained in comparative pathology, up to date in the sciences of bacteriology and parasitism, and having at his command modern methods of work and instruments of precision. I cannot too much deplore the low estimate put by the public on such work. The political representatives of this State at Albany voiced the general ignorance in enacting a law giving the title of veterinary surgeon to all who would testify that they had prescribed medicinally for sick animals for a period of three years, and now every county in this State has its crowd of registered veterinarians, utterly innocent of all knowledge that goes to make up the armamentarium of the comparative pathologist, but nevertheless duly licensed to poison, maim, and slay the valuable flocks and herds of the Empire State. A few days ago a gentleman whose horse had his hoof wrenched off in crossing a railroad track was told by the superintendent of the road that he should have applied to him and he would have sent him to the best veterinarian in New York. The practitioner so designated by the superintendent turned out to be one of those registered veterinary surgeons who had graduated from the stable, and by act of the Legislature had been endowed with all the rights and immunities that

pertain to the comparative pathologist. The gentleman, however, knew better and saved his horse.

If the action of the Legislature and of the railroad magnates is to be taken as a proper gauge of public opinion, it is not surprising that New York has done next to nothing, as a State, for the education of the veterinary physician and sanitarian. Such education has been left to private enterprise, and as a matter of course it must be restricted by financial considerations, and the length and thoroughness of the course of study must remain a consideration secondary to the resultant income. It is useless to deny that veterinary education has suffered seriously from this cause, so that the possession of a diploma of one of the schools is not necessarily a guarantee that the owner is a desirably educated man. He has received some training, however, in the fundamental principles of comparative disease and medicine, and if his preliminary education is such as to permit it, and if he is sufficiently industrious, he can carry on his education and make himself an accomplished man.

In Europe, with a system of veterinary schools equipped and controlled by government, they do better. The matriculant must be a B.S. or B.L., or he must hold a first-class professional certificate from a gymnasium, and must thereafter pursue a course of study for four entire years before he can present himself for the final examination for a degree. The records show that even then not more than one-third secure the coveted diploma, and the remainder have to take a fifth or even a sixth year before that desired goal is reached.

If America could have similar government colleges we would be enabled to secure veterinary sanitary officials of the high quality required. In the absence of government schools, something should be done by some of our wealthy universities; but even with them we see as yet hardly the first faint ray of recognition of this great

need of the country. Each institution earnestly competes with the others in establishing rival schools of classics, of the general sciences, of philosophy, and many in developing colleges of economics, of law, of agriculture, of architecture, of engineering, of mechanics, of medicine even; but this one subject, which lies at the foundation of all sanitary control of our meats and dairy products, of the preservation and soundness of $2,000,000,000 worth of live stock destined for human consumption, the pathology of our great animal industry, which is essential to the permanent fertility of our soil, is persistently ignored. The University of Pennsylvania and Harvard University have now made a beginning, and we may hope to see a better recognition of this subject in the future.

Of our 43,400,000 cattle, it is estimated that 3 per cent. are tuberculous, while the ratio in dairy cows rises much higher. If, however, we count only 2 per cent. on our 95,200,000 cattle and swine, we have in round numbers 2,000,000 domestic animals daily exposing man and beast to this terrible contagion, and we have a large proportion of these yearly sold from the butchers' stalls as human food. Though we ignore all the other animal diseases communicable to man and confine our attention to this alone, we may well ask, in the light of our sanitary knowledge of to-day, Is it less than criminal to neglect this source of danger, so manifest and so preventable, or to delay educating men for this sanitary service?

The education of efficient men is, however, not enough. Arrangements must be made whereby these men will be enabled to perform their work with system and thoroughness. Our perfunctory plan of inspecting the carcass in the butcher's stall is utterly insufficient. Some contagions that render the meat deadly may at given stages of the disease show to the unaided eye little or nothing abnormal on inspection of the dressed carcass. Splenic

apoplexy is a notorious example of this. It follows that the subject must be made to pass the scrutiny of the skilled eye before death and during slaughtering, and that instruments and methods of precision must be called into requisition whenever they may be needed. Such inspection, however, often becomes practically impossible in the private slaughter-house, where the proprietor can control the opening and closing of the doors, the hours of slaughter, the disposal of the products, etc. To secure a satisfactory inspection the abattoir must be a public municipal institution, under strict regulations, and in which all butchers may hire at low rates the facilities necessary for slaughtering and utilizing the products. Apart altogether from the sanitary inspection of meats, this has been generally found to be the most economical, cleanly, inoffensive, and in every way most desirable method; when, therefore, it is also the only method that can insure that the inspection shall be satisfactory it may be held imperative on every city to adopt it. The advantages of one central abattoir appear to have been first realized by a guild of Roman butchers in the days of the ancient empire, but the true municipal abattoir, owned and controlled by the city, we owe to the first Napoleon, who projected those of Paris in the later years of his reign, showing a wise example, which has since been followed by nearly all of the great cities of Europe. The concentration of the work of slaughtering has been attempted in Boston, Philadelphia, and New Orleans, and to a lesser extent in New York, but in nearly every case the ownership has been vested in a private corporation, so that the greatest benefits to the butcher and the public have failed of realization. To give an example of the economy of municipal ownership, the Edinburgh abattoir rents a slaughtering booth, pen, and yard, with all facilities for the utilization of the products, for $40 a year. To the butcher, therefore, it is a real economy, and this object must never be lost

sight of in sanitary administration. The community has a right to protect its health by the control of slaughter-houses and the rigid scrutiny of all sources of its meat-supplies; but if in so doing it imposes any undue or unnecessary burden on the honorable butcher, it will only serve to arouse opposition and defeat its own ends. Hence the granting of a charter to any company to erect and maintain an exclusive abattoir is, in my opinion, a most unwise procedure. A public building, owned by the city, controlled by the health board, and conducted on principles specially favorable to the butcher, is the ideal provision, and such an establishment faithfully administered must soon establish its claim to permanence.

As regards the dressed-meat trade, it is manifest that as yet the same strict inspection cannot be applied. It is to be hoped, however, that ere long our cities will be supplied with carcasses stamped with a certificate of soundness, as is now furnished with the meat shipped to Europe, and that the authorities may be able to obtain the assurance of the thoroughness and reliability of such inspections, whether conducted by government or municipal agents.

Like all reforms, this sanitary inspection of meats and meat-sources will be opposed on the ground that what was good enough for our fathers can be safely borne with. Such an argument, however, proves too much. Could Buffalo maintain her prosperity if the lakes were cleared of all steamers and the traffic once more remanded to sailing craft? Could her business be conducted in the absence of telegraphs, telephones, gas, and electric lighting systems? Could she safely abolish her sewage system or her steam fire-engines? Would it be less than criminal to go back even to untrapped or unventilated sewers? Could the modern surgeon be tolerated if he ignored alike anesthetics and aseptic operations?

Every age has its own status of knowledge, and such knowledge entails a corresponding measure of responsibility. What was an advanced position for our great grandparents would be a reprehensibly antiquated and effete measure in our own day, clogging the wheels of progress and dooming a community or nation to decadence. It is true to-day as in the days of Isaiah, "The nation and people that will not serve the Lord shall perish, yea, that people shall be utterly wasted" (Isa. lxii, 12). With our fuller knowledge of the laws of God's universe, we have a greater trust imposed upon us, and unless we recognize these laws and harmonize ourselves with them in every sphere of human activity we shall fail of our stewardship and lag behind in the general progress. There is a profound truth in the Socratic aphorism "Vice is ignorance; virtue is knowledge." We can modernize it by saying, "To ignore the knowledge of to-day is vicious; to avail of it and practise it is virtuous." Whenever we step aside from a utilization of all available knowledge and skill for the advancement of the material prosperity of the people and the general sanitation we become recreant to our trust, and no consideration of petty economy, of party success, or of national indebtedness to an unfit candidate can remove our action from the category of the vicious and destructive. In regard to the main subject before us—the inspection of animals and meats—we have the highest moral as well as material reasons for securing skilled and honest officials. The movement is destined to conserve the numbers and health of our live stock, without which the native fertility of our soil must steadily decline, and it is destined to protect that most sacred of all trusts, the health and lives of our people, and in consequence the power and prosperity of the nation.