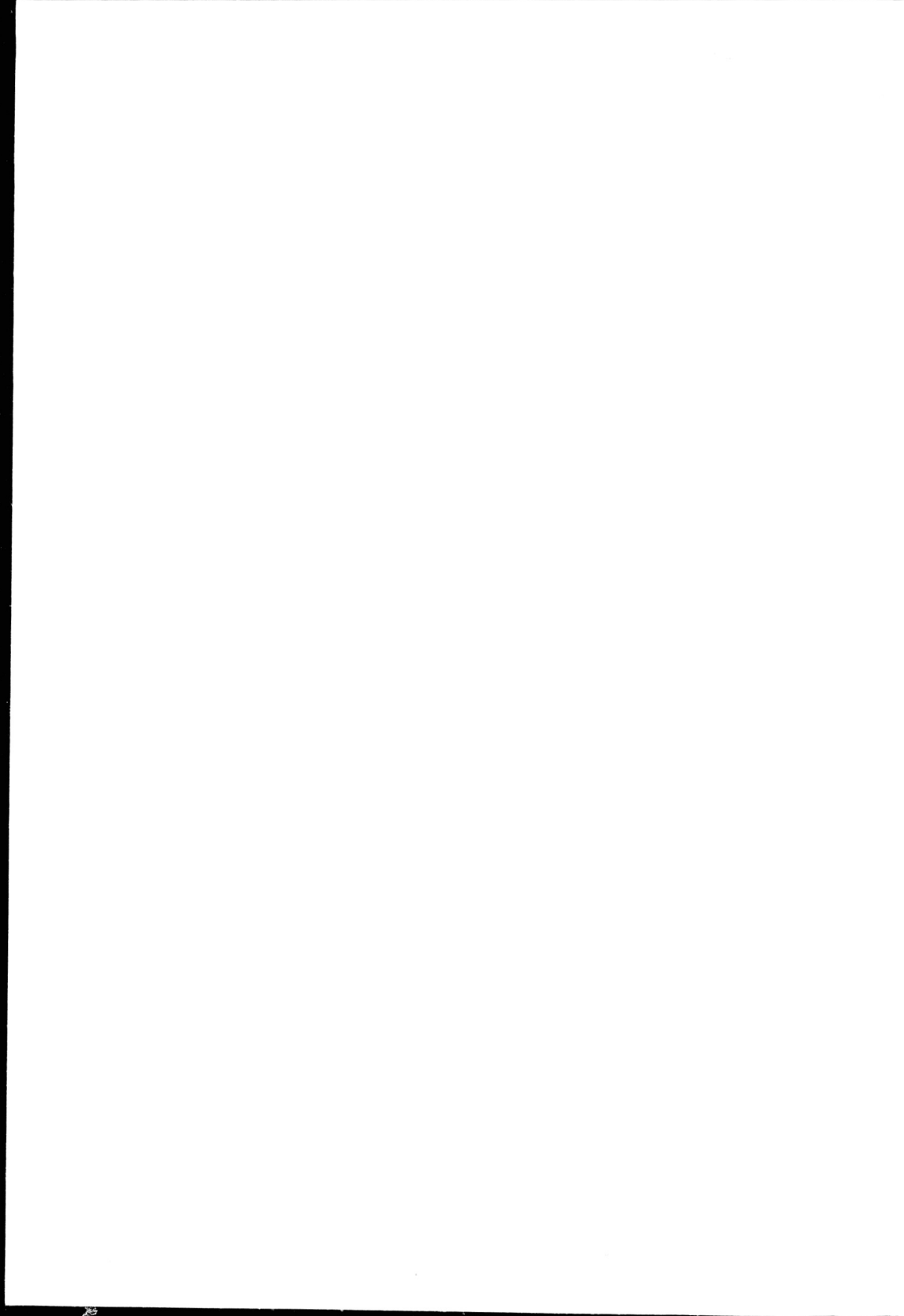


INFECTIOUS AND CONTAGIOUS  
CATTLE DISEASES.

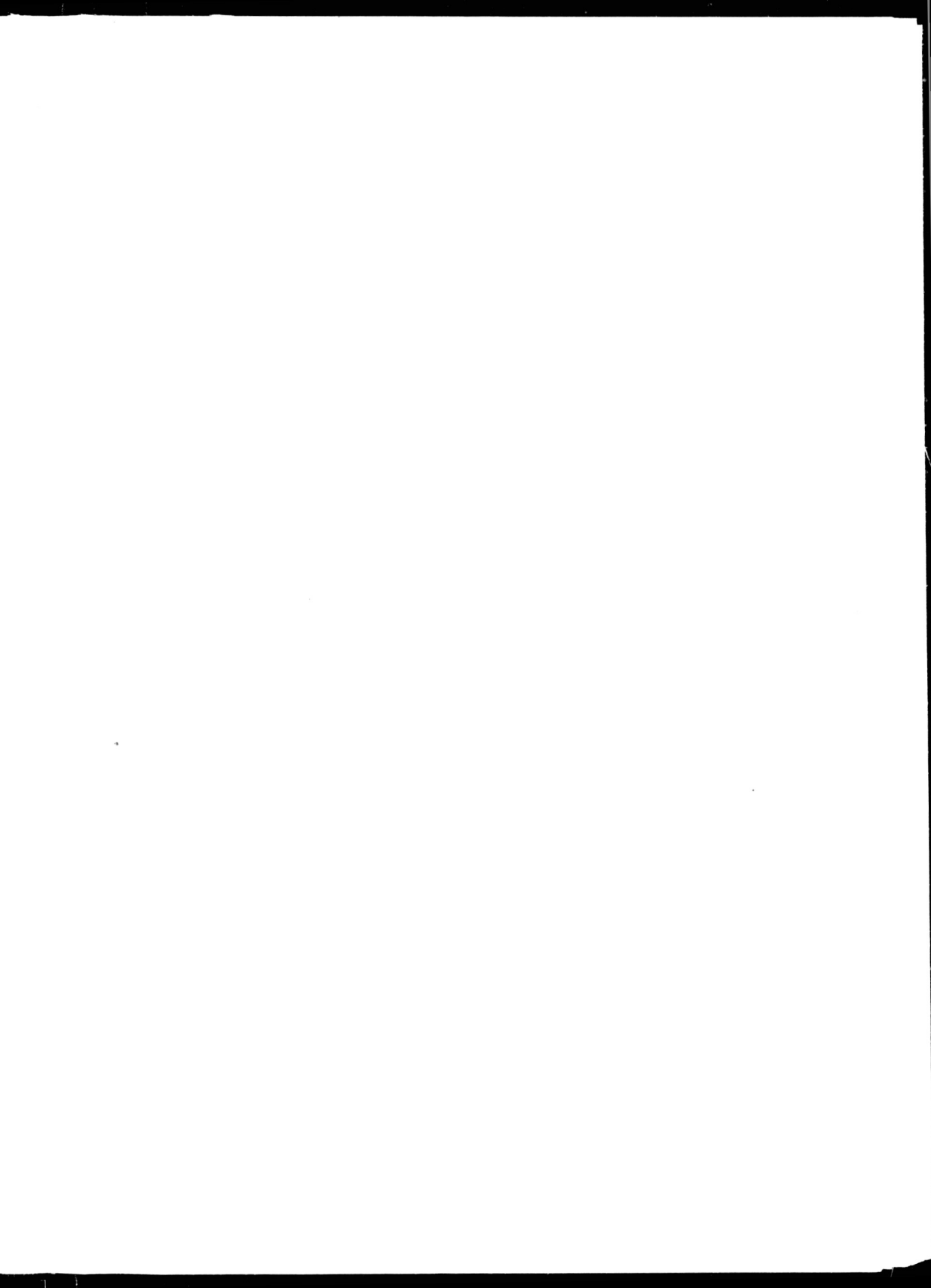
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INFECTIOUS AND CONTAGIOUS  
**CATTLE DISEASES.**

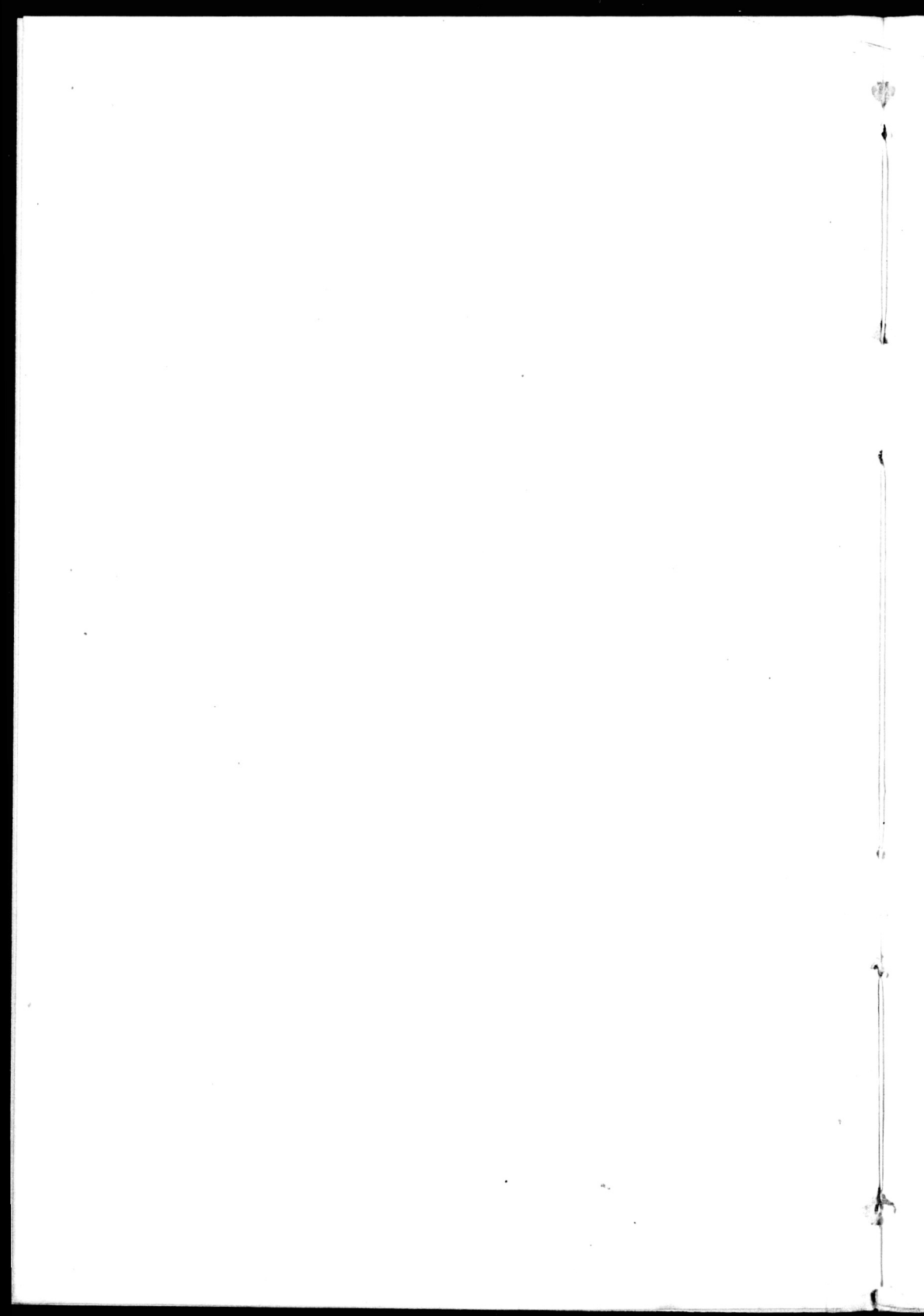
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TO  
WILLIAM M'COMBIE, ESQ. OF TILLYFOUR, &C.,  
EX-M.P. FOR WEST ABERDEENSHIRE,  
BY WHOSE EFFORTS ON THE OCCASION OF THE LAST OUTBREAK OF  
CATTLE PLAGUE IN THIS COUNTRY,  
IT WAS EFFECTUALLY SHEWN WHAT MIGHT BE DONE BY  
DECIDED MEASURES IN CHECKING THE SPREAD  
OF  
INFECTIOUS AND CONTAGIOUS CATTLE DISEASES,  
THIS SMALL BOOK IS DEDICATED BY HIS OBLIGED FRIEND  
THE AUTHOR.



## P R E F A C E.

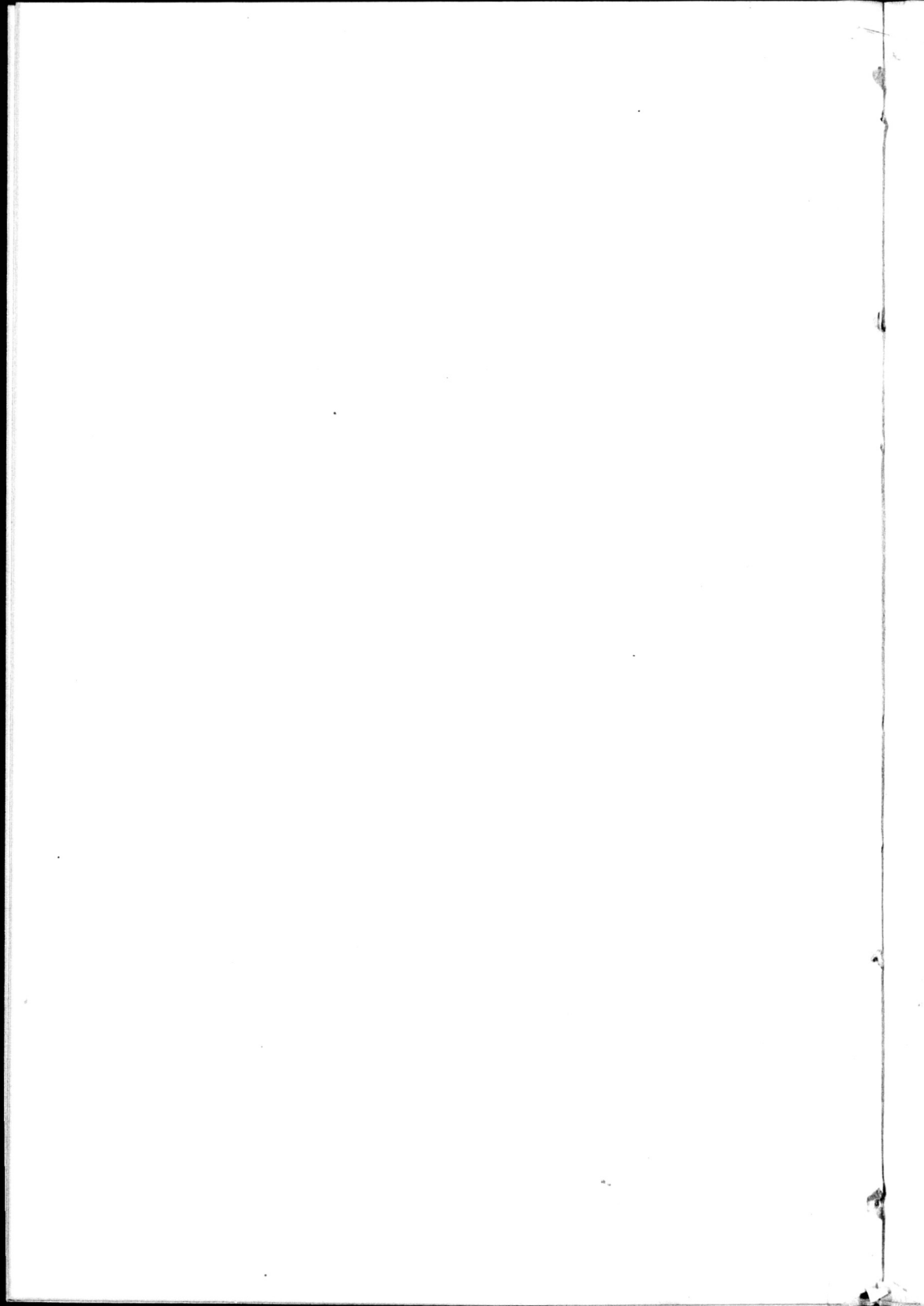
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The following pages were written a good many months since in Australia. Their publication has been delayed by various causes. It is hoped that this time is opportune to draw attention to the defects of the present measures for checking the spread of infectious and contagious cattle diseases ; and to offer suggestions for their amendment.

The book being printed in this country it has been impossible for the author to revise the proof-sheets. Readers, for this reason, will, it is hoped, kindly overlook many errors and defects.

W. B.

May 1877.





## E R R A T A.

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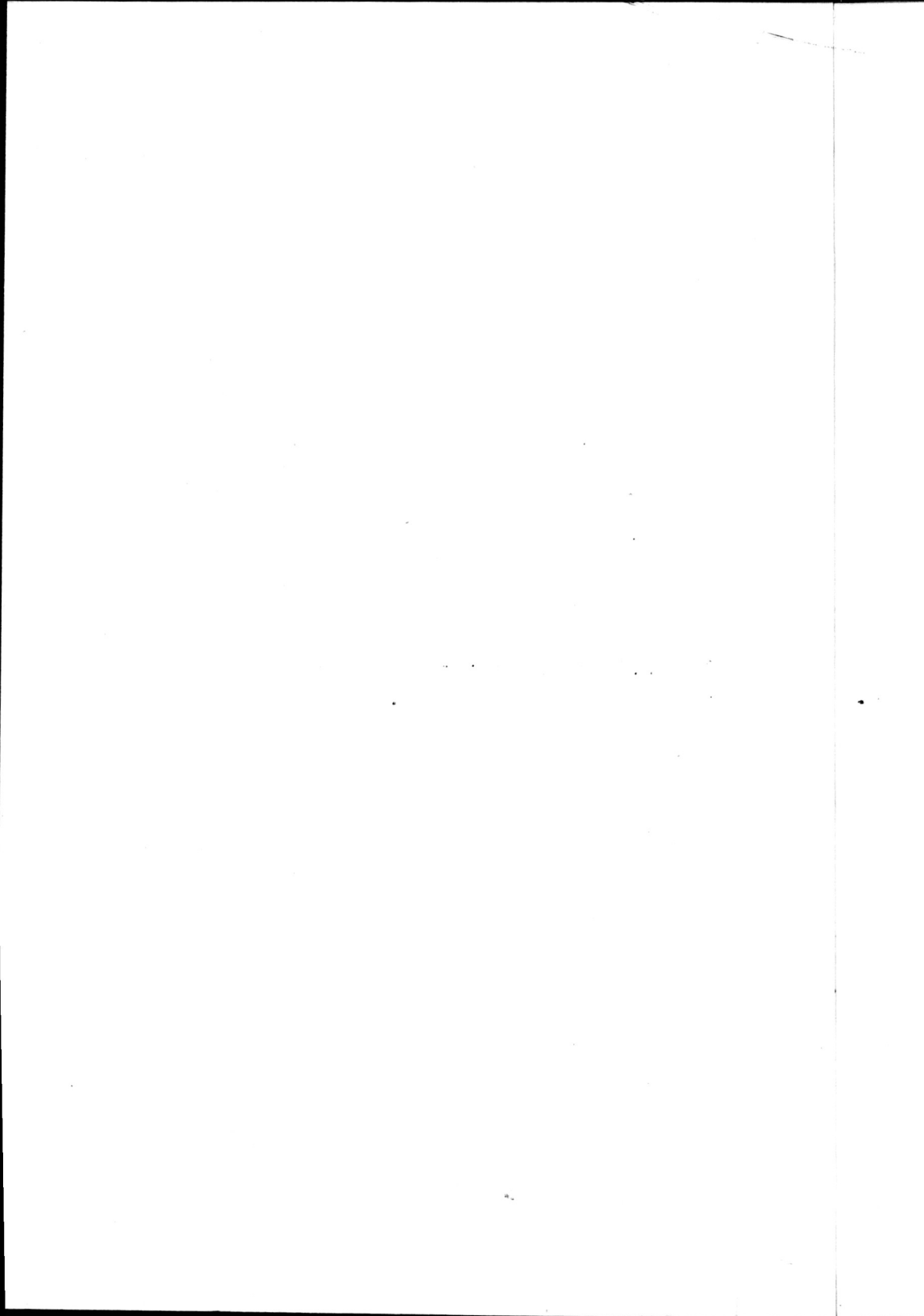
Page 22, line 28, for "inmanageable" read "unmanageable."

Page 24, line 33, for "in" grass read "on" grass.

Page 68, line 8, for "diseases" read "disease."

Page 68, line 23, for "intermediate" read "'Intermediate.'"

Page 80, line 29, for "line" read "time."



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# CATTLE DISEASES.

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## I.—The Contagious Diseases (Animals) Act and its Administration.

The leading provisions of the Act are shortly as follows :—

1. It declares certain places and districts to be districts of Local Authority.
2. It appoints certain bodies in those districts to be Local Authorities.
3. It delegates to these Authorities the appointment and supervision of Inspectors and the carrying out of its provisions and those of the Orders in Council.
4. It provides for the eradication of disease by quarantine, slaughter, &c., of infected stock, and empowers the Privy Council to add to these Provisions, Orders and Regulations, to almost any extent.
5. It empowers the Privy Council to appoint in any part of Great Britain Inspectors who shall have the same power as Inspectors appointed by the Local Authorities.
6. It enacts how the expenses required for carrying out the provisions of the Act are to be raised by the Local Authorities, and as to the recovery of the penalties.

It will thus be seen that the administration of the Act is entirely in the hands of the various Local Authorities, except when the Privy Council thinks it necessary to interfere and to

appoint their own officers. This has seldom, if ever, been done, otherwise than by inspection of the stock at the leading Sea-ports, and in some instances of an outbreak of rinderpest.

The principle of Local Administration is, we hope to shew, in great measure a mistake ; and when, as it is in England, to a very large extent, optional, the law becomes a dead letter ; the system of inspection troublesome and vexatious ; and the large outlay incurred in the payment of salaries and other charges a waste of public money.

The Acts in force in Australia are altogether different. In South Australia and Tasmania there are no Local Authorities. The law is carried out by the Minister charged with its administration, and by a staff of Inspectors under his control. In New South Wales, Victoria, and Queensland, where there are such bodies, they are mere Boards of Advice, and can only interfere indirectly in the administration of the law ; that is, only so far as the Minister in charge of the Act thinks fit to adopt their suggestions. The measures of these three Colonies have been found to work very well. They have, of course, been mainly carried out by the Chief Inspectors ; but Ministers, and under them the Chief Inspectors, have to a large extent been guided in their administration by the advice tendered by these Boards, especially in local questions, and have only refused to carry out their suggestions when they seemed to be more for the interest of their districts than for the general good.

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## **II.—The Diseases dealt with in the Act, and the extent of the Losses they have occasioned the United Kingdom during the last 15 years.**

The Act applies to all Infectious and Contagious Diseases in Animals (i.e., in cattle, sheep, goats, and swine, and, in some cases, horses also) and of these it specially enumerates the following :—



- 1.—Cattle Plague or Rinderpest.
- 2.—Sheep Pox.
- 3.—Pleuro Pneumonia.
- 4.—Foot and Mouth Disease.
- 5.—Sheep Scab.
- 6.—Glanders.

Taking each of these Diseases in the above order, we will briefly examine its nature and the loss it has caused the country during the last fifteen years.

#### 1.—CATTLE PLAGUE OR RINDERPEST.

This is a specific, contagious, and highly malignant Fever. It is attended with inflammation and specific lesions in the elementary canal which correspond with those of typhoid or enteric fever of man. The period of its incubation extends from 7 to 14 days. Cattle, sheep, goats, and pigs, and even wild animals, are all subject to attack.

Its contagion is exceedingly swift and subtle; and the disease is most destructive in its effects—carrying off from 70 to 80 per cent. of those affected.

The losses in cattle, sheep, and pigs, (including the expense of medicine and attendance, and additional expenses incurred through quarantine regulations and other restrictions) caused by the general outbreak of the disease in 1865 have been estimated by competent authorities at £8,000,000.—See Fleming, Introduction, page xiv.

#### 2.—SHEEP POX.

This is described by Professor Armatage as a malignant and specific variolous fever peculiar to sheep. Its incubation extends from 7 to 14 days. It spreads rapidly by contagion and infection. A healthy flock is not safe at a distance of 500 yards, and the infection can be carried by almost any vehicle. It destroys in England about 50 per cent. of the sheep attacked.

The disease never obtained a very general footing in England even in 1865-6 when the most extensive outbreak occurred. The loss arising from that attack we have been unable to ascertain with certainty, but would estimate at £1,000,000.

### 3.—PLEURO PNEUMONIA.

This disease (again quoting from Professor Armatage) is, like Rinderpest, highly contagious, and is peculiar to the ox tribe—exhibiting no preference for breed or age of cattle, and is not influenced by the nature of the soil, climate, or season. By some writers it has been described as a malignant fever, with local manifestations, which are extensive exudations of an inflammatory character, confined to the lungs and cavities adjoining these organs. The contagion of Pleuro Pneumonia has very great vitality; and once a cow-house, or stable is infected it is extremely difficult to thoroughly disinfect it.

Another feature in this disease is that when the cattle are not much disturbed, its incubation is generally very lengthened, extending in some cases to periods of *four*, and, it is said, even *five* months, while its general average duration is six weeks. This, of course, renders the malady extremely insidious and dangerous.

The losses caused by Pleuro Pneumonia, according to Professor Armatage's estimate (*loc. cit.*, p. 185) from 1842 when the disease first obtained a footing in England to 1875 at 2,000,000 a year, would amount to £66,000,000; while other authorities put the losses from this disease at even a higher figure. But taking the annual loss at £2,000,000 we have for the last 15 years a sum of £30,000,000.

These losses, enormous though they be, are not nearly all that Pleuro Pneumonia in England has entailed; for during the period stated it has been carried from England to North and South America, to Cape Colony, and Australia, and we are well within the mark in asserting that this disease has caused a loss in those countries of £35,000,000, which would bring up the

the total loss it has inflicted upon the world, through the infection in Great Britain, to about £100,000,000 sterling.

#### 4.—FOOT AND MOUTH DISEASE.

This disease assumes the form of an apthous eruption on the gums, mouth, and tongue, and also on the feet of the animal affected. It attacks cattle, sheep, goats, and pigs, and even wild animals, and one attack does not protect the animals from a second or even subsequent attack. This is a most infectious disease. The infection has not unfrequently been wafted across roads and fences, and carried long distances, and for considerable periods, in clothes and other vehicles; while sound stock travelling on or even across the track of diseased are almost sure to become infected.

The incubation of Foot and Mouth Disease varies from 48 to 96 hours, and the average deaths directly caused by it are about 2 per cent. of the cases.

In estimating the extent of the loss occasioned by this disease it is to be borne in mind, although the average losses are so low as 2 per cent., that counting the stock worth only £10 a-head this would bring up the direct loss, including expense of attendance and medicine to a very large sum. But the direct loss by this disease is as nothing compared with the indirect, such as loss of condition (which may be calculated at say 40s per head) loss of stamina, loss of milk, loss of calves, and lastly, liability to abortion among the cows in calf. The best authorities estimate the total loss from Foot and Mouth Disease during the last 15 years at something like £75,000,000. That occasioned by the outbreak of 1872 alone is put by a good judge, Dr Blyth, County Analyst, in a paper read by him before the Devonshire Chamber of Agriculture, at £32,000,000.

#### 5.—SHEEP SCAB.

This disease is an eruptive affection of the skin, very highly contagious, accompanied by incessant itching. It is caused by

a minute insect like the horse-mite, but smaller, known as the scab *acarus*.

It may be conveyed from one sheep to another either by actual contact, or by being left in sheep-sheds, old yards, or camping grounds where diseased sheep have been; in wool hanging on fences; or trees against which these sheep have rubbed, with which the clean sheep afterwards come in contact. A period of some twelve to sixteen days elapses from the time the acarus is transferred, before the skin of the healthy sheep exhibits any diseased signs of irritation.

As this is not a deadly disease, and as the amount at which we estimate the losses it occasions might otherwise be called in question, we will in this case particularize the items which make up the loss:—

Taking the sheep in the United Kingdom at 33,000,000—the number infected at 1 per cent. of the whole—the loss on the fleece of the infected sheep at 1 lb. per sheep—the price of the wool at 1s 6d per lb.—the loss of condition at 6 lb. per sheep, and that at 6d per lb.—the expense of dipping, say twice, at 1s per sheep—the deaths through disease and dipping at 1 per cent. of the infected sheep, and the value of the sheep at 40s, we have the following:—

Loss of wool at 1 lb. each on 330,000 at 1s 6d,	£24,750	0	0
Loss of condition at 6 lb. each on do. at 6d,	-	49,500	0 0
Expense of dipping, &c., at 6d on do.,	-	8250	0 0
Deaths by disease, &c., 1 p. cent. on do. at 40s each,		660	0 0
		<hr/>	
		£89,100	0 0

And we may safely put it at that rate, which would make the total loss for the last 15 years at nearly one million and a half.

In Australia it is estimated that the loss from first to last would be underrated at £20,000,000 sterling.

#### 6.—GLANDERS.

Youatt considers this the most formidable of all the diseases to which the horse is subject. He says it was described by

writers 1500 years ago, and that it was then and is now not only a loathsome but incurable disease.

Professor Brown of Her Majesty's Veterinary Department remarks that it is the only disease of an undoubtedly infectious nature among the horses of the United Kingdom. He adds, its characteristics are a peculiar form of infection in the membranes of the nostrils, sometimes extending down to the trachea, with tuberculous deposits in the lungs and enlargement of the glands of the jaw. Discharge from one or both nostrils is an invariable symptom.

This disease is very general in London, and the other large cities of Britain. For, as a rule, glandered horses are not destroyed as the law requires, but are kept and worked at night, thereby keeping the disease alive and spreading the infection in all directions.

When we consider how prevalent glanders are in all our great towns we cannot estimate the annual loss from this disease at less than £100,000 annually, that is, £1,500,000 for the past fifteen years.

#### 7.—ABSTRACT OF LOSSES CAUSED BY THE FOREGOING DISEASES IN GREAT BRITAIN DURING THE LAST FIFTEEN YEARS.

If we combine the estimates we have made of the losses sustained by the United Kingdom during the last fifteen years through these preventable diseases we have the following result :—

By Cattle Plague,	...	...	...	£8,000,000
„ Sheep Pox,	...	...	...	1,000,000
„ Pleuro Pneumonia,	...	...	...	30,000,000
„ Foot and Mouth Disease,	...	...	...	75,000,000
„ Sheep Scab,	...	...	...	1,500,000
„ Glanders,	...	...	...	1,500,000
				<hr/>
				£117,000,000
				<hr/>

### III.—The Classes in England interested in, or affected by, the Operation of the Contagious Diseases (Animals) Act.

These may be said to be five :—

The Country Landlords.

The Tenants, Farmers, and Dairymen.

The Dealers, Salesmen, and Butchers.

The Carriers—Railway and Shipping Companies.

The Consumer.

#### I.—THE LANDLORDS.

It is evident that if the foregoing estimate of losses is, in even a small degree, correct, the *ultimate* loss must affect the Landlords' pockets. Apart, however, from such selfish reasoning, we believe Landlords are quite prepared to agree to strong measures. Perhaps they may not equally care for a change from Local to Central Administration ; yet, if only such a change could be brought about gradually, and if the necessary Working Expenses could be laid on the Consolidated Fund, while the Compensation Fund merely would depend on local rates, they, or at least such of them as take an intelligent interest in staying the plague of Cattle Disease, would not obstruct real reform. They are quite aware of the worthlessness of the present system so far as preventing the spread of Contagious Disease.

#### 2.—FARMERS AND DAIRYMEN.

An outbreak of infectious disease among their stock is a very serious matter, indeed, to the tenant farmer and the dairyman. If the ailment be *Rinderpest*, and their stock in store or breeding condition, they would be obliged—if the law did not interfere—to look on helplessly, and see 80 or 90 per cent. of their cattle die without being able to do anything for them in the

way of treatment that would be of the least avail. As the law stands, however, they are obliged to destroy the whole herd, and to take half their value up to, but never exceeding, £20, as compensation, no matter what the real value may be. In this way animals worth from £100 to £1000 may be destroyed, although they shew no actual symptoms of disease, merely because they may have been in direct or indirect contact with stock which were affected; and the owner receives only a paltry £20 as compensation for each animal, though, as we have said, it may be worth £1000. This is not all. Their farms and premises are placed in quarantine, and the unfortunate owner is put to no end of expense and trouble in disinfecting his premises, while he is prevented for some considerable time, even if he were inclined to run the risk of doing so, from restocking his place, thereby increasing the heavy loss which he has already sustained through the outbreak. It may be, too, and it not seldom happens, that the disinfection of the premises fails, and that the disease breaks out again among the first lot of fresh cattle he puts into his sheds.

We have already shewn that the loss in this way occasioned to farmers and Stockowners by the last general outbreak of Rinderpest is estimated by competent authorities at more than £8,000,000. All of which, in the first instance, fell upon the individual stockowner, and in numberless cases to his utter ruin.

As in the case of Rinderpest, so in *Pleuro Pneumonia*, cattle affected must now be killed, and very heavy losses are being constantly sustained by its spread; for, as a rule, every head of horned cattle on the premises or farm where an outbreak of *Pleuro Pneumonia* occurs has to be destroyed. Although not so very malignant as Rinderpest, this disease is far more insidious and lingering, and it is no uncommon thing for two and sometimes even more outbreaks of *Pleuro Pneumonia* to occur on the same premises or farm, although the cattlehouses and sheds had undergone a very careful course of disinfection.

From what has been said in describing this disease, and the estimate given of the losses occasioned, it will be gathered that an outbreak of Pleuro Pneumonia always inflicts severe loss, and in many cases complete ruin, upon the owners whose stock are attacked.

To see, again, how far an owner suffers from an outbreak of *Foot and Mouth Disease*, we will suppose that a herd of 100 head of ordinary cattle is affected, and we will take the loss through waste of condition at the usual average of £2 a-head, and the deaths at the low rate of 1 per cent. In that case the owner's losses will be :—

Waste of condition on 100 head at an average of £2			
each,	-	-	£200 0 0
Deaths, 1 per cent, at an average value of, say—			£15 0 0
Loss through quarantine, cost of medicine, additional			
expenses incurred through the outbreak &c., &c.,			
say—	-	-	£20 0 0
Loss through $\frac{1}{3}$ of cows casting their calves—			
First year say—10, at £5 per calf,		£50 0 0	
Second do. 5 £5 do.,		25 0 0	
		£75 0 0	
		<hr/>	
		£310 0 0	

We thus see that the effect of an attack of even a mild infectious disease among *ordinary* stock, so far as the individual tenant farmer is concerned, is a very serious matter, and that an outbreak of some of the more virulent diseases may lead to his utter ruin. It must also be borne in mind, with respect to Foot and Mouth Disease, that the same animals may be attacked over again, and the owner subjected, time after time, to the serious losses which we have enumerated. It must be remembered, also, that these losses have been calculated on ordinary stock. In the case of pure bred animals the losses are at the least five or six times greater, and in hundreds of cases twenty times ; whilst in many instances herds, which have



taken a whole lifetime to form, which money cannot replace—and which are a national loss—have been completely destroyed.

When we recollect that during the last fifteen years the loss from Foot and Mouth Disease is estimated at £70,000,000 or £80,000,000, we can see how very general the spread of that disease has been, and how very few herds have escaped, while some have suffered from two, three, and even more attacks.

### 3.—DEALERS AND BUTCHERS.

With a few honourable exceptions dealers and butchers have always and in all parts of the world been notoriously opposed to even the most necessary restrictions for the suppression of infectious diseases in stock. They are so because they naturally dislike any interference with their trade, and because the losses which they sustain through the existence of disease are very trifling indeed compared with those which their prevalence inflicts on the breeder and farmer in the first instance, and the consumer in the last, for the animals in which dealers and butchers trade are almost always fit for slaughter, and can generally be killed and turned to account should they become affected.

Without being at all uncharitable, we may say that many men engaged in these trades, and especially in the latter of the two have made more money in dealing in infected than they ever did in sound stock. At any rate so light are the losses of dealers and butchers from disease that they very much prefer continuing to submit to them than put up with the slightest restriction on the trade in stock. The prevention of disease in stock is, therefore, a matter in which they are but very slightly concerned, and with regard to which they should have exceedingly little to say. Indeed, the more the subject is looked into, the more evident this becomes; for if we suppose that these restrictions occasion any additional expense to the dealer or

butcher, the loss does not fall on him; for the fact that such an expense had to be incurred would be well known, and he would, of course, make allowance for it in purchasing the stock, as he does for the cost of carriage and any other outlays he has to defray before the stock can be resold or slaughtered.

The loss would thus in the first instance fall upon the breeder or seller, and not on the dealer or butcher. But, supposing that it did fall on the dealer and butcher, the amount of increased cost would be the merest bagatelle compared with that which the existence of the disease entails upon the farmer and consumer.

#### 4.—THE CARRIERS—RAILWAY AND SHIPPING COMPANIES.

The remarks made with regard to the dislike which dealers and butchers in every part of the world exhibit to the restrictive measures taken by Government for eradicating infectious diseases in stock are equally applicable to the Railway Companies and owners of steamers engaged in the carrying trade. As a rule, these carriers have even less interest than dealers and butchers in the eradication of the diseases; while they are constantly complaining that the restrictions on the receiving and delivering of the stock, the regulations requiring their slaughter at the port of debarkation, and the cleaning and disinfecting of the trucks and steamers are vexatious and costly.

These carriers having, therefore, no direct interest in the health of the stock should have as little to say as to the form which the regulations should assume for the eradication of the disease.

#### 5.—THE CONSUMER.

We will now consider to what extent the prevalence of infectious and contagious diseases in stock concerns the consumer, and how he is affected by the enforcement of an effective measure for their eradication. If we do we will find that

he is—after the individual stock-owner—the person most deeply interested, as it is on him that the loss and waste from disease ultimately falls, through his having to give an increased price for his meat

To see that this is the case we have only to bear in mind that every pound of condition lost on the farm is a pound of meat less in the market; and, when the waste from these diseases assumes anything like the proportions which it has reached during the period referred to, a correspondingly large rise in the price follows. If this were questioned, the fact that the price of meat has risen from 5s per stone in 1866 to 6s in 1875 would be sufficient to sustain the assertion. Besides, the prevalence of these diseases inflicts upon the consumer serious loss through the deterioration which it causes in the quality of the meat, rendering it far less nutritious, and sometimes, it is feared, even actually injurious.

The consumer, therefore, has the greatest possible interest, both on the score of economy, and that of health, in the eradication of infectious diseases in stock; and, if he gives the subject the slightest consideration, he must see that health will never be restored to the animal food supply of Britain if by weak compliance with the wishes of dealers and butchers, all restrictions on the trade in stock are removed, and these diseases allowed to have their fling. He would also see that it is for his interest, as well as for the interest of the individual stock-owner, that thoroughly effective measures should be taken for freeing the country from these scourges, and for preventing their re-appearance. All this must have long ago occurred to himself if he had not been accustomed to take his information on these subjects from the dealers and butchers; and he would also have noticed, as he surely must now, that, while it was for his interest that thoroughly effective measures should be taken for eradicating these diseases (however stringent and costly these might prove,) all the loss which such measures would entail upon him would only be the additional expense (and it is

questionable if there would be any) to which dealers and butchers would be put in conducting their business under the necessary restrictions. This, as we have already said, would be the merest bagatelle compared with the loss which the existence of the disease entails on him ; and, besides, it would be only temporary, for under proper regulations all infectious diseases in stock would be eradicated in eighteen or twenty-four months after their promulgation when almost all the restrictions on trade could, of course, be removed.

These subjects—the consumer's interest in the eradication of infectious diseases in stock, and the best mode of effecting it—would require to be pointed out to him at very much greater length than can be attempted here, in order that he may be brought to clearly understand how far he is concerned in this matter and what course he should take with respect to it. It would be well, however, if he pondered over the following statements—

1. That the prevalence of infectious diseases in stock is now costing him, in the increased price of meat, a large sum annually.
2. That their existence not unfrequently causes dishealth, disease, and sometimes even death.
3. That they can only be eradicated by the promulgation of thoroughly effective general and compulsory regulations, which must be simultaneously and vigorously enforced throughout the kingdom.
4. That the interference with trade which these regulations would entail, need be but slight and only temporary, and could cost *him* little or nothing compared with the loss and dishealth which the continued prevalence of the disease inflicts upon him, and need cause *him* little or no inconvenience whatever.

From what has been said it will be gathered, (1st), That the landlords suffer little or no loss through the prevalence of infectious and contagious diseases in stock, and cannot be expected to take very much interest in the matter, or to be, as a rule, in favour of strict and vigorous measures being taken for their eradication. (2nd), That a very large majority of the tenant farmers and dairymen are the heaviest individual losers from these diseases, and are, as a rule, in favour of thoroughly effective regulations; for an outbreak of malignant disease frequently entails on them utter ruin, and the attack of even a mild one causes them very serious loss. (3rd), That dealers and butchers sustain very little loss through the existence of these diseases, and are, with very few exceptions, strongly opposed to all regulations for their eradication. (4th), That carriers, both railway and steam companies, have even less interest in the matter than dealers and butchers; and are quite as much opposed to the necessary regulations; and, (5th), That while consumers, as a class, are the heaviest losers of all they are almost universally opposed to all regulations and restrictions in regard to the traffic in stock, through the dealers and butchers having worked upon their fears until they have been induced to believe that all restrictions on the trade in stock for checking the spread of disease tend only to increase the price of meat.

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#### IV.—The Defects of the Act.

Our remarks on this branch of the subject refer chiefly to Foot and Mouth Disease and Scab in sheep, and to some extent also to Pleuro Pneumonia. The principles, however, here laid down for dealing with these diseases apply with equal force to Rinderpest and sheep Pox; but the observations as to the failure of the Act and Orders in Council do not, of course, apply to the latter diseases.

## D E F E C T 1.

*The eradication of the infection on the ground where the outbreak occurs is not, as it ought to be, made the leading principle of the Act.*

The framers of the Act seem to have supposed that the infectious and contagious diseases which are prevalent among British stock could be eradicated by detecting and punishing those owners who move infected stock ; and never to have contemplated their eradication on the ground where the outbreak occurred.

To illustrate what we mean we put the following case :—

A farmer wishes to improve a piece of ground through which a stream runs in a very tortuous course. He therefore cuts a straight channel through the land, erects an embankment at the point where the stream enters it, turns the water into the new channel, fills up the old water-course, and levels and cultivates its bed and the adjoining land. It turns out, however, that his embankment is an imperfect one, and the water soon finding its way through, spreads in all directions over the now level ground, forming numerous new channels as it extends from the embankment. Upon this, the farmer proceeds to remedy the defect. But, instead of going to the defective embankment, the source of the evil, and making it thoroughly secure, he gets into a great bustle, and sets all hands on the farm to work in draining each of the separate streamlets at a considerable distance from the embankment, in order to keep the water from damaging the lands and crops. All his efforts, are, of course, utterly futile, for the water still continues to flow from the leaks in the embankment, and the only result of his labours, is, that he checks the water in each of the new channels for a time, and drives it over the banks to cut fresh courses, and further destroys his own, and his neighbours' crops. He, however, does not see his mistake, and continues year after year, to

work and bewail his hard lot ; while his neighbours set him down as the veriest simpleton, for not going, as he ought to do, to the root of the evil—the leaky enbankment—and making it thoroughly secure ; and they complain, as they have good grounds for doing, of the damage he is bringing on them through his folly.

Or, to adopt another illustration :—

A farmer finds a large number of thistles growing on his land, and wishes, of course, to prevent them from spreading, but, instead of cutting them down before they have had time to seed, he waits till they have ripened, and the seed has been blown about in all directions, when he sets all hands on, to follow, and pick up, the seeds.

Now these cases put seem to us to give a fair description of the course which has been pursued for the eradication of Foot-and-Mouth, and other infectious and contagious diseases (Rinderpest and Sheep Pox excepted) in the United Kingdom from 1869, when the Contagious Diseases (Animals) Act was passed down to the present time, except that the cases we have put are not at all so bad as those which are actually occurring ; for, the further the diseased stock are allowed to travel, the wider is the infection spread. In short, the most vital and important of all the principles of a measure for the eradication of diseases in stock—the confining the infection to the ground where the outbreak occurs, and stamping it out there—has never, seemingly, been thought of, the isolation or quarantine of infected cattle or sheep on their own ground, has, therefore, not been carried out, and infected stock has been allowed to proceed in all directions, wherever their owners choose to take them, and have spread the infection right and left as they went, with here and there a penalty for doing so ; and, as if that was not licence enough, the majority of the select Committee appointed in 1872 to consider the operation of the Contagious Diseases (Animals) Act, recommended that the owners of stock

infected with Foot and-Mouth disease should be relieved (and the Privy Council acted by issuing a regulation on that recommendation) from the necessity of reporting when an outbreak of that disease occurred among their stock. Instead, therefore, of maintaining a strict watch in those districts where that ailment existed—detecting every case of disease immediately on its outbreak—and taking prompt measures to make the outbreak known, and to isolate the infected stock, legislators (and a great many stock-owners too) have most absurdly imagined that they could eradicate the disease by making provision for detecting infected stock moved by road, rail, or steamer, or taken to fairs, markets, or shows, and punishing the offender. But even this inspectors seldom or never did; for, at the least, the opinion of an inspector in regard to the infection or non-infection of travelling stock, of whose antecedents he is entirely ignorant, is little better than a good guess, and hundreds and thousands of travelling stock must, in this way, have been passed by Inspectors as sound, which were actually infected, although, at the time, exhibiting no symptoms of disease. Any one can see how much more favourable an inspector is situated, when he examines stock in his own district, and on the farm where their history is well known. When, again, the Inspector does detect infected stock, the offending animals have, in most cases, been the means of infecting hundreds of others, and spreading the disease in scores of localities, which, till then, had been entirely free from the infection; and the whole course of action can only be described as an attempt to “lock the stable-door after the horse is stolen.”

That this is no exaggeration the present deplorable condition of the stock of the northern country fully proves; and if an impartial judge were asked to say whether it was greater folly on the part of the farmer who should attempt, in the way we have described, to protect his own and his neighbours' crops from the leakage of the defective dam, or that of the framers



and administrators of the Contagious Diseases (Animals) Act of 1869, who try to cope with infectious diseases on their travels, instead of isolation and quarantine on the farm where the outbreak occurs, we have no doubt he would award the palm to the latter, for besides, doing no good, so far as the eradication of disease is concerned, the Act, as carried out, has been a source of great expense and annoyance to "the Trade," quite as much, indeed, as if the measure had been thoroughly effective, and, of course, very much more protracted.

But if, instead of this, a sufficient staff of inspectors were appointed, and a moderately-sized district allotted to each Inspector, he would be in a position to detect every outbreak of disease (even if the owner attempted to conceal it) almost as soon as it occurred ; and, when he did, he would at once isolate the infected stock, and thus prevent the disease from spreading until the case was dealt with, and the infection stamped out ; and if this course was faithfully followed in every instance, neither the roads, railway trucks, steamers, fairs, nor neighbouring farms, would ever be infected, there would be little or no interference with trade, and all infectious and contagious diseases would be speedily eradicated.

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#### IV.—DEFECTS OF THE EXISTING LAW.

##### DEFECT 2.

**That the provisions of the Act of 1869 are local and optional instead of general and compulsory.**

(1.)—IT WAS WRONG TO MAKE THE LAW LOCAL.

It was so even if all the districts had been rural, and the members of the Boards all stock-owners, for local interest, when, as it was in this case, all but un-controlled by a central authority, is certain to come into conflict with that of the

public, and to interfere with the faithful administration of any such measure as this, especially when (as the Act so provides) each district has to bear its own expenses. To confer on these Boards, therefore, anything beyond a mere power of advice and status as Vigilance Committees is a decided mistake, for the interest, or rather the supposed interest, of the district, or even of individuals in the district, would, in most cases, be considered in preference to the public good—incapable persons would be appointed Inspectors, and breaches of the Act would be overlooked by the Inspectors, while they are under the control of the local Boards, which would not be tolerated by the heads of H.M. Veterinary Department. These Boards, should, therefore, have no direct say in the administration of the Act, which should be entirely under the control of the Government. But, while this is the case, they would, as Boards of Advice, have it in their power to do good service by advising the Inspectors in regard to local matters; and supplying them with information, as well as seeing that they faithfully discharge their duty.

It was an aggravation of this defect that a very large majority of the local Boards were urban, and the members almost to a man "towns' people," with little or no knowledge of, or direct interest in stock, or their freedom from disease. Any opinion they did hold on the subject they took from the dealers and butchers, who, as we have said, are everywhere notoriously opposed to any restrictions on the traffic in stock. The members of these Boards therefore foolishly considered it to be their duty to do all they possibly could to prevent any restrictions being imposed, and to obtain their withdrawal if the law enforced their proclamation.

Again, if there were no other objection to the local system, the fact that under it the action must be unconnected, fitful, and imperfect, and thoroughly devoid of simultaneousness—one of the main elements of success in dealing with infectious

or contagious diseases—would lead to its failure, and its condemnation by every practical man.

The eradication of infectious and contagious diseases in stock is a national and not a local matter. In fact, it ought to be made an international question; and to propose to eradicate these diseases not even county by county, but by portions of counties, and by boroughs and towns, is attempting what is utterly impossible, and carrying the municipal system to a most preposterous length.

If it were necessary to adduce further proof of this it would be found in the fact that, while *on the one hand*, no one believes for a moment that the spread of infectious or contagious diseases in stock is in any way affected by the circumstance that the animals with which those that are diseased come into contact belong to a different county or borough, it is, on the other hand, quite notorious that diseased stock from one county or borough are continually infecting those in another, and that it is practically impossible for any county or borough to protect its stock from the infection prevailing in the next. Indeed, so long as there is disease in any part of the kingdom, no locality can reckon upon immunity. That can only be secured by the total eradication of the disease from the country.

(2.)—IT WAS FARTHER WRONG TO MAKE THE LAW OPTIONAL.

We cannot but think that to anyone who gives the subject the slightest consideration, the optional principle must appear so utterly unsuited, in every way, for a measure like this, as to require nothing to be said in its condemnation. This is fully borne out by the statements made from time to time, in regard to the working of the Act by the Local Authorities, by such men as Dr Williams, the Secretary, and Professor Brown, the chief Inspector, of Her Majesty's Veterinary Department; Professor Gamgee, of London; Professor Williams, of Edinburgh; Professor Armatage, of Glasgow; Mr Fleming, of Chatham; Mr

Jenkins, Secretary of the Royal Agricultural Society, and others. The conclusion arrived at by these gentlemen is, that in almost every instance the town and borough Local Authorities—and they are largely in the majority—failed to put the provisions of the Act and Orders in Council in force, except where they were compelled to do so ; and not a single urban authority carried out the law or its objects in their entirety ; for, when they did go through the form of putting it in force, it was in such an irregular, half-hearted way, as to be of no earthly use in staying the spread of disease. In fact, almost every one of these, being, as we have already stated, misled by the dealers and butchers, did nothing themselves, and completely neutralized the efforts which the rural Boards made to get rid of the disease.

If further proof were required as to the utter worthlessness of the optional system, as compared with the compulsory, it is to be found in the English experience of Rinderpest and Foot-and-Mouth disease, for it is well known, that so long as the law relating to Rinderpest was optionally administered the disease continued to spread, but no sooner were the regulations made compulsory than it was speedily eradicated ; while, with respect to Foot-and-Mouth disease it is admitted on all sides, that the law, which has all along been to a large extent optional, has had no practical effect on that disease ; and that it has, during the last five or six years been as prevalent, if not more prevalent than ever, entailing incalculable loss on stock-owners and the public, and leading some of the more thoughtful home-breeders to come to the false conclusion that it was utterly inmanageable unless by such arbitrary and restrictive measures as would make the remedy much worse than the disease.

(3.)—IT WAS **VERY** MUCH FARTHER WRONG TO MAKE THE LAW  
BOTH LOCAL AND OPTIONAL.

This will be evident from what has already been said with

respect to the local and optional systems considered singly ; for there is no doubt that the defects of each of these principles is very much aggravated by conjunction with the other, and experience fully bears this out.

In many of the districts the Local Authorities never put the optional provisions of the Act in force at all ; and, not only was a great deal of the work left undone, but these neglected parts of the country became fertile sources of infection from which the disease spread in all directions, and, what was most vexatious and unfair, frequently started it afresh in those very districts where the authorities had put the Act fully, and for the time, successfully in force.

Again, the work which was done was not simultaneously carried out, and, although the disease was eradicated in a district, it was frequently re-introduced through the infection being allowed to exist longer in the next ; and that, again, after being cleared of infection, was re-infected by the first—through the action being fitful and disconnected. This seesaw frequently occurred, and accounts, in a large measure, for the failure of the Act. Our conclusions on this point are fully borne out by the reports of the officers at the head of Her Majesty's Veterinary Department. In fact, these officers have come to see that they were utterly powerless to compel the different Local Authorities to put the Act properly in force, and have very naturally given up the idea of attempting to stay the spread of the diseases which were dealt with optionally under the Act. The result, as every one knows, is that the law with respect to them has become all but a dead letter.

The opinion of the other authorities, whose names we have already mentioned, are all in support of this admission, and Mr Fleming says (page xv.), " There is no efficient organization to carry the legislative measures into effect—there is no Central Authority to impose an uniform action upon the Local Authori-

ties, and these again have no competent instruments to carry out their orders. . . .

“With such mal-organization it is not to be wondered at that contagious diseases are common and destructive, and that the traffic in, and movement of, infected stock is scarcely checked. The action of the Local Authorities is irregular and disjointed ; so that in one district we have severe measures imposed, and in the adjoining one no measures at all enforced. Harassing, vexatious, and extremely expensive, comparatively, such an organization can never be anything but impotent to protect the public from the ravages and losses inflicted by these diseases.”

This is the view also taken by a writer in the “Live Stock Journal” of September last. He says :—“The varied composition of the local authorities have tended by no means to the welfare of the breeder or to the advantage of the public. Our country is at present over-run with Foot-and-Mouth disease, and the existing restrictions are quite incapable to cope with it. . . . The only result of the existing irritating and inefficient legislation is that meat is at famine prices.”

It was simply absurd to suppose for a moment that a measure, to which a large majority of the public are naturally opposed, could be effectually carried out on the local and optional principles, so as to stay the spread of infectious and contagious diseases in stock ; and it is really as absurd to suppose that even a compulsory measure can be successfully carried out by a number of disconnected and, comparatively, irresponsible Local Authorities, who *think* they have no interest in seeing them enforced.

Again, the slightest reflection will show that the framers of the Act were most inconsistent to pass a measure containing such very stringent provisions, and giving such arbitrary powers, while intrusting its administration to Boards in no way respon-

sible to the Privy Council, and opposed to putting these measures in force.

We are aware that the local or municipal system is so interwoven with the government of Great Britain as to have deterred many—who see the advantages of a general or national system of legislation for the prevention of diseases in stock—from advocating that system, from an impression that the funds for carrying out any such measure must continue to be raised by local rates ; but when it is considered that every person in the community (and, if the truth were known, the consumer most of all) is very largely interested in the eradication of the diseases now affecting live stock it would be a very fair arrangement to make the general expenses incurred in carrying out the Act—such as Inspector's salaries, travelling expenses, &c., &c., a charge upon the general revenue, while the compensation for stock destroyed, and other losses incurred by owners by reason of the law, could be made a local and municipal matter, and be paid out of rates fixed and raised by the the several Local Authorities in their respective districts. This would be a clear and equitable arrangement ; and one that would be thoroughly effective in as much as it would admit of the heads of Her Majesty's Veterinary Department having the entire administration of the Act and the appointing and control of the Inspectors and other officers employed to carry it into effect ; while the Local Authorities could be appointed Boards of Advice for their respective districts, and be empowered to levy the necessary rates to meet the claims for compensation, to enquire into and settle these claims, and pay the amount allowed to the claimants.

### DEFECT 3.

*The Contagious Diseases (Animals) Act did not apply to Ireland.*

There is no doubt that a law of this kind should apply to all parts of the United Kingdom, and it should be strictly en-

forced. It has been proposed to treat Irish stock as foreign ; but this would be both impracticable and unnecessary. All that is required is to make the same law applicable to the whole of Great Britain and Ireland. The Irish Stock Disease Prevention Act is different from the English, and being a *national* or general measure, and not worked by Local Authorities it might have been very much more effectively carried out ; but its enforcement appears to have been quite as defective—if not more so—than that of the British measures ; and if the administration of the law is hereafter to be carried out in the same manner, it would be utterly useless to think of bringing in an amended measure for the United Kingdom. It is to this defective enforcement of the law, and the consequent prevalence of disease in *Ireland* that the contamination of the Irish steamers is due. The Scotch steamers carry a great many cattle to London, Newcastle, and other English ports, but these steamers do not, as a rule, become infected, nor do the cattle carried by them become diseased, unless disease be very prevalent in Scotland, and it is only in accordance with common sense to believe, with respect to the Irish steamers, that if the supply of the seeds of the disease were cut off—that is to say, if freshly infected cattle were not put on board these steamers—the infection which now attacks the stock carried on them would cease, even if they were not cleaned and disinfected, which they (to at least a considerable extent) are, though not so thoroughly as ought to be. It may be that the cattle carried on the Irish steamers are carefully inspected [before they are put on board in Ireland, and when they are landed in England and Scotland ; but that is no certain guarantee of their soundness unless their antecedents are well known ; for unscrupulous owners frequently “ dress ” their shipments at both ends of the voyage, pick out and stop all the diseased and drowsy ones, and send on the apparently sound ; and many hundreds of stock thus actually infected,



though showing no symptoms of disease, are passed by the Inspectors every month. The fault really lies in this—the existing system does not go to the root of the evil, and eradicate the infection on the farms in Ireland from which the stock start; and the only way to reach it there is to initiate a proper system of inspection and *quarantine*, such as we will here sketch. The stock in Ireland ought to be freer from infectious or contagious diseases than in any other country in the world; for, beyond a few pedigree and stud stock introduced from time to time from England to improve her flocks and herds, it is believed she scarcely ever imports. Ireland is not, like Scotland, a great cattle-fattening country, but, on the contrary she annually disposes of a large number of “stores” besides the heavy shipments of fat stock which are constantly leaving her ports.

#### DEFECT 4.

##### *The Inefficiency of the Staff of Inspectors.*

##### (1.)—THE STAFF WAS NOT SUFFICIENT.

Many of the Local Authorities holding the opinions they did with respect to the Act and its objects declined to make the necessary appointments, and there were a good many towns and boroughs and some country districts also in which no Inspectors were appointed to see the provisions of the Act and Orders in Council enforced.

When we speak of employing a sufficient staff we mean a number of Inspectors adequate to ascertain from their own personal knowledge whether or not any infectious or contagious disease exists among the stock in their respective districts. This is done in the Australian Colonies in regard to Scab by appointing an Inspector to a district of such size as he can properly supervise and giving him clearly to understand that if he does not detect and deal with every outbreak of that disease occur-

ring in his district within such reasonable time (to be fixed by the Chief Inspector) as would enable him to make and maintain a thorough inspection of his district, he should lose his appointment; and no fewer than seven Inspectors out of a staff of thirty were removed on this score during an outbreak of Scab, which occurred a few years ago in one of these Colonies. With such a rule and a proper Act to work under, there would be no difficulty in obtaining thoroughly reliable Inspectors, and stamping out disease almost as soon as the outbreak occurs.

A comparatively large staff would at first be required in the United Kingdom, but as the disease got eradicated, the number could be reduced; and as an incentive to the zealous discharge of their duty the Inspectors might be given to understand that those who displayed the greatest energy and ability, and were able to pass a test examination as to knowledge of the diseases with which they had to deal, would be retained when the reduction was made. If such a measure as this is to be effectively and economically worked it must be vigorously and simultaneously carried out throughout the whole kingdom. To attempt to carry it out with a weak and inefficient staff is merely wasting time and money, and putting stock-owners, dealers, and the public to needless inconvenience and loss. Half-and-half measures are both useless and cruel. The action in each case ought to be short, sharp, and effective; and it can only be so when the staff is strong enough for the work.

(2.)—THE INSPECTORS WERE BADLY SELECTED.

They were chosen from three classes.

- (1.) From properly qualified Veterinary Surgeons.
- (2.) From members of the Police Force.
- (3.) From some of the unprofessional classes in the country.

(a.)—THE VETERINARY INSPECTORS.

These were of two classes :—

*First*,—Those who devoted the whole of their time to the service and gave up private practice. They were appointed by the Privy Council, and there can be no doubt as to their fitness for the work. If they had not been fully qualified they would never have received the appointment, and as they had no private practice their sole object was to discharge their duty with benefit to the community and credit to themselves; and it is believed that this portion of the staff as a rule did so.

*Second*,—The Veterinary Surgeons who took the appointment of Inspectors without giving up their private practice in the same district. This is a most unsatisfactory arrangement, and one that ought not to have been made, for it cannot be supposed that the Veterinary Surgeon, who has to depend on the owners of stock for a living, will be very zealous in putting the provisions of the Act in force, when by doing so he might injure his best friends.

(b.)—OFFICERS OF POLICE.

The appointment of these officers to act as Inspectors of stock is an unsatisfactory arrangement, for the following reasons:—

*First*,—Because in the large majority of cases such officers had not that knowledge of stock, or their management, which was necessary.

*Second*,—Because they have other, and what they, no doubt, consider more important duties to attend to; and in special measures such as these special officers must be appointed to see their provisions carried out, if they are to be effective.

*Third*,—Because these officers are to a very large extent under the control of the Magistrates in the various towns and boroughs who, as a rule, have no desire to see the Act or Regulations enforced, and would naturally influence the Inspectors. They would at any rate know that there would be little fear of

incurring the displeasure of their superiors if they were not so zealous as they might be in upholding the integrity of the law with respect to diseases in stock.

(c.)—UNPROFESSIONAL CLASSES.

We are not in a position to say much as to the qualifications of the Inspectors chosen from these classes. But the little we have learned in regard to them is anything but favourable. In fact they are generally alluded to in very derogatory terms; and they would seem in the case of many of the town and borough districts to have been appointed merely with the view to an apparent compliance with the provisions of the Act, or Orders in Council in those cases where they were compulsory on this point. Appointed in that way, and under such supervision, it is not to be expected that Inspectors of this class would be anything else but inefficient, and even more so than those appointed from the Police.

(3.)—NONE BUT PROFESSIONAL INSPECTORS SHOULD BE  
APPOINTED.

We believe the opinion is coming to be generally held that all the Inspectors should be duly qualified Veterinary Surgeons. It would certainly be better if a large staff of Professional Inspectors were appointed, who would devote the whole of their time to the service, and it is probable that at no very distant day all Inspectors may be professionally qualified. But at present a sufficient number of duly qualified Veterinary Surgeons could not be found, who would accept the office of Inspector at the rate of salary which could be allowed them; and after all it is by no means an absolute necessity—in the meantime at least—that the whole staff should be professionally qualified; for while disease is as rife as it now is, the great majority of the Inspectors have to act *as special police*; and if the right sort of

of men were appointed they would in this case be able, though not professionally qualified, to do police duty with respect to stock as well as the ordinary police do theirs. With nearly as much force might it be said that every police officer must be a professional lawyer, as that it is absolutely necessary that every Inspector of stock should be a Veterinary Surgeon. If intelligent persons of experience (like farmer's sons) among stock were appointed Inspectors they would generally be able to recognise the different infectious and contagious diseases to which stock were subject, while they would, of course, in doubtful cases, especially in all those in which the proof of the infection entailed the destruction of the stock, or where a prosecution was likely to be defended, obtain the advice of the nearest professional Inspector, and, where that was not available, that of a Veterinary Surgeon in the district—the Government making a standing engagement with some duly qualified Veterinary Surgeon in each district where their own professional Inspector could not act. An intelligent person accustomed to stock will in ordinary cases be able to detect illness in stock as soon as a Veterinary Surgeon; and, if he could not do so when appointed, he would before long be able to say whether the ailment is one with which he is required to deal. And, as has been said, he can always in cases of doubt obtain professional assistance.

Knowledge of the disease, however, is but one qualification, an Inspector must be respectable, disinterested, zealous, and trustworthy; and it is for this reason that we suggest the selection of farmer's sons. Another advantage would be, that, belonging as they would do to the class among whom they are moving, and, having their interests thoroughly at heart, the Inspectors would not be likely to be guilty of anything that could be termed high-handed or arbitrary; and would, as our Inspectors are in the Australian Colonies, when they are the right stamp of men, be well received wherever they went. In

short, their whole time and attention would be devoted to the interest of the Farmer and Breeder, and the best possible understanding would subsist between the Owner and Inspector in England, as it does in Australia, even, indeed, in most cases where the Owner's stock are not infected.

(4.)—TRAVELLING INSPECTORS SHOULD BE APPOINTED.

Although the machinery here sketched for enforcing the Act and Orders in Council is very complete it requires close and personal supervision to keep it in thorough working order, and we would propose that a sufficient number of general or travelling Inspectors be appointed by the Privy Council—say two each for Scotland and Ireland, and four for England—to keep the local Inspectors up to the mark. We have only to recollect how very necessary Bank, Postal, Police, and other travelling Inspectors have been found to see that the same class of officers is indispensable in this case, if the provisions of the Act and Orders in Council are not to become a dead letter. Travelling Inspectors should be fully qualified Veterinary Surgeons, chosen chiefly, however, on account of their administrative ability; and they should be continually on the move in their respective divisions, especially wherever disease exists, in order that they may obtain full and correct information (which they would from the Local Authorities and the individual Stockowners) both as to what progress is being made in the eradication of the disease and how the Inspectors are discharging their duties. In no other way could they ascertain these most important particulars. Besides, both Owners and Inspectors would be much more careful to discharge their respective duties as they ought when they do not know the day or hour the Inspector may visit them. The time of the Chief Inspector of Her Majesty's Veterinary Department is too much occupied at head quarters to admit of his absence from London on any such duty as this, except on very important occasions.

With the view of lessening the expense to Her Majesty's Veterinary Department of a full staff of Inspectors, and of raising the status of the Inspector, the offices of local Inspector of stock and Inspector of nuisances might be conjoined, without in any way interfering with their efficiency in the discharge of either duty ; for, while going his rounds on the one duty the Inspector might very well be attending to the other. In fact, strictly speaking, Inspectors of stock are Inspectors of nuisances, and there is no doubt that if the proper men were appointed, they could discharge both duties simultaneously at a comparatively small cost to the country.

#### DEFECT 5.

*The fifth cause of the failure of your Act is the want of a general power for the Inspector to enter any premises and inspect any stock whether he has received any intimation of their being infected or not.*

Through the want of this power the British officers cannot go, as they ought, to the root of the evil.

All sorts of powers are taken by the Act itself, and the Orders in Council following upon it, to detect infected stock and punish the owner, should such stock be moved from his premises, but little or no provision is made for detecting infected animals on the ground where the outbreak occurs. Neither does the Act nor do the Orders in Council make provision for speedily detecting any outbreak which the owner of stock may attempt to conceal.

Thus in the first place, and chiefly, the law does not allow an Inspector, even in regard to Rinderpest, Sheep Pox, or Pleuro Pneumonia, to go on a farm or enter premises for the purpose of examining stock, unless he receives information that they are infected, or has some other good grounds for suspecting that they are infected, and in the case of the less malignant diseases, such as Foot-and-Mouth disease, Scab, &c., the Act does not

allow the Inspector to enter on the premises or farm even when it is well-known that some of these diseases exist there.

The consequence is, that a great many outbreaks of disease are concealed. Animals apparently sound, but really infected, are constantly sent to market, and the infection sown broadcast throughout the entire country; while the Inspectors (if they do anything at all) merely punish the owners whom they detect (and it is very few they do detect) for breaking the law, after they have spread the infection.

The reason assigned for not granting to the Inspector this power of entry, unless he receives information that the stock is infected, is that such a power would be arbitrary and vexatious, and an undue interference with "the liberty of the subject." Now I cannot see what difference it can make to an owner whether the Inspector's visit is made because he is making a general tour of inspection, or because some one informed him that disease existed among the stock. In fact, in the one case the owner would have no reason to dislike the visit, while in the other he would be anything but pleased to receive it.

Again, such a power of entry and inspection would not be one whit greater interference with the liberty of the subject than that now possessed by Inspectors of nuisances, and of weights and measures; and surely when we consider the enormous interest at stake, and the ruinous losses to which stock-owners, and the public may be put, through a careless or unscrupulous owner not reporting an outbreak of disease among his stock; it must be evident that there is very much greater reason for conferring the power of entry and inspection on an Inspector of stock than on an Inspector of weights and measures, and nearly as great reason for giving him such a power as there is for granting it to an Inspector of nuisances. Then, again, looking at all these inspections in the worst possible light, that of disagreeable intrusions, surely it is much less distasteful to an owner to be asked to submit his stock for the ex-

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amination of an Inspector, lest any of them should be diseased, than for a tradesman to be called upon to produce his weights and measures to the Inspector, lest they should be short in weight or length ; and very much less disagreeable than being called upon by an Inspector of nuisances to give him the entry to any apartment of your premises he may desire to examine.

The Inspectors of stock have certainly as much right to be seized with power of entry on any farm or premises, where stock are kept, at all reasonable times, as Inspectors of nuisances have to enter upon premises when they consider their duty calls them to do so ; and the best mode of showing the absurdity of denying this power to Inspectors of stock is, for a moment to suppose that Inspectors of nuisances are in the same position. If that were the case an Inspector of nuisances would never visit any house or premises, unless he had information that a nuisance existed, and the consequence would be that until such information was given him, or, as in the case of putrid meat or fish, the owner made the attempt to remove it, he would never detect the nuisance, and fevers and pestilence would become rife.

Unless Inspectors are empowered to make inspections, and take steps, prior to the infected animals leaving their own farms, and the infection being carried to other stock, very little can afterwards be done beyond punishing the offender ; and that would be but poor consolation to the owners whose stock are infected, while the injury is all the more aggravating to them, from the fact that the loss came about because the Inspector was prevented by law from examining, as he might very easily have done, the stock on their own farms, and thus, by preventing their removal, have protected other owners' stock from the disease.

There is, however, still another reason why Inspectors of stock should have this right of entry as well as Inspectors of nuisances. In the case of a nuisance it is scarcely possible it

can exist without very soon affecting some one or other, and its existence becoming known, while a herd or flock may be infected, and infect hundreds of others without the disease being noticed by any one but an Inspector.

Looking, again, at this question from a Colonial point of view, the idea of this power of general entry by the Inspector being an unnecessary interference with the liberty of the subject, seems to us, who have been accustomed to it for years in all the Colonies, merely a shallow prejudice that holds out after no argument remains; and which ought not for a moment to be pandered to when such an immensely important interest is at stake.

The honest tradesman on the one hand, or the straightforward stockowner on the other, has nothing to fear from the visit of an Inspector; and we are persuaded from our own knowledge of the manner in which Inspectors of stock are received by the stockowners in the Australian Colonies, that the farmers in Great Britain whose stock are sound would make the Inspector heartily welcome to see them as often as he likes, while the owner who is concealing the existence of the infection cannot be too soon pounced upon and his stock and farm placed in quarantine. It is only the thoughtless and unprincipled who would, under such circumstances, attempt to conceal the fact of an outbreak having occurred among their stock, and therefore object to the Inspector's visit. The majority of owners, being careful to comply with the law, and knowing that the safety of their stock, in a great measure depended upon the regularity and care with which the Inspector made his inspections, would make him very welcome as often as he called, and would give him every facility and encouragement to do his duty in this and every other respect.

This system of general inspection has been objected to because it has been said that Inspectors coming into contact with diseased stock, would be liable to infect the clean herds they

afterwards examined ; but there need be no fear of any risk of that sort ; for if an Inspector examined any stock and found it infected, it should be a standing rule that he returned home at once, changed his clothes, and otherwise freed himself from infection.

If these inspections were made and the infected stock placed in quarantine in every instance throughout the kingdom, as might very speedily be done if this power of entry were granted to Inspectors, and a sufficient staff of them appointed, the greater part of the voluminous and vexatious Orders in Council, which are principally aimed at the detection of infected stock while being moved from their own ground, and which interfere so much with the trade in stock, might be dispensed with, as it would then be impossible for infected stock to move, and consequently the disease could not spread, while all the infectious and contagious diseases, which are now so rife, would be eradicated in one tithe of the time they can be—if ever they could be at all—under the existing law.

The very first step to be taken in eradicating infectious and contagious diseases in stock, whether that is to be effected by treatment, quarantine, or destruction of the stock affected, is to find out every infected animal immediately the outbreak occurs, and place it in quarantine, and to carry out this system the Inspector ought to be armed by the Legislature with the power of going on any farm, and entering any premises where stock are kept, at all reasonable hours, on notice to the owner.

Besides the direct benefit which the bestowal of a general power of entry on the Inspector would confer, an indirect one nearly as important would accrue. We allude to the fact that unscrupulous owners who now conceal the existence of disease among their stock, and smuggle those which are only in the incubatory stage off to market would seldom or never, with such a provision in force, dare to hide the fact, not knowing

when the Inspector in making his rounds, might drop in upon them.

It may be, however, that Parliament would refuse to confer this power of general entry on Inspectors, notwithstanding the innumerable advantages which would accrue from it ; and, if so, then it would be necessary to adopt some other course that would render the services of these officers very much more effective than they are at present ; for it is plain that, as Inspectors are now situated, and as they discharge their duties, the infectious and contagious diseases, which entail such enormous losses on the country, would never be eradicated. We would, therefore, propose, in the event of the right of general entry being refused that Inspectors should be empowered under an amended measure to ask the owner for permission to enter and examine the stock, and, if the owner refuses to grant that permission, he should be obliged to fill up and sign a declaration, which the Inspector would hand him, giving the number and description of the stock on his farm or premises, the state of their health, &c., &c.; and to answer any questions with respect to them, their movements, state of health, or antecedents which the Inspector may think necessary to ask, such questions to be put in writing by the Inspector, should the owner ask him to do so. These duties should, of course, be enforced by heavy penalties on owners who refuse or delay to make declarations, or to answer the questions put to them, or who give incomplete, evasive, or untrue answers.

#### DEFECT 6.

##### *Insufficient Compensation.*

It is neither politic nor just to put the owner of infected stock to the inconvenience and loss which the Contagious Diseases (Animals) Act and the Orders in Council inflict on him in the quarantine and destruction of his stock, and not

allow him ample compensation. It is generally through no fault of his own that the unfortunate owner possesses infected stock, and it will only be when he is fairly and liberally dealt with by the law that he will consider himself bound to carry out its provisions in a proper spirit. Feeling himself, as he now does, unfairly treated, he frequently fails to comply with the provisions of the Act, and the public suffer in consequence.

The proof that the Act, with respect to compensation, is very impolitic, lies in the fact that owners are still exceedingly unwilling, when an outbreak occurs among their stock, to give notice that they are infected. In fact, they very frequently kill or doctor the animals which are actually diseased, and keep the matter quiet; and if they are at all unscrupulous they dispose of other stock (likely also to be infected) in fairs or markets, to spread the infection in all directions.

If, again, owners were so fairly and liberally treated as to make it to their advantage to give the earliest possible information of an outbreak—or rather threatened outbreak of disease—they would do so, instead of concealing the fact, and the infected or suspected stock being immediately placed in quarantine, the infection would seldom or never spread beyond the farm on which the outbreak occurs. It is very short-sighted, therefore, not to deal liberally with the owner of the infected stock. He should be even rewarded for coming forward at once with the information that his stock exhibited symptoms of the disease, for it would, in such cases, be very much better, so far as the interests of stock-owners generally are concerned, to pay him *ten times* the value of his stock than that he should be led to dispose of them after they were infected, and thus spread the disease. It is the height of good policy to allow the owner of infected stock such an amount of compensation as would make it pay him better to give immediate notice of an outbreak, and take the compensation, than to conceal it, and dispose of his stock.

It is impolitic also, in as far as the amount of compensation which would be required would be comparatively trifling, and very much less than the additional expense of eradicating the disease, which the course of action now followed under the existing Act entails; while the eradication would, under the proposed rate of compensation, be effected in a tithe of the time it would take under that now allowed; and time in this case is a matter of the greatest moment.

There is, no doubt, some risk that in exceptional cases too high values would be placed on the stock condemned to be destroyed, but that would seldom happen; and it would be both unfair and unwise to keep the rate of compensation under what it ought to be, lest some few valuers might, in exceptional cases, allow too high prices for the stock destroyed.

It would, we think, be a fair rate, and one under which it would pay owners better to give immediate notice of the disease than to conceal it, if the compensation for stock destroyed were fixed at say five-sixths of the market value of the infected stock as on the farms, supposing they were sound when valued, and the full market value of the stock which are apparently sound but held by the Act to be infected. Again, compensation should be paid for the loss an owner sustains through the farm being placed in quarantine, whereby he is prevented from sending his fat stock to market, and from putting on fresh stock in the place of those which were destroyed. The compensation in these cases might be fixed at five-sixths of the loss which he can prove to have sustained through his being prevented from sending the stock to market, or putting on fresh stocks, as there would, no doubt, be cases where owners were guilty of recklessness in the purchase or travelling of stock, and therefore were undeserving of liberal compensation, the law should be so framed that in such cases compensation would not be paid, or that it would be so at a very reduced rate. But even in such cases, unless it could be proved that the owner purchased the stock at

less than market value, or knowingly travelled or depastured them over infected ground, or put them into premises or trucks which he ought to have known were infected, it is questionable whether it would not be good policy to pay him compensation. With a provision for the payment of full compensation in force, owners would cease to dispose of their infected stock in a clandestine manner, and the low dealers and butchers would find no purchases to suit them.

### DEFECT 7.

#### *Insufficient Quarantine for Foreign Stock.*

The danger arising from this source is well known to all stock-owners, and has been fully discussed in the agricultural journals of England.

The merest tyro in these matters can see how very absurd it is to suppose that 12 hours' quarantine would be a sufficient guarantee against the introduction of animals infected with Pleuro Pneumonia, when the incubation of that disease is allowed, by the best authorities, to range from five to fifty days, and even longer. And although the duration of the incubation of Rinderpest, Foot-and-Mouth disease, Sheep Scab, and other ailments is considerably shorter than that of Pleuro Pneumonia, it is in every case so much longer than twelve hours, as to make the same remarks applicable to them, although not so glaringly as in the case of Pleuro Pneumonia.

All imported stock should undergo a quarantine of fourteen days, as that length of time would be sufficient so far as Rinderpest, Sheep Pox, Foot-and-Mouth disease, and Scab are concerned, and would tend to a considerable extent also to prevent the introduction of Pleuro Pneumonia.

It has been argued that it would be impracticable to carry out such a system of quarantine as this, because when an outbreak occurred in a cargo of Foreign store stock after they

were landed, the disease would likely attack the whole of the cattle at the station, and thus cause the place to be shut up, for, perhaps, four or five weeks, till the whole of the stock had recovered and the premises been thoroughly cleansed and disinfected.

Now although outbreaks of disease would no doubt occur among the stock in quarantine there need be no fear that the infection would spread to many of them, if proper precautions are taken to watch for the very first symptoms of the disease, and provision made for their isolation immediately any of them are suspected of being infected. This might be done in some such way as the following :—

1. One set of sheds should be erected for the reception of the stock, with regard to which the Inspector could observe nothing whatever suspicious.
2. Another set of sheds should be put up at some distance from the first, for animals respecting the soundness of which the Inspector may have some doubts although he cannot actually declare them infected.
3. Another set should be erected, well removed and completely isolated from the others, where animals which were evidently affected with such diseases as Foot-and-Mouth, Scab, &c., might be placed until sound and free from infection ; while those in contact with malignant diseases, whether actually suffering from these or not, would, of course, be at once destroyed.
4. The sheds should be portable and easily disinfected. They might either be all iron or made of wood put together with bolts and screws which could readily be undone, and the whole, when required, immersed in a disinfecting bath every time an outbreak occurred, and removed to fresh sites ; and the old site thoroughly disinfected.



It may, perhaps, be said that to make such arrangements as these it would be necessary to obtain more room than would be generally available for such a purpose at the ports at which these stock are landed ; but there is no necessity for apparently sound Foreign store stock being kept close to the wharf while serving their quarantine. There is no port, to which they are sent, where the shipping and the railway are not connected, and it would be a very easy matter, and not attended with any risk, for the cattle, after being carefully inspected before being landed, to be stopped at some suitable lair near the wharf, for say, six or eight hours ; again inspected, and if found sound and apparently free from infection, to be put in thoroughly clean trucks (goods trucks would be safest) and conveyed to a secure and conveniently well isolated place situated on the line at a short distance from the port, and quarantined there—the trucks in which the stock were conveyed being, of course, carefully cleansed and disinfected before being allowed to leave the quarantine.

Then again, the distribution of foreign store stock should be not only allowed but encouraged at as many ports as possible, in order to remove the objection raised to bringing together large numbers of stock at a few points, and thereby running the risk of making them centres of disease, and to do away, to a large extent, with the risk which now exists through landing nearly all the foreign store stock at three or four ports and forwarding them thence by rail to all parts of the United Kingdom.

To prevent inconvenience owners intending to ship foreign store stock to Great Britain would require to ascertain by telegram whether there was room for them at the quarantine to which they were to be sent, and secure the necessary number of stalls.

If the different sets of quarantine sheds as here proposed were erected in the manner and of the materials most easily

disinfected and kept free from infection, and if they were put up in blocks or detached sections, of say, six or eight stalls each, or even less, there would, with proper precaution and thorough watchfulness on the part of the attendant Veterinary (who should examine the cattle at least twice a day, and apply the thermometer test to them) be very little risk of the affection attacking more than one or two head, and seldom or never more than the animals in the one section; for on the slightest suspicion the animal would be removed to division No. 2. where it would be most carefully watched, and if the suspicions were confirmed it would be passed to division No. 3, and kept there till thoroughly sound and free from infection.

But even with a fortnight's quarantine no store stock ought to be allowed to come from any country in which the live stock were not known to be as free from infectious and contagious diseases as in Great Britain. In fact it should be a *sine qua non* with the Government that the stock in the countries from which it was desired to import store animals were in that condition; and that similar measures for the prevention of diseases in stock were in force there as in Great Britain. It would be only forcing the countries which wished to cultivate this trade, to do what would tend to their own advantage, and, as they have no other outlet for their store stock, than your market where they bring such good prices, they would soon be brought to comply with these conditions.

Then all foreign store stock should be branded on the horns, when the animals had horns, and on the face or cheek when they had not, with a permanent (fire) brand known to denote the country in which they were bred.

Such a regulation is now in force in the Australian Colonies in regard to sheep passing from one colony to another and enables the Inspectors in the respective colonies to distinguish between their own and sheep brought from other colonies. Thus sheep passing into New South Wales from Victoria, have

to be branded with the letter V, those from Queensland with the letter Q, and those from South Australia with the letter A. If such a regulation were in force on the Continent, Inspectors and purchasers would know how far an animal had travelled, what districts it had likely passed through, and be put on their guard against stock being smuggled, as they now are, out of doubtful and infected districts, and sent off to localities at a distance (where no suspicion attaches to them) to spread the disease as they go. If the British Government were to pass an Order in Council requiring all animals coming from the Continent to be branded in this way, the other Governments would soon see the advantage of such a regulation, and would adopt it with regard to stock passing from one country to another, for the antecedents of the stock presented for inspection at the different points of their journey would thus be known with far greater certainty than they now are, while this branding would entail very little trouble and be a permanent record as to the district from which the stock originally came.

Foreign store stock would, of course, only leave quarantine on their owner obtaining the necessary certificate from the Inspector of their freedom from infection, and with that certificate the Inspector should grant the owner a permit to travel them to a certain destination by a specified route, and would report the fact of his having granted such a permit to the Inspector of the district to which they are going. This Inspector again, if the stock are to remain in his district, would examine them regularly, for say, three months, at such intervals as the chief Inspector might direct ; and if they leave his district for another, he would pass them on to the charge of the next Inspector in the same way. These foreign stores would thus be under regular surveillance for three months after they were landed, and if they proved to be infected would be at once dealt with as required by law.

It will be observed that the permit system, which, as a gene-

ral measure applicable to the whole country, has very justly been objected to—is here adopted, but only to a very limited extent—only with regard to the suspected or doubtful stock. The objection to its partial adoption here does not, therefore, apply; for the interference which it would thus create with the trade in stock would be very trifling indeed.

There will, no doubt, be considerable difficulty in initiating and perfecting any plan for quarantine in foreign store stock, but in considering the matter it must be borne in mind that the question is not which sort of quarantine is best, but whether it is better to try some such system of quarantine as that now proposed, or have none at all. As it now is there are many store stock passed, after a twelve hours' detention, as sound which are actually affected. And surely it is better that some system of quarantine should be tried even though the attempt should be attended with considerable difficulty and cost, than that this should be allowed to go on. For, taking the worst possible view of the matter, and supposing for a moment that two, or even three, of these quarantines had to be closed for a time through outbreaks of the disease occurring in them, no great harm would thereby accrue. For if temporary quarantines could not be obtained in the neighbourhood of these ports for the reception of foreign store stock intended to be landed there—which in nine cases out of ten would not happen—the only inconvenience which could possibly arise through this state of things would be to close these ports for a short time against the introduction of shipments of that class of stock. And that surely is no great matter—seeing that they might be landed at other ports—and not, at any rate, for a single moment to be compared in importance with the loss and injury sustained by stock-owners and the country through the introduction of the infected foreign stock, which the establishment of these quarantines would in future prevent.

As to the expense which these quarantines would entail:—

under the system of municipal government, which universally prevails in Great Britain, it is presumed that the quarantines should be erected by the Corporations for the several seaport towns at which the stock are landed; and, in most cases, these bodies would be ready enough to undertake the work as it would be directly remunerative, besides being indirectly profitable through the additional trade which the importation and sale of the foreign stock would attract to the town.

With regard, again, to the question how the owner of the imported stock would be affected by such a quarantine, it may be safely asserted that he would be a gainer rather than a loser by the detention; for if he were charged, as he would be, a very moderate rate per day for the use of the stalls, the stock would be kept there at a less cost than they could be anywhere else, and the increased prices they would realise after being well fed and rested for fourteen days, would far more than repay the additional expense entailed by the quarantine.

As the law stands in regard to the introduction of foreign stock, the whole cargo is slaughtered if any of them be found affected with an infectious or contagious disease, and the same course ought, properly speaking, to be adopted with regard to stock becoming affected while undergoing the prescribed quarantine. But if such a quarantine were instituted as here sketched, it is questionable whether this rule should not be confined to stock affected with malignant diseases like Rinderpest, Sheep Pox, or Pleuro Pneumonia, and whether those affected with Foot-and-Mouth disease, Scab, and other less virulent diseases, might not be dealt with in the same way as home stock, by isolation and quarantine until they are sound and free from infection. This plan might, at any rate, be taken at first with regard to the last class of disease; and, if after a fair trial it were found unworkable, then the slaughter of the whole shipment could be resorted to. No compensation ought to be paid for foreign stock destroyed on account of any malignant disease,

if, in the case Rinderpest or Sheep Pox, the animal had not been landed for a longer period than thirty days, and in the case of Pleuro Pneumonia, for more than sixty days.

If the extension of the quarantine for foreign store stock here proposed be not adopted, the suggestions as to the branding of that class of stock ought most decidedly to be accepted, and if they were, there is very little doubt that such an array of evidence as to the amount of infection introduced by foreign stock would soon be collected as would induce the Government to extend the quarantine as we have suggested.

### DEFECT 8.

#### SEPARATE MARKETS FOR FOREIGN STOCK IS NOT PROVIDED FOR.

By allowing foreign fat stock to come into the same market as home, the distinction which should always be maintained between these two classes of stock is destroyed. There is at present very much greater risk of out-breaks of disease among foreign cattle, brought from even unscheduled counties, than among English fat stock; and if the necessary steps were taken, and the infection now existing in so many parts of the United Kingdom eradicated, the difference between them would, in this respect, then be very much greater. The market regulations for the sale of the two classes of stock ought, therefore, to be different; for instance, while the home stock should be allowed to be taken under little or no restriction to any part of the kingdom, the foreign stock should be sent to a separate market, and not allowed to mix in any way with home-bred cattle; while the purchaser of the foreign stock should be obliged to obtain a permit from the Inspector for their removal to their destination by a certain route specified in the permit; and the fact of the issue of the permit

should be at once communicated to the Inspector for the district to which the stock were to be sent.

Then if the stock required to be again removed they should only be so after inspection and the issue of a fresh permit, and they should in this way be kept under strict surveillance until slaughtered, which they might easily be if they were branded as already suggested.

If the market for foreign fat stock were established within a moderate distance of those for the sale of home cattle, the inconvenience occasioned to dealers and butchers through the separation would be but trifling, and the foreign stock would sell as well in the one market as in the other.

But, even supposing that separate markets for the two sorts of stock caused the dealers and butchers inconvenience and the importers some loss, they ought, nevertheless, to be established, for, under the present system of allowing the two classes of stock to intermix a great deal of infection is no doubt introduced, and the loss and inconvenience which the separate markets would occasion are not, for a single moment, to be compared with the evils which the present system entails.

It is, therefore, exceedingly short-sighted to allow the classes to intermix—except at the slaughter-house—as many of the local drafts, if they are not again sent into the country districts themselves, come into contact with animals which are being infected by the foreign stock, and help to spread and keep alive the diseases which are now inflicting such grievous losses on all classes of the community.

As a writer in the "Live Stock Journal" of November 1875 very forcibly puts it—"A monstrous wrong is inflicted on the country when careless and, at times, criminal importers send cattle into our markets saturated with infection, which is completely beyond our control, and which spreads among our own stock, to be carried by them into every part of the kingdom."

The law, very properly, does not allow gunpowder and

other *dangerous* explosives to be handled or carried, but in such a manner as will best insure the safety of the public, and puts the owners of these articles to some trouble and expense for that purpose ; and we think that the laws bearing upon the present question should be so extended as not to allow these *dangerous* foreign fat stock to be conveyed from one place to another, or sent to market, without every possible precaution that home stock are not infected by them—even though this should entail some little inconvenience, and even expense, on the owners of the foreign stock—especially when we consider the comparatively insignificant extent (only some 7 or 8 per cent of the whole) of the foreign live fat stock supply.

Another matter which ought to be carefully attended to is the keeping the wharfs or landing-places for foreign fat stock from scheduled countries well apart from those used for stock from unscheduled countries ; and the landing stages, lairs, and sheds, for the reception of both these classes of stock, should be so constructed as to be easily and thoroughly disinfected.

## DEFECT 9.

### *Inconvenience of Sea-side Slaughter-houses.*

British legislation and Orders in Council do not, as they ought, make proper provision for the erection of convenient slaughter-houses at all the seaports where stock from scheduled countries might be landed and slaughtered in a speedy and economical manner.

Anyone can see that this is the only thoroughly safe mode of dealing with imported fat stock, and no stone should be left unturned to induce importers to adopt it, not only at London, but at all the principal ports in the United Kingdom.

As the importers from these countries are compelled, for the protection of the public, to slaughter their stock at the port



of debarkation, every possible endeavour should be made to save them from being put to unnecessary inconvenience or loss, and to afford them every facility possible for sending the meat quickly and cheaply to market.

It has been said by some of the importers that they sustain a loss of 4s each on every head of cattle killed at the seaside. This should be enquired into, and, if it is the case, means should be adopted for removing this cause of complaint, even if the expense should have to come out of the general revenue. The aim should be to *induce* importers to slaughter at the ports of debarkation, and this can, of course, be best effected by making it to their advantage to do so. With this view the lairs and slaughter-houses should be as conveniently situated for the conveyance of the meat to market as is compatible with safety, and so constructed as to admit of the stock being cleanly, speedily, and economically slaughtered, while the regulations under which the work is done, should be as liberal and as considerate as possible.

Objection has been made to the slaughtering of stock at the port of debarkation on account of the risk there would be of the meat being spoiled before it could be sold. But when we consider that ice can be made at less than *five shillings* per ton, and that it is now an established fact that fresh meat can, by means of artificial cold (as proposed by Mr Mort of Sydney, Professor Gamgee, of London, and others) be conveyed cheaply and in first-class condition from America to London, this objection can surely no longer hold good with respect to meat killed at the sea-side even in the height of summer; and during eight months of the twelve there can be no difficulty whatever about the matter, even without these appliances; for the long-established trade in dead meat from Aberdeen to London has settled that beyond all question. Indeed, so far from there being any difficulty in keeping the meat of the stock slaughtered at the sea-side at all seasons of the year, there is no

doubt that even in the summer time England will soon receive a large proportion of her present supply of animal food from the Continent, in the shape of dead meat, killed in the neighbourhood of the farms on which the stock are fattened, and cooled, and kept cool, by artificial means, on the trucks and steamers by which it is sent to market.

#### DEFECT 10.

##### *Too Short Quarantine for Pleuro Pneumonia.*

We are uncertain whether the Orders in Council prescribe *one* or *two* months' quarantine for Pleuro Pneumonia, but both periods are too short. The average length of the incubation of this disease is fully forty days, while it has been known in some cases to have extended to twice, and even three times, that period; and it is an exceedingly short-sighted policy to run the risk of spreading the infection through making the quarantine too short. It should therefore be fixed at *three* months at least, with power to extend it further should any circumstances arise in the meantime to raise doubts as to the soundness of any of the stock placed in quarantine.

#### DEFECT 11.

##### *Owners, Dealers, Butchers, &c., were not required to Register their Farms and Premises.*

Unless the Inspector knows the persons in his district who keep or deal in stock he is not in a position to ascertain by personal enquiry whether any infectious or contagious disease exists among the stock placed under his supervision.

To put the Inspector in this position, all owners should be required by the Act to make an annual return to him of the number of the different sorts of stock they possess, and of their state of health, and to give any other information with respect to such stock, which may be required for the purposes of the Act or for statistical purposes—on the understanding, of course, that

the particulars contained in these returns would, so far as each individual owner was concerned, be kept strictly private. On receipt of the return the Inspector would make a note of the information he required and forward the return to the Statistical Department.

Then, again, if a person at any time during the year became the owner of stock for the first time, or if a returning owner put on stock on his farm of a new description (*i.e.*, cattle, where he had formerly only sheep) such person, or owner, should be bound to give the Inspector notice accordingly.

With respect to salesmen, auctioneers, dealers, butchers, slaughtermen, keepers of lairs and stables, knackers, &c., &c., they should be required to take out licenses, for which a small fee should be charged, and the places of business, premises, yards, &c., should be fully described in their application for licenses. These parties, as well as every one in the possession or charge of any stock, should by the Act be held, when necessary, to be the owners of such stock, and should be obliged, with respect to the animals in their charge, to give notice of outbreaks, or suspected outbreaks of disease, and carry out all the other requirements devolving upon owners under the Act, with respect to stock; and while they would thus be liable, like owners, to be punished for any offences committed against the Act, any infringement of its provisions should also entail upon them the loss of their licences, for longer or shorter periods, according to the nature of the offence.

With such provisions as these in force it would be impossible for stock to be brought into or kept in a district without the Inspector being aware of it; and if he were ordinarily careful in going his rounds, and making inspections, it would scarcely be possible for any infectious or contagious disease to exist among the stock in his charge for more than a week or two at the most, without his knowing the fact, and taking the necessary steps for eradication of the disease.

## V.—DEFECTS IN THE ADMINISTRATION OF THE ACT AND ORDERS IN COUNCIL.

### 1.—The Defects in the Law rendered efficient Administration impossible.

When it is considered that a very large majority of the Local Authorities were strongly opposed to the enforcement of the provisions of the Act and Orders in Council, in so far as they related to Foot-and-Mouth disease, Scab in sheep, and Glanders, and even Pleuro-Pneumonia,—that it was optional with these authorities whether they put the law, with respect to the three first mentioned diseases, and also until lately with regard to the fourth, in force or not,—that only in 6 boroughs out of 311, and 22 counties out of 93, in 1872, did the authorities, while the Law was optional, put the order in force, making the slaughter of cattle infected with Pleuro-Pneumonia compulsory,—that the Orders in Council were rendered completely nugatory through the majority of the authorities failing to put them in force—that, in fact, neither the Act nor the Orders in Council were efficiently carried out by the Local Authorities in any one district, not to speak of the whole country,—that many of the local Inspectors were totally unacquainted with stock, and knew nothing whatever of their ailments,—that the officers were not allowed by the Act to enter premises or places where Foot-and-Mouth disease or Scab was known or suspected to exist,—that the certificate by an Inspector with respect to these diseases was not, as in the case of Rinderpest, held to be conclusive evidence of the facts therein stated,—and that there was no provision made by the Act for the proper supervision of the Local Inspectors,—we can easily see that the administration of the law, so far as regards the less malignant diseases, would be thoroughly inefficient, and that its existence would (as it notoriously was) only

be known and felt through the useless restrictions it imposed on trade, and the annoyance it caused to dealers and butchers; for as to staying the spread of the diseases it did no good whatever.

## **2.—Some of the more common Breaches of the Act.**

The consequence was that the law was almost a dead letter, and offences against it, such as the following, were notoriously rife in all parts of the kingdom, namely:—

- (1.) Owners failed to give notice of outbreaks of disease, and in the case of Pleuro-Pneumonia, instead of taking steps for staying its spread, they slaughtered the stock which were visibly affected, and sent the rest to market.
- (2.) Inspected stock were frequently travelled on the roads, and conveyed by steamers and rail without being stopped by Inspectors.
- (3.) With the exception of the London and two or three other markets, the stock in the fairs and markets were not inspected as they ought to have been, and when they were, and outbreaks detected, effective measures were not taken with regard to the infected stock.
- (4.) The stock shipped from Irish ports were seldom or never inspected before being put on board.
- (5.) Neither were they regularly examined when landed in Scotland or England, especially if sent inland by rail.
- (6.) Dealers and importers were allowed to "dress" their shipments before sending them to market, or on the road or rail.
- (7.) The cleansing and disinfecting of trucks, steamers, lairs, yards, and premises, were systematically neglected.
- (8.) There was no proper inspection of slaughter-houses, with the view to the detection of the disease.

- (9.) Local Inspectors were said, in many cases, to have been intentionally blind to cases of disease, and imputations of bribery were rife.
- (10.) The Local Inspectors are reported as having been generally neglectful of their duty.
- (11.) Magistrates in the boroughs, and sometimes also in the counties, brought the law into ridicule by inflicting mere nominal penalties for very severe offences. Wherever it can be done a minimum as well as a maximum penalty should be fixed by the Act, especially for such offences as knowingly moving infected stock; and if any case of real hardship should arise through the minimum penalty fixed the Privy Council could remit the fine.

**3.—Neither the Government nor the Veterinary Department are so much to blame.**

The Government has been blamed for this state of things, but we do not see that they are justly blamable; for, in the first place, they carried out the law as they found it, on local and optional principles; and they would not have been justified in attempting to compel the Local Authorities to take more effective measures in regard to Foot-and-Mouth disease; for it was clearly the intention of the framers of the Act that it should be worked on those principles; and to make it general and compulsory, by a side-wind, even if they had been able to do so, would not have been right. Besides the provisions of the Act with respect to Foot-and-Mouth Disease, Scab, and Glanders, are so very defective in some most important respects as to render it necessary that fresh powers (similar to those in force in regard to Rinderpest and Sheep-Pox) should be obtained to enable them to deal effectually with these less malignant diseases; and we understand that it was considered *ultra vires* to take these powers by Orders in Council. As this was the case, it may, per-

haps, be said that the Government ought to have gone to Parliament for these powers ; but although we are persuaded that the Government would have been doing the very best thing possible for the country if they could have obtained these powers, we must at the same time allow that a large majority of the consumers—misled as they were by the dealers and butchers—and some even of the stock-owners themselves were then against more stringent measures being taken in regard to Foot-and-Mouth disease ; and as the Government is bound to be ruled by the majority, they have allowed things to remain as they were.

Now, however, we believe the majority think otherwise, and the Government, if they were to ask for fresh powers, of a workable and moderate character for dealing with Foot-and-Mouth disease, would obtain them with very little difficulty. A good deal of fault has also been found with the heads of Her Majesty's Veterinary Department for not doing more than they have done to stay the spread of Foot-and-Mouth disease, and the other less malignant diseases in stock ; but considering the state of the law and the mode in which the Local Authorities carried it out in their respective districts, it was impossible for the heads of that Department to do more than they did in regard to these milder ailments as to which the law was generally local and optional. With respect to Rinderpest and Sheep Pox, however, the case was different. There the law was general and compulsory, and we see how effectually the officers of Her Majesty's Veterinary Department did their work in that case and how quickly these diseases were eradicated when fully under their control and not under that of the Local Authorities.

We have a right to expect, therefore, that if the law in regard to Foot-and-Mouth and the other malignant diseases were made general and compulsory,—and the administration handed over entirely to these officers, the United Kingdom would be speedily cleared of all these scourges.

VI.—NEW PROVISIONS PROPOSED FOR AMENDING  
THE EXISTING LAW, AND SUGGESTIONS AS  
TO HOW IT SHOULD BE ADMINISTERED.

1.—**Sketch Bill containing amendments.**

With the view to remedy the defects of the English Act we would suggest a series of amendments (see Appendix A hereto) based upon the experience of Australia, and containing among others the following principles:—

1. That in considering whether or not a disease calls for legislative interference, the question is not so much whether it be or be not a deadly disorder, but as to whether it is very infectious or contagious; and whether its prevalence entails much loss.
2. That as Foot-and-Mouth disease is exceedingly infectious and contagious, and entails incalculable loss, it is a disease which calls loudly for legislative interference.
3. That it is utterly absurd to attempt to eradicate this or any other infectious or contagious disease, unless the isolation of the infected stock be strictly enforced, and that any thing short of this must prove a complete failure as half and half measures always do.
4. *That, therefore, in legislating for this or any other infectious or contagious disease, the detecting and confining the infection to the ground on which the outbreak occurs, and eradicating it there, should be the leading principle of the measure.*
5. That to this end, such a staff of Inspectors must be appointed, such powers must be conferred on them, and such districts allotted them, as to enable them, from their own personal knowledge, to detect any case of disease immediately on its outbreak, should the owner attempt concealment.



6. That there be a sufficient quarantine for foreign and store stock, and that the distinction be constantly maintained between foreign and store stock.
7. That in effecting this, the measures to be adopted should be of such a nature that they would not interfere with the trade in stock in any appreciable degree.
8. That the expense of carrying these measures into effect should not be great.

## **2.—Special Suggestions with respect to the different diseases.**

### **(1.)—RINDERPEST.**

The administration of the Act, so far as Rinderpest and Sheep Pox are concerned, has been successful, and, we believe, that if either of these diseases were again to be introduced into England, the outbreak would be speedily checked and the infection stamped out. With such a thoroughly well organised system of information as now exists as to the state of the stock on the Continent there is very little risk of stock infected with either of these diseases ever being permitted to land, and little even of their ever being presented for inspection; and if, as we have suggested, an Order in Council were issued requiring all owners of foreign stock to brand them with a permanent brand to denote the country in which they were bred, another most effectual guarantee would be obtained as to the soundness of that class of stock; for animals starting from infected or doubtful districts or countries could not then be passed off, as they now frequently are, as belonging to the country through which they had merely passed.

### **(2.)—PLEURO PNEUMONIA.**

The Order in Council in force with regard to this disease is—  
“That all cattle infected with it be slaughtered,” and is, of course, sufficient to ensure its eradication if it were strictly car-

ried out ; but so very far is it from being so that " not in *one* case in *twenty* is it duly enforced," and this is fully borne out by the fact that there has of late years been little or no diminution in the number of outbreaks of Pleuro Pneumonia.

The principal causes for this state of things are the defective manner in which the inspection of stock is carried out, and the low rate of compensation allowed the owners of the cattle slaughtered under the Act. These are both very serious defects, but they would be speedily remedied if the suggestions which we have offered with respect to the appointment, powers, and duties of the Inspectors and rate of compensation, were adopted.

There are three ways in which we believe outbreaks of Pleuro Pneumonia have been dealt with by the Local Authorities.

1. The cattle actually diseased, as well as those infected, but not exhibiting any symptoms of being so—*i.e.*, the cattle which have been in such contact with the diseased cattle direct or indirect, as the law considers sufficient to render them "infected," have *all* been slaughtered.
2. The actually diseased cattle have been slaughtered, and also those coming into direct contact ; while those coming into only indirect contact have not been killed but merely isolated until it was seen whether or not they were free from infection.
3. The cattle actually diseased were slaughtered ; and all the rest, not showing any symptoms of infection, were isolated until it was seen whether they were infected.

Any one of these *three* courses might still be adopted with respect to cattle infected, but not affected with the disease ; but the sort of action in each case should be determined by the officers of Her Majesty's Veterinary Department, after receiving

from the county Inspector a full report as to the risk there would be of the infection spreading should fresh cases occur—the amount of contact there had been between the diseased cattle and those not affected—and other information which the Inspector could supply.

In those cases where infected stock were kept and not slaughtered, the owners should be induced to try inoculation; and when its efficacy had been as fully established in England as it has been in these Colonies, the slaughter or inoculation of cattle *infected* with Pleuro Pneumonia should be made compulsory.

### (3.)—FOOT-AND-MOUTH DISEASE.

In offering the special remarks and suggestions which we have to make on this disease and the opinions held by the different classes in Great Britain, with regard to the manner in which it should be dealt with, we will withdraw from consideration a very large class in the community—the townspeople—as they take little or no real interest in these matters, and having done so we will divide the rest of the community into two classes. *First*. Those who are opposed to stringent measures being taken for the eradication of this disease; and *Second*. Those who are in favour of such measures; and we will endeavour to show that both are in error, though those belonging to the *first* class are very much further astray than the *second*. To make this plain we will sub-divide the *first* class into two sections.

1. Those who say that the losses inflicted by the disease are only trifling, and do not, therefore, call for stringent measures; and
2. Those who allow that the losses are severe, but who assert that, as the disease is a mild one, the comparatively loose, ineffective, local and optional measures now in force are sufficient for that purpose, and that the

adoption of more stringent measures would be a greater evil than the disease.

The reply to those who belong to section No. 1. is that the direct losses from Foot-and-Mouth disease during the last fifteen years have been estimated by good authorities at more than £70,000,000, while the indirect losses, especially among pure and well-bred stock, are incalculable. The prevalence of Foot-and-Mouth disease is, therefore, a national calamity, and, to a large extent, the cause of the high price of meat, while the present system of one owner travelling diseased stock and infecting hundreds belonging to others is unjust, unneighbourly, and barbarous in the extreme, besides being miserably short-sighted, for it is only a question of time when the infection which an unscrupulous owner thus spreads broadcast around his track and perpetuates in the country will again attack his own cattle—one attack not protecting the animals affected from another. With as great justice might one owner put a fire-stick in his neighbour's hay-stack, as travel his infected stock and infect his neighbour's cattle or sheep.

In reply to those belonging to section No. 2,—by far the more numerous body of the two—we would say :—

1. That the mildness or malignancy of a disease is no criterion either as to its infectiousness or non-infectiousness, and that it is a most egregious mistake to say—as some British legislators and landlords have been saying—if not in as many words at least by their opinions and suggestions as to the mode in which Foot-and-Mouth disease should be dealt with—that because a disease is comparatively mild in its effect, therefore it is not infectious.
2. That to deal effectually with any infectious or contagious disease, measures of the most stringent and energetic character are necessary, and that, therefore, as Foot-and-Mouth disease is exceedingly infectious, any other

but measures of that nature are (as they have already proved themselves to be) worse than useless; for they have been of no real service in staying its spread while they have entailed a great deal of expense and caused a great amount of inconvenience and loss.

With regard again to the *second* class—those who are in favour of stringent measures being taken in regard to this disease—it is evident that although they hold sound views on that point, they are quite at sea as to the right sort of action to be taken to carry out these views, and have gone too far in their recommendations. The fact is, that (with the exception of Professor Brown, of Her Majesty's Veterinary Department, Professor Gamgee, of London, Professor Armatage, of Glasgow, and Mr Fleming, of Chatham) nearly all those who have written or spoken in England on the subject of the prevention of diseases in stock, have overlooked what we consider ought to be the great leading principle in all Legislation, Orders in Council, or Regulations for this purpose, the eradication of the infection on the ground where the outbreak occurs; and having in view only the thoroughly ineffective and absurd system now in force of attempting to eradicate infectious and contagious diseases in stock by the inspection of animals which are moved, and the punishment of owners moving infected stock—there could be no other course open for them to recommend than the exceedingly stringent, arbitrary, and inconvenient one followed in the case of Rinderpest—of stopping all the fairs and markets in Great Britain until the disease is eradicated, a course of procedure to which they could never induce the country nor the Government to agree.

There is, however, a middle course founded upon the principle to which we have alluded; and although, as we have shewn, strict and energetic measures are necessary in dealing with Foot-and-Mouth disease, as well as with every other highly infectious disorder, that by no means renders it necessary that

these measures should be very severely felt or such as would so materially interfere with the trade in stock as the closing of all the fairs and markets in the kingdom.

The measures which we suggest would certainly not be so, and the only thing that could possibly be said against them is that they *might* for a short time, and for that only, be somewhat expensive, if the disease were very prevalent when they came into force ; for it would, in that case, be necessary to employ a comparatively large staff of Inspectors, but their interference with the trade in stock would never be felt.

To show that this is the case we will suppose that Foot-and-Mouth disease has attacked the stock on eight or ten farms in a parish in the north of Scotland, on five or six in the adjoining parish, and two or three in the next. Under the proposed measure the stock on each of these farms as well as on any of the adjoining farms when they were at all likely to have come into contact with the infection, would be isolated (*i.e.*, placed in temporary quarantine) by the local Inspector. He would then report the case to the county Inspector, who would at once visit the farm, and inspect the stock. Having done so and made the necessary enquiries, he would place those of the stock which were decidedly infected, and the farms on which they were kept, in quarantine ; he would continue those of which he had doubts and the farms also in isolation for a further specified time ; and he would release from all restrictions those (if any) of which he had no doubts as to their freedom from infection. By isolating the affected stock as far as possible from those which are apparently sound, and by using disinfectants, it has been found that an outbreak need last but a comparatively short time on a farm ; and power would, of course, be taken in the Act to enforce such treatment and isolation.

If the outbreak occurred in the summer time, and the stock in the grass, the quarantine would, of course, extend to the roads passing through or along the farm, and would entail

their being closed against the passage of stock while the quarantine or isolation of the stock continued; or the stock might be removed from the field adjoining the roads, which would then be opened so soon as it was considered safe to do so.

It might be necessary also, when there was much disease in a district—as in the supposed case—to close the fairs and markets usually held in it, for a time; but if the other precautions were strictly observed this would very seldom be required.

Now all this—though carried out in the most strict and energetic manner—would be exceedingly mild action compared with that brought into play in the case of Rinderpest. At the very outside it would only entail a little brief inconvenience, in here and there a district throughout the whole country, while in the case of Rinderpest every fair and market in the Kingdom was stopped for months. Under the proposed system a few owners, sending stock to market, might have to travel them some two, three, or four miles farther than usual to avoid a quarantine or isolated farm; and might, on rare occasions, be obliged to take their stock double the distance to market in another district, because their usual market was closed, but we are certain that there is not a farmer in the whole kingdom who would not cheerfully do so, if he would thus be certain of avoiding the risk of infecting his stock, to say nothing of ultimately getting rid of the disease altogether.

The supposed cases here given as occurring under the system which we have suggested, will not only illustrate this in its different bearings, but must also exhibit in striking contrast the comparatively mild and indestructive though effective action under it, of merely quarantining a farm, or few farms here and there, in a district, and interfering but slightly with the traffic in stock, with the high-handed and restrictive action frequently proposed of closing all the fairs and markets in the kingdom until Foot-and-Mouth disease be eradicated.

We will take another case—one more difficult to deal with—an outbreak of Foot-and-Mouth disease among stock which are being removed—and we will suppose in the first instance that they are fat stock travelling by road to market or to the railway station.

If they are not far from the place from which they started they should be sent back under proper surveillance, and notice should be given to the owners of stock along the road by which they came that the outbreak had occurred; while the road should be closed to the passage of other stock until considered free from infection. On arrival at their own farm they should, of course, be dealt with as already suggested.

If the infected travelling stock cannot be sent back, then steps will require to be taken to have them otherwise disposed of without spreading the infection. To accomplish this one or more of the following courses might be adopted.

1. To take the whole lot, sound and unsound, to the nearest safe and suitable place and quarantine them until they are sound—the occupant of the land or premises receiving full compensation from the owner of the stock for their use, and for any loss, damage, or expense he may be put to through the stock being quarantined there.
2. To take them all by as little used a road as possible to some safe and suitable place in the neighbourhood of the nearest railway station, and there slaughter them and send the carcasses to market.
3. To take out those which are actually affected, quarantine them at the nearest safe and convenient place and disinfect and send on the rest by rail, in a truck by themselves, to the nearest town where there was proper convenience for slaughtering, and send them under proper surveillance to the slaughter-house—



care of course being taken in putting them in the truck and taking them off, that they did not come into direct or indirect contact with other stock.

We are unable to say which of these modes of dealing with the outbreak would best suit the owner of the stock. Nos. 1 and 2 would certainly be the safer course for the country ; but if either course were faithfully carried out, the risk of the disease spreading in such cases as these would not then be a tithe of what it now is ; for the stock would be constantly under the surveillance of the Inspector or his assistants until they were slaughtered or cured, and precautions could be taken as we have suggested, to prevent other stock from being put in the same trucks as the doubtful stock, or from travelling by the same roads until the infection had left them.

If, again, an outbreak occurred among store stock while they were being moved, and they could not be sent back to their own farm—they should be isolated and quarantined on the nearest available land or premises until the infection had left them—the occupant receiving compensation as already proposed.

It ought, however, to be borne in mind that if the alterations which we have proposed in the Act and Orders in Council were carried out, outbreaks of these diseases would then be dealt with on the ground where they occurred, and disease would seldom or never be seen among travelling stock—not at any rate after the proposed measure had been eight or ten months in operation.

#### (4.)—SCAB IN SHEEP.

The foregoing special remarks on Foot-and-Mouth disease are equally applicable to Scab in Sheep.

## VII.—MODE OF CARRYING OUT THE PROPOSED MEASURE.

We would commence proceedings by proclaiming one or more of the counties (according to the natural features of the country, and the extent of infection) in the north of Scotland, and in the north-west of Ireland, "intermediate" districts, and having drawn a well-defined and easily defended natural boundary line, between the county or counties thus proclaimed and the others, we would so put the Act and Orders in Council in force that every infectious or contagious diseases in stock prevailing in these "intermediate" districts would be speedily eradicated; and, while this was being done, no stock should be allowed to pass into the "intermediate" districts from the country outside these districts without inspection, and the production to the Inspector at the boundary of a certificate of soundness from the Inspector for the district in which such stock had last remained for a period of ten days or more, previous to their arrival at the boundary; and all stock entering an "intermediate" district should be kept under special supervision by the local Inspector, and examined at stated intervals for, say, three months after their introduction.

As soon as it was certain that these "intermediate" districts were free from infection they should be declared "clean" districts, and fresh lines should be drawn, taking in additional counties and forming fresh intermediate districts, which would be dealt with in the same manner as the first.

Then if it was desired to introduce stock into the "clean" district, they would have to undergo two inspections previous to crossing the boundary of that district, one on the ground (a thorough one) at the boundary of the "intermediate" district, and another in the trucks at the station nearest the boundary of the "clean" district.

When, again, the country contained in the second "intermediate" district was freed from infection it would be added to the "clean" district, and a fresh "intermediate" district taken up; and so on until the whole of Scotland and Ireland were declared clean. When that was done it would be a comparatively easy matter, with the supply of fresh infection thus completely cut off, and the evil attacked at its root, to free England also from disease, especially if the staff there had, in the meantime, been doing its duty as energetically and faithfully as it ought.

When it is recollected that the regular flow of the cattle traffic is from north to south in Scotland, and from west to east in Ireland, it will be easily seen that although these lines of demarcation between the "intermediate" and the "intermediate" and "clean" districts would be almost, if not quite, as effective as a general system of permits, under which no stock could be moved without inspection, they would not, even in Scotland or Ireland, where it is proposed to proclaim them, cause a tithe of the trouble and expense to the trade in stock which a general permit system would entail, and they would, of course, in no way affect the traffic in England, where any interference would be greatly felt.

We are certain, too, that even the stock-owners in the midland, and in the north and north-eastern counties of Scotland—who fatten a great many cattle, and purchase annually considerable numbers of Irish store stock and English calves—would never object to the proposed system of "intermediate" and "clean" districts, as they would see that it would tend greatly to their protection, and cause them but little inconvenience; while in Ireland these lines would scarcely interfere at all with the trade in stock; for, beyond a few hundred pure-bred stock, which are introduced from England and Scotland, there are few or no stock passing from the eastern to the western counties of Ireland.

Should, again, an outbreak occur in the "clean" district—which is possible though not very probable—among stock recently introduced into that district, and among them only, the provisions of the Act applicable to the case, especially those relating to quarantine, would be so rigidly and energetically enforced that the infection would be immediately eradicated on the ground where the outbreak occurred; for if the owner neglected to report it, the Inspector in the course of periodical inspection, to which these introduced stock are subject, would be certain to detect and deal with the case.

But although we have proposed these "intermediate" and "clean" districts, they are not by any means absolutely necessary, for the country would be free from infection by the operation of the general provisions we have suggested, even if the districts were not proclaimed, and, if from any cause whatever, they were found unworkable, they need not be proclaimed. The work, however, in that case would not proceed with anything like the same certainty and speed; for anyone can see that if they were so, the country included in them would be protected from re-infection, and the progress of the work of eradication greatly facilitated.

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#### VIII.—ESTIMATE OF EXPENSE OF PROPOSED ACT.

The principal item of expense is, of course, the cost of inspection, and to arrive at some idea of that, it will be necessary to ascertain, as nearly as possible, the number of Inspectors which would be required. We have little or no data to guide us in offering an opinion on this point, and our ideas may possibly be wide of the mark, but in order to elucidate our suggestions we submit the following estimate :—

## SALARIES.

Head Office, . . . . .	£10,000 0 0
Travelling Inspectors—4 for England, 2 for Scotland, and 2 for Ireland—8 at £500, . . . . .	4000 0 0
1. First Class Veterinary Inspector at each of the prin- cipal sea-ports, and for each county or sets of small counties, say 150 for England, 75 for Scotland, and 75 for Ireland—300 at an average salary of say £250 each, . . . . .	75,000 0 0
1. Local Inspector for every tract of purely rural country of say 20 square miles,	
1. Local Inspector for every tract of mixed rural and urban country, of say 10 to 15 square miles,	
1. Local Inspector for every town and the country around, to a distance of say 5 miles. Making say 350 for England, 225 for Scotland, and 225 for Ireland, in all 800, at an average salary of say £150 each, . . . . .	120,000 0 0
	<hr/> £209,000 0 0

## CONTINGENCIES.

Fees to Veterinary Surgeons when called in, . . . . .	£10,000 0 0
Travelling expenses to In- spectors and others, . . . . .	21,000 0 0
Incidental expenses, . . . . .	10,000 0 0
	<hr/> 41,000 0 0
	<hr/> £250,000 0 0

We are quite in the dark as to what it now costs to carry out the Contagious Diseases (Animals) Acts of Great Britain and Ireland, but the above estimate is a very liberal one, and, we believe, more than will actually be required. But if it should not be sufficient to effect the object in view—the eradication of the infection on the land or premises where the outbreak occurs—it would be a thousand times better to add to the proposed staff and secure this most desirable object than save even hundreds of thousands of pounds and fall short of it. Anyone who gives the subject the slightest consideration

must see that the detecting of every outbreak of disease, where the owner attempts to conceal it, and checking the spread of the infection, is only a question of expense and employment of a sufficient staff of Inspectors, and that, as this is the case, it would be the height of folly to employ anything but an ample staff. A full staff should, therefore, be appointed, and the work thoroughly, energetically, and simultaneously carried out in every part of Great Britain and Ireland. It would be very absurd to adopt half measures. These have already been tried too long, at a loss of upwards of a hundred millions of money, and have been condemned by every person in the community who gives this subject the least thought. The more efficient the work is done the sooner will it be possible to make a reduction in the staff of Inspectors, and if the suggestions we have made are carried out, we may fairly expect that at the end of eighteen or twenty-four months neither Foot-and-Mouth disease nor any of the other scourges which are now so prevalent will be heard of in the United Kingdom, and that a very considerable reduction in the number of Inspectors would then be practicable.

But, after all, the expense, even at this liberal estimate, would be a very small fraction (about 1-33rd) of the annual loss now sustained through the existence of these infectious and contagious diseases; for, leaving Rinderpest and Sheep Pox entirely out of the question, we have the following as the average annual loss during the last fifteen years occasioned by the other diseases, namely:—

Pleuro Pneumonia,	.	.	.	.	.	£2,000,000
Foot-and-Mouth disease,	.	.	.	.	.	5,000,000
Scab in Sheep,	.	.	.	.	.	1,000,000
Glanders,	.	.	.	.	.	1,000,000
						<hr/> £9,000,000

and that divided by £250,000 the total amount of the estimate gives 33 *i.e.*, 1-33rd of the total loss.

Suppose, again, for a moment that our estimate of losses is too high by one-half, this would make the expenses 1-16th of the total loss; and it would surely be a most excellent investment if for such an outlay as this, to begin with (and considerably less afterwards), these diseases could be entirely eradicated. Even supposing that the estimate of losses were reduced to 1-4th of the amount stated above, say to £2,250,000 the proposed outlay would still be only about 1-10th of the annual loss—a fact which needs no comment.

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#### IX.—EXPERIENCE IN AUSTRALIA.

Neither in New South Wales, where there are now some 23,000,000 sheep, nor in Queensland with about 7,000,000, nor in South Australia with about 5,000,000—amounting together to about 35,000,000 sheep—is there a single scabby sheep; and even in Victoria, where ten years ago there were about 5,000,000 sheep out of 10,000,000 infected with Scab, there are good grounds for believing that Scab has also been entirely eradicated, although the Colony has not yet been officially declared clean, there having been no fresh case of Scab seen there for eighteen months; while in Tasmania, where in 1869 the whole of the sheep, with the exception of a few valuable flocks, were infected, they are now almost if not altogether clean.

In other words, although ten or twelve years ago, there were a great many scabby sheep in all the Colonies—say 500,000 in New South Wales—200,000 or 300,000 in South Australia—5,000,000 in Victoria—and more than 1,000,000 in Tasmania—it is believed that there is not now a single scabby sheep in Australia among the 47,000,000 sheep, and very few in Tasmania.

The only cases of Scab seen in New South Wales during the last six years have been some five or six lots of infected sheep

brought from England, and one recently from California, which were detected, and the sheep dealt with under direction of the Minister.

Without the least intention of boasting as to what has been done in the Australian Colonies in eradicating infectious or contagious diseases in stock, and solely with the view of showing what may be effected under a proper measure and ordinarily energetic administration, we can safely affirm that it was more difficult to eradicate Scab in New South Wales and South Australia, where the sheep are nearly all shepherded, and vastly more difficult in Victoria and Tasmania, where they are depastured in large paddocks, than it would be to eradicate that ailment, or even Foot-and-Mouth disease, in Great Britain and Ireland.

Anyone who has had the least experience in dealing with infectious or contagious diseases knows that one of the principal difficulties to be encountered is that of maintaining a perfect quarantine, *i.e.*, effecting the thorough isolation of the affected stock from the sound; and that there is another quite as serious, the difficulty of bringing the provisions of the Act—especially those relating to cleansing and disinfecting—to bear upon every individually infected animal.

Now it must be evident as regards New South Wales and South Australia, that it was much more difficult to maintain a perfect quarantine in these Colonies than it would be in Great Britain; for there almost every farmer's stock is confined in sufficient enclosures to his own ground, and the roads are securely fenced off from the farms. But in the Colonies mentioned there were then few or no fences between the different portions of the runs, and very few between the runs of different owners, and, therefore, nothing to prevent stray sheep from passing, as they frequently did, from one flock to another on the same run, and even from one owner's run to that of another; while there were public roads running through or along every



run in these Colonies, and sheep continually travelling on them and depasturing, as they have a right to do, on the position of the runs within half-a-mile of either side of those roads on which, of course, the sheep belonging to the run are also depastured.

Notwithstanding this, the last outbreaks of Scab in New South Wales and South Australia—although of considerable extent when begun to be dealt with—were eradicated in the course of two or three years in both Colonies, with little or no interference with the trade in sheep; and, as we have already said, there is not now a single scabby sheep in either of these Colonies, where there are about 30,000,000 sheep.

The same remarks apply also to a malignant and contagious Catarrh in sheep which at one time was prevalent in some of the upland districts of New South Wales and Queensland, and not unfrequently spread into other districts; and which was finally stamped out some four or five years ago, by isolating the infected and doubtful flocks, and destroying the diseased.

In Victoria and Tasmania again, they had not only the difficulty with which it has been shown the other two Colonies had to contend, in regard to isolating the infected sheep, but they had to encounter the second—the difficulty of collecting and dressing every infected sheep—for their flocks were almost all depastured in paddocks containing from two thousand to ten thousand, and sometimes more, sheep in one paddock, and some of them in exceedingly scrubby, mountainous and rocky country, in which it is all but impossible to insure a complete muster of the sheep running in such large lots as we have stated they frequently were. The consequence was that odd scabby sheep were often missed in mustering, and not being dressed, they, of course, in a few months' time re-infected the others, and thus retarded the eradication of the disease for years.

Notwithstanding these difficulties, however, it is believed (although Victoria is not yet formally declared clean) that that

Colony is now also free from Scab, and Tasmania will very soon be in the same state. We are in good hopes, therefore, that with the termination of the present year, there will not be a scabby sheep in the whole of Australia—and when this does occur we feel certain that Scab will never again be allowed to obtain a footing in any of the Colonies.

Going as we do, in all the Colonies, on the principle of eradicating the infection on the ground where the outbreak occurs, and giving the Inspector, as we do, a general power of entry at all reasonable times to any place where stock are, or have been kept, the only question that troubles us in considering whether a disease can be eradicated is whether the stock affected with the disease can, or cannot, be isolated, and if they can, the eradication under the powers we have mentioned is speedily effected, and that, too, without interfering in any appreciable degree with the traffic in stock.

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#### X.—CONCLUDING REMARKS.

*In the first place* we have noticed the principles and scope of British Legislation ; the diseases with which it deals ; the losses they have occasioned ; the classes interested in its enforcement ; its failure so far as Foot-and-Mouth and the other less malignant diseases are concerned ; and the defects which caused this failure.

In the *second* place we have suggested new provisions for remedying these defects.

In the *third* place we have pointed out how effect should be given to these amendments ; and have shown that while they are thoroughly practicable they would cause no appreciable interference with the trade in stock, and that the expense of carrying out the amended measure would, even at first, be very little, if anything, greater than that incurred in the vain attempt to keep these diseases in check.

In the *fourth* place we have shown that if a measure containing these suggestions were carried out with ordinary care and energy for 12 or 18 months, all the infectious and contagious diseases, which now affect the stock of the United Kingdom would be eradicated ; and, if the country were once free from these scourges—though they would, no doubt, be re-introduced again and again by foreign stock—they need never afterwards obtain a footing amongst British stock, isolated, as they would be, by sea from those on the Continent.

Seeing that this is the case, it appears incomprehensible to us that the necessary steps to attain this most desirable end were not taken long ago. Rinderpest and Sheep Pox, which did not entail one tithe of the inconvenience, vexation, and loss Foot-and-Mouth disease have brought about, to say nothing of Pleuro Pneumonia, were stamped out, and why should not immediate steps be taken for the eradication of all these diseases, when it can be easily and surely effected without occasioning anything like the interference to trade to which the country has been subjected by harassing but futile legislation, for the last eight or ten years?

Let then your stock-owners, and all who have any practical knowledge of this subject deal with it in the same common-sense business way as they manage their own private affairs ; and we feel confident that they will adopt some such measure as we have pointed at. If “anybody’s business” were “everybody’s,” this question would long ago have been heartily gone into, and successfully dealt with ; but the action taken hitherto with respect to it can only be characterised (speaking as Mr Plim-soll would) as childish, short-sighted, un-neighbourly, and useless in the extreme.

With respect to the trade in stock there is no doubt that the restrictions, even as proposed by us, are too lax, but as there is no prospect of more effective measures being adopted, we have gone no farther in that direction.

If, however, the recommendations which we have made were carried out, and the system of Boards and permits which we have proposed, adopted, there would soon be such an array of evidence of the risk and loss arising from the admission of foreign stock without sufficient quarantine, as would eventually lead the Legislature to grant stockowners the full protection to which they are entitled.

In conclusion, we earnestly trust that our efforts to bring this all-important subject before the British public in a practical shape, will lead to a discussion of the merits of the present law, its failure to reach the objects for which it was enforced, and the necessity for a radical change in the existing system. Whether the suggestions we have made will meet the difficulties of the case, or afford the best solution of the evils which all perceive, it will be for others to decide; but, if our imperfect expressions of opinion—the result of no slight study of the question from a British point of view, and of considerable experience from an Australian point of view—quickened a sense of the necessity for reform, if not for a complete revolution of the system, then should we feel that we had done good service in the interest of breeders, the trade, and consumers, in our fatherland, and in these Colonies also; for our stock are already beginning to languish for the want of fresh blood, and we are all resolved not to open our ports to stock from England until Foot-and-Mouth disease has been thoroughly checked throughout the United Kingdom.

## APPENDIX.

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### SKETCH OF NEW PROVISIONS PROPOSED TO BE INCORPORATED IN A MEASURE FOR AMENDING THE CONTAGIOUS DISEASES (ANIMALS) ACTS, AND SUGGESTIONS AS TO THE MODE OF CARRYING THE AMENDED ACT INTO EFFECT.

#### PRELIMINARY.

1. It should be the leading principle of the measure "To eradicate the infection on the spot where the outbreak occurs."

2. The provisions of the Act should be general (national), and compulsory, instead of local and optional, as they now, to a large extent, are.

3. The measure should be applicable to both Great Britain and Ireland.

4. The administration of the Act should be left entirely in the hands of the officers of Her Majesty's Veterinary Department, under the control, of course, of the Privy Council.

5. The following words and terms (among others) should be defined :—

"*Destroy.*"—(As in Act, Section 60.)

"*Disease.*"—(The same as in Act under "Contagious or Infectious Disease.")

"*Infected Stock.*"—Any stock suffering from or affected with disease—or any stock in the same lot, flock, house, yard, or field, as any stock so suffering or affected—or any stock which have been in direct or indirect contact with stock so suffering or affected, within a period to be fixed by the Privy Council, with respect to the several diseases mentioned.

"*Occupant.*"—Any proprietor, lessee, licensee, overseer, agent, or person, whether jointly or severally, in the authorized possession or charge of any land or premises.

"*Owner.*"—Any owner, or agent, or person, whether jointly or severally, in the possession or charge of any stock.

"*Travelling Stock.*"—Any stock while being driven, or carried or conveyed along or over any place other than that on which such stock was originally kept.

## II.—LOCAL AUTHORITIES.

6. Local authorities should be only Boards of Advice and Vigilance Committees, and should have no direct voice in the carrying out of the law, except as regards the raising of the funds and settling the claims for compensation according to a scale to be fixed by the Act, and Orders in Council.

7. Local Authorities should be empowered to appoint district committees with the same powers (except as regards the raising of funds for and settling claims for compensation) as they themselves possess.

8. Local Authorities or Committees should meet weekly while disease exists in their districts ; and quarterly when there is no disease.

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## III.—INSPECTORS OF STOCK.

### 1. APPOINTMENT

9. Boards of Examiners should be established at four or five of the more central towns in England ; at two or three in Scotland ; and two or three in Ireland ; for the purpose of examining intending applicants for the office of local Inspector, and no person should be eligible as examiner who is not a duly qualified Veterinary Surgeon, or does not hold a certificate from one of these Boards.

10. The Privy Council should appoint a sufficient staff of travelling, port, town, county, and local Inspectors, and all such Inspectors should be under the control of the officers of Her Majesty's Veterinary Department.

11. Such districts as they can thoroughly supervise should be allotted to the local Inspectors, who should be held responsible that they do not allow disease to exist in their districts beyond a reasonable line without detecting it.

### 2. POWERS

12. Inspectors should have the same powers and privileges with respect to diseased stock as officers of Customs and Inland Revenue, in the case of dutiable goods, and in searching for and seizing any such goods.

13. Inspectors should be empowered, in the execution of their duty, on giving notice to the occupant, to enter at all reasonable times on any land, premises, conveyance, or vessel, where stock were, or had been, whether they receive notice of infection being there or not.

14. If this power of general entry be not granted, Inspectors should be allowed to ask the occupant's permission to enter and inspect; and if this be refused, the Inspectors should be empowered to demand and receive from the occupant a return of the number and description of the stock on his farm, and of the state of their health, and to ask and obtain answers to any questions they may put with regard to stock then, or formerly, in the possession or charge of such occupant.

15. The Inspectors should be empowered in all cases to ask for and obtain the assistance of the owner and his servants in examining, detaining, driving, or otherwise dealing with such owner's stock in the course of their duty.

### 3. DUTIES.

16. Local Inspectors should report regularly to the county Inspector, and keep for statistical and other purposes, full records of all the outbreaks of diseases in their districts—the mode of treatment by the different owners, and the result in each case.

17. The local Inspector should consult the local or district committee in regard to local matters, and should always receive the advice offered him by them with regard to the administration of the Act. But he should be empowered to accept or reject such advice according as he considered best, and in case of rejection he should at once report the matter fully to the county Inspector.

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## IV.—ISOLATION, QUARANTINE, AND SPECIAL DISTRICTS.

### 1. ISOLATION.

18. An Inspector should have power to isolate (i.e., place in temporary quarantine) any stock, land, premises which were infected, or suspected of being infected.

19. An Inspector should be empowered to take possession of and isolate any convenient land or premises, for the purpose of detaining any travelling stock which were infected, or suspected of being infected.

20. If an Inspector, taking action under either of the two next preceding sections, be a local Inspector he should immediately report to the county Inspector.

## 2. QUARANTINE.

21. Any stock, land, or premises which may have been isolated, or any other found by the county Inspector to be infected, should, according to the disease, be placed in quarantine (*i.e.*, be declared an infected place) for the periods specified from time to time by Orders in Council—the quarantine for Pleuro Pneumonia should not be less than three months.

22. Any travelling stock isolated as infected, or suspected of being infected and examined by the county Inspector, and found to be infected should be quarantined where they were, or on some other suitable land or premises in the neighbourhood, according as the Inspector considers best.

## 3. SPECIAL DISTRICTS.

### 1. *Intermediate Districts.*

23. The Privy Council should have power to proclaim any portion of the United Kingdom an intermediate district, into which no stock should be allowed to enter (except from a "clean" district), but at a proclaimed crossing-place, and after examination by the Inspector in charge of such crossing, the stock being accompanied by a certificate from the Inspector for the district from which they started that they were free from infection.

### 2. *Clean Districts.*

24. The Privy Council should be empowered to proclaim any portion of the United Kingdom a "clean" district, into which no stock should be allowed to enter but at certain proclaimed crossing-places, and under the following conditions as to certificates and inspection:—

1. That they were accompanied by a certificate from the Inspector for the district from which they started that they were not infected.
2. That if they came from any place outside the intermediate district they were carefully inspected before entering such district, and again before entering the clean district.
3. That if they came from an intermediate district they had been examined, and held a permit from an Inspector to enter.



### 3. *Doubtful Districts.*

25. The Privy Council should have power to proclaim any seaport, and as much of the surrounding country as should be defined in any Order in Council, or any portion of the Kingdom respecting the freedom of which from disease there were any doubts, a "doubtful" district, from which no stock should be allowed to pass into any other part of the country without inspection and permit.

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## V.—QUARANTINE STATIONS.

26. The Privy Council should be empowered to establish such quarantine stations for the reception of foreign stock as might be necessary.

27. The Local Authorities for the seaports at which quarantine stations had been so established should be required to erect the necessary buildings, sheds, yards, and appurtenances, for the reception and keeping of such stock, and be empowered to charge such fees for the use of the accommodation as the Privy Council should approve.

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## VI.—STOCK ON LAND AND PREMISES.

### 1. UNINFECTED STOCK.

#### 1. *Owners' Duties.*

28. They should register their places annually with the local Inspector, and send in full returns of the number, description, and health of their stock.

29. They should give the local Inspector notice when they put stock of a new description on their places.

### 2. INFECTED STOCK.

#### 1. *Owners' Duties.*

30. They should take the following action with regard to such stock :—

1. Separate the affected from the un-affected.
2. Destroy, bury, or otherwise dispose of the carcasses of infected stock as required by the Privy Council.

3. Brand all infected stock with paint brand denoting the disease, and keep them branded until declared free from infection.
4. Strictly confine stock on their own land, and away from boundaries and roads.
5. Post notices of outbreaks on roads passing through or along farms or premises.
6. Send notices of outbreak to occupants of adjoining lands or premises, to nearest local Inspector and county Inspector, with full return of all stock on the place, to nearest member of local Board or Committee.
7. Advertise outbreak in local papers.
8. Take such other steps for staying spread of infection as the Privy Council might direct.

And the obligation imposed upon the owner to do that which is herein before required, and his liability should commence and attach on the expiry of twenty-four hours from the time the fact of infection coming to his knowledge—and unless he could prove that the fact of outbreak could *not* have come to his knowledge it should be held that it did so when it occurred.

## *2. Official Inspection and Action.*

31. On receiving notice of or discovering any outbreak, or suspected outbreak, of disease, the local Inspector should isolate the stock and the land or premises on which they were, with as much of the surrounding land and as many of the stock thereon as might be necessary until the arrival of the county Inspector, who should re-examine the stock so isolated or as much as he considers necessary, and place the land and stock in quarantine.

32. The county Inspector should give the owner instructions to deal with his infected stock according to the disease with which they were infected in manner following, namely:—

1. Stock infected with Rinderpest, and Sheep Pox, although showing no symptoms of disease, should be at once destroyed.
2. Stock actually affected with Pleuro Pneumonia, Glanders, and Farcy, should be slaughtered and disposed of as the Privy Council should direct; and stock infected with these diseases (but not exhibiting any symptoms of being so) should be slaughtered or not as the Privy Council should in each case, or by regulation, direct.
3. Stock affected or infected with Foot-and-Mouth disease might be treated, isolated, and cured under such regulations as might from time to time be issued by the Privy Council.
4. Sheep affected or infected with Scab might be dressed and cured under a Licence to be issued by the local Inspector for the first two months without fee; but if not clean at the end of

that time, on payment of a fee of one shilling each for next two months, and two shillings each for every additional two months or portion of two months.

33. Stock ordered to be destroyed or slaughtered should be valued by some one on behalf of the Local Authority, previous to the order being carried out.

## VII.—TRAVELLING STOCK.

### I. UNINFECTED TRAVELLING STOCK.

#### 1. *Owners' Duties.*

34. The owner intending to travel stock from a place situated within two miles of an infected or suspected centre, or within one mile of a doubtful district should be obliged to obtain a certificate from the Inspector for his district that the stock had been examined and found free from infection before starting.

### 2. INFECTED STOCK.

#### 1. *Owners' Duties.*

35. The owner of any infected travelling stock should immediately carry out the following duties :—

1. Stop the stock at or near where the outbreak occurred.
2. Carry out the various duties herein before prescribed in regard to infected stock on farms in so far as they were applicable to travelling stock.

#### 2. *Official Inspection and Action.*

36. All travelling stock found to be infected should, so far as practicable, be dealt with as to declaration of infection, valuation, slaughter, treatment, or isolation, in the same manner as herein before prescribed, in regard to infected stock, on farms according to the disease with which they were infected.

#### 3. *Right of Detaining Suspected or Infected Travelling Stock.*

37. If a stock-owner suspected any travelling stock to be infected he should have the right of demanding that they be submitted

to his inspection; and, if he considered them to be infected he might detain them till the arrival of the Inspector.

38. The owner detaining such stock should be responsible that he so isolated them as to prevent the infection from spreading.

39. If the stock so detained be declared infected by the county Inspector their owner should pay all expenses; but if they should be found not to be infected, the person detaining them should pay all these expenses—besides being liable for damages should he have detained the stock without sufficient cause.

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## FOREIGN STOCK.

### 1. RULES OF ADMISSION.

#### 1. *All such Stock.*

40. The landing-places proclaimed by the Privy Council for the different classes of stock, *i.e.*, stock from the scheduled countries, should be well apart from each other.

41. All foreign stock of every class intended to be landed in Great Britain or Ireland should be branded with a permanent fire-brand denoting the country in which the stock were last kept, for a period of not less than (say) *fifty* days prior to their shipment.

42. All foreign stock should be accompanied by a certificate from the Inspector of the port at which they were shipped, setting forth the places where they had been, and the routes by which they had travelled during the next preceding *three* months, and certifying that such stock had not been in direct or indirect contact with infected stock during the next preceeding three months.

### 2. STOCK FROM UN-SCHEDULED COUNTRIES.

#### 1. *Fat Stock.*

43. All such stock should be exposed for sale in markets separate from home stock, and they should pass from the ship to the market by permit.

44. Such stock before leaving market should obtain a permit to travel to their destination, and the Inspector who granted the permit should notify by telegram, if necessary, the issue of the permit to the Inspector for the district to which the stock were going. If stock be moved again, or the destination altered, it should only be on inspection and the issue of a fresh permit.

## 2. STUD OR STORE STOCK OR MILCH COWS.

45. Such stock should pass a quarantine of *fourteen days*, at or near the port of debarkation.

46. On leaving quarantine they should obtain a permit from the Inspector to travel to a destination stated in the fresh permit, and a fresh permit every time they are moved during the next *three months*—the Inspectors notifying to each other the issue of the permits.

## 3. STOCK FROM SCHEDULED COUNTRIES.

47. Proper provision should be made for the slaughter of this class of foreign fat stock at the port of debarkation, and every possible facility should be afforded for slaughtering the stock and sending the meat to market, and if the loss to the importer, of which he now complains, could not be otherwise obviated, the amount should be recouped to him from the general revenue.

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## EXPORTED STOCK.

### 1. RULES OF EXPORTION.

48. Persons intending to export stock should give the Inspector for the port 24 hours' notice, and pay fees fixed by Privy Council for inspection—and the inspection should include stock put on board for ship's use.

49. The Inspector on finding stock sound to grant certificate to be transmitted with stock.

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## MISCELLANEOUS.

### 1. INFECTED OR SUSPECTED STRAY STOCK.

50. Any person should be empowered to seize and detain infected stray stock, and should send the Inspector immediate notice of seizure—and the person detaining them should take necessary precautions to prevent infection from spreading, pending the arrival of the Inspector.

51. The Inspector on arrival should examine and deal with such stock as required with respect to travelling stock found to be infected.

## 2. LAND, PREMISES, CONVEYANCES, &C., INFECTED OR LIKELY TO BE INFECTED.

52. Any land, building, conveyance, food, fittings, effects, or matter, or thing, which had been in direct or indirect contact with infection, or in such a position as to have been likely to have been in such contact, or which had been placed in quarantine, should be held to be infected.

53. All such matters or things should, according to the disease with which the same were infected, be dealt with, as far as practicable, in the same manner as stock infected with the same disease, and should be disinfected, destroyed, or dealt with otherwise, as the Privy Council might by order direct.

54. The cleansing and disinfecting of all infected or doubtful buildings, erections, conveyances, fittings, matters, or things, should be carried out at the time and in the manner to be from time to time prescribed by the Privy Council.

## 3. LICENSES UNDER THE ACT.

55. All dealers in stock, salesmen, auctioneers, butchers, knackers, &c., should be required to take out annual licenses from the Local Authorities, for which they should pay a fee, and should be obliged to give information of disease in stock which might be in their possession or charge—the same as an owner—under penalty of a fine and cancel of licence.

56. All practising Veterinary Surgeons should have to take out annual licenses from the Local Authorities, and report every case of disease coming under their knowledge—under penalty of fine and cancel of licence.

57. All vessels carrying stock should be licensed annually by the Local Authorities of the port, and those unfit for the trade refused licenses ; and the licenses of those which did not comply with regulations, as to cleansing and disinfecting, be cancelled.

58. All slaughter-houses should be licensed, and those unfit for the purpose should be refused, while the Inspector of the slaughter-houses should be bound to report to the local Inspector every case of disease coming under his knowledge ; and every person slaughtering at any place but a licensed slaughter-house should be bound to give the nearest local Inspector sufficient notice of his intention, to enable the Inspector to inspect the meat and offal.

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## COMPENSATION.

59. Where stock were slaughtered or destroyed under the Act, and

their owners had complied with the provisions, *full* compensation should be paid them, as well as all those who suffered loss through the operation of the Act or Orders in Council by the isolation or quarantine of stock, land, or premises, or anything else, or by the occupation of land or premises by infected or suspected travelling stock, placed thereon by the Inspector, or in any other way.

60. No compensation should be paid for foreign stock slaughtered, destroyed, or quarantined within three months of the importation of such stock unless their owner could prove that the infection for which such stock were slaughtered, destroyed, or quarantined, was contracted after the stock landed.

61. Nor for stock brought to "a clean" or "intermediate district" from "doubtful districts."

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### ORDERS IN COUNCIL.

62. The Privy Council should have power from time to time to make such orders (besides those mentioned in the Act) as they might deem expedient for all or any of the following purposes :—

1. For making stock travel by certain specified routes to their destination.
2. For opening or closing temporary roads through any land for the travelling of infected or uninfected stock.
3. For isolating and keeping infected or suspected travelling stock.

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### EXPENSES.

63. The ordinary expenses of the Act, such as Inspector's salaries travelling expenses, etc., should be defrayed from the general revenue.

64. All moneys required for compensation for stock destroyed and losses incurred through the operation of the Act should be raised from a rate to be levied by the Local Authority for the district in which such losses were incurred.

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### LEGAL PROCEEDINGS.

65. It should be laid down what was to be held to be service of notice under the Act.

66. When it was uncertain who was the owner of any stock in respect of which a penalty has been committed, or sums of money are sued for, or if an order be obtained with respect to stock and not paid, right to levy upon the stock should be taken.

67. For the purposes of the Act a brand in conjunction with its colour, position, or shape, should be *prima facie* evidence that the stock were of the class or description denoted by such colour, position, or shape.

68. In questions as to whether stock were quarantine, intermediate, doubtful, travelling, or foreign stock, *prima facie* evidence adduced by the Inspector should be conclusive, unless their owner could prove the contrary; and any stock mixing or coming into direct or indirect contact with stock of either of the first mentioned descriptions of stock should be deemed to be of the class with which they came into contact, or mixed, and be dealt with accordingly.



