CATTLE DISEASES:

THEIR CAUSE AND CURE.

BY

FRED FEILD WHITEHURST

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CATTLE DISEASES:

THEIR CAUSE AND CURE.

At this moment, when the price of meat has risen, and steaks and chops have reached to 1s. 4d., and best joints to 1s. per lb., it becomes a serious question to those who have fixed and inelastic incomes, not only what is to be done at the present moment, but what will be the course to be pursued in the future, if no better prospects present themselves.

To those whose position in life is better, and who are free from the carking cares of household embarrassments, there is no need for any calculation as to how to make the tongue and buckle meet. It is a matter of comparative indifference to the wealthy classes whether meat is high or low in price; it does not vitally affect them or their families. In this climate man cannot live on farinaceous food alone—beef and beer are necessities of life. If he is to work hard himself, or to rear stalwart and healthy sons, they must have animal food.

Fish is practically denied to the middle class by reason of the manipulations of the trade, who hold the reins of power in their hands, and who, sooner than "the harvest of the sea" shall be reaped and enjoyed by persons of limited incomes, will destroy the fish, as was done at Penzance this spring (and at other places as

well), when prime mackerel and skate were thrown back into the sea as food for the gulls, or carted on to the dunghill to make manure for the land (the fisherman, by the way, has no hand in this vile destruction of the food of man—he daily risks his life to procure it, for a small reward).

What are the feelings, then, of Pater and Materfamilias, already pressed by increasing rent and higher charges for nearly every necessity of life, when they see looming in the distance an increase in the price of meat, and descry afar off the shadow of an additional burthen, which, when it assumes a substantial form, will be too grievous to be borne? Will they not note with greatest anxiety the statements in the daily journals, as yet uncontradicted, where it is proclaimed that the foot-and-mouth disease alone is costing the nation *Four Millions per Annum?*

These diseases affect them through their butchers, buttermen, and milkmens' bills. They are facts that touch them in a tender place—the pocket—and they can neither avoid nor escape them, and when they attempt to seek for a substitute for meat, they find how powerless they are. To the middle classes, then, the question becomes one of most vital consequence.

Being fully impressed with the necessity of looking ahead myself, and thoroughly alive to the difficulty of making both ends of a limited income meet satisfactorily, I can say feelingly—"haud ignarus mali, miseris succurrere disco," or at least will try my best to do so, for a fellow feeling makes us wondrous kind.

I have devoted much time and study to the investigation of this subject, and hence my attempt to treat of cattle diseases—their cause and cure—and the feeble and impotent attempts which are made to find out the cause, or establish a remedy.

It is in the interests of the middle classes that I write. The working man's position has largely advanced in late years—his hours of labour are lightened and his wages heightened; and it is partly owing to the increased and increasing consumption by the working classes, that the price of meat has been so greatly enhanced. Not so the clergy, with small livings, the struggling professional men, and, last of all, the mercantile clerks—the most ill-paid and least considered class in all Her Majesty's dominions. They have no bond of union, are powerless to strike, and certainly receive the smallest possible attention when they utter a feeble and powerless protest against the treatment and want of consideration they receive at the hands of their employers, though they, in a degree, assist to build the princely fortunes of their masters. It is this section of the public who are so deeply interested in the prevention of cattle diseases; the spread of which presses so hardly upon them, by giving a handle to those who are at all times ready to use a lever to lift the prices, with a surprising alacrity, but who are reluctant to lower the standard when circumstances alter.

It is not an unjustifiable fear that fills the minds of Pater and Mater-familias, as the following statement,

furnished by the Editor of the *Farmer* to the *Times*, (October 26th) will show :—

Animals affected with Foot-and-Mouth disease in England and Wales, in the Quarter ending with the second week in October, 1875.

England.	
Bedford	4,607
Berks	16,814
Bucks (1)	—
Cambridge	8,926
Cheshire	50,157
Cornwall*	55
Cumberland	23,108
Derby	5,072
Devon	13,431
Dorset	47,888
Durham	3,845
Essex (2)	—
Gloucester	44,328
Hereford (3)	—
Herts	3,492
Hants (4)	—
Huntingdon	8,450
Kent	7,576
Lancashire †	3,307
Leicester (5)	—
Lincoln (6)	—
Middlesex*	406
Moumouth (7)	—
Norfolk	31,199
Northampton (8)	—
Northumberland (9)	—
Notts (10)	—
Oxford	39,024
Rutland (11)	—
Shropshire (12)	—
Somerset	83,640
Stafford (13)	—
Suffolk*	4,691
Surrey*	2,523
Sussex (East)*	5,272
„ (West)	21,527
Warwick	32,903
Westmoreland*	1,495
Wilts	10,069
Worcester	13,694
Yorks (N. Riding) (14)	—
„ (W. Riding)*	7,465
„ (E. Riding)	11,808
	506,772
Wales.	
Anglesea	1,702
Brecon	13,103
Carmarthen (15)	—
Cardigan*	31
Carnarvon (16)	—
Denbigh (17)	—
Flint	3,246
Glamorgan (18)	—
Merioneth*	1,229
Montgomery	1,937
Pembroke (19)	—
Radnor	15,210
	36,458
England	506,772
Total	543,230

(1) Bucks.—The returns for this county related only to the number of farms affected. Between the 6th of September last and and the 9th of the present month the desease has broken on 538 farms.

(2) Essex.—No returns.

(3) Hereford.—No returns.

(4) Hampshire.—No returns.

(5) Leicester.—No returns.

(6) Lincoln.—The Police in this county do not collect statistics relating the disease.

(7) Monmouth.—No returns are kept of the number of animals affected. In the fourth week of October the disease prevailed on no less than 1,270 farms. What number of animals were affected may be guessed from the fact that in Worcestershire, with 1,275 farms affected, the number of animals diseased was 13,694.

(8) Northampton.—No returns.

(9) Northumberland.—No returns; but at the Quarter Sessions the magistrates discussed a correspondence between the police of their county and that of Cumberland.

(10) Notts.—No returns.

(11) Rutland.—No returns.

(12) Shropshire.—The returns relate only to the number of "places." In the quarter, disease has been found in 5,097 places, and still existed in 2,611.

(13) Stafford.—The returns for this county are not very full. I am, however, informed that very few cases existed before the 7th of August last, but that in that week the police were informed that it had broken out in 42 places. The returns for the next three weeks showed the rapid progress made, as the fresh outbreaks on "places" were respectively 44, 90, and 267.

(14) Yorkshire (North Riding).—The disease exists here, but not to a great extent.

(15) Carmarthen.—No returns.

(16) Carnarvon.—At the Quarter Sessions, held on Thursday last, it was stated that the disease had been very prevalent, but was now on the decrease.

(17) Denbighshire.—At the Quarter Sessions, held at Bodmin, on Tuesday last, it was resolved to pay each police officer, acting as inspector, 2s. 6d. for each farm affected, and all reasonable travelling expenses.

(18) Glamorgan.—No returns.

(19) Pembroke.—No returns.

I am not anxious to take up more of your space than is necessary

for my purpose, At present I would avoid anything like comment or discussion of the origin or the means of propagating this disease. All I care about is to impress its extent and its serious cost to British farmers on the minds of the British public. It is clear, from what I have given above, that the number of animals affected during the quarter was very much greater than 500,000, and I think I am very moderate when I estimate the cost to English farmers at the rate of certainly not less than four millions sterling per year. Such a loss must have its effect on the price of meat, about which I might say much if I dared trench on your space.

I know how anxious our leading agriculturists are about this disease, and am pleased to find them ready with word and work to do what they can to mitigate the evil. Lord Hampton offers a prescription to the farmers of Worcester. Colonel Kingscote and many others have taken the opportunity of the meeting of magistrates at the Courts of Quarter Sessions to warn and advise their neighbours, and to propose measures for the lessening of the plague, for the disease has now become so important as to deserve that name. We have come to such a pass that something must be done. Who will say what ?

I remain, yours, &c.,

THE EDITOR OF THE " FARMER."

Salisbury-square, Fleet-street, E.C., Oct. 25th.

In order to draw attention to the alarming state of affairs, I addressed the following letters to the *Daily Telegraph*," where they duly appeared on the 7th September, and 9th, and 29th October.

TO THE EDITOR OF "THE DAILY TELEGRAPH."

Sir—When the cattle disease was at its worst, I had occasion to call upon the late Sir Arthur Helps, at the office of the Privy Council, who asked me if I could suggest any remedy for it. I replied " *Yes; tell the farmers to dress the woodwork of their sheds with creosote; wash down the stalls and drains periodically with a solution of it, and administer it internally, not only as a curative, but also as a preventive remedy.*" Since those days, carbolic acid has come to the fore,

and is largely used as a disinfectant and also as a medicine. Creosote, in its different forms, is a very powerful agent; yet it is given in certain cases to the most delicate females. It is described in chemical works as being "astringent, narcotic, styptic, antiseptic; it has been given in cases of malignant cholera with advantage." There can be no doubt, therefore, of its powers. At this time, whilst thousands of animals are suffering from foot and mouth disease, which is daily increasing and spreading over the whole country, I think you would do the greatest service to the community at large, by promoting a discussion of a subject so vital to the farmers, and of such serious importance to the consumers of meat. It would be well to know if this advice has ever been acted upon. I believe it has not to any appreciable extent. I have heard that carbolic acid is used as a lotion for foot and mouth disease. If so, it would be well for persons so using it to make known the method of treatment and the results, that others may benefit by their experience. This powerful medicine is as yet in its infancy, and we have much to learn respecting it. I read in a chemical work now before me that "Creosote is a very powerful detergent, and is applied in many ways in alleviating the ills that flesh is heir to. It is used as a disenfectant, and as a means of destroying parasitic life, in the form of a dilute carbolate of glycerine." And I further read—and to this I would call particular attention—"*Inasmuch as carbolic acid will destroy the power of vaccine virus, it becomes an interesting inquiry as to the possibility of using carbolic acid internally as a preventive, so as to fortify the human system against the incoming of zymotic disease.*" At the time I gave my advice to Sir Arthur Helps, creosote was comparatively little known, and I believe that at that period carbolic acid was not discovered. A discussion in your columns would tell us what science has done towards the development of this powerful agent. We shall do very wrong if we do not make an exhaustive and reliable trial of creosote, which I believe to be a throughly efficient and safe remedy. So great is the importance of this matter, that I will venture, at the risk of tiring your patience, to make known the way in which it should be used. In cases of lung disease in cattle, I would administer creosote itself internally (always if possible in the earliest stages, and also as a preventive where cattle are threatened with the disease, or are liable to contagion) with an admixture of glycerine (carbolate of glycerine). For foot-and-mouth disease I would use carbolic acid, either in solution

or in the form of an ointment, mixed with a proportion of benzoated lard. Glycerine, as an external remedy, is highly valued for its emollient and undrying properties, and is used in many diseases incidental to the human frame, and valuable as a dressing for wounds. I may be wrong; but it appears to me, that if we do not throughly investigate the causes and suggested remedies in respect to cattle diseases, the results will be disastrous to this country in the greatest degree; and I am firmly convinced, speaking with some considerable experience, that we have a remedy in our hands, if we will only try it patiently, and develope what I believe to be a mode of cure which is ready to hand. All markets and places where cattle most do congregate should be plentifully washed with carbolic acid.

I am, &c.,

F. W.

Sept. 7, 1875.

TO THE EDITOR OF "THE DAILY TELEGRAPH."

Sir—In your issue of the 10th ult. you were good enough to publish some remarks of mine on the subject of cattle diseases. The remedy I then suggested (carbolic acid), I am now able to state with authority, has been proved to be an effectual antidote for foot-and-mouth disease, even in its worst stages. The returns from Warwickshire show that they are in that district alone 8,047 animals suffering from this disease, being an increase of 2,108 on the returns of the preceding week. In Hampshire, on one farm alone, there are now eighty beasts suffering from the complaint, which are depreciated to the extent of £15 or £16 per head, the herd being reduced to a deplorable state.

I read in your journal that in Enniskillen there is an increasing apprehension that meat will rise in price from the prevalence of foot-and-mouth disease in the southern and western counties; that in Limerick, it has progressed very much within the last week, and that ninety head of cattle were affected in one night. One of the remarkable features of this disease is the suddenness of the attacks. Animals, apparently in perfect health, are bought at market one day, and are found on the following morning to be suffering from it. I believe that lung disease and the foot-and-mouth complaint are closely allied, springing from the same source; and this opinion is

fortified by the experience of a grazier, who has suffered most severe losses from both forms of disease. I would again urge a trial of the remedy I suggest.

Thirty drops of carbolic acid, to be administered to a beast in about four ounces of linseed oil, will be found effectual if used in any stage of the disease, and also should be administered as a preventive where there is any fear of disease, or liability to contagion.

In cases where the mouth is affected, the tongue and mouth are swollen and covered with ulcers, the animal is unable to eat any dry food, and rapidly falls away, and, in many cases, dies from exhaustion. It is usual to administer gruel. Strong hay tea in such cases will be found both palatable and nutritive if administered ; it is found to be an excellent aliment for young calves where milk falls short. Hay tea to the animal is what beef tea is to man. It should be made like ordinary tea, but very strong and of sweet hay. It is in use by one or two farmers of a more than ordinary amount of intelligence, who fully recognize its value. Salt should be liberally supplied to cattle generally, and will greatly tend to keep them in health.

In Arabia the cattle disease is rampant. They do not attempt to deal with it in that country, but simply let the animals die, whilst the camels stalks scatheless through the diseased herds. The fact is worthy of notice. The goat also is not affected by this disease.

I cannot too strongly urge a fair trial of this mode of treatment, and am satisfied that the results will be satisfactory. I have no object in seeking to ventilate the question, save that of an apparently vain hope of obtaining meat at lower rates. The present high prices are pressing most severely on those whose incomes are limited, and though there are many (some from interested motives) who loudly declaim against what they say is an alarmist cry, and favourable to the butcher's interests, I am certain that unless steps are taken to remedy the diseases, and every possible facility given for the import of beasts under reasonable conditions—come from whatever country they may—meat will be beyond the reach, ere long, of the class I allude to.

My object in addressing you at so great a length on this most important subject is to promote discussion. At present we are dealing most feebly with a rampant disease. I have long studied this question. I give you the results of my experience and inquiries, let others more competent than I am give their views. My

opinion is backed by practical men. In all cases great care must be taken that pure carbolic acid is used. Commercial carbolic acid is an impure liquid. The pure and crystal acid only should be used in medicine.

Stamping out the disease, closing markets and fairs, and isolating the animals, are the only measures which I have seen suggested. Certainly the poleaxe is a sure remedy, though a costly. If this course is pursued, it means an increase in the price of meat—no trifling matter at this time. Something more practical must be done. It would be well to revert to first principles. Let us trace the disease back, and, having established the cause, we shall then doubtless find a remedy. At present simply to heal a sore, without destroying the cause, is merely closing a festering wound, which will break out again, sooner or later. It is a cart-before-the-horse sort of proceeding to deal with secondary symptoms before we have arrived at primary causes.

I find very little is known of carbolic acid, although I have searched all the most recent works on chemistry. I have in a former letter alluded to its action upon "vaccine virus" in the human frame, which suggests much further inquiry in respect to its application in small pox. Its value was fully established by Dr. Lister, at the Glasgow Hospital, in a case of comminuted fracture, where amputation could not be resorted to, owing to the condition of the patient, whose life was preserved and a cure effected. Dr. Crace Calvert died at the time he was engaged in most interesting trials. It is used as a disinfectant in the Royal Navy, and it was used to a great extent in the battle-fields of France, and found to be the most potent for good of all the articles used. Its action in the form of "*glycerinum acidi carbolici*" is fully admitted in cases of skin diseases, especially those of fungous origin; also wounds, foul ulcers (in the human frame), and gangrene sores; but I fail to trace any extensive use of it as a medicine, and, as the method I suggest of using it in cases of cattle diseases has proved perfectly satisfactory, I urge persistently that a full, fair, and exhaustive inquiry should be made into the nature and origin of these diseases, as a national question affecting vitally so many interests.

To stamp out the disease without investigating the cause is one way of getting rid of a troublesome and disagreeable subject for a while; to ascertain by diligent enquiry the origin, nature, and remedies, is another. That this will not be done in a minute I admit,

nor without diligent and lengthened investigations. If we are to find the depth of the disease, we must probe it to the core, remembering "How poor are they that have not patience! What wound did ever heal but by degrees?"

Your obedient servant,

Oct. 2nd, 1875. F. F. W.

TO THE EDITOR OF "THE DAILY TELEGRAPH."

SIR—As an apology for intruding again on your space, I must plead the importance of the subject. I find great apathy existing amongst farmers. Some say "Cattle do not often die from foot-and-mouth disease. Let them alone, they will soon get well." Others, dairymen for instance, tell a very different tale, and we, the public, feel the effects in the shape of increased prices of meat, butter, and milk. The conclusion that I have come to is that the foot-and-mouth and lung diseases are one and the same complaint in different form and degree. Drive in the disease by maltreatment, and that which you think you have cured in the feet will in all probability fly to the lungs. Dress the feet with Stockholm tar and messes now used, and you will effect a cure of that sort. Use carbolic acid in the form of an ointment mixed with a proportion of benzoated lard, and you will, by keeping the wound open, cleanse it and heal it by degrees. *What is the origin of this disease? In my opinion, a fevered state of the system. I believe it is now held by medical practitioners that fever is, in other words, fermentation.* It seems probable. Fermentation itself requires more light to be thrown upon it. Call it fever, or fermentation, as you will—I hold that, from causes unexplained, the animals are in such a state that when exposure to changes of temperature or inferior or unsuitable food disease shows itself in the form of foot-and-mouth or lung complaint, as the case may be. Take, for instance, this reliable fact: Animals in a perfectly healthy state (apparently) that had not been in contact with any other beasts on a farm in which every precaution was taken, and no stranger allowed to go near them, were placed in new cattle trucks which had never been used before, and put in layers newly constructed, and in which no animal had as yet been placed, were all found the following morning to have been struck badly with foot-and-mouth complaint. This, in

my opinion, demonstrates that the animals were in a fevered condition, and that by change of temperature or food, or the excitement of being taken from their tranquil pastures and driven to the trucks and through the streets, the germs of latent disease developed themselves. Neglect an animal, let him be over-driven, underfed, or otherwise maltreated, and I believe that you will produce disease of the lungs, and that, call these complaints what you please, they really are one and the same, springing from the same hitherto undiscovered scource—it is the *fons et origo* of the disease we want to learn. I have been asked if milk from cattle slightly diseased would be injurious to health. My answer is, most certainly. It has been proved by allowing a healthy calf to be suckled by a diseased cow. The calf died. On examination it was found that under the skin the flesh was covered with black, unwholsome spots. The flesh given to puppies and pigs killed them. Childen, who had been supplied for some time in one of our large asylums with milk from a dairy, the animals of which were greatly diseased, suffered most severely in consequence. Medical men can, doubtless, tell us how and to what extent it is injurious. The dwellers in the vicinity of Cavendish-square can tell us how they fared when fever followed after the use of milk, in which impure water was alleged to be the cause. Might it not have been traceable to the health of the animal? There are diseases of a virulent form that lie dormant for weeks in the human form, and show forth when some change or other takes place. A man, therefore, may to all outward appearances be sound and healthy, and yet the germs of a communicable disease may be lying perdu in his constitution. Why should not the same thing occur in animals?

What I plead for is, that more earnest efforts should be made to discover the cause of this serious evil. When we consider how great the loss is to both producers and consumers of meat, milk, and butter, on occasions of outbreaks of cattle diseases, it is remarkable how little has be done to discover the cause and the cure.

Your obedient servant,

F. F. W.

P.S.—A gentleman largely engaged in agriculture and breeding of shorthorns in Warwickshire, writes thus :—

"The foot-and-mouth disease has in the last three months eaten (or consumed) more beef and mutton than all the mouths in England, so

no wonder meat is dear. Nearly all the feeding cattle in this county, when nearly fat, have been reduced to the condition of store beasts again, and cannot be sold this year, as they would have been during the next two months, fat."

After this statement, it is unnecessary for me to say more as to the importance of investigating the matter.

Being confident in my own judgment, supported as it is by practical men, and by diligent study, I persist in laying before the public my views on a national question, hoping to attract the attention of others who have more time, means, and ability, to investigate minutely and patiently the *origin* of this disease, which is committing so exceeding great a havoc amongst our stock.

We cannot attempt to cure a disease whilst we are in ignorance of the cause, and it is cowardly to shirk a troublesome question and follow a "laisser aller" policy as we are now doing; or when driven to action, to issue a series of unwise orders in Council which have only one result, namely, to increase the price of meat by stopping the import of foreign cattle, which must undoubtedly be the case, if strict orders are enforced; as it is most unlikely that foreign cattle dealers will place themselves and their stock at the mercy of inspectors, leaving them to deal with them as they think fit. It is simply uncommercial. Or, as a dernier resort to deal with it feebly, by shutting up markets and fairs, issuing stringent orders in regard to the movement of stock, and finally dealing with it by the sure, but expensive remedy, the poleaxe. It is all very well to talk of *stamping* out the disease, but this is not what we want. We who suffer in our pockets are selfish enough to wish

that the recurrence of such a calamity may be rendered impossible, or to an extent harmless. I have as yet found no one who has administered carbolic acid in any form as a medicine for cattle, excepting those from whom I gather my information and experience, though I find it admitted to be a disinfectant, and to be used to some small extent as an outward application.

In Natal it has long been used as a medicine. In Texas its value has long been determined, it having been used effectually, to stop the epidemic amongst horses, which ran through the States of America some two or three years back. Yet our farmers look contemptuously at an outsider who ventures to talk to them of matters which they consider beyond his ken; whilst officials give the cold shoulder to those who would interfere with the 10 to 4 routine of official life, by offering suggestions, and "wanting to know—you know?" If my theory is correct, then our savants and learned societies should leave no stone unturned to find out the causes which create a fevered or fermented state of the blood, to be developed in due time into a communicable and virulent disease. When this is done, we shall, doubtless, by the aid of medical skill and daily advancing knowledge, speedily find a remedy. It may be that our seasons are out of joint, and the rapid alterations of temperature may have predisposed our flocks and herds to inflammatory action: it may be that the use (as has been suggested) of foreign and artificial manures, and high cultivation of the land, has led to the unfortunate spread of these diseases, but, in my

opinion, underlying these supposed causes, is the fact of the fevered condition of the animal, which may be developed at any time by such means. In addition, it would be well to look into the way in which cattle are conveyed by ship and rail—of the cruelties perpetrated, and the privations suffered. Again, it would be well to consider the question of the water supply to animals. What is more usual than to find cattle drinking from farm yard ponds, into which the drainage from their stalls pours incessantly? At any rate the disease exists, and must, sooner or later, be effectually dealt with, or we shall go to the very bad, and that which is now represented as a loss to the country of four millions per annum, will step by step rise "cito pede," to double the amount, carrying up with it the price of food. Again, therefore, I urge that the remedy I suggest should be carefully and skilfully tried by competent judges, and the result for good or evil given.

Administer thirty drops of pure carbolic acid in four ounces of linseed oil (the oil will act as a mild purgative) to cattle in *any* stage of the disease, it will act as curative or preventive, and will at all times have a tendency to purify the blood, and to keep the animal in a healthy state, if administered with care and judgment—"probatum est"—a word to the intelligent should suffice.

Medical men are naturally loth to try experiments on their patients, and carbolic acid in the hands of an unskilful practitioner might bring you to grief; yet twenty years ago it was applied as a medicine, with advantage, to a member of my family who was in a most delicate

state, in the form of creosote, by Mr. Cooper, of Brentford, a member of the medical profession, whose name has been (and still is) before the public for upwards of half a century, and whose well-known skill and ability will be acknowledged by many.

I have long, therefore, been acquainted with its action, but I trace but little information on the subject in the medical works within my reach.

That there is existing evidence to prove its potency is beyond doubt, as shown by its action on the "*vaccine virus*," its use occasionally in cases of cholera, severe and continuous sickness, and the cure of ulcers, wounds, gangrene in the human frame. Its disinfecting and preserving powers are not to be denied, whether used in the battle field to prevent contagion arising from the decomposition of animal matter, or as a means of arresting the decay of the human body in hot climes. With such a mighty agent we should deal considerately, bending it to our will and proving its efficacy. We cannot afford to trifle longer with cattle diseases, we must ascertain the cause and must seek a remedy.

Day by day we are learning the extent of the calamity, whilst as yet no comprehensive or practical suggestions as to how it should be dealt with, as a national question, has come before my notice.

We cannot afford to put aside untried one single remedy or suggestion, if it has only a show of common sense.

We must not allow prejudice, ignorance, or red tape to stand between us and our children's daily food;

therefore we must exert ourselves if we wish to lift the wheel out of the rut it has been running in for years. In a word, we must help ourselves; it is of no use to call upon Jupiter (as represented by the Government), he is at all times conservative of action, uncertain, slow, and by no means sure and infallible, being ever under the dominion of precedent and prejudice; besides, being too much engaged at present in looking after Turkey, and watching the angry and growling bear, to have any time to give to such a homely question as the price of meat; besides which it must not be forgotten that he has on hand the raising of the Vanguard, and must regulate the speed of *rams*, when travelling in a herd across the ocean highways, and must lay down rules of the road, especially applicable to steam yachts when crossing crowded thoroughfares at excessive speeds. His hands are evidently full for the present.

I have stated my grounds for a trial of carbolic acid as a remedial agent to be internally administered. I now recommend that all nasty messes and old womanish recipes be cast away, and recommend, in cases of foot-and-mouth disease, the judicious and careful application of it in the form of an ointment made of carbolic acid, benzoated lard, and glycerine combined. It will tend to keep the wound open, whilst cleansing and curing it by degrees, instead of drying up the sore and driving the disease inwardly.

In thus thrusting, or I should rather say endeavouring to thrust, myself on public notice, I think I need not offer any apology. If it is a vain attempt, it is at

any rate well meant, and I may, more or less, help to *goad* and drive on those who are charged with the Government of the country, into a course of action.

I may be talking the merest nonsense; if so, let some one contradict me—if he can—and if I have been, yet even the prattling of a "garrulous old man" may be the means of arousing attention and causing exertions to be made, and awakening the dormant energies of the scientific world, and so excite inquiry, controversy, and free and angry discussion possibly, though I fear it is much more likely that my words will fall on unwilling ears, and that the opinion of an unknown man will be simply ignored, as it was some ten years ago, when I suggested the use of creosote to stop a disease, which I read in the *Times* of October 26th, has cost this country a total loss, since the introduction of it, of £13,000,000; the estimate being framed on the lowest possible scale. Yet, notwithstanding this, I am vain enough to think that I do know something of the subject I am talking about.

I have in my time had much to do with the breeding, feeding, and doctoring of large herds of cattle. I have with my own hands killed, flayed, and cut up the animals, when supplying on a large scale, the shipping at a foreign station.

I consider I have as good an average knowledge as the ordinary run of veterinary surgeons, and I have sufficient perception to see that, unless some decided action is taken, that butcher's meat will not be an article which the classes I allude to, will be able to

indulge in, and that, which will be a bad time for the consumer will not be a rosy one for the producer.

In conclusion, I ask, Have we no agriculteral societies or influential body who will interest themselves in the question? Let a fund be raised, a reward offered for the discovery of the cause, and to employ the "utmost skill of the most skilled physicians" to discover a remedy.

Surely, as a nation, we are not so poor in spirit in these days of progress as to be daunted by this malady, or can allow it longer to stalk rampantly over the land to the grievous injury of our flocks and herds, without raising a hand to bar the course of the pestilence. Let us put aside Quarter Sessions twaddle, and take vigorous and business-like action.

If private individuals, such as the energetic and spirited proprietors of the *Daily Telegraph*, can undertake such great enterprises on their own account, as the Assyrian and African expeditions, in the one case bringing to light the written and long buried library of the remotest age, and thus supporting by indestructible evidence our religious history, and in the other spreading knowledge and inserting the thin edge of the wedge of civilisation into hitherto unknown countries, and introducing to the world countless savages at present wallowing in ignorance, with their minds as naked as their bodies; thus drawing them by slow degrees within the pale of civilisation, and by sure steps advancing that end which we are foretold in scripture will come, "when all nations shall be gathered

together, and there shall be but one voice and one tongue," surely, we ought to move in this matter.

Can we not profit by such noble and useful examples? and deal with a difficulty requiring far less risk and expenditure than such adventurous enterprises; remembering that it is a question, not only of the greatest importance to this country, but one of the greatest interest as well, to nearly all Europe, and even to parts of Asia, that the origin of these diseases should be discovered.

The following statement, extracted from the *Times* of the 4th inst., will show at a glance the state of the matter up to the present hour. Comment is unnecessary.

CATTLE DISEASES.

During the last week foot-and-mouth disease broke out on 118 fresh farms in Cumberland, where 502 cattle and 4,615 sheep and other animals were attacked. In Westmoreland the same disease broke out on 37 fresh farms, where 136 cattle and 2,113 sheep and other animals were attacked. Pleuro-pneumonia continues on three farms—one near Wigton and two near Cockermouth. Foot-and-mouth disease is now reported to be on 321 farms in Cumberland, where 795 cattle and 7,440 sheep and other animals are deseased. In Westmoreland the same disease is reported on 122 farms, where 225 cattle and 3,295 sheep and other animals are diseased. The last return as to the foot-and-mouth disease in Norfolk exhibits a large increase in the recorded attacks of that complaint. In the week ending the 23rd of October it attacked 2,897 animals, as compared with 1,962 in the week ending the 16th of October, 2,234 in the week ending the 9th of October, and 3,489 in the week ending the 2nd of October. The number of attacks of pleuro-pneumonia in the week ending the 23rd of October was 6, as compared with 16, 14, and 10 in the three previous weeks respectively. The police returns from the entire County of Oxford for the week ending the 30th of October prove a material decrease both in the number of fresh attacks

and of animals now suffering, which comprise 1,166 cattle, 4,111 sheep, and 213 pigs, against the previous week of 1,820 cattle, 5,487 sheep, and 337 pigs. The recoveries were 842 cattle, 2,341 sheep, and 132 pigs. In Bampton East one fresh outbreak, and one beast died, and 12 farms were pronounced free. In Watlington six, and Bullingdon three fresh outbreaks, and three cattle died. In Wootton, North, two cattle and two pigs, and in Wootton, South, two cattle and two sheep succumbed. The vigorous action taken by the local authority for the county of Aberdeen has been to a certain degree successful in reducing the number of centres of foot-and-mouth disease. The total number of outbreaks reported during the past month was 310, being about 100 fewer than in the previous month. 1,500 cattle and 787 sheep were attacked by the disease. About 6,500 cattle and 8,000 sheep were in keeping at the centres, and about three in every 13 of the former and one in every 10 of the latter were affected. During the month only one outbreak of pleuro-pneumonia was reported, and two cattle were slaughtered. There is a strong feeling among the Aberdeenshire farmers in favour of prohibiting the importation of Irish cattle, as it is believed that it is by this means that foot-and-mouth disease is spread. The superior of the market stance at Alford has intimated that in accordance with a petition presented to him by the principal farmers of the district, he has resolved to prevent Irish cattle being exposed for sale at the Alford markets after the 1st of January next. Some time ago the Banffshire local authorities made application to the Privy Council for authority to close all cattle markets within the county with a view to checking the spread of foot-and-mouth disease. A reply has been received in which the Council decline to give the power asked. The Secretary in his communication says:—"I am directed by the Lords in Council to express their deep concern at the great increase of foot-and-mouth disease in the county of Banff, but to add that their Lordships are not prepared to give their sanction to so extreme a measure as that proposed."

A leading article in the same journal calls attention to the proceedings of the Central Chamber of Agriculture, who passed a resolution to memorialize the Government to amend the Contagious Diseases (Animal) Act of 1869.

It is asked that the existing Act should be amended. The first object is "the prevention of disease by slaughtering, or placing under quarantine, all imported animals at the port of debarcation." This, in fact, means a rise in the price of meat beyond all question. I, as a consumer, object to such stringent regulations. We cannot do without the foreign supply, and instead of issuing a series of restrictive orders, let us see if we cannot, whilst insuring immunity from contagious diseases, yet encourage by all possible means an increased supply, rather than cause a diminished trade, which must follow on the adoption of still more severe measures.

Some years ago I visited all the markets and abattoirs in Paris, Boulogne, &c. A plan was prepared for abattoirs, with a farm of some two or three hundred acres, on the banks of the Thames, within twenty minutes by rail from the City. Here it was proposed to land the foreign cattle; resting and feeding them, as done in Paris, and slaughtering them as required. Thus the foreigner could protect himself, and control the sale at his will.

To ask that the cattle should be slaughtered at once, whatever the state of the market may be, is simply to limit our supply of what we so much need.

An application was then made for a charter to establish these abattoirs with the necessary works for the disposal of the offal, skins, &c., in the Essex marshes, far away from all habitations.

The proposal was submitted through the late Sir

Arthur Helps (who expressed his warm approbation of the scheme) to the Privy Council, who lost very little time in giving an utter refusal to this application. In this free country we are bound hand and foot, not only by red tape, prejudice, and precedent, but "vested interests" as well. The ministry at the time was feeble; the city powerful, and a proposal having for its object a better arrangement for reception of cattle and for the prevention of the spread of contagious diseases, was snuffed out without a moment's inquiry, because vested interests so desired it.

TO THE EDITOR OF THE "TIMES."

Sir,—The injury and annoyance caused by this year's serious outbreak of foot-and mouth disease are sufficiently palpable, without raising an unnecessary alarm as to the amount of pecuniary loss caused by it. The custom of the farmers of this district is to purchase lean Irish stock at the fairs at York, Knaresborough, and Wetherby; to keep them about nine or ten months, and then sell them fat from the pastures. I have at present under my eye two lots of these cattle, in number about 150. Half of them cost about £12 each, and have all suffered from the disease during the last three or four weeks, and are now nearly all right and looking bright and well. If the owner had wished to sell them again while affected with the disease, he would undoubtedly have lost money; but they are now not one penny the worse for the object for which he bought them, and I cannot see that he has sustained any pecuniary loss. The other lot were beast of lower value, the price being about £9 each. They are smaller and low in condition, and, as I see them every day, several appear to suffer much from lameness, but they are gradually recovering, and I expect that in a fortnight's time they will be all right again. Some of your correspondents will say the farmer has lost a fortnight's grass keep on each beast, and that the animals have received a check in their growth. At this time of year I do not think the fortnight's grass for each beast is of much value; and I have

frequently heard farmers say that the beasts picked up ground far faster than they lose it. So that on lean grazing stock I cannot see the depreciation of value which Mr. Algernon Clarke places upon the animal.

With fat animals, again, the loss is very variable. Seventeen Irish bullocks about fit for the butcher, which had been grazed by the same farmer to whom the lot of lean bullocks to which I have first alluded belonged, were attacked in September, one or two very badly for a few days. These bullocks are all right again, quite as good or better than before the attack, and will be sold this week, if they have not already gone to the butcher. The loss here, if any, arises principally because there is a good deal of rough beef now in the markets, and these animals may, perhaps, not make quite so good a price per stone as in early September. My own opinion is that there will not be any deterioration of value in this case, because the bullocks are good ones and good beef. Even with these I could not put the loss at anything like £2 per head. In another case of 15 bullocks nearly fat, the lot are about right again, and look quite as good as before the attack; but the loss is, perhaps, greater, because the bullocks were not so fit for the butcher at the time of their seizure, and it is possible that some of them may have to be finished off in the yards; but these bullocks were never so fresh in condition or so well kept as in the first lot I have named. I will not venture on any opinion about breeding cows, but I only speak of what I have seen during the present outbreak, which is the counterpart of what happened in the one which occurred a year or two ago. Good strong lean Irish grazing steers soon got over the attack, and were not at all worse for the graziers' purpose at the end of it. The poorer, smaller Irish suffered more, but very soon improved after their recovery, and if they recover before the severe weather sets in, they are no worse, and will come to the market as soon as if they had been free from disease. They are left entirely to Nature's recuperative powers, and though an occasional weakly one succumbs, it is marvellous how soon the bloom on the skin returns, and they graze as usual. With fat grazing beasts, as a rule, but little condition is lost, and the convalescent seems rapidly to regain flesh; but the inconvenience arises from the disease first attacking one beast, then another, and the farmer dare not move one until all are through the attack from fear of infringing the Regulations.

In spite of the disease the practice of buying the Irish stock for grazing purposes continues to increase in this district. I regret that our farmers do not breed more stock for themselves. I believe they would by that means keep clear of disease; but year by year the quality of Irish stock improves, and the best men tell me that they can make more beef from their farms by the purchase of Irish stock than by breeding their own.

It seems to be much the same with sheep. The wethers and lambs bought in for the turnips are very much affected; but if they get through it now there will not be much harm done, and comparatively little pecuniary loss.

I cannot, therefore, think the pecuniary loss to agriculture is anything like the amount estimated by Mr. Algernon Clarke, or the Editor of the *Farmer*.

I am, your obedient servant,

JOHN DENT DENT.

RIBSTON HALL, Nov. 1.

The above letter has appeared in the *Times*, and Mr. Dent seems desirous of proving that the foot-and-mouth complaint after all does not mean much. I beg leave to differ with him entirely, I think his views are calculated to do the greatest harm by encouraging the farmer to continue in his present position of masterly inactivity. I would refer Mr. Dent to the opinion of an agriculturist which I have appended as a postscript to letter No. 3 in this pamphlet, and I think that it is a great pity that a gentleman so well known as Mr. Dent, should have taken so extremely limited a view of the dire consequences of these diseases, which I so earnestly plead may be investigated to the uttermost depth.

PUTNEY,

November, 1875.