

An essay on the cattle murrain and poleaxe murder, or Science and art in the 19th century : including a brief statement of the comparative meaning of the terms rinderpest, plague, and the more appropriate word murrain, and succinct remarks on the origin, nature, property, character, type, theory, pathology, symptoms, cause, effect, and treatment by preventive and curative remedies : dedicated, by permission, to the Right Honourable the Lord Mayor of London / by William Webber.

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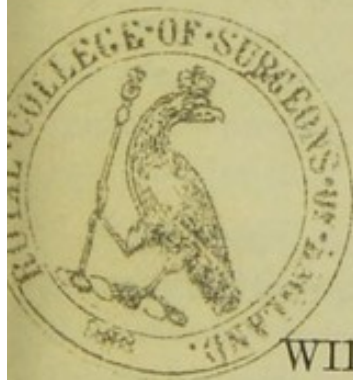
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AN ESSAY
ON THE
CATTLE MURRAIN
AND
POLEAXE MURDER,
OR
SCIENCE AND ART IN THE 19TH CENTURY.

Including

A BRIEF STATEMENT OF THE COMPARATIVE MEANING OF THE TERMS RINDERPEST,
PLAGUE, AND THE MORE APPROPRIATE WORD MURRAIN; AND SUCCINCT
REMARKS ON THE ORIGIN, NATURE, PROPERTY, CHARACTER, TYPE,
THEORY, PATHOLOGY, SYMPTOMS, CAUSE, EFFECT, AND TREAT-
MENT BY PREVENTIVE AND CURATIVE REMEDIES.

Dedicated, by permission, to the Right Honourable the Lord Mayor of London.



"CUM FIDE ET SPE,"
AND
"NO SURRENDER."

BY

WILLIAM WEBBER, F.R.C.S.,
ETC., ETC.,

m

*Founder of, and for several years Surgeon to, the (FIRST) Free Hospital for Incurables,
or the Norwich Free Hospital for the Hopeless, as it
was afterwards entitled.*

1865

LONDON:

HENRY RENSHAW, 356, STRAND.

PRICE ONE SHILLING.

CATTLE MURDER

POLITICIAN MURDER

AND THE 19th CENTURY

A HISTORY OF THE CATTLE MURDER IN THE 19th CENTURY
AND THE POLITICIAN MURDER IN THE 19th CENTURY
AND THE 19th CENTURY

THE CATTLE MURDER IN THE 19th CENTURY

THE POLITICIAN MURDER IN THE 19th CENTURY

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THE POLITICIAN MURDER IN THE 19th CENTURY

LONDON

THE CATTLE MURDER IN THE 19th CENTURY

PRICE ONE SHILLING

TO THE
RIGHT HON. THE LORD MAYOR OF LONDON.

MY LORD MAYOR,—

I beg to thank you very sincerely for your kindness and courtesy in permitting me to dedicate to you this hurriedly-written Essay upon the momentous and naturally all-absorbing problem of "The Cattle Disease," which you and your fellow-citizens so promptly took up, and so patriotically pursued.

It was with great regret—and I had almost said much disgust—I learnt, just as the last pages were being printed off, that "the Metropolitan Association is at an end" !

While all must applaud the very unselfish spirit and lively anxiety with which you and the members of the committee enthusiastically entered upon your labour of love, without any regard to the numerous inconveniences your voluntary exertions entailed upon you, everyone will deplore, not without bitter cause, I fear, the fatal block so suddenly and senselessly placed in your meritorious course by those who ought to have aided, in every possible way, your wise and benevolent project. For what nobler object can anyone have than the arrest of a national calamity—pressing sorely upon the poorer classes more especially—and the alleviation of the losses of his unfortunate fellow-creatures ?

If my humble attempt to bring about a deeper and deserved consideration of the sad subject, and to put a stop to the reckless use of the execrable poleaxe, should happily prove of any service, and thereby promote the object you and those acting with you have had so thoroughly at heart, it will ever be a source of great gratification to,

My Lord Mayor,

Your very obedient and obliged Servant,

WILLIAM WEBBER.

Tunbridge Wells, September 28th, 1865.

THE *usual* prefatory *beginning* will be found put *unusually* at the *end* ! It is trusted the reader will excuse such a going backwards—with the example of Veterinary Surgery before me, that is, not going forwards properly—seeing that the greater part of these pages were in the press when the “Metropolitan Cattle Plague Association” was suddenly pole-axed !

Although an untimely end was thus put alike to it and the first of the principal objects I had in view—the promotion of the benevolent and greatly needed measure that Association had wisely set on foot, and to which I confidently looked for safe results—I have not however, as will be seen, expunged the remark referring to the meritorious efforts of the burked Association, as I think it not improbable that the ghost of its departed project, will, in the winding-sheet of want, during the midnight of winter, come among us, and point so strongly to the necessity, that when Parliament meets we may see sanatariums rising from the ashes of the City Phoenix, lighting up the road to science, and the way to triumphant art. If the following observations should tend to the overthrow of the poleaxe and defeat of the murrain, my end will be attained, and my time have been satisfied, with all the remuneration I look for or crave.

THE
Cattle Murrain and Poleaxe Murder;
OR
SCIENCE AND ART IN THE NINETEENTH CENTURY
ANALYTICALLY CONSIDERED.

“ENGLAND expects that every man will do his duty,” more especially in times of great emergency—whether our country be assailed by a foreign invader, or imperilled by the ravages of internal pestilence. Thus impressed—and not having found in the field “the Regulars,” to whom we look to come forward manfully and with a resolute determination to carry the day—I have ventured, as a volunteer, to advance to the front and fire the first shot, even though it prove to be “but a pill” not strong enough to send the enemy to sleep.

The sound of arms may, however, tempt other volunteers to step into the breach and defend the Capitol while “the Regulars” are getting up, and perchance subdue the foe before they arrive. For it is not the time to be yawning with despair, or to flinch from our duty.

In no period, probably, of its history has a more disastrous visitation fallen upon the main source of the meat and milk supply of this country than the one which, by its ubiquitous and wholesale ravages, is hourly sweeping away the cattle herds. Many are the respectable persons who have been suddenly reduced to the ranks of ruin! After years of toil and labour, and raising themselves to a creditable position, carrying on a prosperous business, and looking

forward to a comfortable home in their old days, their all is irretrievably gone.

But the evil of the sad and mournful tale stops not here ; for not only is it already pressing sorely upon the heavily-taxed, industrious middle classes, and those of low estate, the hard-working labourers, and the sick and destitute poor, owing to the high and increasing price of provisions, but, unless some more effectual means than those hitherto devised can be brought to bear upon and arrest the march of the ruthless destroyer—the present defiant plague—there is too much reason to apprehend the almost entire extinction of the bovine species. Indeed, our previously inadequate stock of store beasts has become so much diminished, that even, if it shall please God that the murrain now cease, it will take years to reproduce the requisite quantity of cattle for the supply of milk alone, a most important article, and a *sine quâ non* in the bringing up of those of tender age, for whom nature ordained it as a primitive food of incomparable value, the loss of which alone it almost paralyses thought to contemplate.

A general knowledge of the calamitous results, to some of which I have feebly pointed as already entailed, and the fearful prospect opened upon us on all sides by the dreadful visitation, will, I am sure, be quite sufficient to banish all apathy and indifference, and to rouse a deep feeling of anxiety in every British bosom, with a resolute effort on the part of all, who have the ability and the wherewithal, to give every assistance in furthering the measures which have at length been taken to overcome the evil.

Those who have been accustomed to the fare of luxury, whose wealth has placed them far beyond a practical acquaintance with (what it is to be hoped they will never experience) a want of food ; whose hearts would bleed to see the hungry, helpless infant applying in vain its little parched lips to the flaccid breast of its famished mother, or inheriting disease and premature death from an ill-fed bosom, or lack of nourishment ; who, detesting niggardliness, may thoughtlessly have encouraged waste, will of course no longer suffer extravagance, pampered recklessness, or unnecessary expenditure of meat, milk, butter, bread, vegetables, or other materials of sustenance to take place in their establishments, or in any quarters under their control.

And it is also earnestly hoped that every one throughout the land in the enjoyment of means will give substantial help to the Cattle Plague Associations in their respective districts, and especially to the Metropolitan Association, which of necessity will have a large demand upon its funds.

Except for the regulations established by the Orders of Privy Council—which the Associations are determined to enforce, as has already been shown by several prosecutions, in which significant fines have been inflicted—it is impossible to say to what an extent the grievous and dangerous malady might not have by this time attained. For I am of opinion that a pestiferous malaria, especially of such a malignant character as the one in question, once suffered to acquire intensity and to occupy the air in crowded localities, will *not* confine itself to the ox tribe. In fact, the present visitation has mortally attacked some goats, as well as fatally inoculated a veterinary surgeon, and in a similar manner jeopardized the lives of two or three others, who have had a very narrow escape of death. And Dryden writes—

“ All those plagues which air and earth had brooded,
First on inferior animals tried their force,
And last they seized on man.”

Hence it is of the utmost importance to provide proper SANITARIAL RECEPTACLES in airy and convenient situations, as proposed by the Metropolitan Association, for the murrain-stricken animals, taking care that the soil be dry and the spots high, and remote from other buildings.

Although writing far away from the metropolis, and having no connection whatever with the great City of the World, save as a cosmopolitan entertaining a natural, national, and, it will be conceded, just feeling of pride in the munificent and universally-famed Capitol of my native country, I have yet had ample opportunity of witnessing, and otherwise becoming acquainted with, the great and unremitting exertions made by the truly patriotic members of the very laudable “Cattle Markets Committee” or Metropolitan Cattle Plague Association, as it is now more properly designated, who have been prominently instrumental in narrowing the ravages, and in raising a fund for the alleviation of the losses sustained by those who have unfortunately suffered from, and those who may become similarly visited by, the direful disease.

And I hesitate not to say that great are the obligations the community at large owe to those gentlemen, who, at the sacrifice of all personal consideration, whether of pleasure, or even of a little fresh air or relaxation from business looked for and so necessary at this season of the year, or of time, person, purse, or bodily fatigue, have given their unceasing attention to the sad matter. All praise and gratitude then to the very worthy and ever accessible Lord Mayor; the energetic chairman, Mr. Gibbins; the clear-headed and indefatigable Mr. Rudkin, and the other determined, loyal and kind-hearted Citizens who, after contending against no ordinary impediments and prejudices, have at length happily succeeded, by their persistent efforts, in landing the only really practicable measure for limiting the mischief—the institution of sanitariums in eligible localities; hospitals to which the diseased animals can be removed, and insulated, with a fair chance of saving those not affected, by interrupting as much as possible the extension of infection by communication; where the nature of the ailment (yet to be made out, clearly demonstrated, and properly defined) can be carefully and thoroughly studied; where science, so scanty of information, and art, so barren of appliance, may be promoted; where a rational and sound mode of treatment, so much called for (but yet remaining to be laid down), may be discovered and made known, and other measures so essential to the stay and riddance of the merciless despoiler can be completely organized, and a safeguard established calculated to prevent such terrible havoc in future as the uninterrupted march of the insidious invader has occasioned. And may God in His mercy grant that we ere long may be able to show, with firm faith and perseverance unto the end (the inherent qualities of British spirit and endurance), that we have carried the forlorn hope, that England's lamps are trimmed, that "the flag" of our favoured land, "which has braved a thousand years the battle and the breeze," has not been dishonoured in our day; and with the suitable city motto of *Domine dirige nos*, and the pennant of *Nunquam non paratus* (always ready) mantling our sanitariums, we may, in place of having again to go out and buy oil at so dear a cost, be found watching, and, with His blessing who ordereth all things, ready to deal with an enemy. And here I would suggest that the sanitariums, although the pressing urgency requires their immediate construction, should be so schemed as eventually to become permanent institutions; for

the frequent recurrence and long continuance of epidemics of a destructive nature, within the last twenty-five years especially, would show the wisdom of such provision. Besides, the visitations which have signalized that period have shown themselves tenacious of empire, as pleuro-pneumonia, &c., attest.

In the days of small-pox, a pest-house apart from union-houses, and special lodgings, remote from the houses of the higher classes, marked the prudence of those who have gone to their account, leaving us to build upon their common sense. Upon that principle we have permanent small-pox and fever hospitals, and other hospitals to meet the increasing necessities of a fast-augmenting population. And to suppose that a solitary veterinary college of confined area, with small staff and wholly inadequate accommodation, is competent to deal with a difficulty of such appalling magnitude as the one before us, would level with the idea of offering a minnow to stay the cravings of a large family of starved children, or giving to a cowkeeper who has lost his all (by way of helping him through his troubles!) the empty assurance of "it is hoped he will be more fortunate another time,"! And this with the union-house as his prospect, and the grave as the end of his sudden and unconquerable ruin. Let there be, therefore, no heartburnings, no foolish discord, where concord and unity of effort ought to prevail; no criminal hanging back where all who have the means ought to come forward, and be thankful that they are able to aid. Let all pull together, and give timely help to the commendable associations formed for so noble a purpose, in order that their object may be carried out with a national spirit worthy of this great country. Moreover, let there be no feeling of jealousy or rivalry between institutions having a common good in view (except in the determination to excel in efficiency and usefulness); no making a market of alarm, or merchandise of misery; but for God's sake, for the sake of all, particularly of our poorer brethren who cannot help themselves, whose destitution has every claim to our consideration, let us convince the *knights* of *red-tapeism* that, with famine at the door, it is not the time for the exercise of their talents (or talons), and sharks that they must be satisfied with "small pickings."

It is with this pure purpose that I, with but small means and humble talent, have put my shoulder to the wheel, as everyone is

bound to do to the best of his ability, especially those blessed with flowing coffers, to further the move of the commissariat of the meritorious associations.

At the hazard, therefore, of all criticism—be it unsparing as it may on the part of those who may regard me as a trespasser on their grounds, or may think that the medical ministers of humanity “can give no information to the veterinary profession,” whose province it undoubtedly is, and was, to grapple with and deal thoroughly with the question,—I fearlessly venture to state my views on the subject: First, because I feel I cannot manifest much greater non-acquaintance with it than has by others been disclosed. Secondly, that if I am in error, conviction thereof will be certain. Thirdly, if I fail to convey any useful hints, I may possibly elicit some more definite knowledge of the nature, some more satisfactory information and practical instructions as to the treatment, and some more solid and systematic plan of procedure in combating the evil than has yet emanated from heads to whom all naturally looked for ready foresight, sound judgment, and prompt and efficient directions. In the course of more than three weeks of pretty close attention to the matter, through the facilities kindly afforded me by the Markets’ Committee, I have had every opportunity of seeing the various phases and complications of the disease; of observing the symptoms during life and the appearances after death,—both where the too-active pole-axe had been quick with its despatch, and where the slower march of the distemper had levelled its victim by exhaustion. My first visits were to the crowded cow-sheds, the stifling heat of which was sufficient to engender fevers of the worst form. They are dens of filth unavoidable, and of mischief incalculable, and never ought to be allowed in the closely-inhabited districts and confined limits where most of them are situated, particularly in the City and some other parts of the metropolis. My next visits were to the Cattle Market, where the poor beasts are given to feel that the slow torture of the Newgate necktie, a *continued barbarism* (!) which, with the cruel knocks and pokes of brutal bipeds’ sticks, detract greatly from the otherwise creditable arrangements, saving one very culpable and mischievous oversight, namely, that diseased beasts are suffered to enter the Market, and those which have been in juxtaposition with them, and certain, with few exceptions, to contract the poisonous

ailment, are permitted to be sent to every part of the provinces, by which the contagion has been widely spread. The rope-ties with slip nooses are in every way objectionable, occasioning strangulation and predisposition of the vessels to take on disease, besides being fertile inoculators of distempers. Chains with stop-links ought to be substituted.

I next repaired to the slaughter-houses of the condemned animals, where from time to time I saw a vast number killed and opened in every stage of the malady. The stench of these houses, notwithstanding the well ordered disinfecting and cleanly measures carefully observed, was at times almost insupportable, indeed, after spending eight hours one day in them, I became so overpowered that for two days afterwards I felt as it were prostrated by the malaria, and had many of the symptoms consequent on such seizures. In some of the slaughter-houses for supposed-to-be-healthy animals, I found, on examining the alimentary tube, well-marked appearances of incipient disease, but nothing to render the meat in the least objectionable as food, which, in the onset of the seizure, is not materially affected.

It is by the pursuit of the subject, as here described, that I have been able to form an opinion of the origin, nature, property, character, type, symptoms, theory, pathology, cause, effect, and treatment of the woeful murrain, which I will deal with *seriatim*. Before I proceed to do so, I must beg permission to express my acknowledgments to Mr. Tegg, the pains-taking and active Government Inspector of the Cattle Market, and to his promising pupil, Mr. Lowe, for the great assistance they rendered me; to the several veterinary surgeons whom I met there, for their valuable aid, particularly to Mr. Thompson, of Macclesfield Street South; and last, but not least, to Messrs. Wylde and Newman, the City Inspectors, and Messrs. Fisher and Davidson, Clerks of the Newgate and Leadenhall Markets, all of whom, at a moment's notice, afforded me every facility for investigating the state of the meat, and the condition of all the slaughter-houses at Newgate, Aldgate, and elsewhere under their control, where I could discover no reasonable cause of complaint; on the contrary, there was a state of cleanliness I could scarcely have looked for in such crowded and inconvenient buildings, or rather closely packed hovels, where nothing but the greatest care, attention, supervision, and depuration, could possibly keep them in the creditable state in which I found them.

Having now, by, I fear, a very tedious prolixity of introduction, almost exhausted the patience of the reader, I will now proceed to analyse the divisions of the heading, and perhaps I shall be excused if I depart from the usual course by taking Omega before Alpha—that is, Science, and its offspring, Art. The one, as regards the murrain in issue, an empty assumption of knowledge, a boast of ignorance; the other, a treacherous dealing in life with the poleaxe and knife and death's head as the trade mark, sanctioned by authority of the law. In short, like parent, like child. The one impotent and obtrusive, the other weak and empirical, dooming all to die, as though a partnership had been entered into with death. At least so the professors decide. For one, who has evidently no homœopathic faith in ferruginous dilutions—that is, water in iron troughs—prescribes the metal in allopathic force in the solid but senseless form of the poleaxe, with its blood-bane companion, the knife, as “the only *safe* remedy”! (a dreary look out for safes and larders,) and “quick and deep interment”!! without asking any questions or making any inquiries; In fact “the only certain means” (“which it would be,” as Lord Dundreary would say,) of destroying the malady and burying ignorance. This might be all very well for a man to adopt if he did not care about meat for his meal, or milk for a motherless child; but it looks so much like a man, unable to swim, lopping a tree over a deep pond, and sawing through the bough on which he depends, that I cannot see the difference. But with our small stock left can we stand such a blow as knocking down and exterminating the cattle as a cure for the complaint? And this, too, in the face of the proclaimed fact that “twenty per cent. of the beasts attacked will recover, from innate strength of constitution, and another five per cent. from treatment,” making twenty-five or (one-fourth), to say nothing of those that may escape infection? Yet the moment *one* of a herd becomes visibly affected, the *whole* herd is to suffer after the fashion of an immolated Hindoo widow, because Father Science is gone hence, and no more seen.

The murder of the innocents, so strenuously advocated by a learned professor (for whom I nevertheless have a great private respect), is a very costly, cruel, and contradictory exercise of the healing art; a fatal practice founded upon a foreign expedient of foolish recklessness in a country where cattle are as plentiful as the blue-

bottle flies in a knacker's yard, and the loss or riddance apparently a matter of as little concern. But it is much to be regretted that it has been so prominently set forth and so much extolled in a pamphlet entitled "Report on the Cattle Plague or Rinderpest" by which much error has been disseminated, and great evil entailed by taking that pamphlet as a text-book in dealing with the disease now unhappily prevalent here, which is a distinctly different affection to the Rinderpest or plague therein described. The malady we have to contend against here, is, as I have pointed out to the Veterinary Surgeons and Inspectors, a decidedly genito-lacteal affection of an exanthematous and poison-eliminative character, which, commencing in the utero-lactiferous system in cows, at length goes on to attack the mucous lining of the lacteal tissues or organs, and the pituitary membrane and mucous surfaces in connection therewith. These have an intimate sympathy with the uterine and assimilative systems; hence, the principal external evidence by which the commencement of the murrain is shown, is the appearance of the efflorescent or rather petechial spots about the vaginal membrane, and the raised state of the epithelial surface of the nose, gums, tongue and palate, which soon becomes semi-detached. And quickly following that condition is the appearance of the diphtheritic patches about the mouth, and defluxions from it, the eyes and nostrils, resembling influenza. It is up to this stage that the animal continues to eat hay, but ceases to ruminate, as it does from nearly the first moment of its being visibly afflicted; and it is thus that the accumulation takes place in the rumen and reticulum, which is never after got rid of, and this, although the mucous lesion should subside or be subdued by treatment (as I am persuaded it may be), becomes the stumbling-block to recovery, in other words, the ultimate cause of death, as will be seen under the head of Effects, to be spoken of. This, it seems, had been overlooked till I pointed it out to several veterinary surgeons, who, as well as the slaughterers of the animals and the Inspectors, have since fully confirmed my opinion.

Now it is remarkable that this is not mentioned as a feature of the Rinderpest. The rumen is there spoken of as being only "fairly full of ingesta" in some cases; but in none of them is there the impacted state in which it is almost invariably found in those that die of the murrain. It is stated that "the ox tribe *alone* is susceptible of the

Rinderpest;" but goats have died (at the Veterinary College I am credibly informed) of the murrain, as I have before mentioned, and hundreds of sheep have been destroyed by it. Then there is the fact that "the genitive and urinary organs were free from disease." Thus it will clearly appear, I think, that a very little analogy exists between the Rinderpest (which it is also said in the report referred to "was never likely to reach our shores") and the far more intractable and terrible murrain which has somehow unfortunately come amongst us.

Equally extraordinary is it that the professor offers no mode of treatment, not even palliative, in his Rinderpest report, nor in the present distemper; and, that after ten or twelve weeks of reliance at head-quarters upon the flimsy relationship and false bearings of the disease there described and taken as the guide in the murderous slaughter which has been perpetrated during that period, it now turns out that the cases differ materially in almost every particular save one, by no means remarkable, viz., mucitis of the alimentary surface, which is not very uncommon.

The report being then a matter of the past, throwing no light upon the present state of things, it must be cast aside as merely the tale of a pleasant trip, affording no other proof of the worth of its cost than simply a mapped record of foreign matters, perfectly useless in the emergency before us, and very mischievous in the consequences it has given rise to.

It is much to be deplored, that, instead of trusting to a single adviser,—taking a prejudiced and erroneous view of the case, based upon false premises, and ending in abortive counsel—the Government, which has thereby lost an irrecoverable start, and become grievously outrun by the scourge, did not when it found itself at fault, offer a prize of 200 or 300 guineas, as I ventured to suggest at a local meeting, for the best essay on the nature and treatment of this anomalous distemper. For, marvellous to say, up to this moment neither in the yards of the professor's speeches (a mere echo of the stale Rinderpest report), Government orders, nor in the Thudichum (long and unfathomable cable) code, is any other treatment than murder prescribed! Well may empiricism flourish and crow; but it is safest, as Mr. Abernethy used to say, if you *know nothing* to do nothing. Murder therefore cannot be justified, because, as

in the case of people, they might live on; but where poleaxe murder walks in, that chance is made to run out. Murder thus encouraged gets the upper hand of Reason, and blood recklessly poured forth cries aloud for *able* sanitarial *help*. Another professor, differing in what he says from the other, yet agreeing in the *main*, gravely tells us that "it is a *blood* disease for which there is no cure!" "Bad luck to us then," as Pat would say, with a Science that can only kill, and an Art that cannot cure! But are we to be frightened from all feeling of faith, all sense of duty, and to permit the morbid monster to seize upon and march off with all our meat by his mortal and premature grasp? To suffer British pluck to sink so *low* into our *dress*, which is not *our* habit or wont, and to unchivalrously surrender so great a stake—the strength of our blood, and the sinews of our endurance—to the foe without trying a lance with him? Simply because two learned professors cannot carry their profession further than recommending us to give in and shake hands with death; who, with insatiable and "greedy maw," seeks to walk off with "*the steaks*," as Regalia was minded to do at Doncaster. As in that instance the game and honest Gladiateur, born of blood of English and French alliance, defeated pretentious supremacy, so is it to be hoped the investigations being pursued at home and in France will enable that alliance—which (*fiat perpetuum*) made the war-plague in the Crimea to knock under—to beat and drive the cattle plague out of both territories, and be the means of putting an end to it everywhere else, by the stand taken and the treatment which shall be propounded.

Belonging to the *Nil Desperandum* family, I look forward with great confidence to success, when we shall have got our house in order, our sanitariums well constructed and efficiently officered. Nor do I believe the "no cure" professor sorrows as one without hope. As a smart man and an adroit swordsman, with a racy turn, he, like the persevering and invincible Gladiateur, is running it seems for a first place, with the view possibly to present distinction and future provision; and by way of showing his enterprise, he enters his book early, knowing that there is nothing like a good start; but when the bell rings, the *liber*, although for weeks announced in the public prints as ready for the race, is not forthcoming, and I have had the mortification (having *backed*, in expectation of *his* coming forward) of walking all the way to the declared publishers, only to learn that the jockey is,

like Charles Wright's champagne, "not up yet"! Well, there is one advantage, as the Americans say, "If the hoss advertised arnt a-coming, 'tisn't his *master's* fault if *he* don't go tarnationly a-head." Here I leave veterinary science and art, which, in its progress up to this day in the 19th century, reminds me of Corporal —, whom I saw in 1806 drilling a small volunteer corps (a tall thin man, with spindle shanks, standing up in huge jack boots, looking like a tea-spoon held upright in a breakfast cup), shouting out, "Attention; quick march; no, I mean halt; that is, as you were; now advance two steps backwards, that is fall back, I say there!"

Thus we find ourselves behind those who practised (not more empirically than is done in the present day) a hundred and twenty years ago, when a similar visitation desolating our land was more successfully opposed, as the treatment, within the last fortnight, of some bad cases by an old recipe testifies. And how, with that exception, stands the case after ten or twelve weeks of undisputed possession? Why, just as might be expected from the mischievous trifling which has been going on, infinitely worse than at its beginning, when active movement and rational treatment might have circumscribed its area. Thousands have died (mostly through the indiscriminate use of the busy poleaxe, recklessly prompt to kill, shutting out all opportunity of overriding the attack) to be followed by tens and hundreds of thousands of others, unless a more genial season or some sound and merciful help comes to the rescue.

And now, lest I be classed with the lag-behind (do nothing, but kill all), "sciencers," as the Yankees call know-nothing practitioners, I will move on to the Alpha of my text—the murrain and the murder—the one bad enough, sparing few; the other worse, sparing none. If the former cannot be cured, let Nature and the innate power of constitution have a chance of recovery by laying aside the latter—the odious axe—so that peradventure of "the remnant that is left" some may be found to save the ox tribe from extinction and to give sustenance to our species.

First, let us look to the respective meanings of the words Rinderpest, plague, and murrain, in order that we may arrive at the one most applicable to signalise the destructive disease now prevalent among our cattle. Rinderpest, compounded of the German word "*rind*," signifying *horned* cattle, and "*pest*," the ordinary word for a malignant

disease of an infectious or generative nature, is clearly a misnomer, calculated to convey an erroneous impression in more ways than one, for *polled* cattle are equally liable to the plague; and it is otherwise an ineligible term, as the symptoms in the ailment it represents are widely different, in many respects, to those of the malady under discussion.

Judging from the following lines, pest may be taken, however, as meaning an intractable disease :—

“ Let fierce Achilles
The god propitiate, and the *pest* assuage,”
POPE.

Plague—rendered in German, *plage*; in Dutch, *plaghe*; in Latin, *pestis*; and in French, *peste*—implies a pestilential or infectious seizure, generated by various causes, and of various qualities not necessarily fatal, except—

“ ’Tis the times’ *plague* when madmen lead the blind.”
SHAKSPEARE.

—When *ignorance* guides *darkness*, I suppose he means, and both are found in the mud.

The etymology of the word *murrain*, like the disease it indicates, is but little understood, and equally obscure. It is, however a better name for the now-prevailing epidemic than the word plague, inasmuch as the former, from the days of Pharaoh, “ when all the cattle of the Egyptians died of a very grievous murrain,” down to the present date, has been recognized as meaning a deadly pestilence; while the word plague, or *plaghe*, apparently of Dutch origin, would seem to be more significative of a blood-impurity capable of being cast off. For we find the all-knowing Shakspeare, in his tragedy of King Lear, saying, “ Thou art a bile, a *plague*-sore, or embossed carbuncle, in my corrupted blood.” Therefore, as the word murrain, supposed to be a corruption compounded of *mur*, denoting a malignant catarrh or glanderous defluxion, and *mori*, to die, appears to imply a fatal seizure or death-dealing disease, it, *à priori*, would be the best appellation for the purpose of practical distinction, especially as the etiology of the distemper is so barren of any determinate information. Hence, the etymon murrain, as met with in the book of Moses, is the one I have adopted in the heading. The derivation being thus premised,

I now go on to consider the elements of the awful distemper, beginning with

THE ORIGIN

of the disease, which—involved in mystery, probably of miasmatic or infusorial parentage, and supposed to be an imported infection—may be said to be begotten of a season prolific of susceptibility and contributive influences, born of filth, cradled in negligence, and nursed into stature by the agency of atmospherical contamination. In some instances it has been shown to be sui-generative, or of spontaneous occurrence, as in Aberdeenshire and other places, where herds had had no intercommunication with other cattle; while in other cases it has been regarded as a sporadic parasite. That gnats and flies are mischievous busybodies, and carry inoculation to a very wide extent, there can be no question.

THE NATURE

of the disease is that of a nervo-hæmatic zymotic, or virulent blood-poison—nothing particularly new, or irreconcilable with antecedent epidemics of a like kind—whether of external or internal manifestation. It appears to be produced by a miasm of molecular form, possessing an inherent power of engenderment. In development, after an uncertain period of incubation (varying from a few days to several weeks, according to the predisposing tendency), it shapes its phase to the peculiarity or idiosyncratic temperament of the constitution it assails. Its force is seen principally in the mucous surfaces, and in cows (more amenable to its invasion than bulls or oxen), the uterine and lactiferous system and the alimentary tissues are those pre-eminently implicated. It resembles puerperal fever in many respects.

THE PROPERTY

is specific, infectious, contagious, destructive, permitting a prelude to death in the shape of decomposition before life is extinct.

THE CHARACTER

is that of a pyrexial composite, in which are distinguishable, in a greater or less degree in different animals, the features of influenza, diphtheria, typho-gastric fever, and pleuro-pneumonia. More commonly

the first and third are the complicated combinations met with; but the more succinct and appropriate definition, to my view, would be "Muco-murraïn, or the Cattle Distemper of 1865," as indicating the principal force of the malady, which is unquestionably visited more especially upon the mucous membranes of the genito-urinary and alimentary tract from the mouth to the anus, more or less—for the weeping from the eyes and mucous discharge from the nostrils and mouth, and other passages in the second stage, and the diarrhœal outpourings in the stage preceding that of exhaustion and death, are but nature's mode of endeavouring to eliminate the poison from the blood.

THE TYPE

of the fever at first is typhoid, or more significantly speaking perhaps muco-inflammatory, symptomatic of the inchoate lesion, which, as the disease goes on and power declines, at length lapses into malignant typhus.

THE THEORY

which offers itself to my limited view—a mere conjectural one of course, as all hypotheses must necessarily be, more or less, and put forth in the hope of inducing those who are more competent to unfold their opinions now so much needed—is, that the subtle enemy first stealthily, but fiercely and frightfully assails, with its venomous miasm, the nervous papillæ or sentient villi intimately connected with, and vitally presiding over, the follicular tissue of absorbents, sanguiferous vessels, &c., of the inflected skin or mucous surface, particularly of the air passages, by which a fell shock is given to the nervous sovereignty, and the poison almost simultaneously imported into the blood. Thus the healthy equilibrium of the system is upset, and the balance of its power becomes quickly transferred to the scale of the usurper. The blood, thus perverted and deprived of its nutrient or sustaining property, sends its impure stream to the great medullary centre, the brain, which, with its parliamentary appendage, the spinal chord, succumbs to the paralysing assault: monarchy being thus destroyed, anarchy siezes on the system, and the whole comes to grief. In other words, the (magnetic-like) rule being dethroned, the vital pabulum, the blood, deprived of its bond of

cohesive integrity, becomes decomposed; its conservative salts—the wealth of its treasury, being confiscated—are cast off, and poured forth in diarrhœal discharges; and, there being no secretive or regenerative power left, putridity follows, and Death, with his feast secured, revels in corruption.

THE PATHOLOGY

ranks it amongst phlegmasial diseases, the features of which in the present day are of so spurious and anomalous a character, especially those coming under the section of “blood-poison fevers,” that it becomes a matter of no small difficulty to classify them under any determinate head, of which the one before us, from its complicated form, is an example.

In its commencement, it is marked by the premonitory features of typhus or low fever, the depressing effects, probably, of the action of the poison upon the nervo-vascular system. This becoming quickly distributed throughout the body, the muscular force yields; the sinews fail; the ligaments give way; the strong “pax-wax” or fibrous support of the neck can no longer sustain the weight of the head, the “pregnant hinges” of the limbs crook, and, the hind fetlocks knuckling forward, it is discovered that the powers of the frame have received a severe shock—a knock-down blow. In the next stage, that is when the raised epithelium is showing a detached state, and the efflorescence of the mucous surface is approaching to diphtheritic ulceration, it resembles a pustular exanthem, elevated, defined, and vascular at its base, presenting the appearance of a varioloid or small-pox pustule, which at length terminates in a deep and sometimes perforating ulcer, exhibiting the peculiar edge of a specific or malignant sore. Of course, when perforation ensues the chance of recovery, in any case, is an extreme one.

In the majority of cases which have come under my observation, the sufferer becomes worn out by the irritation and exhaustion from want of nourishment, rendering it unable to abide the casting off of the poison from the blood, which has parted with its conservative and sustaining qualities. The constitution, being thus hopelessly conditioned for want of timely remedy, sinks; and death, heralded by emphysema, an increasing difficulty of inspiration, and the sickening

odour of decaying mortality, settles the distressing end of the poor animal.

The post-mortem disclosures, which I may as well speak of here, vary in different cases, but the most common appearances met with in animals which die of themselves are, externally, a distention of the body—principally from decomposition, which early follows—and a protruded tongue. Internally is found a dark, tarry (and sometimes a thickish and broken-up) state of the blood; the brain pale and soft; the heart presenting external vascular engorgement; the left ventricle empty, and marked with patches of inflammation; occasionally, points of ulceration. The right ventricle is distended by thick, treacly blood, of a dark and sometimes purplish look, with a stained and friable state of its walls or coats. The internal coat of the aorta, and that of the principal vein-trunks, is in places highly injected and patched with small incipient ulcers. The air passages, generally in a less degree, exhibit marks of the disease. Bronchitis and peripneumony had occurred in some of the cases—even to the production of a false membrane. Emphysema was commonly present, and red injection amounting almost to hepatization was seen in several cases—grafted apparently upon previous mischief.

In many cases I observed peritoneal inflammation, in which some parts of the serous reflections were affected more than others—spots of ulceration also existed in some of them. The appearances, both on these and that of the mucous surfaces, resembled those found in eruptive diseases, to which this affection seems to be nearly allied.

The spleen in some instances was affected slightly; in most it was pale and flaccid—the pancreas generally implicated; the liver, in a great proportion of those which had not been highly fed, was tolerably healthy; in those that had (evidently) been fed on stimulating food, and kept in hot sheds, there was the nutmeg colour of structural degeneration; the gall-bladder was in most instances distended with pale inviscid bile; and upon its inner surface, as upon the external surface of the liver, there were patches of ulceration surrounded by a zone of red vessels. In the kidneys there was seldom much to be complained of—now and then there were ulcers both inside and out.

And now I must introduce another revelation of the autopsy that I do not find has *ever before* been pointed out, namely, *the impacted*

state of the *rumen* and *reticulum* (the first and second divisions of the stomach), which I observed in every case of the vast many I examined.

Among the crowded contents which consisted principally of roughly torn—for it could not be called masticated—hay, I found, which I am told is not uncommon, various rough importations, to wit, rings of iron, buttons, nails, bones, and pieces of wood, &c. Whether they were carelessly swallowed in the haste in which ruminants gather their food, or whether, as in the case of fowls, they are made subservient to the grinding or comminution of the other ingesta, I know not. It may possibly be—as we find in the case of mad dogs, when the irritation going on in their stomachs drives them like people maddened by the bite of a midnight visitor, or the prurient reminiscences of a Scotch intimacy—to apply a rough or scratching remedy to mitigate the itching, &c. Be this however as it may, the impacted ingestion, as I shall by-and-by have occasion to notice more particularly, becomes an insurmountable obstacle to recovery. Such was probably the case in Earl Granville's and Miss Burdett Coutts' herds. Some of the hay above alluded to must, from the appearance it presented, have lain there a *very long* time, showing that the morbid action commences sooner than is generally supposed, and that the rumination had been partial and defective long prior to its cessation.

It seems to be an instinctive law of nature that a part, in an abnormal condition, inflamed, tender, or suffering under any lesion, shall not superadd to its own injury or discomfort—hence the stomach, morbidly assailed, casts not back its hurried and gross importations for ruminant reduction.

There was vascular turgescence, red injection of the mucous surfaces and the glands of the bowels (Peyer's glands), thickening and ulcerations (some actually in process of reparation) in the omasum and abomasum (or third and fourth divisions of the stomach), small intestines (or lacteals), and in the bladder and womb (particularly its bifurcations), in which two latter organs the disease was most marked; in fact, in both I found a sphacelated detachment of the membrane. The mortification had extended into the coats, as was the case in the small intestines. In all that died naturally the blood was more or less fluid—the stench terrible. Having stated under this section of my subject all that is called for in a brief essay, I come next, which will require but a short comment, to

THE SYMPTOMS,

to which—they being now so generally known, and having been in a measure detailed—it will not be necessary to add more than that the indications generally observable, precedent to the state of the mouth, eyes, nostrils, &c., already spoken of, are, a dull, heavy look about the eye, with a sad and sorrowful expression of features, disinclination to move, a dull and staring coat, with occasional shiverings. The animal hangs its head, pokes out its nose like a person with sore throat, and altogether exhibits a look of consciousness that some serious evil has beset it. The milk suddenly begins to fail. The heat of the skin frequently varies. The extremities are cold. The breathing is quick and short; and when emphysema, or inflation of the internal tissues, takes place from the escape of gas from the vessels, which is often an early symptom, there is a dull respiratory sound emitted; and if the emphysema takes place in the loins, and particularly in front of the kidneys, as not unfrequently happens, the animal is seen looking behind as if it had got a weight or something wrong on its back. The bowels are constipated generally, but not always. The wasting of the animal is rapid, and the prostration of strength great. The kidneys, which in the onset secrete freely enough, gradually decline in activity. The bowels take on colliquative diarrhoea, with the slimy evidence of excessive mucous irritation, which, with blood-streaked evacuations, mark the mastery of disease; and the muttering moan of typhoid exhaustion soon after becomes silenced by death.

THE CAUSE,

as partly stated under Origin, is a malarious effluvium, to which the the atmosphere—charged with probably several morbid exhalations engendered by the season—has in no small degree contributed. Effluvia accumulate strength as they float along. These morbid influences arise from filth, fatigue of long journies by rail or drift, close packing in a hot, vitiated air; draughts, cold and wet; the want of exercise; extreme alterations of temperature; inspiration of gases which have been respired; a want of water; bad and insufficient food, and excitation of the animal in loading, &c., &c. Next, as to

THE EFFECTS,

among which are, as regards cows, first a loss of milk, next a loss of the animal, then the loss of her value in cash, and last, not least, the irreparable loss of the source of future progeny, which, as in the time of Noah, if the evil cannot be stayed, will leave but few as the representatives of the myriads that have already perished in this and other countries, and which it will take ages to replenish, while every day the demand for food is increasing, and oxen decreasing.

But the effect we have more immediately to heed is that which destroys the animal, and the *modus operandi* by which it accomplished its deadly mission, which is, first by a pestilential invasion of its system, creating a specific malady of a deadly character; the next—as described under the section of Theory—the exhaustion occasioned by the course of the disease; and the *impaction of paunch*—(the great difficulty, as it seems to me, in the way of successful treatment)—which, being full, at the time rumination is suspended, stands but little chance of being got rid of, except, may be, where the seizure is very slight, and lasts but a short time, as in the instances of those beasts that recover of themselves, and where rumination is not long interrupted. The consequence of the close impaction, found in the rumen and reticulum, is, that the ingesta become hard and firmly adherent to the membrane or lining of the viscus, there being no secretion to moisten the mass, which at length, undergoing decomposition, sets free a large quantity of gas; and this, by its distention, increases the congestion of the system at large, besides adding a further mischievous ferment to the already vitiated blood. If the animal weather the first effect of the specific poison, its exhaustion becomes so great that it cannot rid itself of the contents of its stomach. Such has been the case in all the instances in which I had succeeded in mastering the other effects of the distemper.

It is unnecessary here to go into the further effects which result from the attack, and therefore I come to the last matter remaining to be entertained, that is

THE TREATMENT;

which—with so little experience as is now possessed of the efficacy of

remedial, *i.e.* medical agents—must at present be principally directed to every possible means of

PREVENTION.

In considering such expediency it will perhaps be more convenient to begin at the (said-to-be) beginning,

THE IMPORTATION

of cattle, which, with the daily increasing demand, the hourly diminishing (and of late wholly inadequate) home supply of fat, store, and milch beasts, it would be worse than cutting off the nose to be revenged of the face—nay, perfectly suicidal—to prohibit; especially when measures preventive of the mischief can be pretty effectually consummated, even if it, as stated—more confidently than truly I believe—come from abroad. Although there might be a considerable expense attendant on the plan, yet, such comparatively trifling objection can be no consideration in a case where so main a matter is at stake as the health of animals, and of their uses—both as regards the consignees and the consigners—and so important an item of commercial interchange is concerned: for none but idiots would now venture to buy, nor any but knavish and reckless speculators would attempt to send for sale, animals in which he knew or suspected the germs of a fatal disease to be latent, or about to be developed, to the certain loss alike of bargainer and beast. There would, *ergo*, I apprehend, be but little difficulty to surmount in coming to an equitable and a mutually beneficial arrangement in that respect. Of course it will be necessary to frame proper

REGULATIONS,

to be strictly observed and enforced. These should provide that no species of cattle, sheep, goats, pigs, or other animals of like nature (or *any* articles), capable of conveying any infectious distemper, shall be exported or imported which have not undergone, for at least twenty-eight consecutive days, a vigilant detention under the inspection of a competent and duly-appointed officer, in eligible keeps, within three and not nearer than one mile of a railway, or of the port of embarkation—to which they shall be slowly driven, not sent in trucks, that may possibly contain infectious matter—and pronounced by the

proper certificate, in the writing of such officer, that the same were in good health, and in a fit state to go the intended voyage, be it long or short. That the same certificate (under a penalty of £20 for each head of cattle or other animal, to be summarily enforced, and to be visited in the same amount upon the captain or other person in charge of the ship) shall unequivocally set forth that the ship was in a fit and proper state to receive such cargo; that is to say, had been properly fumigated, cleansed, whitewashed, and sprinkled with chloride of lime; that it was provided with every means of preserving cleanliness; among others, saw-dust from wood containing turpentine (a good disinfectant) and gypsum to absorb ammoniacal exhalation—a pungent and mischievous product. It should also state that there was *ample* room for each animal to *lie down* comfortably, for the *cleft foot* of ruminating animals is *not* constructed nor was it intended for *standing long* at a time, the lying down position being more favourable for the masticative reaction upon the food.

Even the fatigue of long standing up in close quarters and a heated atmosphere is sufficient of itself to engender disorder and fever, which may take on any form the constitution and predisposing concomitants may determine or elect. Hence every animal, in proportion to its size, should have room accordingly, which it is not necessary here further to define or notice, beyond stating that the *berths* assigned to them should be alike airy and properly protected from the weather, especially from the sun, and—the busy disporters it invites—flies, which some infusion of quassia (cheap enough and easily made) put into bottles, with a little sugar in it to attract them, and hung about the ship—or paper, smeared with a solution of resin in oil, would go far to get rid of.

Not only should there be a due supply of food, to which I shall devote a few words by-and-by, but a proper supply of good water at their command; indeed, no cattle or animals ought ever to be without it, for besides being a very essential element of sustenance it is a very valuable as well as priceless febrifuge. And if they can have it when their own sense of want prompts them to drink, and not when routine bipeds may senselessly decide it to be requisite, they will not consume nearly so much (I have found from experience) as they do when their accumulated thirst, like people whose appe-

tites have been kept long waiting, leads them ravenously to impart into their receiver-general considerably more than is necessary, or the gauge of healthy function would sanction. Like railway travellers "allowed ten minutes for refreshment" by a train that arrives late, and by a clock of quick movements, the poor bovine, dreading the accustomed speedy removal of the pail before it is emptied, quickly swallows, without even waiting to take breath, the often too limited potion, without the surfaces, which greatly require its cooling moisture, receiving more than the transient benefit of that, which if it, as intended, were more slowly imbibed, they would otherwise derive.

To return to the subject of more solid food, I would recommend that all ruminating animals, designed to come as well as those within our territory, should, till the disease has abated, be fed on soft or "mulch" diet—as the bailiffs in the eastern counties term their steam-cooked food—to which a little salt should be added. What can be more suitable than cool, succulent, and milk-forming food for cows; or even for grazing cattle, than that which admits of a ready conversion into fat, by easy assimilation? Such a mode of feeding would prevent the impaction of the stomach described, the great bar to the cure of the disease. To such, or any other description of food, which admits of its ready commixture, should be added once in every day or two, three or four ounces of powdered charcoal, alternating it with three or four table spoonfuls of the fatty refuse of linseed oil or cocoa-nut oil, an ounce of powdered nitre, or half a pound of glauber salts; which two latter might be dissolved in a pail of water, and given as a drink, or with a mash of bran or bruised oats, or in the mulch fare. Tar-water, which animals get to like after a few days, would be found useful, and iron water is superior to the contempt in which some persons hold it. There should always be a piece of rock salt kept in the manger as a condiment of great value. Bran, bruised oats, cut (inch) chaff, steamed; hay, boiled and the tea given as a drink, or used for making mashes; cabbages, grass, carrots, parsnips, mangel, kohl rabbi, turnips, and particularly the tops of each, are all preferable to dry food. The above, with linseed mashes now and then, would constitute the bill of fare from which selection might be made with the advantage to which I have alluded. Bran, cut hay, Indian corn, or bruised oats,

would of course be more convenient for animals *in transitu* by ship. Hay and straw, cut fine, and with a little salt trodden down in a bin and allowed to ferment, would cut out firm and would be a convenient form for stowage—broken up and mixed with bran and maize, or oats, would be all the food required for a voyage.

Here I will quit this digression—which the effects of hasty eating and drinking and *periodical* feeding will be held, I trust, to justify—and conclude the regulations under discussion. With the large number of animals now constantly being imported, it would be very desirable that none but ships specially constructed for the purpose should be allowed to transport them; and these ought to be fitted up with every attention to ventilation, food, stores, and water tanks, or butts, in proper places sufficient to contain provisions for, at least, a third or fourth of the time beyond the period ordinarily occupied in a voyage, in case of detention at sea by distress of weather, for nothing conduces more to disease than a starved system.

And now, having gone into the subject of regulations as regards transit, I will take a hasty glance at such home regulations as may be henceforth required to guard against the extension of maladies menacing our means of subsistence. First it would seem very material to such object to interdict a nearer approach than two miles to the British shores of any ship having cattle, or any commodity on board capable of conveying contagion, till the Inspector shall have enquired into the state and condition of the same, and reported by his certificate (under penal liabilities), that they were duly certified to be, and are, in a fit state of health and condition to be landed.

In entering upon the question of home regulations, it is not necessary that I should here go into the minor details of the construction of suitable sanatariums or probationary cattle keeps. In adverting to the expediency of every precautionary measure being taken for preventing the extension of the mischief—which has been suffered to acquire so diffuse an existence—I would advise that all cattle, sheep, and animals of like liability to infection (be their appearance ever so unobjectionable), should, on their arrival, be immediately transferred to a properly ordered probationary keep for a period of not less than fifteen days—unless they be intended for *immediate* slaughter, which is *not desirable*, especially where animals have been kept huddled to-

gether in hot holds of pestilential filth and self-generating malarias, like poor negroes in an accursed slave ship. The few days of sanitary test and the radius of "one hundred yards," prescribed as the guarantee of security, by the Government adviser (I had almost said oracle), are pretty well upon a par with the very narrow (iron) notions it seems, he entertains, of remedy. He surely cannot be ignorant of the fact that in many instances development of mischief is as slow as it is uncertain.

That gnats and flies, which do not regard high fences, are not particular as to distance, and that the fomite atoms of infection, whether of miasmatic, molecular, or infusorial form, float far and wide, especially when enveloped in a thick retentive air, and wafted by a busy treacherous wind, and are capable of bringing their pestiferous pregnancy to bear far beyond the limited area referred to, as was exemplified in the choleraic visitations. Hence if the quarantine be not enlarged it will rank with inquisitorial grievances in place of taking a stout stand against the march of evil.

How comes it about if dead animals be so prolific of plague dissemination that they are permitted to be taken through the streets in open carts to knackers' yards in thickly populated localities—not noted for cleanliness, or resistant vital power—and not far from the shambles where wholesome meat would stand a better chance of being free from the pollution conveyed by shoals of blue bottle flies which, after preying upon the corruption of the former, go for their dessert to the tempting freshness of the latter. Yet such is the fact I have witnessed, but, being neither a paid nor an appointed official, I can do no more in the way of drawing attention to the marvellous inconsistency (I was going to say abuse of authority) than mention it, with the chance, as Mr. Punch says, of being told to be "*silent* when *speaking* of the commanding officer." Therefore I will say no more on the score of these and several other strange and irreconcilable absurdities (which in some persons would be held to be criminal) beyond one curious charm of privilege and immunity. I allude to the objections raised against cattle being conveyed in covered carts to sanatoriums, while they are permitted to be driven through the streets to the veterinary College! Charmed cattle, with a charming chance where all that have been taken in yet are dead and buried! And I may possibly have a word at the finish to say about profession and trade—public acade-

mies of learning and areas of art, as associated or being made intimate with private interests ; but before concluding the notice of preventive measures, I must mention a remedy of no small pretension to consideration and early adoption, lately referred to by Dr. Borguignon, of Marlborough Street, a very intelligent French physician, whom I first accidentally met, and, I blush to say, the only medical man I fell in with in the course of my numerous visits to, and explorations at, the cattle market. I allude to

INOCULATION,

which that gentleman is greatly in favour of as well as myself, as also are many others I believe. In order to render it more safe, and not less effectual, the doctor recommends that the virus should be passed through the systems of two or three animals before it is imparted to a herd, in order to deprive it of its intense virulence, and to modify its nature, in imitation of the inestimable safeguard discovered by the immortal Jenner, whose quick perception led him to apply the virus of the variolous exanthem, or pustule of the cow, to the arm of man, whereby a previously uncontrollable scourge has been subdued, and millions of our species have been saved from premature death.

Happy will it be if so simple a remedy should be found to supersede the deadly effects of the murrain—which it is stated has been the case abroad, where inoculation, I believe, is the only remedy used.

As puppies—I mean quadrupeds, of course—have been saved from distemper by vaccination, I see no reason why inoculation should not prove of great value as a prophylactic, but every reason why it should have a fair trial in a disease so defiant of remedial appliances as the one we have to contend against. And I would urge that such possible preservative should be adopted without further delay, even if it were only to get rid of the opprobrium justly pronounced by the German veterinary surgeons who came over here at the commencement of the direful outbreak,—“the extraordinary carelessness of the English, who were doing nothing to prevent the spread of the disease.” ! But I have a far stronger inducement for pressing it. I happen to know that in a certain locality in Kent, and some other places, where the cows have recently had small-pox—a disease which affects them very little in any respect—they, with their systems, &c.,

pre-occupied, have escaped the murrain, although it has fatally prevailed in the same parishes.

In favour of the practice of *inoculation*, I may quote the following ancient observation :—

“Some trials would be made of mixtures of water in ponds for cattle, to make them more milch, to fatten, or keep them from the murrain.”

BACON.

TREATMENT BY MEDICINAL OR CURATIVE MEANS.

First, let the animal be placed by itself (not remote from the solace of the society of others similarly affected, for animals, like mankind, dislike solitary confinement, especially in the hour of sickness and suffering) in some convenient and covered stall, fold, or pen—if there be no sanatorium at hand—which should be airy but free from draughts, and of ordinary temperature. There should be plenty of room for it to lie down, but no litter or other bedding but sawdust, sprinkled with turpentine, and occasionally some other disinfectant. Ammoniacal pungency should be prevented by gypsum or sulphuric acid. Flannel bandages, also sprinkled with turpentine, should be applied to the legs. If the animal be plethoric, full in milk, and in good condition, bleeding to nine or ten pints would be advisable, to prevent pulmonary congestion, and to relieve turgescence of vessels, especially of the lacteals, and engorgement of the heart and venous system—almost a constant state in the outset. It also invites to a thinner importation into the blood at the same time that it relieves the first effect of the poison upon it. Sedatives in the form of Squire's solution of bimeconate of morphia, or Battley's sedative solution of opium, given in gruel (four pints), with castor oil and turpentine, or linseed oil and salt—with the double object of quieting the nervous system and cleansing the bowels and stomach (as far as can be effected) of all foul and feculent matter, should then be administered. An hour after this some more gruel with four ounces of whiskey should be given, to which might be added some yeast.

All excretions should be kept cleared away, as the mephitic odour escaping from them becomes reflected upon the air passages, and perpetuates mischief by the additional irritation and impurity it conveys.

The quiet of system, so necessary to preserve, might be maintained by subcutaneous injections of a solution of hydro-chlorate of morphia, for

which Mr. Maw, of Aldersgate Street, at my request, has made a well-adapted syringe.

After bleeding and the sedato-aperient have been adopted, counter-irritants should be at once employed, in the shape of strong rubefacient embrocations of ammonia, camphor liniment, and turpentine, or the ætherial tincture of cantharides, or other quickly acting liquid blister, or tartar emetic ointment (a good remedy when it can be made to act quickly) rubbed in well along the whole course of the spine, and from the under part of the lower jaw, down the course of the windpipe, between the fore legs or brisket and over the body and on the udder. Setons in the dew-lap dressed with stimulating ointment, might be useful; but in cases where I used them they did not act so readily as was desirable. They are better classed as preventive measures in animals that have been exposed to the infection, but not already affected.

Fumigations of tar, storax, benzoin, and other balsamic substances should be employed twice, and chlorine once a day.

The bowels having been cleared and kept duly moving, the nostrils and mouth sponged with a lotion of borax, or solution of chloride of soda, sesqui-chloride of iron, whiskey, or turpentine (about four ounces at a time) should be given twice in the twenty-four hours, in four or five pints of gruel, alternated with bisulphite of soda, chlorate of potash, and belladonna, or in place of the two latter, arsenical solution and tincture of arnica.

Injectations of some of the above, especially salines, ought to be used.

If diarrhœa set in with slimy and blood-streaked evacuations, tincture of calendula (or marigold) and a drachm or more of sulphate of copper, or diacetate of lead with half a pint of distilled vinegar, and laudanum, to be given in gruel of starch and oatmeal, or ground rice, every four hours, would be advisable.

The diet in the first instance should be cabbages, mangel wurtzel, or kohl rabbi tops, or carrots, bran mash, with bruised and scalded oats, a little ground malt occasionally, grains (or spent malt), and boiled linseed. Hay tea made of good sweet hay (cut fine), and thin gruel or tar water, as common drink. Charcoal and salt must not be forgotten as useful additions to the mashes, the latter ought never to be omitted. Baked flour and cold water—about a pint and half to two or three quarts of water I have found serviceable.

Tonics, in the convalescent stage, will be well represented by sulphate of iron, quinine, bismuth, arsenic, and quassia with a little cayenne pepper. Creosote, too, will be found useful. Great attention must be paid to the due relief of the bowels.

Saline and opiate enemata should in all stages, save the last, be freely employed.

Hypodermic injections of morphia, arsenic, antimony, and belladonna, at the proper time, are worthy of great consideration, as is every other feasible remedy or suggestion, *come it whence it may*, which holds out a chance of benefit under such appalling circumstances as those of a deadly disease, and the little that is known about it, especially as regards the treatment of it.

Vaginal and uterine injections of solutions of chloride of soda, sulphate of iron, zinc, copper, nitrate of silver, and diacetate of lead, with hydrocyanic acid and opiates, must not be neglected, for by creating a new or artificial action in morbidly infected tissues, not only is the condition of them suspended and altered, but the morbid irritation they keep up, and the sympathetic disturbance they both impart and receive from other surfaces, proximate and remote, is cut off. Injections into the veins of some of the above (and especially salt) ought to be tried.

As a *dernier ressort*, if the paunch cannot be otherwise emptied, gastrotomy may possibly be justifiable, although, with the extent of mischief that has been going on, there is but little hope of reparation of the lesion or wound so inflicted, in the exhausted condition to which the animal is brought. It levels with operating in an advanced stage of strangulated hernia, and can only be justified as a possible chance against no chance at all.

In health, the paunch is not so particular as to what enters it from without, as the tapping of it, in the case of what is termed "blown," demonstrates.

In taking my leave of the last matter I had to deal with under the distinctive sections, I have only further to observe that I have avoided laying down any *precise* directions or modes of procedure in the respective stages of the disease—first, because that is not my province; next, because it is almost impossible to prescribe either with judgment or safety in cases which are not under the close observation and full control of the practitioner.

And as the system or scheme of giving formulæ or recipes is highly objectionable, as encouraging empiricism and all the dangers of means in rash and incompetent hands employed by penny-wise-and-pound-foolish people, I have confined myself to pointing to remedies, and in a few cases only to doses, leaving the selection and application of the therapeutical agents I have enumerated to those whose business it is to see that the remedy is the right one, opportune to the stage of the disease, and suited to the peculiarity of the constitution for which it is prescribed. Hence none but competent veterinary surgeons, and those practically acquainted with structure, healthy function (essential to a knowledge of diseased action), and therapeutical qualities and doses of medicines and their uses, ought ever to be allowed to interfere in such important matters.

Having now concluded all I have to say in reference to the Treatment, and the preceding divisions of the subject—of which I undertook, and have endeavoured to give a general analysis sufficiently exponent of the questions involved, and of my own views of the case—I will not further weary the patience of the reader than by adding a few observations by way of *resumé* before I close my essay.

We may safely assume that the form of the malady is not new as regards its primary features, for Garth speaks of

“ A hallowed band
Could tell *what murrains* in *what mouths* began.”

And that its appearance amongst our cattle, sheep, &c., as well as the variform disease among the pigs, and the small-pox among the cows, is mainly ascribable to the season, may be inferred from what Bacon, remarked, ages ago—namely :

“ The general opinion is that years hot and moist are most pestilent, yet many times there have been great plagues in dry years.”

In 1832, the first year the Asiatic cholera made its appearance, the weather was, I well remember, extremely hot, and in many respects closely resembling the present season—prolific of malaria, from the stagnant condition of the ponds, and the parched state of the herbage, &c. Two of my horses at marsh became very dangerously affected from the stings of flies, and afterwards became pestered with worms, from the larva they had gathered with their food. It was a great plum year.

While the season has no doubt played a principal part in rendering

the murrain more intensely virulent and unmanageable than a cooler temperature and less drought would have caused, yet it cannot be disputed that a very tempting invitation was held out to it by the packed cow-sheds of London, which it is to be hoped will soon become a matter of history. Greater hoards of reeking barbarity and barbarism—more disgraceful dens of filth and suffocating effluvia—more prolific parentage of disease than the fevered milk they send forth—where the object should be health and sustenance, but the mission is the destruction of both—or more redolent of marvellous neglect, taking them as a whole, could not possibly be conceived by those who have not been into them; and that, too, under modern sanitary regulations, brought into existence and operation by the force of crying necessity, arising from a fast-increasing population.

How long will such abominations, such a reproach to common sense and Christian profession, continue? It is to be hoped no longer, now that so fatal a visitation and such fearful consequences have been brought to point to the necessity of making them *extra Urbem* establishments.

The sooner they go hence and be no more seen in the metropolis the better it will be for the poor animals—to whose health, and to the quality of the valuable food they supply, air and exercise are so essential, even if it be only in a large yard, where they can escape from the stifling accumulations of their own excretions. Will the consumer who cares for the health of his family not look to this?

That the disease first showed itself among the cows is not disputed, and had it been entirely confined to their sex it might, from the resemblance of several of the symptoms, be regarded as pseudo-puerperal fever. But, be it what it may, I am perfectly satisfied that the impacted paunch, to which I have called attention, will continue an inseparable bar to recovery, if some means, either in the shape of prevention, by proper anticipatory feeding, be not had recourse to, or other expedient can be devised to get rid of the engorgement.

And I am persuaded that no treatment by curative means will stand the least probability of success, in the absence of proper institutions or establishments for the special purpose of studying, and scientifically ministering to the necessity.

And are we to continue in “carelessness” that ignorance may abound?

As population has increased, and necessity kept pace with it, hospitals have become multiplied, and medical and surgical science—through the enlarged opportunities of studying and becoming acquainted with the nature of diseases not previously understood—has greatly profited, mainly by the multitude of counsellors which have so been brought to bear upon disease. But our hospitals are schools of learning, not shops of private trading. Physicians and surgeons attend the poor gratuitously. It is true they (those who have the chance) carry on a little business in the way of lectureship (attended with ins and outs, &c.), but that is, in the general way, the only remuneration they get for their valuable services, and the cost of the science they must (or ought to) possess for the situation they hold. But suppose those institutions—received in trust and added to by the contributions of successive generations of benevolent donors—were under the government of the Council of the Royal College of Surgeons (not the most distinguished for the bashfulness of modesty in all it does), what would be the result? Or fancy guardians of a Union being allowed to supply the poor (farmed quite enough) with food, &c., what would be the consequence? Would public benefit or private interest stand first? Let the Veterinary College, which ought to be above suspicion, and which seems disposed to keep everything in its own hands—like Cæsar, so called, as Mrs. Ramsbottom said, “because he seized hold of everything”—answer. Is it the time, with starvation at the door, and future maintenance threatened, to pay a poll-tax? Echo answers, a Poleaxe!

Let those who prefer *small* craft to large ships, in heavy seas, have their *little* whim, but let not the community be called upon to pay the penalty of their giddy venture. To bar talent and exclude opportunity of inquiry and help, for the purpose of upholding weakness and burying ignorance, when science is called for in vain, and art required to keep the wolf from our vitals, is madness.

For war, not pressing, we spend no end of money in iron-clads and the like o’ that, in order that we may be a match for the enemy, but with a much more perilous foe scuttling our stores, we grudge a sanatorium to put our powder in, and keep our men fit for action.

The winter may possibly stay the disease (if our cattle and sheep be not all dead before) for a season, but like other epidemics quick to come and slow to go, it will surely return in the spring and find

us as little prepared, and the remnant (if there be any) as easy a prey, if sanatariums be not provided.

Will no one, of our many opulent ones, come forward, stand in the breach, and start a sanatarium, where competent wrestlers with disease may throw down the armour of pretension, and be able to say afterwards, like Ajax,

“Spectemur agendo”?

In 1745, when the lethargic influence of wealth, or the intoxication of prosperity was not so overpowering, £135,000 was voted by the then Government, but our Government has, while the evil is rapidly pursuing its destructive course, to wait for Parliament, and as Parliament is holiday making, the Council can only contribute a professor who professes that he can do nothing but *kill* as a means of *cure*, and order quick burial of our beef in the shroud of ignorance. Sick with this slaughtering of animals, so desirable to be kept alive, I go on to say a word or two upon slaughter-houses, which ought, like cow-sheds, to be at once banished from all towns, in which there should only be allowed suitable markets for meat. Clean as I found them, they are necessarily store-houses of much that is calculated to do mischief.

But these, like the other malignant nuisances I have pointed to, are waiting, I suppose, the coming into operation of an Act of Parliament passed, through the instrumentality of Lord Lincoln, about twenty-two years ago, for the abolition, in thirty years from that date, of all noxious trades in the city, or metropolis, I cannot remember which, but I think it will be found that such an Act fortunately exists; but far more fortunate would it have been if twenty years had been made the time for its *début*, which would probably have prevented much of the evil that has fallen upon our cattle, and this heavy penalty upon the time of my readers.

As that act is coming tardily, while the destruction of disease is going on rapidly, necessity loudly demands that we should act in earnest, and without further delay set about taking “the Bull by the horns” (kill the disease, not the animal), and act as though we *meant* to put an end to the destruction before all our cattle be gone, and our meat be taken away.

Up then ! away with the poleaxe murder—come on science and art effort, let us see what guns ye *can* bring to bear upon the enemy ? Flinch not, delay not, and despair not of success in grappling with the foe. Let every avenue to incursion be strongly blockaded. Let the Privy Council—with Mr. Helps always at hand—order immediate inoculation to be done, to which no prudent proprietor of cattle, or sheep, or pigs, can reasonably object. Put a stop to the slaughtering of diseased cattle in the Metropolis, and of the transfer of dead ones to the local knackers 'yards, and thus get rid of fertile focuses, from which a vast amount of mischief has been suffered to radiate. Promote sanatariums, which the public will do wisely in aiding to establish, and without which science will be kept back, and art continue to be helpless. Stop fairs ; of the great evil of which, the immense damage that has arisen from the congregation at Barnet, and dispersion of infected cattle from thence to all quarters, offers vexatious and reproachful reminiscences. Prevent cattle, which have been side by side with others in the markets, from being taken from thence to *remote* parts or places for slaughter or sale : let every precautionary means be taken—among others already dilated upon, the immediate insulation of affected cattle, and the adoption of proper feeding, and prophylactic treatment of those left behind in anticipation of the fatal impaction of the stomach, and other effects of the disease. Spare and protect the female young of cows, sheep, pigs, goats ; and then we may hope to foil the destroyer, and to preserve present and future sources of food.

I now conclude my, I fear, tedious remarks, by saying, that all who feel with me, cannot do better than join in effort and in the City prayer of *Domine dirige nos*.

TO THE READER.

As our beneficent Queen—feeling that to her “much is given” and of her “much will be required”—did not deem it to be incompatible with the dignity or the duty of her exalted position, as the Sovereign of this great country, to walk into its hospitals and inquire into the ailments of the sick soldier who had fought its foes: nor inconsistent as a royal “nursing mother,” with the Christian trust committed to her charge, to visit and see into the condition of the “destitute poor;” so I, as a loyal and devotedly attached subject, and a humble follower of my liege Lady, have not thought it out of keeping with my calling (for “*opiferque per orbem terrarum dicor*”) as a medical member, to look into a matter sorely affecting the food of the many, and the welfare of the community. I have for several weeks waited in the expectation and hope that a more able volunteer would have come to the front, but in vain.

If I, therefore, having, as I confess, no connection with the shop (of Mr. Death) next door, be held to have trespassed upon “the *field* of another profession,” I hope I may be allowed to plead that I took *nothing* away! All I have done has been honestly to look after the Office, the MASTER being *out* and *abroad*.

And let it not be supposed that in taking up, and dealing with, a public question and public acts, I have the slightest desire to invade private interests or reflect upon domestic character and worth. I may disapprove of practises, but I have every respect for persons; and let it not be imagined that in giving expression to my humble views upon a question of national calamity I have been actuated by any other incentive than that of public spirit and conscientious impulse. The errors, doubtless, are many, but, as I have put *my* views of the case in issue before the public, it is open, and I hope it will be so considered, for others to record *their* opinions. The more they

show me my mistakes the more obliged I shall be to them ; and as it is by comparison of opinion and by a free and honest unfolding of facts that truth is established, so I hope that others will come forward and join in the effort I have made to throw a mite into the scale of science, that art may triumph. I am merely an exhibitor outside the show yard, with a view to invite improvement in the state of our cattle. I seek no prize, I recommend others to do the same. As I have indulged in long, and I fear somewhat unintelligible sentences in endeavouring to make clear my observations (intended for readers of all classes), with but little care to classical style or expressions, I will now come to the cadence by making only one further remark, viz. : As a volunteer I have fired a first shot, with the hope of hitting "the Bull's eye" and driving the evil out of the cattle, and if any one else will come forward and make a better score, I, despising jealous selfishness or offence at honest victory, will at once declare myself as a thankful competitor, and wreath the conqueror's brow with the honourable laurel of "*Palmarum qui meruit ferat.*"

N.B. The nature and laws of disease as affecting man and beast are so similar as to render the treatment of the respective subjects analogous ; and the superior skill acquired by those who have the advantage of ministering to the ailments of beings possessed of the power of speech and reason, may surely be considered to qualify them to deal with dumb animals. If this be so, and should the views expressed in the foregoing pages be deemed worthy of further explanation, I shall be happy to pay a visit to any town or district, and give a lecture, setting forth more explicitly the treatment of the different stages of the disease, premising that my personal expenses be paid, and the proceeds of the lecture be devoted to the establishing of sanatariums.

Tunbridge Wells.

W. W.

* * * It may be as well to observe that the remarks in this pamphlet apply to sheep and all ruminants, their structure being the same.