THE CATTLE PLAGUE OF 1865

by

SHERWIN A. HALL

THE outbreak of rinderpest in Britain in 1865 was a national disaster. There followed a plague of such magnitude that the Primate authorized the following prayer to be said in churches:

O Lord God Almighty, whose are the cattle on a thousand hills, and in whose hand is the breath of every living thing, look down, we pray Thee, in compassion upon us, Thy servants, whom Thou hast visited with a grievous murrain among our herds and flocks. We acknowledge our transgressions, which worthily deserve Thy chastisement, and our sin is ever before us; and in humble penitence we come to seek Thy aid. In the midst of judgment, do Thou, O Lord, remember mercy—stay, we pray Thee, this plague by Thy word of power, and save that provision which Thou hast in Thy goodness granted for our sustenance. Defend us, also, gracious Lord, from the pestilence with which many foreign lands have been smitten; keep it, we beseech Thee, far away from our borders, and shield our homes from its ravages; so shall we ever offer unto Thee our sacrifice of praise and thanksgiving, for these Thy acts of providence over us, through Jesus Christ our Lord. Amen.

Three generations later we can see in better perspective some of those aspects, emotional and otherwise that were of deep concern to our great grandparents, very few of whom were not affected in some way or another.

The Outbreak

It was on 24 June 1865 when the first recorded case occurred. By the end of the year 73,549 animals had been attacked of which 41,491 had died and a further 13,931 had been killed.* Only two counties in England were reported to be free from the disease although Wales and the Highlands of Scotland were virtually unaffected.[1]

The details of the first cases are somewhat obscure but it is obvious that the virus arrived to find a highly susceptible cattle population owned by a nation singularly ill prepared to deal with it.

There is some evidence that affected animals were in the Metropolitan Market on 14 June but it was not until Tuesday the 27th that a veterinary surgeon first met the disease. On that day Mr. Priestman was called to examine some sick cows belonging to Mrs. Nicholl of Laycocks Dairy, Islington. Late the next evening, in Mr. Baldwin's dairy at Hackney, he saw other cases which strongly resembled those at Mrs. Nicholl's. The clinical similarity was confirmed by post mortem examination for which he had ample opportunity; after only five days there were already twenty animals dead and another twenty ailing.[2]

Priestman was baffled. Poisoning or acute pleuro-pneumonia was the tentative diagnosis but as he had seen nothing like it before he sought a second

* These figures, taken from the Official Report, are considered a gross underestimate.

opinion. On 4 July he consulted Professor J. B. Simonds at the Royal Veterinary College and accompanied by Mrs. Nicholl's son, he took with him the viscera of an ailing cow killed for the purpose. After examining these Simonds agreed to visit Laycocks Dairy.

James Beart Simonds

Of the twenty sick cows, now being treated in quarantine, ten were considered to be hopeless cases. Another cow was killed and Simonds removed the viscera for further examination. With all this evidence he did not recognize the condition for what it was. To cut her losses Mrs. Nicholl sent her cows to market or to the slaughterhouse and rinderpest was disseminated undiagnosed.[3, 4]

For this, Simonds may be considered culpable of gross negligence. True, there was nothing in The Statute Book requiring him or anybody else to report rinderpest although even this deficiency rested partly on his shoulders as he had been opposed to the unsuccessful Bill of 1864 aimed at establishing a veterinary inspectorate.[5] There was, however, the moral obligation inasmuch as he had served the Government as the Chief Veterinary Inspector when he was appointed to investigate the sheep pox epidemic of 1847.

It was Monday 10 July before Simonds took action.[6] He then reported to the Privy Council that a serious disease was spreading through the London dairies. He still did not call it cattle plague and was merely given a watching brief to await events. That same day, a few miles away from the Privy Council Office, there was the usual heavy trade in cattle at the Metropolitan Market. Many of the animals were obviously diseased. Some of the lots were the property of a lady—Mrs. Nicholl.[3]

With a nidus in such a large market the disease spread rapidly but another fortnight elapsed before any official action was evident. Then, on 24 July, the First Order in Council was made under an Act of 1848 designed for dealing with sheep pox. The disease was still undiagnosed. In this Order it was described as:

> A contagious or infectious disorder of which the nature is at present uncertain.

Not until 11 August, on the publication of the Second Order, was cattle plague officially recognized.

The delay in diagnosing the disorder appears the more ironically tragic as the details of Simonds's career are examined. His training, like that of all his contemporaries, was limited because the mulish Coleman, Principal of the Royal Veterinary College, persistently refused to consider any species other than the horse for inclusion in the College syllabus. The diseases of cattle were relegated to the empirics usually known as cow leeches. Fortunately some people had the wit to realize the folly of Coleman's policy and among these William Youatt, the pariah of the profession, was pre-eminent. In 1828, to remedy some of the deficiencies, Youatt established a private school in Nassau Street which the young Simonds attended at the risk of evoking Coleman's wrath.[7] Youatt evidently had a high opinion of Simonds and some years later saw his wish

fulfilled when his protégé was appointed to the newly created chair of Cattle Pathology at the Royal Veterinary College in 1842. Having been in country practice since qualifying, Simonds was experienced in boviatrics and well qualified for the post.

His new duties included a consultant appointment with the Royal Agricultural Society and it was in this capacity that he toured the Continent in 1857 to investigate consular reports to the Foreign Office that the dreaded steppe murrain was spreading westwards to Europe, doubtless aided by the Crimean War, *The Times* correspondent writing in 1855:

> on all sides between the torn tents dead cattle are rotting and no one thinks of removing the pest-bringing carcases.

A preliminary despatch from Simonds on tour was read by the Secretary at a meeting of the Royal Agricultural Society on 22 May 1857. It brought heartening news to the effect that pleuro-pneumonia* was being widely mistaken for rinderpest and that this disease did not exist west of Poland. His final report was equally optimistic. He was convinced that rinderpest was no problem for Great Britain. How slow he was, eight years later, to realize his error.

It was subsequently claimed or implied that he had diagnosed rinderpest in Mrs. Nicholl's dairy without delay but these claims cannot be reconciled with the early notices appearing in *The Veterinarian*. When the August number was issued the disease had already reached alarming proportions in several counties remote from London but all that appeared was a brief notice. It was September before *The Veterinarian* mentioned the disease by name when, with engaging candour, the editors explained that:

> Not wishing to be alarmists we did little more in our last number than announce the fact, that a fatal bovine disease had made its appearance and that the attention of the Government had been directed to it.

The wheel had turned full circle. *The Veterinarian* was launched in 1828 as an organ of reform. Now in the hands of the London College, the very target of its early attacks, it was conducting a purblind policy that Youatt would never have admitted. Of the co-editors one was Simonds.

The Political Climate

It would be specious to suggest that if the disease had been identified immediately as cattle plague the course of events would have been very different. Naming the disease one month earlier would not have been an adequate stimulus to overcome the political prejudice of the day.

The outbreak had coincided with a general election won on a manifesto of free trade. Whatever the pretext, any restriction on the import of cattle, healthy or diseased, was regarded as an intolerable interference with the legitimate

* A specific disease otherwise known as contagious bovine pleuro-pneumonia.

trade necessary to feed the rapidly growing population. Only the previous year the enlightened sponsors of the Cattle Disease Prevention Bill had been successfully opposed by dealers with vested interests in the import business.

Criticism of this benighted policy is tempered by the technical ignorance that prevailed. What sense was there in banning imports if the disease could arise spontaneously in the miasma of the insanitary town dairy system?

For most people the association of germs with biological processes was a concept difficult to grasp. Pasteur had been showing the way since 1857 when he published the *Mémoire sur la fermentation appelée lactique* and now Lister was applying the principles by introducing antisepsis to surgery. The dawn of the germ theory was just breaking.

John Gamgee

John Gamgee was a bright star in that dawn sky and his surname should be remembered for something in addition to the tissue of that ilk.

He was the second son of Joseph Gamgee, a veterinary surgeon. The eldest son, Joseph Sampson, was to follow his father's profession and John elected to qualify as a doctor. After two years' veterinary practice Joseph Sampson turned to human surgery and subsequent fame. John restored the equilibrium, and qualified at the Royal Veterinary College in 1852 without completing his medical course. His professional life was intensive. It lasted in this country for only twelve years but during that period he showed considerable genius of which only one aspect was the truly prophetic advice he gave the country on the subject of cattle plague.

Simonds had erred because he accepted the theory of spontaneous generation. The concept that transmissible disease was due solely to infection was very much the minority view of which John Gamgee and Dr. Budd were the arch-exponents.

Dr. Budd of Bristol had been appointed by the British Medical Association to propose a scheme for investigating the contagious diseases of man and animals. His report to the Annual Meeting at Cambridge in 1864, recommended a particular study of cattle plague in view of its similarity to typhoid fever.

Gamgee had used all the means available to him for educating both the profession and the public. In 1857 he established the New Edinburgh Veterinary College in the face of powerful opposition. His pupils had the advantage of a scientific education embracing his canons on contagion. The profession as a whole he enlightened with a new monthly Journal, *The Edinburgh Veterinary Review*, founded in 1858.

By 1862 his campaign was gaining momentum. He was then appointed by the Privy Council to conduct an inquiry on the subject of Cattle Disease in Relation to the Supplies of Meat and Milk. The report was published and he afterwards urged reforms in the cattle trade, the institution of foreign stock markets and the development of a proper system of veterinary inspection throughout the country. To strengthen professional support he convened the First International Veterinary Congress. It was a signal success. Over one hundred

veterinarians from many countries met in Hamburg from 14 July to 18 July 1863 to discuss the problems created by epizootics. Among the delegates were professors of high academic status acknowledged as experts in rinderpest and its control.

After the Congress, Gamgee was convinced that it was only a matter of time before Britain would import rinderpest. He warned the nation of this in two momentous letters to *The Times* of 10 and 13 November 1863:

Sir,

The letter which appears this day in your columns, showing the great advantages of conveying foreign cattle to London via Harwich, induces me to ask what additional precautions are being taken to prevent the introduction of diseased animals from abroad seeing that there is a prospect of the 'largest portion of the cattle trade from the North of Europe' never coming under the notice of the inspectors of the port of London. . . .

I do not seize my pen to write without weighing the effect of restrictions on trade; but, Sir, I am receiving letters by every post from all parts of the United Kingdom complaining of the condition of the lean stock, for which fabulous prices are being paid, and which is at the present time distributing diseases in all directions. . . .

I am not dealing with imaginary evils when I have before my eyes, as I write this letter, a statement of the losses sustained by the Russian plague in the Austrian dominions. During the last fourteen years, 500,000 animals have been seized with the disease, and of these 270,000 died. Even that loss is comparatively small when contrasted with the loss we have sustained during the last eighteen or twenty years through the lung disease; but if Russian cattle manage to reach our markets—and why should they not?—we shall certainly have more than the Austrians, whose organization for the prevention of disease among cattle is perhaps the best in Europe.

Prudent men must agree with me, that under existing circumstances we need something more than the rapid transmission of stock from foreign to British markets. We have already too much occasion to lament the introduction of foreign diseases into these islands, and we must watch lest we henceforward find that, whereas wheat barely remunerates the tiller of the soil for his labour, disease among livestock may irretrievably ruin him.

I am Sir Your Obedient Servant,

John Gamgee
Professor of Veterinary Medicine

New Veterinary College,
Edinburgh, Nov. 7th 1863.

The second letter was uncanny in the accuracy of its predictions:

If we are receiving Spanish cattle in very fine condition by sea, what is to prevent a fast and suitably built steamer landing at a British port cattle shipped at Memel or Libau? . . . We may find ourselves at no distant period much worse off for animal food than we are at present, notwithstanding every facility being afforded for free trade in stock.

Dearly bought experience has demonstrated to the Austrians, Prussians, French and others, that the importation of cattle requires constant supervision. . . .

By dint of his exertions Gamgee did arouse some action at this time but it was ineffective. In 1863 Mr. Edward Holland was obliged to withdraw his Cattle, Sheep, etc., Contagious Diseases Prevention Bill. He did so on the understanding that the Government would promote similar legislation in the next session. This was subsequently prepared as the Cattle Diseases Prevention Bill by Sir George

Gray and Mr. Bruce. It too was withdrawn, stifled by the graziers, dealers and butchers.

The Revel Cargo

The nation chose to ignore Gamgee but there was no delay in paying the price, for the very first importation of cattle direct from eastern Europe brought the 'organic poison' with it.

On 29 May 1865 the *S.S. Tonning* docked at Hull with a cargo of oxen and sheep embarked at the Baltic port of Revel. The day before disembarkation one of the oxen was ailing. It was dosed with plenty of brandy, survived and subsequently reached the London market on 1 June.[8] Whether or not it had rinderpest is a moot point. The only opinion on this was given by James Burchell. He was not familiar with the disease and diagnosed it in retrospect only after he had quarrelled with Mr. Hönck, the dealer who financed the importation.

Even the factual evidence given before the Royal Commission was distorted by the acrimony of personal disagreements but it seems reasonable to conclude that the cattle had been in contact with rinderpest prior to shipment. It had caused Burchell much embarrassment when the Russians forced him to buy some visibly diseased cattle:

> I had purchased them because they insisted upon my taking them. They stopped my passport and thought to frighten me very much. It is an awkward thing to be in a country like that, and to have your passport stopped, and you doing no harm.[9]

The visibly diseased animals were never loaded on the *Tonning* but the story had reached John Hönck. He took good care to consign the others to Lowestoft, and subsequently to telegraph the captain to make for Hull where he considered the port veterinary inspectors more lenient.[10]

No animals were detained. The consignment was dispersed to Manchester and London.

The Country in Chaos

John Gamgee the alarmist had been vindicated. At the time he was busily engaged in transferring the New College to Queens Road, Bayswater. Because of this he was not able to get up from Edinburgh to London to make first hand inquiries until 29 July. The immediate result of this investigation, one month after the outbreak, makes Gamgee the first to have diagnosed the plague as rinderpest.[11] Then he gathered evidence that diseased cows had been in the London market on 14 June and that the Revel cargo was the probable source of infection.

To him the solution of the problem was crystal clear. Briefly, he insisted that there was no specific cure and advocated eradication by slaughter, compensation and prohibition of stock movements.

This was unacceptable to the country and earned for Gamgee and the enlightened members of the profession more ridicule than support. *The Times*

editorials prove that the top people of the day were ill-informed on the basic aspects of animal disease control. On 6 October they read:

By the side of the many schools for the study of human diseases which were opened for their Winter Session on Monday it was impossible not to observe with satisfaction that a new Veterinary College had also been inaugurated. Here, however, for the present our satisfaction must end. Any one who attentively perused the addresses we refer to must have been struck by the remarkable contrast between the inaugural address at the Veterinary College and those which were delivered by distinguished members of the medical profession. Although we have thought it necessary to remind the profession of their shortcomings, we must acknowledge the general excellence of the spirit in which the addresses on Monday were conceived. The lectures dwelt, for the most part, upon the many qualities of mind and of heart which were required for the successful study of the diseases of mankind; they pointed out the care and patience which were necessary to observe the numerous forms assumed by sickness; they showed how rarely, strictly speaking, a doctor could be said to cure a disease, and that in reality, he was in most cases but assisting the curative processes of Nature herself. At the same time the lecturers dilated, though perhaps, in somewhat too sanguine a tone, upon the great success which medicine had already achieved; they reminded the young students of JENNER's great discovery, by which one of the most deadly scourges that ever infected our race was deprived of nearly all its terror, and they held out the prospect of similar victories being achieved over every other sort of human suffering by the exercise of like energy. In short, they were, on the whole, proud of the past, modest in the present, and hopeful of the future. The address of Professor GAMGEE presents in every respect the most opposite features. In the first place, instead of exhibiting that modest diffidence which is the best spur to future excellence, it displayed the most absolute confidence. There was not one word about the uncertainties, the peculiarities, and the diversities of disease, but a round, dogmatic declaration that the speaker and the veterinary surgeons knew all about the cattle plague, and that everybody else was ignorant on the subject. Instead, again, of referring to the labour and success of former inquiries, the address eulogized nothing in the past but Professor GAMGEE's own efforts, investigations and successes; and instead of holding out the prospect of meeting disease successfully, it insisted that nothing could be done but to accelerate its ravages by slaughtering every animal that was attacked. The address, in short, was contemptuous towards the past, confident in the present, and despairing of the future. . . .

After such an exhibition of the wisdom of veterinary surgeons, one may surely be permitted to ask whether the Government intend to persist in the course to which these egregious authorities have committed them. One thing at least is certain—that the measures which have been adopted have completely failed to arrest the spread of contagion throughout England and Scotland. Nor, as our correspondent, 'S.G.O.' lately pointed out, could it have been expected that they would be successful.

In the same week the importation theory was attacked:

We must say that every month's experience of this eventful year increases our incredulity respecting the theory of importation. That the conditions of the atmosphere are truly exceptional every man's senses will tell him, and we see the effect in all directions. Cholera is raging over a considerable portion of Europe, and the climate of England itself has been actually found compatible with the existence of yellow fever. Pigs have sickened, sheep have sickened, and horses have sickened. In France poultry have suffered from a strange disease, and it was feared that eggs, the last resource in cases of suspected food, would be no longer safe. Now, in the face of this universal testimony to the influence of some destructive element, is it consistent with philosophical principle to assume that the disease of horned beasts is utterly unconnected with the phenomena affecting all other animal life, and that though men, horses, pigs, sheep, and fowls would have suffered from the season, cows would have been absolutely exempt if a certain deck-load of cattle had not been landed at Hull from Revel?

On 11 October '*The Thunderer*' remounted the attack on Gamgee and the profession with a thirty-inch column lambasting:

Professor GAMGEE, like the Cattle Plague itself, is irrepressible. As is the case, according to his own account, with animals attacked with that disease, he is wholly insensible to curative measures. We have 'exhibited' to use medical language, various remedies for the delusion with which this gentleman is possessed, but it has been to no purpose whatever. He originally broke out, soon after the appearance of the Cattle Plague, in the Marylebone Institution, and he reappeared with all the old symptoms a few days ago at the Albert Veterinary College. We then endeavoured to administer a strong dose of argument, and we were hoping that the symptoms were at least suppressed, when, partly to our disappointment and partly to our amusement, the Professor suddenly breaks out again at Sheffield in the congenial air of the Social Science Association, and the symptoms are more violent than ever. We should be very unwilling to contemplate his being subjected to the same treatment which he proposes for the cattle, and though the disorder in his mind must be now in a very advanced stage we shall yet attempt once more to administer an antidote. Though it may be ineffective in his case, it may check the spread of the disease among those to whom he may have communicated the contagion.

The Professor holds fast, in the first place, to the theory of importation, and, when we have observed that he holds fast to it, that is about all there is to be said. He betrays a sublime indifference to all the arguments which have been adduced on the other side; and having simply recapitulated to his own satisfaction all his old familiar assertions, and having omitted to take any account of the objections raised to them, he concludes, like the Chairman of the Section, Dr. LANKESTER, that his arguments are 'unimpeachable'. . . . The public, who are engaged in no such crusade against the Russians as this indomitable Professor, are somewhat less satisfied, and Professor GAMGEE's own statement of the case would be quite sufficient to make them sceptical. As a specimen of the reasoning of veterinary surgeons it is worth careful preservation.

There were few who realized that slaughter was, far from being a policy of despair, an invaluable positive method of control. Because such a strategy was inconceivable in human epidemics it was irrationally condemned on the premise that veterinary medicine could not possibly do better than to follow human practice. The resulting insistent demand for a cure was a juggernaut that produced nothing but political confusion and spread of the disease. Newspapers and journals were full of 'certain cures'. Hardly a drug was left untried in some form or another, allopathic or homeopathic. Physical treatments were not neglected and one, reported to *The Times* by Dr. Kidd, shows the lengths to which some owners were prepared to go:

The experience of a doctor in the treatment of the cattle plague in one of his own cows may interest some of your readers, especially those who have lost faith in the poleaxe practice of the veterinary surgeon. . . . In three hours, by the labour of four men, the cowshed was converted into a vapour bath by removing from the scullery the ordinary copper and cementing it on a furnace, which was extemporized with a few bricks, while three 4-inch stoneware drainpipes made a flue. Day and night the copper was kept boiling. In a few hours the atmosphere of the shed became warm and moist. Two men remained up all night giving phosphorus every two hours alternately with the arsenic. Towards morning the breathing became relieved. From 56 in the minute it fell in 12 hours to 40 (the next day to 32). On Friday we were in great hope, but on Saturday morning the cow calved, and the men thought her dying, if not dead. Then I got them to pour down her throat four bottles of Barclay's stout in the course of eight hours. This the cow drank with infinite relish. To our surprise the calf was born alive. The poor cow seemed nearly dead, but, determined not to give her up, I ordered the gruel to be made with old ale, the bottled stout being also continued. Little by little she revived, and has gradually recovered.

By that same token of direct comparison with human practice, the success of vaccination was exalted as the supreme example of the prophylaxis that should be sought for rinderpest. Dr. Murchison of the Middlesex Hospital went so far as to equate smallpox and rinderpest.[12] The subsequent demand for vaccine caused so serious a shortage as to deprive human infants and create an open market for pedlars of croton oil.

In the face of this deep seated antithesis to his proposals, Gamgee replied with commendable dignity in a letter to *The Times* on 12 October:

Sir,

I trust to your sense of fairness for the publication of the following remarks in reply to your leader on the cattle plague in this day's impression.

I may be possessed of a delusion, and it may be little satisfaction to the world at large that the highest authorities in Europe in veterinary matters are not more sane than I am as to the origin of the cattle plague in Great Britain. I must confess that this is some consolation to me, and when those who are better able to speak and to write than myself put the whole question on its proper basis, it is not improbable that you, Sir, may acknowledge that there has been some method and reason in my madness. . . .

I can assure you, Sir, that my object is not to mislead, but, if possible, wisely and truthfully to direct public opinion on this subject. Permit me to ask, what can you, what can any one suggest and prove as to the spontaneous origin of the cattle plague in these dominions? On my side I have the advantage of having predicted that the disease would reach us through the Baltic, because the Austrians and Prussians would preserve us so long as we had not direct importation, and in proof of this I have only to refer you to your own columns for 1863. The first cargo which came through the Baltic reached England only a fortnight before the steppe murrain was first seen in our market, and we can now witness in this country, renowned for the beauty and the health of its stock, ravages of a character and extent unknown since the 'rinderpest' died out of Great Britain last century. . . .

In the last paragraph of your leader a sentence not made use of by me is introduced as a quotation from my paper read at Sheffield. I am made to say that 'doctors who have gained victories over nature have gained no victories over human maladies but by the adoption of preventive measures'. What I did say was correctly reported in your impress of last Monday, as follows:

'Turn to the written histories of typhus and yellow fever, of human small pox, and cholera, and tell us what has been done by curative means. The doctors who have gained victories over nature have gained no victories over these maladies but by the adoption of preventive measures.'

In conclusion I beg to state that my only reason for opposing the attempts to cure the disease is to preserve the largest amount of stock from infection. If the public, if the stockowners wish their animals to be treated, and if our Government consider it right and proper not to make a vigorous attempt to exclude the plague from these islands, I, for one, am prepared to treat and record recoveries. I have no fear of a certain measure of success and as large a measure of success as other people, and perhaps while helping to save the lives of some scores or hundreds the country will learn that the horned stock of this land cannot on such a system increase and multiply.

I am, Sir, your obedient servant,

JOHN GAMGEE

Albert Veterinary College, Queen's-road, Bayswater,
London, Oct. 11.

Having made the diagnosis Gamgee had lost no time in taking what action he could. He called meetings of stockowners and issued a circular on 3 August

advising them on preventive measures. The railway companies and the Metropolitan Market Committee also received letters. The strictures they contained on the deplorably filthy state of their cattle pens had a delayed but salutary effect.

Equally praiseworthy were the experiments he conducted on diseased animals in association with his younger brother, Dr. Arthur Gamgee. Together they investigated biochemical changes of body fluids and the practicability of detecting latent disease by thermometry.[13] For this they used a Casella registering thermometer and proved that it was an easy matter to demonstrate a febrile reaction days before visible signs of disease appeared. It was to no avail for it appears that it was not officially adopted although its value was subsequently confirmed by the Royal Commission with facilities provided by Gamgee at the Albert Veterinary College, Bayswater.[14]

We have already noticed, in contrast to Gamgee's positive policies, the desultory manner in which the disease was first tackled by the authorities. As the number of cases multiplied, successive Orders in Council were issued. Each was as useless as the last and succeeded only in spreading the virus.

The Orders failed for various reasons. In the first place the national problem was tackled on a parochial basis, power being vested in local authorities to act only if they thought fit to do so. Even if the recommended action were taken it had to rely for any success on a remarkable faith in human nature that in the event proved unrealistic. It put the onus on farmers to report disease in their herds whereupon an inspector could slaughter, without compensation, the diseased animals. This naive approach caused many owners, for fear of indiscriminate slaughter, to conceal the disease or dispose of the herd before reporting it.

The inspectors and, in consequence, the veterinary profession came in for a lot of adverse criticism following the introduction of the slaughter policy. They were the sole arbiters of the diagnosis and thereby determined which animals had to be slaughtered. The delicacy of such a decision must have created, on some premises at least, situations that demanded much tact and tenacity. It was an invidious task. For any but a well qualified man it was an impossible one. It should be noted, therefore, that many inspectors who undertook it were not veterinary surgeons. The Orders had provided for 'other duly qualified persons' to serve and in this motley group came policemen, farriers, cow leeches and shoemakers.

By late September the disease was widely disseminated, assisted in the process by an expanding railway system which was offering unprecedented facilities for cattle transport. In the wake of the disease came the economic crises. For some owners it meant ruin when their herds died. For most people it meant dearer meat.

There was still more bad news to come. Simonds reported to the Privy Council that he had diagnosed rinderpest in sheep. A few days later, on 29 September, a Royal Commission was appointed to investigate the origin, cure and prevention of the disease.

The Royal Commission

In eleven days between 9 and 20 October the Commissioners examined forty-five witnesses and received a deputation from the Lord Mayor of London. The First Report, ready by the last day of the month, was published on Saturday 11 November. Its main purpose was to make recommendations for controlling the disease but still no agreement could be reached.

A majority advised absolute stoppage of all cattle movement for a prescribed period. One minority group preferred to allow restricted movement under a system of permits. Another minority report, that of one Commissioner, was in favour of no restrictions whatsoever. However, all did appear to agree that slaughter should be used only in exceptional cases and then with compensation.

Public opinion was similarly divided. *The Times* was at pains to point out that, although it was agreed the disease had been imported:

> . . . the famous importation theory, in the specific shape which it assumed, has not been sustained by the evidence produced.

Very grudgingly and with no redress for Gamgee the same column announced that:

> . . . The Commissioners, do, in the main, adopt the views which have found most favour in our schools of veterinary science.

The *Daily Telegraph*, on the other hand, critically examined the evidence taken by the Commission:

> We cannot understand how or why a body of commissioners, including a number of accomplished medical men, should have taken the opinion of non-professional persons as to the origin of the Rinderpest in this country, or to other points on which none but veterinarians of skill can speak with authority. Should we value what any number of non-medical men might say on the origin of diphtheria, typhus, or cholera? We consider it waste of time to listen to such witnesses as Mr. JOHN GIBLETT. He was asked what he knew of the first manifestations of the disease, and he replied: 'I believe that there has been a baneful atmospheric influence. I do not at all believe in the reiterated statements of a few persons that it is an imported disease; on the contrary, I know that we have had diseases among cattle for a great number of years past; we have had the lung complaint; we have had what is termed the foot and mouth complaint; but in my humble view of the case the foot and mouth complaint is no complaint in itself—it is the result of a complaint in the animal; In a hide-bound animal, having fever, it cannot escape except through the hoof, or through the mouth and tongue.'
>
> This gentleman may be able to talk about markets, and the purity of the foreign cattle which he imports; but surely we might have been spared the infliction of lessons in pathology from him or from Messrs. GIBBINS, HÖNCK, HICKS, GEBHARDT, and other cattle importers, who dogmatize so confidently on the origin of the plague in London, and contend that it was not imported. Against this evidence we have that of many competent professors and practitioners of the veterinary art; and it is to be regretted that much labour has been spent in vain by the Commissioners, and much valuable time lost, in prosecuting very useless inquiries amongst a class of people who knew nothing about the Rinderpest before it reached this Country, and have been very careful not to learn too much about it since.

These widespread differences of opinion inevitably led to further chaos. The legislation was tidied up with a Consolidated Order in Council dated 23 November whereby the slaughter policy was dropped and hope placed instead in control of movements. The devolution of power to the local authorities

resulted in a jumble of local regulations lacking central control. It was a failure, the measure of which was given by the fact that each succeeding period of four weeks saw the numbers of fresh cases almost doubled.

A Second Report by the Commission was issued on 5 February 1866. It added nothing useful by way of a solution. It repeated the necessity for stopping cattle movements and ingenuously concluded that:

> The present clamity has shown how defective are our general precautions—if any precautions can be said to exist—for the detection and prevention of Contagious Cattle diseases.

A Third Report was yet to follow. It recorded the findings of the several technical investigations commissioned the previous October. Although these added little to the useful knowledge of the disease, they provided a fine series of coloured plates* illustrating the lesions, some of which bear a striking resemblance to those of mucosal disease. Of great academic interest, however, was the first recorded evidence, by Dr. Sanderson, that the blood of an animal in the incubative stage of a contagious disease was teeming with infective particles as a result of multiplication from a small infective dose.

The Royal Commission had failed to advise the country on the best method of controlling rinderpest. Fortunately, by the time the Third Report appeared, on 1 May 1866, other influences had prevailed upon the Government.

Order Restored

In February 1866 the Cattle Diseases Prevention Bill reached the Statute Book. A great deal of the credit for this was due to the Royal Agricultural Society. From the early days of the plague a standing committee formulated the Society's policy on the disease and was ultimately successful in putting their resolutions to the Government when their deputation was received by Earl Russell on 12 February.[15] Their recommendations were largely incorporated in the Bill.

At last a firm line was adopted. It was virtually the one advocated several months previously by Gamgee. Slaughter of all diseased animals was obligatory while those that were in contact with disease could be slaughtered at the discretion of the local authority. In all cases compensation was to be paid from the local rate. At the same time very severe restrictions were imposed on cattle movement and importation.

The Bill had a smooth passage through both Houses but it had hardly become an Act before some members had second thoughts about the slaughter clause, believing that they had acted in a fit of panic. They need not have worried. The measures were most effective and the disease was rapidly mastered as is shown in the official returns of fresh cases:

Week ending February 23rd	17,875
March 23rd	9,388
April 20th	4,963
June 22nd	679
November 23rd	8

* The originals are still preserved in the Library, Royal College of Physicians.

Sporadic cases in London delayed eradication. Not until September 1867 was the country entirely free from rinderpest.

The mortality due to the plague can only be an estimate, the chief reason being that there was no cattle census in those days. Earl Cathcart, addressing the Royal Agricultural Society, considered that 420,000 cattle had died in a population of 6,000,000. This gave a national average of 7 per cent, but in the worse hit areas the proportion was obviously much higher. In Cheshire, he put it between 50 and 66 per cent.[16]

In terms of money, the overall loss was probably eight million pounds.[17]

EPILOGUE

The Country had paid dearly for the experience so it is not surprising that when rinderpest re-entered in 1872 and again in 1877 there was no delay in applying the slaughter policy. At the same time one might have expected the founding of a soundly based Veterinary Department. This was not to be. There is abundant evidence that the State Veterinary Inspectorate suffered such growing pains as to make its early life inauspicious. The Treasury's sole aim was to reduce the small establishment still further on the pretext that its work had diminished with the eradication of plague.[18] It was an uninspired policy inducive to low morale and inefficiency.[19, 25] For many years British agriculture continued to suffer needless losses from contagious disease.

Neither was anything done at a national level to remedy the dearth of well trained veterinarians. The small profession, outnumbered two to one by quacks, had served the country well, in return for little kudos and still less reward,* but there were obvious deficiencies to be made good.

Meanwhile Gamgee's exceptional talents were lost to the country. When his school failed, for lack of support soon after transfer to London, he was commissioned by the American Government to investigate Texas fever. On return to Britain in 1869 he forsook veterinary medicine for thermodynamics. His ambition was to improve methods of refrigeration for the transport of meat and within a few years could claim to make one ton of coal serve the purpose of thirty tons of ice.[20]

Now, after nearly a century, Gamgee's loss from the profession appears the more grievous as we can appreciate the true breadth of his vision. When he claimed:

> I have no faith in our ever reaching the virus with effect in the living animal.[21]

he was a scorned pioneer of the germ theory beyond which he was conscious, even then, of a broader philosophy bearing on the subtleties of racial and individual immunities.[22] He was, in the words of Clare Sewell Read, M.P., a Cattle Plague Commissioner:

> A living monument of departmental incapacity and national ingratitude.[23]

* Qualified inspectors in Essex had been roundly abused and offered payment of half a crown per week by the local authority.[24]

ACKNOWLEDGMENT

The stimulus for this paper was provided by an anonymous, provident person who compiled a folio of cuttings from the newspapers of 1865.

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