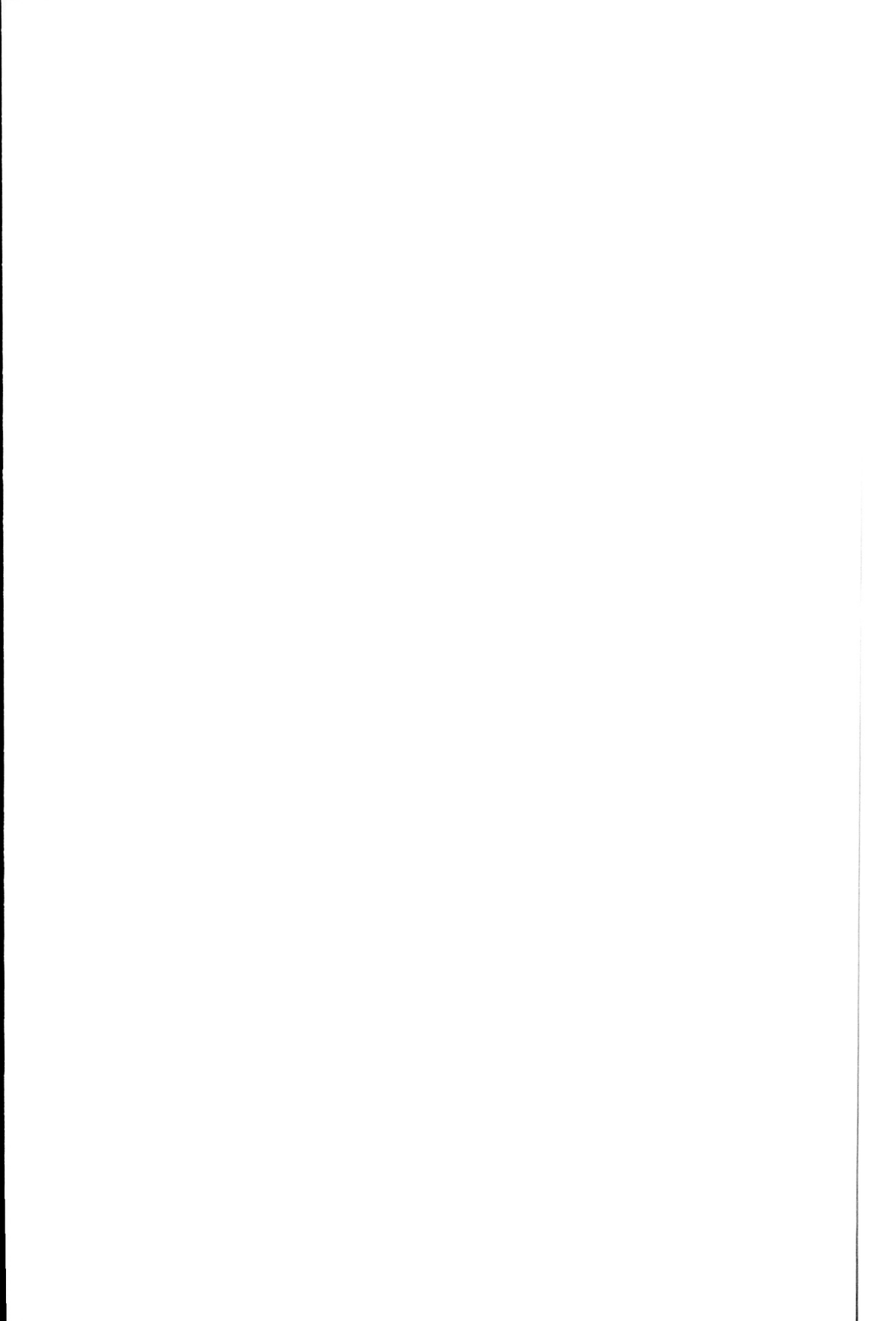
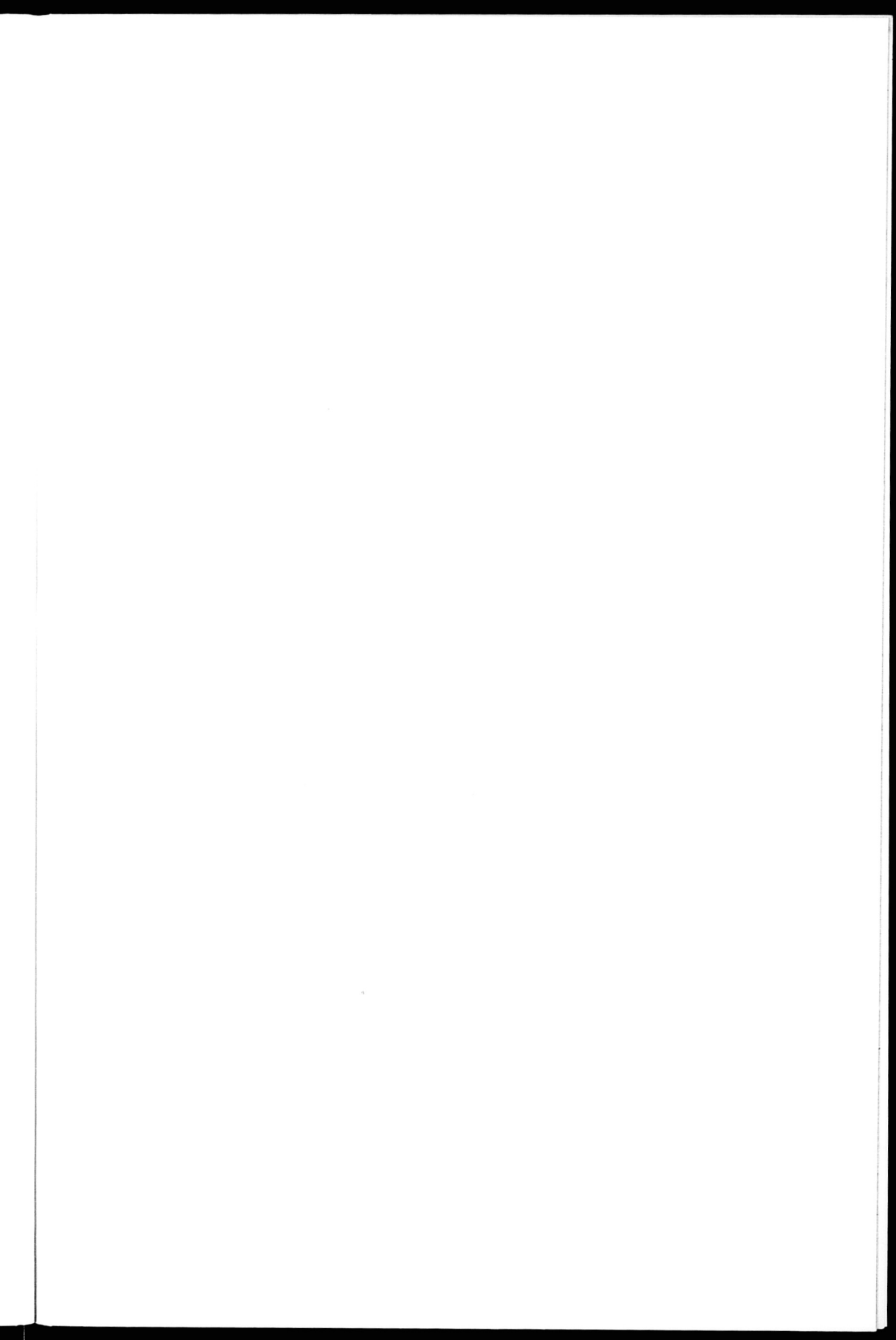


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LEURO-PNEUMONIA:

ITS HISTORY, CAUSE, SYMPTOMS, AND TREATMENT.

BY

S. E. TURNER, M.R.C.V.S., LONDON,

8, MONA-TERRACE, DOUGLAS, ISLE OF MAN.



Reprinted from The Isle of Man Times, of January 3, 1874.

PRICE SIXPENCE.

Printed by JAMES BROWN & SON, *The Isle of Man Times* Office, Douglas.

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№ 675

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PLEURO-PNEUMONIA :

C. no 675.

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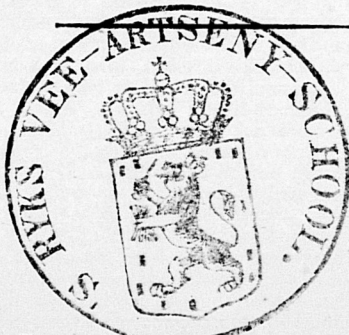
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Label

INSTITUT FÜR ANATOMIE

SEINER HISTORIE, CAUSE

STREBENS UND BEWERTUNG

VON DR. MED. WILHELM KROHN

LEIPZIG, VERLAG VON G. F. SCHWABE



BIBLIOTHEEK UNIVERSITEIT UTRECHT



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PLEURO-PNEUMONIA.

A PRESS of professional and other engagements has hitherto deprived me of the leisure necessary for publicly discussing the subject of pleuro-pneumonia. Had the disease disappeared from our shores, I should not have troubled your readers or myself about the matter; but this has not yet been the case, and, indeed, is not likely to be so for some time to come. So long as the disease prevails, the farmers particularly, and the public generally, are constantly liable to severe loss, both from the disease itself, and from the mistakes resulting from the carelessness or ignorance of professional or non-professional persons—those to whom the cattle belong, and those who undertake to cure them when attacked. I, therefore, feel called on to throw what light I can upon the matter, and as I commenced practice about the time that the disease, on this last occasion, made its appearance in England (about 1839), and have been in constant practice ever since, my experience in this particular subject has necessarily been very considerable. Now, sir, since I came to this Island to reside, one thing, on which the insular public must be greatly congratulated, has by its continual occurrence been pressed upon my notice, and that is the untiring, earnest effort made by the gentlemen of the insular press to promote the welfare, and protect the interests, moral and physical, of all classes of the community. I have, therefore, not allowed the fear of trespassing on your space to prevent me from entering at considerable length into this important subject. In so doing I felt assured that the very importance of the subject to one large class of community would obtain that insertion of this paper in your columns which might, not unjustly be denied to my very imperfect literary treatment of this disease.

As, besides actual continued contact with the disease, I have all along endeavoured to gather the opinions, published and otherwise, of many whose names stand highest in my profession, and as I am compelled to go over the same ground with them, of course I cannot avoid seeming to give, and actually giving their ideas, and occasionally using their expressions; but as I do not write this for the professional eye so much as for those specially interested and the general public, who have neither time nor opportunity to study medical works, this is of little consequence; moreover, however willing I may be to do so, I cannot, in most instances, say whether such a writer had said so and so before or after the same thing came under my own observation and particular attention.

The term Epizootics means diseases "among animals," and the term Epidemics diseases "among people." To constitute an epidemic, numbers of persons must be attacked by a particular form of disease, as was the case with cholera and influenza; and is still found to be the case with smallpox, which, in some countries, even now, sometimes sweeps off nearly the whole population of a district. An epizootic disease is one which attacks large numbers of animals, such as Eczema, or boil, or blain, a particular form of which is now commonly called "the old epidemic," and which extends its attacks to sheep, pigs, and even to poultry; or it may be the disease of which I now write, the attacks of which are principally confined to cows and oxen. Though in the present very imperfect state of science—not, of course, as compared with what this state was, but as contrasted with that position which science seems about to occupy in the not distant future—the origin of these diseases cannot with certainty be determined, it can, nevertheless, hardly be doubted that the admixture of some noxious gas, or other injurious matter, with the atmosphere is the primary cause of them. I give a well-known instance in proof of this theory. In the year 1832, Dr. Prout had for some weeks been engaged in London in determining the weight of a given quantity of air under precisely similar circumstances each day. Suddenly, on the 9th of February, the weight of the air seemed to have very considerably increased. An error, or some derangement of the apparatus, was immediately suspected; but the most searching investigation failed to discover either of these. For six weeks longer the experiments were continued, and during the whole time the weight of the air was found to be above the standard (though not to so great an extent as on the first day on which the increase was noticed); and throughout the whole time the manner of conducting the experiments precluded the possibility of an error to the extent of the additional weight of air. It is an unmistakable fact that that dreadful scourge, Cholera, appeared on the very day on which the change was noticed. Now, though there is no actual proof that this change in the air caused the epidemic, it is not unreasonable to believe that the heavy gaseous (?) body which displaced the air had a great deal to do with producing

the disease. What this noxious matter is, then, is the question; and when its effects are remembered it will be seen that it is not easy of solution. In Egypt this gas, or other matter, which either results from or accompanies the subsidence of the river Nile, causes, or, at least, is accompanied or followed by, the plague; while similar matter on the West coast seems to produce yellow fever. Again, the deleterious matter which mingles with the air after the overflowing of the Ganges in Hindostan, shows itself in cholera; and in the West Indies in yellow fever. The Campagna of Rome has its deadly fever; while the miasma of our English marshy country develops itself in simple intermittent. These few of the difficulties with which the question is connected are of themselves sufficient to show its intricate and perplexing nature; and, if so, how infinitely are these difficulties increased when we come to speak of the spread of this disease by contagion or otherwise. But though the actual origin of these diseases may be a sealed book to us, it is certain that there are predisposing causes which render both man and beast peculiarly liable to their attacks. Of the human subject it is not my province to speak; although, in consequence of having two brothers surgeons, and having with them attended the lectures and seen operations performed by the renowned Liston, I am not wholly ignorant upon this matter, I confine myself to the subject to which I have devoted my special attention, leaving the nobler subject to abler hands. Before doing so, however, I would mention a fact which does not appear to have attracted attention among writers on these things, and it is, that so far as we know, every epidemic, or human pestilence, has been preceded at longer or shorter intervals by epizootics, or animal plagues—murrains, as they are generally called. Sometimes the interval between the appearance of the epizootic and the epidemic has been as much as four or five years; while at other times not more than a year or so has intervened. In the earliest instance on record it appears that both man and beast were affected at the same time; but the second murrain preceded by some time the death of the first born; and the fact of both these plagues being of miraculous origin by no means interferes with the fact of the sequence. The next murrain of which we have any account seems to have occurred about 1,200 B.C., the supposed date of the siege of Troy, when vast numbers of the cattle of the Greeks died; and in the epidemic which it is only reasonable to suppose followed upon the decomposition of so much animal matter, great numbers of the Greeks perished. The next murrain of which we have any notice appeared about 740, B.C., and we are distinctly told that a pestilence shortly followed it. So far as I am aware there is no notice of any special epidemic having accompanied, or quickly after followed, the murrain spoken of by Virgil; and thence till about the end of the fourth century after Christ we have no records of cattle plague. Then, however, a fearful murrain ravaged all Europe, and was succeeded in the beginning of the fifth century by a terrible plague from which most of Europe, and a great part of both Asia and Africa suffered. A long interval follows, of which the records are few and far between, and then we find the cattle plague of 1599 followed by an epidemic in 1602. When the terrible murrain appeared in the south of Europe in 1711, a plague broke out in the north of the Continent, and a few years after in the south; and so on to more recent times, when we find an epizootic raging in Austria, Germany, the Rhine Provinces and Belgium, in 1830, and followed by cholera in 1832.

To return to my subject, pleuro-pneumonia, and be it observed that I do not use this name because it expresses the real nature of the disease, but because it has been adopted by common consent, I can by no means agree with Dr. MacBride and others, that this disease was quite unknown in England, and had never appeared before 1839; for I find too much similarity between the disease as it now exists, and the disease which prevailed in England upwards of a hundred years ago, as reported by Dr. Barker, to believe that pleuro first made its appearance in this country. Writing in 1745, Dr. Barker, after stating that the disease, then common, was centred in the lungs, and that its acute symptoms were preceded by a husky cough, says that in the second stage:—"They begin to forsake their food, and if they are milch cows, their milk dries up; the fever which was obscure begins now to be very perceptible; the cough increases, they breathe with great difficulty, and the eyes and nostrils in many of them begin to run with a thick and sometimes a fetid rheum; the body grows hot, and the pulse is very full and hard. In three or four days after their milk is gone off, and they have ceased to eat, and chew the cud, a purging most commonly comes on. The stools are at first thin and watery; soon afterwards they grow slimy and fetid; and sometimes they are mixed with blood." He goes on to speak of the body swelling, and so on; and then in his description of the *post mortem* appearances, says:—"I have constantly found the blood vessels of the lungs stuffed up and distended, &c. And though some of the cattle were opened before the body was cold or the blood congealed in the blood vessels, yet in those of the lungs it was constantly found to be coagulated to such a degree as not to flow out of the vessels when cutting them." Reading this I could not avoid thinking that the present disease has been among us before under another name.

I now proceed to point out that, though we do not know exactly the origin of this disease, we do know some of the predisposing causes, or, rather, we know that certain things render the cattle liable to its attack. Foremost among these I place contact with animals already diseased. Whatever doubts others may have as to the contagious nature of the malady, I have none; for long and very varied experience has proved to my complete satisfaction that this disease is contagious in every sense of the term. I grant that exceptional cases like the following will occur, and that there are difficulties in accounting for such:— In the early part of this year I was called in to see a cow, and found a fine one on the point of death. In the same cowhouse were two others; so after telling the owner that the cow could not live many hours, I advised him, under no circumstances, to allow either of the two cows to be put with the rest of his beasts, which were in another cowhouse at some distance away. The cow died, as I had expected; and from *post mortem* examination both the owner and I were satisfied that the cause of death was pleuro. My advice respecting the other cows was nevertheless neglected, and they were put in the same house with the rest of the stock. Both these animals died of pleuro-pneumonia, but none of the others took the disease. In another case I was sent for to look at some cows in the south, and found that at least one had the disease. The farm was surrounded by other farms on which numbers of cattle were kept. These particular cows had been reared on the premises; they had never been off the place nor offered for sale, and no butcher or other person likely to bring the disease had been near them. There were fourteen animals, of which eight were sent away to fields some miles off. The six, including the cow I had gone to see, died one after the other in about three months, and of those which had been sent away two died of pleuro, but the others did not take the disease. Now, the disease had not then, and has not since, shown itself in any of the surrounding farms mentioned. In different ways both these cases are remarkable and hard to account for, although what I have to say with regard to treatment in the earliest stages may help to throw some light on the first case. (See postscript.) After direct contact I place, as the most probable cause of disease, *indirect* contact—that is, the touching of any person or material which has been in actual contact with diseased animals. I need not give examples. Every reader probably knows that it is the tendency of all epizootics, like epidemics, to wear itself out apparently, unless continually renewed by fresh importations of, or contact with, the disease. Instances of infection by these indirect means will, no doubt, occur to all who have had any experience or interest in the subject. After these causes I name exposure to changeable weather, eating poor food and drinking foul water, pasturing on wet and cold soils, neglect of proper ventilation of the buildings the animals occupy, the inhalation of offensive gases from manure accumulated in and about the houses; all these, and the fatigue consequent on being driven long distances, are well known and admitted predisposing causes of pleuro-pneumonia and other diseases. I could give case after case in proof of the evil effects resulting from the neglect of not attending to such matters both in England and here, but this is hardly necessary, as there are few that, on consideration, will not admit that cleanliness and pure air have always much to do with health. I am here much tempted to turn from my subject, to speak a word for the pockets of the insular owners of horses; but I feel pretty sure it would be thrown away. Nothing but actual pecuniary loss will convince most of the horse proprietors of Mona that any injurious effects are likely to follow from keeping horses dragging wraick all day, and standing about on the shore in a bitter easterly wind or pelting rain, and at night turning them into a narrow hole, where every breath of air is excluded, to steam each other for ten or a dozen hours, and on the following day and night to repeat the process. Not one or two cases only, but many have come to my knowledge, in which farmers and others have been content to lose on an average a £25 horse every year or so, rather than have one or two openings made in the walls of their stables. I hope I shall be pardoned for a digression which ought not, in a money point of view, to be of much benefit to the members of my profession. These may, however, take heart, for it is unlikely that anything I can say will interfere with their gains in this respect for many a year to come.

The symptoms of this disease now claim attention; and I will endeavour to point these out so clearly and plainly that there may be very little excuse indeed for the cattle owner not observing what is the matter until it is too late to do any good. My experience, which is probably only similar to that of others in the profession, teaches me that it is seldom considered time to call in the doctor until a wretched patient has been dosed, and tortured, and choked, by having half a dozen or more injurious and improper medicines thrust down its throat, and sometimes into the windpipe; and until rigors, liquid stools, and distension of the rumen from the disengagement of gases from the ingesta have fairly come on; then, when these have occurred, the doctor is sent for. All the practitioner can do, under such circumstances, is to tell what is the matter and that the animal will quickly die; and to give advice respecting the remainder of the stock. FIRST, every man who owns cattle, and wishes to do

them and himself justice, must find no excuse for not looking after them as early as possible in the morning. If the cattle are pasturing, and if—early, before it begins to get warm—he sees any of his cattle away from the herd, standing under a fence with their backs more or less arched, and their coats more or less staring, and they not eating, he may set it down at once that something is wrong, and that disease is at work. He must not be misled by seeing these cattle afterwards join the rest, and go on eating, for the first sign is as sure as unmistakable. If the animal is housed, there will be a slight arching of the back, its coat will look dry and unhealthy, and an occasional slight cough will be heard. Within a day or two from the appearance of the first signs, others may easily be detected; for a rigor, or kind of cold shiver, will be seen, and then comes a half voluntary, half involuntary cough, as though the patient would like to cough out, but was afraid; and now the disease has fully set in, and *dropsy* is busy with the lungs. Other symptoms now follow fast; the pulse quickens, the breathing is irregular, as also is rumination; occasionally the breathing will increase as if some extra exertion had been made, and a distinct groan or rather grunting is heard; then the appetite fails, and in a milch cow the milk is diminished; the mouth, legs, horns, ears, and skin, are in their turn warm and cold; and now, in my opinion, inflammation has begun; and this not as a cause but as an effect of disease. Up to this point, I am of opinion that there may be hope of recovery; but if these symptoms are neglected, I think hope out of place, for the disease quickly shows its terrible power. The pulse increases, sometimes to as many as a hundred and thirty beats a minute; the respiration becomes more and more hurried and laboured; and approaching death is indicated by the animal lying down with its head stretched out, by grinding of the teeth, liquid stools, and groaning, more or less suppressed, at each inspiration. Now, I would direct attention to the fact that the only sure plan I know of to discover exactly the stage of the disease that has been arrived at, is by diligent and careful auscultation; though to the experienced man, whose eye, ear, and touch have been long and carefully trained, this will be to a very great extent unnecessary. In the later stages of the disease auscultation or other means of detection are not required; for the outward symptoms are too plain for the professional eye to need any other guide; and any unprofessional aid would now almost certainly be of no avail. Here I would remark that experience teaches me that distension of the rumen is often mistaken for pleuro, and, therefore, I think it well, seeing that I am writing especially for the unprofessional reader, to say a few words on this matter. Distension of the rumen is often caused by cattle gorging themselves and becoming what is called “mawbound;” it also often results from gas extricated from substances undergoing a process of fermentation in the rumen; and this is called “hoove.” The symptoms of both, in bad cases, are dulness and restlessness, followed by swelling at the sides, moaning or grunting, ceasing to eat, and stoppage of rumination. After this the moaning generally increases, and the patient becomes unconscious. When matters have come to this pass, death must follow, unless immediate mechanical relief is afforded. I may add, that when an animal is “mawbound,” it generally lies down; whereas when “hoove” is the disease under which it labours, the animal usually stands with its head stretched out, and breathing heavily. That inexperienced persons, when called in after quack and other injudicious measures have been resorted to, should occasionally mistake these symptoms for those of another disease, is by no means strange; but the experienced man will have no difficulty in discovering the real state of the case in a few minutes. Now, though I think every one who owns valuable stock should possess sufficient veterinary knowledge to deal with simple cases of these diseases, I also think that when any really serious case occurs, it would be wise to call in the doctor. There is always danger, in the removal of the cause, that some of the food will fall into the belly, and afterwards produce disease; and besides this, though it is quite true that the rumen will bear severe treatment without serious injury, it is but reasonable to suppose that a stomach or paunch which has been distended to any great extent, and of which the muscular fibres have been much enfeebled, will require a little extra care and management to enable it, quickly, to perform its functions aright.

I will now proceed to the treatment of this disease, and I will suppose, first, that the owner, having been careful to examine his stock, has noticed the first symptoms above mentioned. He has in the morning visited the field in which the cattle were pasturing, and has observed one or more standing with their backs arched, and their coats staring, and has seen them shortly after shake off their apparent sloth and chilliness, and join the remainder of the herd. The first thing to do is to separate these animals from the rest, and, where possible, from each other. The next steps are blood letting, and the administration of a gentle aperient and of some diffusible stimulant, and enveloping the patient in warm clothing. Of course I can lay down no rule as to the quantity of blood to be abstracted, for the quantity will vary in each case. The results of pursuing this course will be found almost immediately beneficial, and, if followed up by generous feeding and reasonable care, the animal may

generally be prepared for the butcher without any further symptoms of the disease being outwardly developed. Especially will this be the case if the animal has been formerly exposed to any of the predisposing causes mentioned above, and, besides being entirely removed from them, is well fed and warmly kept. A *post mortem* examination alone will discover to any but the thorough practitioner, that the fine fat beast which has been sent to the slaughter-house, had one lung twice its natural size and the other seriously attacked. I would have it here distinctly understood that I do not think the meat of such an animal to be in the slightest degree prejudicial to the health of the consumer. But it is very uncommon for the disease to be noticed so quickly; for, usually, the first thing which attracts attention is the animal refusing his or her food. When this occurs the disease has gained fast hold, and must be fought resolutely and skilfully. Here, then, again, I prefer to commence with blood letting, whether the pulse has become much quicker or not (but in the former case blood should be taken until its abstraction is distinctly felt to act on the pulse). Besides the same steps indicated above, counter irritation by means of blisters on the sides of the chest which must be set up immediately; and if the animal cannot, or will not eat, it must be fed with a gruel of linseed and oatmeal; for *losing strength* is synonymous with or means the same as *losing life*; and here lies the danger of blood-letting by inexperienced hands. If the doctor is not sent for at this stage, it is hardly worth while sending for him at all, for even now his skill will be tried to the uttermost, and too often will success fail to crown his endeavours. In the meantime if the bowels are constipated, a cathartic may be administered; but, again, care is in such cases of the greatest importance, because either an aperient, or a cathartic, which in the earlier stages of the disease would act beneficially, might afterwards be injurious on account of the morbid condition of the bowels rendering them so peculiarly excitable. I have known instances in which persons have administered very simple medicines that have had the most injurious effects through being given at the wrong time; and it may, therefore, be easily imagined that the "cow-doctor's" and the "quack's" stuff, such as oil and treacle and lard, and gingered ale and cayenne pepper, can have but few salutary effects. If obtainable, some nitrate of potash should be given in the animal's drink, as it is one of the best febrifuges, and especially recommended in this disease by Professor Simonds. Solution of ammoniated copper, and spirit of nitric ether, are also very valuable medicines in every stage of the disease. But as these two medicines will rarely be found on the spot when required, and both of them require professional skill and discretion in their use, it would perhaps be as well when sending to the town for the medicine to tell the messenger to bring the doctor back with him. It should never be forgotten that it is no use mincing matters, and trying to hide this disease, for whoever does so will most assuredly suffer for his useless pains. If once a man has this insidious and deadly foe to deal with, his safest and best plan is *at once*, not next week—not when he has lost forty or fifty pounds—but at once to call in the professional man's help; and if the latter knows his business, either the enemy will be successfully combated and driven off the field, or the stockowner will be shown how best to act for his own interest. It can never be too strongly impressed upon the owners of cattle and other animals that their interest and the doctor's are identical. The careful and earnest practitioner is, indeed, of the two the more interested in getting the better of the disease; for to the farmer it may be a matter of loss of a few pounds, but to the veterinarian it may be the total loss of a good connection. When, therefore, any one has three or four hundred pounds, and the healthy character of his cattle at stake, it is hardly wise to refuse to spend a guinea or two in professional care for them.

I have now in a simple way gone through the origin (so far as known), the symptoms, and the treatment of this disease. As I said above, I have written especially for the unprofessional eye, for to do otherwise seemed to me unnecessary. The disease has now been among us for upwards of thirty years, and for a long time now nothing new has been noticed with regard to it. It is true that every now and then some specific is said to be discovered which possesses very marvellous powers, either of curing or preventing the disease, or of doing both these and something more; but after being talked of day and night for six months or so, nothing more is heard of them. The man in practice, therefore, especially if he has on the whole been successful in treating this disease, has long since made up his mind on the matter, and is prepared to deal with each separate case as it comes before him. Almost with certainty he knows the exact stage that the disease has reached as soon as he lays his finger on the pulse or applies his ear to the side; nor, indeed, will his experienced eye often fail to detect the disease in the fat beast which is being driven to the shambles, though the butcher who has bought it, and possibly the seller, may be wholly ignorant of its presence, until examination of the lungs indisputably proves the fact. Though I have done with my subject I am unwilling to close this paper without once more pressing upon the owners of horses and cattle in the Island the advisability of cleanliness in and about their stables and cowhouses, and of good ventilation in both. I am sometimes told, in answer to my remonstrances, that the owner is "afraid of the cows (or horses) catching cold!" Cold, indeed!

Can anything be more unreasonable than to expect animals steamed in the manner I have elsewhere indicated to escape disease? Next, I would urge on owners not to pasture cattle on cold or wet soils, and not to feed them poorly, and yet rest satisfied with looking after them once in two or three days. Lastly, as regards the doctor, I repeat the "old, old story," that the best and safest courses are:—First—Take his advice with respect to cleanliness, ventilation, pure water, and decent feeding; and by these means keep him off your premises. Secondly—When these precautions have failed to ward off a dangerous disease, call him in on the very first appearance of the symptoms.

S. E. TURNER, M.R.C.V.S., London.

8, Mona-terrace, Dec. 29, 1873.

P.S.—The case which occurred some months ago in the north of the Island will be familiar to your readers on account of the correspondence which then took place concerning it. The circumstances were simply these:—I had been called in to see a heifer which exhibited all or most of the symptoms of pleuro-pneumonia, and after the heifer died I was instructed by the late Chief Constable to proceed to the place and make a *post mortem* examination. I did this, and found the usual indications of pleuro, with the exception that neither of the lungs was so much enlarged as is generally the case. I consequently sent a certificate to the Chief Constable that death had resulted from pleuro. At a subsequent meeting of the Farmers' Club it was asserted that I had informed the owner of the heifer (to whom I had not said a word on the subject one way or another), that the heifer had not died from pleuro. A little explanation cleared this matter up; but an opinion was expressed at the time that this animal had died from "anthrax," which, the gentleman offering the opinion went on to say, was "a blood disease," neither "infectious nor contagious." This extraordinary view of the case was at the time so admirably and conclusively disposed of by some one evidently well acquainted with his subject, who adopted the title of "Observer," that I felt it was not worth while, even if I could have spared time, to enter into any discussion on the matter. Now, I may say, that in my opinion, a case of anthrax or carbuncle could not possibly be mistaken for pleuro-pneumonia by the least experienced observer, still less by a professional man. Why such an opinion in contravention of mine was offered, of course I do not care to inquire; but how the idea could possibly have originated is an open question. I can only account for it by imagining it to have arisen from some odd jumble of ideas respecting epizootics and "gloss anthrax," or inflammation of the tongue. This formidable disease which was easily communicable to the human subject until the establishment of veterinary schools in the last century, occasionally became epizootic, and inflicted grievous loss on breeders of cattle; but since then it has never reached the dimensions of a plague by its ravages.

This matter is not, however, worth reviving, and I only mention it for the purpose of giving an instance of a somewhat peculiar case; and of using it as a peg on which to hang a little more advice. When anyone has lost an animal, and is doubtful as to the disease which has caused death, it is not by any means a wise proceeding to allow the carcass to become putrified before it is opened and examined by some one qualified to speak upon the appearances presented. Again, when the animal has been opened, and the principal organs have been taken out, it is easy to prevent dogs from running off with and mangling them; and it may be of very great benefit to the proprietors of cattle, in whose company the dead beast has been kept, to have these vital organs carefully inspected by a competent person.

