



Inflammation of the lungs: pneumonia, or pneumonitis

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J. D. Qu. 38²⁰

INFLAMMATION OF THE LUNGS.

Pneumonia, or Pneumonitis.

THIS complaint being one of the most frequent and prevailing among horses, has induced me to add some account of it to those I have already treated of, for although this essay may present nothing particularly new, yet neither is it a vain repetition of others' writings on the subject, but is forming as we believe a more comprehensive and reasonable view of this disease and its treatment, than has yet been seen, and we may add also, that it has been blessed with a singularly fortunate issue of those cases, which have come under our notice and treatment, having in very many years scarcely lost a single case of it.

First, as to the usual sources of this complaint, which are almost ever *chills* of one kind or other, from improper exposure, from showers of rain sometimes, and especially drafts of air falling upon an animal primed, perhaps, to the last degree of plethora by high feed, and stimulating diet, and brought into a state therefore, of the greatest susceptibility for the commencement of an attack, of an inflammatory disorder, and which attack and progress of the disease, will also be greatly aggravated by such a state of things.

The horse often is exposed in the course of his work, to showers of rain, after perhaps being brought into a sweating condition, by the exercise and labour, and the blood suddenly driven from the skin, and exterior of the body, is, by the sudden contraction of its vessels, forced upon the interior, and the lungs generally, or the intestines, one or both, take on inflammatory action, and thus the mischief commences; and we may remark, that much more frequently would this unfortunate result occur, than it actually does, but from the circumstance that the animal, after a certain time of waiting, resumes his task again, and in returning home, resumes his heat, and drives back that blood, which had been forced upon the interior, back again to the skin, and to the exterior; and so, unconsciously perhaps to his driver, is averted a still more frequent occurrence of this disorder.

But by far the most frequent cause or source of these attacks, is, that the animal on being driven home, is left standing without, in the open air, tied to the stable door, or exposed perhaps, under some shed, to heavy drafts of air, and there is obliged to undergo a washing of his legs in cold water, and a slopping and slushing over him of the same, perhaps, as high up as the abdomen and chest, and not satisfied with this, he is perhaps led afterwards into a stable having drafts of air in all directions, through half closed doors, loft doors, and racks, so done in order as they say, to *air the stable well*; the word *well*, so fatally ready for use for good purposes, as well as bad, and on all occasions here, is we believe used most mischievously; we indeed can also admire a *well aired* stable, but then we understand by this, quite a different thing, viz., a stable of a certain degree of loftiness in the ceiling, and well ceiled, and having

no thorough drafts through it, but aired simply by its own dimensions and height, or nearly so.

It would be almost superfluous to enter here on prescribing the exact admeasurements of such a stable, as judgments might differ almost endlessly on this point, but that some specific proposition may exist for correction if necessary, we venture as a suggestion that may be resorted to, or changed as shall be thought best, for whether the one or the other be assented to, and adopted, we shall not in any way be tenacious about.

At a rough guess, we should say, a stable for one or two horses, to be healthy and convenient, should not be less than ten or twelve feet high, and well cieled, which would then retain the warm air proceeding from the body, or bodies of the single horse, or two horses, and which air mounting to the top of the stable, and resting against the cieiling, would there be retained, and be reflecting back an agreeable and salutary warmth to the animal, rendering him free from any chill, and comfortable under all circumstances, and seasons of the year, and of very nearly a similar temperature, whether in winter or in summer.

A stable for ten or fifteen horses, we apprehend should not be less than of the height of sixteen or eighteen feet, and such a one we had built for our business Infirmary, and used it for more than twenty-four years, without finding it too cold in winter, or too warm in summer, and was nearly by night, as by day, of an equable, agreeable temperature, and feeling.

On our visiting France, about ten years ago, or rather more perhaps, I was conducted to several of their military stables, by my worthy friend, Delagayte, at that time veterinary surgeon of the *Corps du Garde du Roi*, and which stables appeared to me of a most preposterous height, and often ventilated, as it was called, by windows and holes, at or near their summits, no doubt from their being filled with those frightful, and but too easily accessible terrors, and apprehensions, fallacious apprehensions, about foul air, infectious diseases and what not, and so for a phantom almost of a thing, that did not occur once in a hundred years, exposing their animals to a constant danger of unhealthiness, and real disease; an overcharged account, and over acted upon too, to the miserable feeling, and often great detriment of the animals. Some of these immense stables, were, we believe, from thirty to forty feet high or more, and with their large outlets, and wind-holes, keeping them constantly in a state of chill, and unpleasant feelings, instead of being of that genial warmth, which nearly every animal, especially high fed ones, require in a state of perfect repose. And moreover, the great mortality attending these stables, was, with the veterinarian and officers, a subject of much complaint, as also in their journals, as we afterwards witnessed.

To the simple sort of stable I have been recommending above, no aperture was allowed, excepting a small trap-door, in one corner of the cieiling, for the groom to have access to the loft by, and which is all that will be found really necessary to them. A window however, at one end of the stable, center-hung, lighted this stable of mine, and could be used on any very pressing occasion, but which very rarely indeed, was found to be at all necessary. This subject, however, though rather a different one to our immediate object, the affection of the lungs, is yet so intimately connected with it, that we could not with propriety forbear interposing a few remarks upon it.

Let it not be supposed, however, that whilst we advocate a lofty stable well cieled, and free

from drafts, that we at all recommend close and stifling stables, such as many grooms are fond of, where every crevice is carefully guarded, and every avenue of air, even to the key-hole, is curiously stopped, and which very hot stable is practised by the more knowing grooms, in order to obtain a greater facility in cleaning the horses' coats from scurf, and dandriffe, and which will adhere more loosely to a skin and coat that is relaxed by warmth, than to a cold one; this however, is proceeding on the opposite tack, and to the extreme of it, almost equally injurious, exhausting, and weakening to the general system of the animal.

By attention to the above suggestions, and regulations, not only will this disease be vastly less frequent in occurrence, but also, when occurring, will it with more facility be subdued.

This disorder has often been termed *peripneumonia*, at others *pneumonia*, and again *pneumonitis*, which last as being more simple, and expressive, and with no ambiguity about it, we think preferable. For when the pleuritic coat, or covering of the lungs, or internal lining of the chest, is alone the seat of inflammation, a separate and distinctive name is then used, that of *pleuritis*, or *pleurisy*, and will require very much the same means to be subdued; such we have observed to be attended and characterized by a violent acute pain, and a stamping of the fore feet of the animal against the ground.—The signs of pneumonitis are these; the animal becomes depressed, heavy, dull, and off his feed, holding down his head, his eyes lose their brilliancy and animation, are sometimes suffused, at others are preternaturally dry. An increased redness of the vessels of the sclerotic coat of the eye, and indeed of the conjunctive membrane generally, not unfrequently with a certain yellowness of these parts, probably from the biliary organs also, partaking of the disease. The finger introduced under the tongue, experiences a very sensible increase of heat of these parts, the lips and the tongue often looking pale, and somewhat drier than in health; and at a more advanced period of the complaint, there is often to be observed, efforts at a low suppressed, soft, hacking cough. The skin is more dry and the coat raised and thready, or less glossy. Heats and chills alternating with the ears and feet. Often also a general suppression of the natural evacuations of the urine and dung. The former the remission of the urine, is often largely dilated on by the grooms, and stable attendants, as a thing of great moment, and demanding primary attention; it is however, we should apprehend, a mere consequence of the general shock and disturbance of the system, from the access of a violent disease, and happening to one of its principal organs, and which effect will give way in proportion as the disease becomes subdued, and this without requiring any such very particular, or specific attention; much less with instruments sometimes shamefully resorted to, under pretence of drawing off the urine.

We learn by reference to the writings of the ancient veterinarians, as Absyrtus and Vegetius, and others, that by the word *Febris*, or *Fever*, they understood this very disease, and which term is employed by us moderns, to express a very different disorder, viz., an affection not preying upon any one viscus in particular, and which appears hardly to be a disease of these animals, and is what is usually termed with us, an *idiopathic fever*.

Perhaps the nearest approach to the human typhus fever will be found to be the murrain*

* This convenient English term I shall use as strictly synonymous to *epizootic*, meaning thereby a wide spreading disorder, without entering into disputes, which may be endless, of such distemper being infectious or otherwise, of

or epizootic of animals, which at times devastates whole regions, and about the year 1745 afflicted this country in a lamentable way, beginning with inflammatory symptoms, but quickly subsiding into a state of depression and fatal collapse; Dr. Brocklesby witnessed this visitation, and has left us the best account we have of it. It appeared however, to affect and destroy the lungs more than any other part, and was not so much at its commencement a cerebral affection, as the human typhus has been shown to be, and which has, at its early stage, been often entirely cut short, removed, and subdued, by a well timed bleeding, and purge, showing it at this stage to be really a simple genuine inflammatory affection;† and this murrain, or epizootic, like the human typhus, appears to have its origin generally in a number of depressing causes, acting in concert, such as bad air, a bad or deficient diet, unsuitable locality, and combined, perhaps, with other mentally depressing events. Dr. Brocklesby attributed this terrible visitation of 1745 to a wet season and a most luxuriant herbage.

The cerebral parts in the horse, appear to be rarely affected in this particular disorder of pneumonitis: when such cerebral affections take place in him, they appear to arise from other causes, and the intestines appear to be their chief source; their irregular actions producing the *phrenitis* or *mad-staggers*. And we have, in examining these cases after death, noticed that the intestines had a very peculiarly pale, thin appearance, white, and destitute of blood, with a semitransparency that strongly reminded one of thin parchment, as though some violent spasm had driven all the blood out of them. But to return to our disorder.

In a very concise general view which we have formerly taken of nearly all the horse's diseases, in the preface to the *Pharmacopœia Equina*, we thus introduced this disease we are now treating of.

“The pulmonary system in the horse is immense, and the inflammation of this viscus is the grand disease that we shall have to contend with; sometimes connected with that of the bowels, and of the liver, and which requires to be reduced, the free application of a very simple, but powerful instrument, the *Lancet*, which should be used with a bold hand. A valuable hint also to the inexperienced, as it is an easy error for practitioners in this art to fall into, is, that during extensive bleedings, purgatives must be used with the very greatest caution, as they produce a much greater effect than at other times, and sometimes even cause a *metastasis*, or change of place, of the disorder, from the lungs to the intestines, and a diarrhœa, or violent purging ensues, which it is truly difficult to stop, and frequently destroys the horse; very small doses only therefore, can be safely administered, or perhaps still more safely, a laxative diet.”

The best indication for the employment of the lancet, is the heat under the tongue, the turgid vessels of the conjunctiva of the eye, and those of the pituitary membrane lining the nostrils, which membrane is brought very low down the nose in the horse, and of easy sight and consultation, as though so disposed by his beneficent Creator, for our ready help and guidance; and not only in this complaint, but others also of his diseases, which expend their virulence on these parts, as the farcy, glanders, &c. These parts having a continuous communication with the bronchia and lungs, we get a knowledge of the condition often of the interior

which there is such difficulty in obtaining proof; formerly this term murrain generally inferred infection or contagion, the truth of which, in most cases, is now with good reason generally disbelieved.

† See Dr. Clutterbuck's admirable remarks on these kind of fevers.

membranes linings of these organs.

As to *the Pulse*, from the smallness of the artery passing under the jaw, and the thickness of the intervening skin and hair, it may often deceive, as to its force at least, and would make it, in many hands, perhaps less a matter of enquiry, or to be depended upon, than the former indications; still it is usually resorted to by the veterinary practitioner, whose labours might be more lightly esteemed, if such examination were omitted.

Early and copious venesection, seems the most powerful means we possess of removing this disorder, and the appetite for the most part will improve when the bleeding has been carried far enough, and the inflammatory action may subside, and the return of health soon follows. If the viscera however are naturally weak, or may have suffered by a neglected and careless bringing up of the young foal, as is but too often the case, by undue exposure, then the texture of the lungs may give way to the violence of the attack, and death ensue; otherwise, this measure of bleeding, timely resorted to, and pursued with its proper accompaniments, will in general be attended with success.

As to *Food*, a horse so circumstanced has no great inclination to eat; and oats, as being too stimulant and inflammatory, are best kept away from him. *Hay* therefore should become his chief diet, and which should be of the very best quality; but they often will not touch it. If they are delicate in this respect, and we are anxious to make them feed, we do as the ancients recommend us, sprinkle it with water; one of them, old Apsyrtus at least, which must be very refreshing to the parched lips and mouth of the animal, and induce him to partake. They refuse food however for the most part, nor should we be too anxious about it, as the removal of appetite in this complaint, is a natural means of removing the disorder, by cutting off the supply of blood, and should make us not too solicitous in forcing it upon them.

Besides hay, he may be served with *Bran mashes*, made of thoroughly scalded bran; which should indeed be his chief diet, since it usually has a tendency to relax and move the intestines. Some however will not touch it. If he should refuse it warm, we give it cold, and we may add to it, as horses are rather fond of sweets, a little honey, or sugar, or treacle. Or if we begin to have fears, from his long refusal of food, of any ill effects from inanition, we may hand feed him with small locks of hay, dipped in warm or cold water, and as they are not insensible often to these attentions, they will be induced to pick a little, enough perhaps to destroy all fear on this head; or give one horn full of gruel. To force much food down them with a horn, is not to be recommended in their disrelish for food, and weakened state of the digestive organs in assimilating food, as such may distress and do much more harm than good; what they take naturally of their own proper movement is ever the best; also a small matter of *tares*, *carrots*, or *green meat* may be tried in such cases. When a horse refuses food, which is perfectly natural with an inflammatory complaint, it is a very common apprehension, that he must have a sore throat, and this idea I have often succeeded in dispelling, by presenting him with a little oats in the hand, when he has readily partaken of them, and swallowed them well, though rougher and harder than the things he had been presented with before, and refused. That I have been led to believe this apprehension is without much real foundation, for who has ever seen a proper sore throat accompanying a pneumonia? If the bran should not prove sufficiently laxative,

Glysters may be resorted to, thrown up the rectum by a syringe, made of warm water, or with a little oil, or soap dissolved in it; for these preparations as for others, the *Pharmacopœia Equina* should be consulted, Third Edition, in order to save the unnecessary prolixity of a repetition of these directions with each article prescribed. Next as to *Medicine*. Many practitioners are disposed to be very active in this way, and think they exhibit their great skill by it. We would recommend however, on the contrary, as little as possible, as promoting the return of health the quickest, and of these the few and the simple are the best. The inflammation of the lungs is of the simple phlegmonous kind, and the reduction of it therefore is no very complex affair, by a depletion of the system. Bleeding, as we have already observed, is our grand resort, and the earlier and more decisive the better, removing it according to the age and strength of the patient; the pulse often becomes more full and stronger on a first bleeding, and the animal from extreme distress and debility, is rendered more vigorous by it, in which case a further depletion becomes necessary, and the pulse and effects produced, rather than the quantity, must be our guide.

This proceeding may be, at the same time, assisted beneficially by small doses of some gentle cathartic, if the laxative diet and glysters should not be found sufficient.

It is to be observed, however, that the aloes (which is by far the best purgative of the horse) that is presented in the market is very liable to adulteration, and will often create the greatest disappointment to the practitioner; therefore, great caution and attention is requisite in laying it in for use, and if possible, not to buy it in any great quantity, till its effects have been well tried and ascertained. The common article of sophistication is *rosin*, the aloes being turned out of the gourd, in which it comes over from the West Indies, and boiled up afresh with this vile material. However, it may be a useful hint, as the purgative quality of this drug has been of late found to reside chiefly in its gum, or that part of it that is soluble in water, so may we resort to its purification from the above article at least, by successive affusions of hot water, till the whole of the gum be taken up and dissolved, then gently evaporating away the water, till the due consistence be obtained; for this operation the vacuum apparatus, invented by my ingenious friend, I. T. Barry, is particularly well suited, and the best aloes I ever had was obtained in this way. There is another source of failure however, which it is not so easy to detect, for we have no proof that the proper plants have been selected for the making it from, and considering what an invaluable article it is, both for the human and horse medicine, we should desire to see fields of it expressly grown, and cultivated, and arrive here duly certificated by some respectable physician, or medical man as to the plant used. The Cape aloes seems made of a very different plant, and is not near so efficacious as the genuine product of Barbadoes; but for further remarks, I must again beg to refer the reader to the *Pharmacopœia Equina*.

In the present state of things in this respect, the anxious practitioner will act advisedly in trying various samples, till he is perfectly satisfied of their effects, and then in securing a considerable quantity of it, enough to last him for a long time.

Ignorance is fond of making a display of great knowledge in the power of drugs, by dosing the animal, and filling his stomach with sometimes the most egregious abominations, totally destroying any disposition to a return of the appetite, and miserably debilitating the stomach

in this way. I have known in this complaint no less than three pints of linseed oil poured down the throat of a horse, enough wholly to impede the operation of any medicine afterwards, nauseating him in the highest degree, and finally destroying him, and for which proceeding I could discover from them who gave it no authority whatever of any writer, or even of any practitioner of credit, for such a proceeding. The stomach can hardly be kept too clear of these messes, in order to a return to its healthy actions, which is the usual precursor of the rest of the system. Even oil of vitriol, or sulphuric acid, have I known forced upon them, and which I am assured in the country is not by any means an unfrequent practice at this day among the very lowest class of horse doctors, and common farriers. A respectable chemist, in Hampshire, assured me, he has often refused to sell it them when they have called for it at his shop, from knowing their vile use of it. The doses of the aloes if good in this complaint, should not exceed two drams, to be repeated about every four or six hours, as circumstances may seem to require; in this way there will be little risk of a dangerous superpurgation, or metastasis of the disorder (which to our knowledge must have carried off its thousands) ceasing the further use of it, when the bowels begin to be relaxed.*

Some, fearful perhaps from fatal experience, of the effects of the aloes, would be giving *Diuretics*, which we should think in a case of this sort, not much to be recommended. Others would be dosing the animal with the *digitalis*, as having a more scientific sound, and intention, in diminishing arterial action, which although it may do so, still are we led to conjecture whether this effect is not, as in the yew tree and other poisonous herbs, the result of a poisonous action exerted on the nerves of the stomach, and thence upon the brain, and nervous system generally, and in somewhat larger doses, if not digested, would destroy the animal, in the way we have explained in our treatise* on cholera and the gripes of horses, and on which grounds the suddenly fatal attacks of these disorders can, we believe, be only satisfactorily explained. If it had a simple specific action upon the arteries alone, and not poisonously on the nerves, I should of all things recommend it; but if this account of its actions be true, I should abstain from it, and depend rather upon the more simple, straight-forward, and natural or direct measures that leave behind them no pernicious residue, whilst the other may for a time impede rather than assist the return to the healthy actions of the system.

In severe, obstinate, or protracted cases of this complaint, *Blisters* should be resorted to, rubbed on the chest, sides, or skin of the abdomen, by counter irritation to divert and draw away the determination of blood to the interior parts.

Rowels also inserted beneath the Sternum or neighbouring parts, are useful in promoting a derivation of the blood, as also in finding occupation for the too active arteries. They should

* In respect to Glauber's salts also, or sulphate of soda, which may be administered as a purgative, but if given alone, it is very uncertain, and often passes off by urine; but what is singular, is, that with the smallest addition of aloes, it takes a purgative course, and is most certain in its operation, especially in the human case, where I first discovered its efficacy, after being often disappointed in experiencing any effects from the salts under two or three doses, but with the addition of the smallest mite of aloes, swallowed with it, being thrown into the tumbler containing the solution, they never failed to operate, and with considerable vigour. Possibly, this sodaic, saline, and bitter combination, owes its effects to its resemblance to the natural biliary secretions of the liver. These saline purgatives have this advantage also, that they can correct any acidity, or acrimony, that may be existing in the fluids thrown out in the bowels.

be kept well anointed with resinous digestive. They should, however, be inserted with as little suffering to the animal as possible, or they may do harm instead of good.

To aid these dispositions, the stable should be made agreeably warm, thereby keeping the blood in the skin, and exterior parts, and retaining it there, to the great relief of the interior organs, being aired by its loftiness, as we have stated, and with no partial thorough drafts or wind-holes.

As to *Clothing*, a thin blanket, or light rug for the body is all that is necessary to that part, many hot rugs may rather distress than do good. This covering may be supported in its place by a loose girth, if blisters have been used, or, which is better, by straps or ties beneath. The head and neck may also be covered with a light sheet of any kind, or hood properly formed to fit.

Warm Drinks, or diluent beverages, or very thin gruel, may also be resorted to copiously, with the best effects; placed in a bucket set in the manger, by night and by day, these as the bran mashes should be assiduously supplied fresh and fresh, and not in very large quantities at a time, and then left to get sour and disgusting. And if they should refuse these things warm, as many will, let them be administered nearly, or quite cold, rather than lose their grateful and beneficial effects; these diluents being of great consequence in diluting and cooling the blood, and the system generally. Or of late there has been assiduously propagated a doctrine of treating these cases by a cold exposure, even to the turning out of the animals into the open air in cold frosty weather. We do not certainly from our own experience and practice, know what would be the precise result of such doings, but reports from those who have seen it are not very favourable; and we further know also that the plans here laid down, have been nearly always attended with singularly favourable results, that it appears to us, whilst such continues to be the case, as strange that such wild propositions should be recommended or resorted to.

It may be well just to say, the above diluents, or dietetic beverages, are not to be forced upon the horse if he refuse them, or only after extreme fasting a single horn-full or so, as the stomach being perhaps in too weak a state to digest them, they would only create distress and nausea; and above all strong oatmeal gruel, which would reproduce the inflammatory symptoms as much nearly, as the giving so much oats. *Emetic tartar*, or tartarized antimony, is often proposed as a suitable sudorific on these occasions, and with a greater show of reason. Its effects however, upon the horse are very problematical, and derived perhaps entirely from its well known effects on the human body. In our early days at the veterinary college, we took considerable pains to ascertain its precise effects upon the horse, in large and small doses: in large ones it certainly produced none, neither in small ones could we positively assure ourselves of any operation, that there would be perhaps more of form than effect in its administration.

Although we have forbidden strong diuretics in this complaint, as a substitute for the purgative medicines, we believe small doses of nitre in fine powder may be administered with benefit, and if mixed with a double quantity or treble of gum *Tragacanth* in fine powder also, (for we wish to avoid any thing given in this way, that will nauseate the animal or occasion indeed his refusing it), so this medicament, easily placed in his mashes, will not be liable to this objection; and whilst the nitre gently moves the urinary organs, the gum dissolved in the

juices of the body will usefully sheath and protect the bowels and urinary passages from any acrimony of the fluids, that may be engendered by the morbid actions of the complaint, as also from strangury by the absorption of the cantharides from the blisters, where these especially have been extensively resorted to, and variously disguised, will in part form an innocent means of remuneration to the practitioner, without his resorting to more violent measures of injurious effect perhaps, and whose useful offices might otherwise appear of too simple a character.

It will not unfrequently happen also that the veterinarian will be called in late in the disease, where from neglect, injurious treatment, or the force of the disorder, water or lymph shall be thrown out in the cavity of the chest, or abdomen, or both, and which condition is attended with great danger; such may be ascertained by placing the ear strongly against the suspected side, and agitating the fluid within; or perhaps, for we have not tried it, better by the use of the *stethoscope* or *tube* of wood. But hitherto we have hardly ever discovered the presence of water with certainty, till the opening of the carcass after death; both the signs and the treatment in this dangerous symptom, we know but little of, and which seems particularly to demand the enquiries of the profession. Perhaps the trocar, or minute puncturation might draw it off, and save the patient, or by remedies that would strengthen the system for its absorption, gentle purgative medicines duly used are efficacious means in this respect, or if the strength of the patient will admit of it perhaps dry cupping also, or with scarifications, might assist us in this case.

On discovering water in the chest therefore, our measures must be changed, and though few recover when this is the case, we apprehend some benefit might be attained, by cautiously supporting the system, by giving in small quantities light nutritious food with spicy cordials, assiduously administered. Occasional *dry cupping*, or if the patient is with a pretty good pulse, with abstraction of blood. *Gentle diuretics* also, to cause its absorption, may be administered perhaps or even a light purgative; where, however, as in this case, actual experience is failing us, it is with the greatest diffidence we venture these propositions for future ascertainment of their effects. The *trocar*, or *paracentesis thoracis* may be perhaps employed advantageously also, by ridding the cavity of the water, and where the lungs had not suffered much, may afford a chance for the restoration. Cold stables, and neglectful attention to the animal, must be avoided, and every thing that tends to offend, or distress him. One instance of using the trocar has lately come to our knowledge, where the horse recovered, but then little or no water followed the introduction of the instrument, that we have no proof of there having been any; and by the removal of the water, it should be remembered we do not remove the causes of its formation, which will require our primary attention. The lungs appear to be soon injured and disorganized by a vigorous attack of pneumonitis; it is of the greatest consequence, therefore, the resorting to an early bleeding, pursuing it till a decided impression is produced upon the pulse. The texture of the lungs is seen after a violent fatal attack of this sort to be very much like a torn sponge drenched in blood, and at other times with abscesses.

Should an obstinate *diarrhæa*, or *superpurgation* take place, from purgatives injudiciously administered, or from cold, and improper exposure, the blood by such exposure being determined to the intestines, we should recommend, though it may at first appear somewhat repul-

sive and singular,—but here we speak from repeated experience of its good effects, (as can also many others who have tried the same, after our suggestion)—a solution of the glauber and Epsom salts, in the proportion of two parts of the former to one of the latter, about half an ounce or six drams administered two or three times a day. It seems an anomaly in medicine, to give a purgative to stop a purging, but we first noticed this effect in the human autumnal diarrhæa, and there we explained it by supposing that the flux from the bowels was occasioned by a deficient action of the liver, on the heats of summer ceasing or declining, and that the bowels not receiving their usual stimulus from the daily purgative, the bile, became inflamed, and the arteries of the mucous coat or lining of the bowels, threw out these watery fluids in consequence, occasioning thereby the diarrhæa, and that possibly these salts, by attenuating the bile in the gall ducts, and acting also upon the liver itself, exciting its suppressed secretions, led to the return of the natural actions of these organs, as was more particularly explained some years ago in our *Treatise On the Gripes of Horses, and on human Cholera*, 2nd edition, London, 1832, proving their identity; however this may be, of the beneficial effects of this medicine in both human and horse cases of this kind we can by numerous instances vouch for, as most satisfactory and successful.

Perhaps the present dissertation, although written for the treatment of inflamed lungs, may present us with the outline for the treatment in the Horse of any other internal affection also of a directly inflammatory character.

Much after the same manner may be treated *Enteritis*, or inflammation of the bowels; the urinary organs, heart, liver, or spleen, &c.