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OF THE

VETERINARY PUPIL;

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PRESENT STATE OF VETERINARY MEDICINE AND VETERINARY LITERATURE;

AND ON

THE ART OF HORSESHOEING AND ITS RELATION TO THE VETERINARY PROFESSION.

BY

W. HAYCOCK, M.R.C.V.S.,

PRESIDENT OF THE LANCASHIRE VETERINARY MEDICAL ASSOCIATION.

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ON THE

EDUCATION AND TRAINING OF THE VETERINARY PUPIL, &c.

GENTLEMEN,—I am chosen your President for the year 1866, and it devolves upon me to deliver the Inaugural Address common to the occasion.

In the remarks I shall advance I will endeavour to make the hour allotted to me as interesting and as practically useful as I can. I shall treat upon a variety of topics which, I trust, will be found to bear closely upon what I believe we all strongly desire, viz., the progress of that profession of which we are members, and with which our destinies in life are so intimately associated.

Our society has now commenced the fourth year of its existence. During the first year our meetings were of a vague, irregular character. The gentleman who presided during that period escaped altogether the onerous and critical duty of delivering an inaugural address, an omission which, I trust, will not be repeated.

The second year of our life was marked by more stirring events relating to the welfare of our association. Our meetings during that period were ably presided over by Mr. T. Greaves, of Manchester, whose inaugural address upon the occasion of his election was stamped throughout by that deep earnestness in our cause so characteristic of the man.

The third year of our career was noted by a more complete realisation of the status and objects of the society, by the greater development of societies of a kindred character, and by the growth of that steady settled conviction which now appears to have impressed itself upon the mind of every right-thinking veterinary surgeon, of the necessity and high practical value of associations like the present, not only to ourselves, but to owners of stock in general.

Under the distinguished presidency and the untiring exertions of our friend Mr. Peter Taylor, we advanced from our tavern assemblages to the quarters we now occupy, where at least, gentlemen, we live under the shadow of a noble institution, devoted alike to the progress of science and of art.

During the past three years of our existence we have had a number of papers and essays treating upon a variety of diseases peculiar to the equine aud bovine species, essays many of them of great practical value. Amongst such papers I may enumerate one upon "Influenza," by Mr. Greaves; one upon "Inflammation, and the General Principles of its Treatment," by Mr. P. Taylor; one upon "Tetanus," by Mr. Lawson; one upon "Puerperal Fever," by Mr. Howell, of Rochdale; one upon "Laminitis," by Mr. Brooks, of Prestwich; and, above all, one upon "Parturition," by that veteran of our ranks, Mr. Cartwright, of Whitchurch. These essays, gentlemen, I especially consider of mark and value; and I trust that others equally valuable, and of a like character, will regularly follow. I cannot, however, forbear remarking upon the utter absence of all essays and contributions upon the anatomy and physiology of the principal of our domesticated animals. In concluding these preliminary observations, I may observe that our meetings to all who have duly attended them have been both agreeable and highly instructive; but one fact of peculiar significance has constantly presented itself upon every occasion—it is this, the extraordinary difference of opinion which has manifested itself amongst us during debate; scarcely two practitioners have agreed in opinion upon matters relating to the theory or the best practice to pursue in the treatment of the most simple forms of disease. Modes of practice, based upon opinions the most adverse and diverse, have been advanced upon every occasion with a profuseness truly surprisiug.

The subjects I propose to speak upon in the course of my address this evening are the following:

1. The education and training of the veterinary pupil.
2. The present state of veterinary medicine and veterinary literature.
3. The cattle plague.
4. Horseshoeing, and the relation of the art to the practice and profession of the veterinary surgeon.

The Education and Training of the Veterinary Pupil.—The training of the veterinary pupil is a matter of grave importance, both to himself and to society.

Upon the right training and right education of the pupil will depend his usefulness as a man. A man is of no value except in so far as he is of use.

A veterinary surgeon, to become generally eminent, will have to be a thoroughly practical and a thoroughly scientific man; and yet, to train the pupil so as to impart a purely scientific education would be to educate him wrongly. The practice of veterinary medicine is an art. The veterinary art is closely allied to the sciences of anatomy, chemistry, and physiology.

Art, in almost every branch of human industry, flourished and attained a high degree of usefulness long before the science to which it may now be allied was necessary. For centuries before

chemistry existed as a science the art of dyeing was practised, and, in fact, had attained to great perfection. In like manner, the seafaring men of old guided their ships from one coast to another by the stars long before astronomy and magnetism were known as sciences. Art in all cases may be said to precede science. Science is an afterbirth, and its growth is generally slow. Art is the handmaid to science. Science gives the why and the wherefore of art.

The knowledge of this fact points to a principle of great practical value in the education of the veterinary pupil. It is this—first, to thoroughly educate the pupil in the art of his profession; after which the true value and place of the sciences pertaining to his art will, in all probability, become manifest to him.

Parents are anxious for their sons to possess a thorough knowledge of the science belonging to our profession; hence, many of them may be highly educated, and when so educated are rarely of use. Educate highly in the sciences allied to our profession, and ten to one but the pupil will consider it beneath him to work; and unless he can work with his hands and his head he will prove a disappointment to every one. What the community demands from the veterinary surgeon, and which it will have sooner or later, is knowledge and power on his part to cure disease with precision and certainty, when such results are fairly within the bounds of possibility.

The astonishing discoveries which are made in chemistry and the allied sciences—the way in which brain is exploring almost every region of the known world—are matters to compel the veterinary surgeon especially into greater activity—compel him to strive after the possible in the art of healing, to the utmost limits of his power. The veterinary pupil cannot be too practical in the legitimate application of his powers, nor too scientific in his aims.

To commence, he should be thoroughly grounded in the common elements of ordinary education; this is necessary, not only to the veterinary pupil, but to all young men in every walk of industrial life. In addition to these common elements of knowledge, he should possess at least some knowledge of Latin and Greek; he will, during his career both as a pupil and as a practitioner, be called upon to speak and listen to a language out of the common routine of life. It is not necessary that he should be a classic; but he should possess a good rudimentary knowledge of medical language, and of the terms made use of by medical men.

A veterinary surgeon, to be thoroughly equal to the position desired, and successful in the career he ought to pursue, should be industrious, temperate, and careful of the means at his command. He should possess a large fund of common-sense, and great firmness of purpose. He should be thoroughly truthful in all his business transactions—should have the unfettered use of his head and of his hands. He should be a good sound pathologist, anatomist, physiologist, and microscopist. He should thoroughly understand the art of shoeing horses, and the principles upon which

the art is based. He should be unceasing in the observation and registration of facts relating to disease. He should know the true relation which exists between the disease he may cure and the means available for cure; and, above all, he should be prompt and decisive in their application. He should rigidly cultivate his powers of observation, especially in what relates to causation. He should possess a retentive memory, and a wide faculty of analogy. He should be able to handle horses and cows fearlessly and effectually, and be dexterous and cool in the performance of all surgical operations necessary to be done upon them. He should be able to perform the most common duties necessary to be done to a horse or a cow, with the same readiness and facility that an expert groom, a common stable-helper, or a cowbouger can do them. He should be quiet and respectful in his manner, and discreet with his tongue. He should be able to live coarsely, to dress plainly, to endure great fatigue, and to sleep upon a hard bed.

Such are the elements of which the man should be constituted—such is the structure and build of what ought to be your finished veterinarian. And the question naturally arises, how are we to obtain him? Suppose the mental and physical forces of the youth to be right and well balanced, the answer is—by proper training and culture.

The business of the pupil during the period of his apprenticeship is to become thoroughly familiar with the tools of the profession; and the knowledge which he seeks is practical knowledge, and should in all cases be accurate and precise. Knowledge of a loose vague character is at all times to be reprobated; and yet the majority of veterinary pupils rarely possess knowledge that is accurate. They are seldom more than quarter educated to commence with, and in numerous instances they have been apprenticed to the profession because of their erratic tendencies or because when mere children they manifested a strong vagabond-like propensity to ride and drive horses; and the great idea they have of the use and function of a veterinary surgeon is this, viz., to mount a horse and to ride about the country giving orders. The pupil should make himself familiar with drugs and chemicals, their natural history, common physical characters, peculiar qualities, properties, doses, and uses. He should also understand how to prepare, compound, and administer them. From a very early period of his apprenticeship he should keep an "index rerum," in which he should note facts of importance relating to his profession; he should also keep a copious record of all cases of disease of importance, together with a clear statement of the remedial measures resorted to, and the results arrived at.

Two years of his time should be devoted to the shoeing-forge and to the stable—the forge, in learning to pare out the feet of horses, and to nail on the shoes with readiness and facility; the stable, where he may become conversant with the habits of horses, how to feed them with judgment, and by grooming, how to handle them with familiarity and confidence. He should obtain a rough general

knowledge of the anatomy and physiology of the horse and the cow. He should learn the names of the bones, their relations, and the number and variety of joints which they should form with one another. He should also be ambitious to possess a small microscope and a few chemicals, and by working diligently with them during his spare hours he will gradually acquire a fund of information invaluable to him in after-life.

Such are the principal features which in my opinion should constitute the ground labours of the youth during the years of his pupilage; few, however, I am sorry to say, will so school themselves. Great numbers waste their spare but golden hours lounging with idle grooms, or in smoking, or in mischief making, or in planning barbarous practical jokes, during which time they appear to be under the firm conviction that everything which they require to know they will somehow or other learn at college; the consequence is that many young men enter college in a pitiable state of ignorance; and the consequence is they either leave the place in disgust to themselves, and bitter disappointment to their friends, or if they manage to obtain a diploma, years of malpractice and consequent suffering and destruction to valuable live stock result to those who employ them.

An erroneous belief prevails to the effect that our veterinary colleges are to teach young men a full and complete knowledge of the veterinary art; this belief is wrong in every essential. Our colleges are not to teach any such thing; their use and purpose is to teach *those laws and scientific principles upon which our art, strictly speaking, is* BASED. Art, I have said, precedes science; but science appears and gives sound theory to art—gives laws and principles by which we learn the *why* and the *wherefore* of art. You do not send a youth to the University of London or Cambridge to learn the alphabet or to write or the common rules of arithmetic; he is expected to know not only these essentials but numbers of others. He goes to a university for a widely different purpose; so should veterinary pupils go to a veterinary college. They should be expert practitioners before they enter the portals of such an edifice; and, in addition, they should possess a sound general rudimentary knowledge of principles. A mere diploma is valueless; it is the knowledge and experience which a diploma should symbolise in which its value consists; and if he who owns a diploma lacks the knowledge and experience it sets forth, the owner is simply a pretender and an impostor.

It is only by labour ennobled by self-sacrifice—"by sweat of the heart and sweat of the brow"—that character and position are to be obtained and maintained in the world. If a youth be habitually idle the faculties of his mind will run to seed, and his energies will become palsied; he cannot be taught too early the high value and purpose of human life. The purpose of a man is not to sneak and dodge through the world like a thief; but to look with a clear eye to the future, and to do battle with the difficulties which beset his path, or which may pertain to the sphere in which he moves.—"A cultivated man, wise

to know and bold to perform, is the end to which nature works." * The youth is the future man, and he should know that the work he does to-day is necessary to prepare him for the work of to-morrow. "A man's nature," says Lord Bacon, "runs either to herbs or weeds; therefore, let him seasonably water the one and destroy the other."

Our next topic is THE PRESENT STATE OF VETERINARY MEDICINE AND VETERINARY LITERATURE.—To take a full and comprehensive view of veterinary medicine and of its literature, as each exists at present, would require more time than we possess upon the present occasion. I can only, therefore, briefly touch upon the more prominent features of each.

Veterinary medicine in one broad feature resembles the moon, viz., the light which it possesses is but borrowed light. The practice of veterinary medicine has grown as human medicine has grown; everything we possess we have derived either directly or indirectly from human medicine, or from its correlative branches of science; in fact, veterinary medicine, as it exists and subsists at this hour, is, strictly speaking, a huge parasite, and its literature a jungle of fragments and inanities. We are destitute of even a single treatise upon pathological anatomy. Many observations respecting this department of our profession are to be found scattered throughout the pages of the *Veterinarian*, but no treatise upon the subject exists. We are also destitute of a work upon the physiology of the horse and the ox. It may, perhaps, be said that no special grounds exist for such a book. I believe they do exist, and that a work of this kind, taking up its ground from certain special points of view, would be of great practical value to veterinary medicine.

A sound knowledge of pathology is vitally essential to the veterinary surgeon; such knowledge, however, cannot be obtained otherwise than by great industry, and the observer possessing a sound knowledge of physiology and animal chemistry. One of the first essentials to pathological knowledge is a knowledge of anatomy. How does our literature stand in this respect? I am ashamed, gentlemen, to state the truth: we do not possess a single treatise upon anatomy at all adequate to the wants and requirements of the profession. Percivall's 'Anatomy' was the text-book upon this subject when you and I were pupils, and it remains the text-book to this hour. The edition which I possess is without date upon its title-page; but its preface is dated 1832, so that the book was printed thirty-five years ago. It was a notable book at that period, and it manifests on the part of the writer an amount of labour and industry certainly not seen amongst us at this day, or some one ere this would have sent forth a treatise upon the same subject worthy of the age and of the times in which we live.

Of a work upon the anatomy of the ox we are entirely destitute unless we recognise those short contributions as such written by Youatt, over thirty years ago, and incorporated in his work entitled

* Emerson's 'Conduct of Life.'

'Cattle: their Breeds, Management, and Diseases,' and published by the Society for the Diffusion of Useful Knowledge.

During the last thirty years scores of works upon the anatomy of the human being have appeared in this country. Like all other branches of science allied to medicine, anatomy has made great advances, its path has been most assiduously cultivated by a host of men whose names are famous in the annals of medicine. Brain, scalpel, and microscope, have produced the highest results in this department, and practical medicine and surgery have advanced in a like manner. But allow me to ask in what repository are our labours to be found? What discoveries have we made in anatomy, or physiology, materia medica, therapeutics, microscopy, or animal chemistry? Where are the names of our men made famous by their discoveries in the above-named sciences?

Human medicine has done much, very much, to aid us. What have we done in return to aid human medicine? Gentlemen, these are questions of grave significance to ourselves; they imply a strange indifference on the part of the profession to what pertains to its progress and welfare; they imply, in fact, that, although we may desire to rank as scientific men, we leave the development of science to others, and then appropriate their labours and the fruits which spring from them. That we are regarded as unprofitable servants seems to be a matter patent to every one. Whoever heard of a veterinary surgeon being presented at court, or being made a baronet, or being pensioned by gracious Majesty for important services rendered to the commonwealth, or of the senate of any of our universities conferring a scholastic degree or a degree of eminence upon a veterinary surgeon? Nay, I believe we cannot boast even of a single member of the veterinary profession being a fellow of the Royal Society of either London or Edinburgh. We could by industry and determination carve for ourselves a noble position, but a torpor exists amongst us which is deplorable to look upon; already one or two societies like the present are threatened with dissolution simply because the members cannot be induced to take an interest in what pertains to their own advancement and progress. Why is this, gentlemen? Are we dead to ambition, and to those nobler sentiments which distinguish the high and learned of our race, that such apathy should exist? The labours of the skilful anatomist, chemist, microscopist, and pathologist, are required in almost every department of our art; whole fields relating to it are all but fallow, fields which, if explored by a clear eye, aided by even moderate industry, would be rendered both fruitful and profitable in the highest degree.

Our knowledge is exceedingly limited of the anatomy, physiology, and pathology of the digestive organs of the ox; also of the anatomy, physiology, and pathology of the nervous system of the horse and the ox; also of the changes induced by disease within the urine of these animals. We also require a more intimate knowledge of the specific action upon the healthy organism of the horse and the ox of nearly every medicine we use in disease; and he who

successfully cultivates this branch of our profession will at the same time determine the true relation which exists between the disease-producing power of drugs and their curative power in disease. This latter field of inquiry is, perhaps, the most important of all, for, just in proportion that it is successfully explored, so will our art become a positive science, and be placed as such in the annals of the world.

We require men to work for the advancement of veterinary medicine, and to those who desire so to work power will be given. Every member of our profession may be supposed to own a talent of some kind, and all talents are given to use wisely. "Every man," says Emerson, "is a consumer, and ought to be a producer." The veterinary surgeon, by the practice of his profession, is fed, clothed, and housed, and he, therefore, in time, becomes largely indebted to the profession, which he can only repay but by freely contributing to its progress and advancement. To pay this debt, gentlemen, is strictly in accordance with the true use and purpose of man.

The Cattle Plague.—The next topic I shall bring under your notice is the all-absorbing one—The Cattle Plague. I shall be brief, however, in my remarks respecting it. The origin of the disease is a question which has been keenly debated, but, nevertheless, still remains in doubt and obscurity, many observers contending that it was imported from Revel along with a cargo of cattle thence, and landed in Hull in the month of July, 1865; while others, of equally veracity and clearness, deny this, and assert with equal vehemence that the origin of the malady is to be attributed to the excessive heat of the past summer, and to other causes of an atmospheric nature which they do not explain.

The medical journals have vied in disseminating innumerable fancies respecting its nature, and the newspapers in disseminating recipes and the names of drugs which never fail to remove the malady, but which somehow never *do* remove it, and beyond all possibility of doubt never *can* remove it. Physicians and surgeons, eminent and obscure—veterinary surgeons, old and young—have also vied to cure the disease, but, I am sorry to say, with little or no success. The materia medica has been ransacked in vain, and the only remedies which appear to maintain their ground against all invaders are the pole-axe, warmth, patience, and water gruel; while quacks, cow-leeches, druggists, butchers, and amateurs of every grade and degree, are reaping such a harvest as the most sanguine of them very possibly never hope to reap again.

The opinions of those who are emphatically declared to be "*the highest medical authorities*," respecting the pathological nature of "the cattle plague," as usual, have differed, and do differ, most widely in their opinions. First, We were told it was the real steppe murrain, genuine as imported; then it was regarded as a very aggravated form of the foot-and-mouth disease; then it became enteric typhoid disease; then cholera in association with enteric typhus. Now some one professes to have discovered that it is

smallpox; and vaccination is recommended as the only grand cure-all and prevent-all, while others pooh! pooh! the smallpox discovery and declare the malady to be scarlatina. What the disease will next become, or what it will ultimately become, it is impossible to guess.

Methods of treatment wide as the poles in their nature have been advocated with an intensity equalled only by their absurdity. Mr. McDougall believed all that the cattle required was to thoroughly disinfect them, so he washed their skins with his powder, drenched and glystered them; but they have continued to die notwithstanding, Mr. Crace Calvert, the eminent chemist, suddenly professed to discover a new power in carbolic acid, and the cow-houses from John o'Groat's to the Land's End stink with its fumes. The malady refuses to be charmed away by chloroform or chlorodyne; but amid the clamour of the doctors and the destruction to our stocks by the disease, it is pleasant to bring order out of chaos, and the observations which have been made and the facts which are established respecting it. The following conclusions may be considered as established:

1. "The cause of the cattle plague is something specific."
2. "It is inoculable, contagious, and may be rapidly communicated from one animal to another."
3. "It is a blood disease, allied in its nature to the exanthemata, having a period of inoculation, running a course parallel to that of other exanthematous diseases, such as scarlatina."
4. "That the symptoms, as a whole, are quite characteristic."
5. "That the *post-mortem* appearances are peculiar in their kind and degree, as well as in the numerous centres of the diseased manifestations."
6. "That the principal effects of the virus are mainly upon the mucous membranes."
7. "That the morbid appearances may vary within certain limits, or be almost entirely wanting; and that the local lesions are in themselves insufficient to account for death, irrespective of an altered condition of the blood."

From the report of the Medical Committee to the Norfolk Cattle Association it would appear that "the disease is communicable from ox to ox, from sheep to sheep, and between these two classes of animals by mere association; and it is inoculable from sheep to bullocks and to each other respectively. A goat herded with diseased oxen took the malady and died. The inoculation varied from seven to twenty-one days, when produced by causes of infection; when produced by inoculation, it varied from four to eight days."

"The disease in sheep they found identical in nature with that of bullocks, but was milder in type, and somewhat modified as to its *post-mortem* appearances."*

With regard to the treatment of the disease, I have little or nothing at present to lay before you. As a body, we are

* *Medical Times and Gazette*, Dec. 30th, 1865.

sneered at by the medical journals, and paragraphs have been written against us in the public papers because we have not made a larger per-centage of cures; but, gentlemen, we have innumerable difficulties to contend against, difficulties many of which appear insuperable, and of a character of which the human surgeon is entirely ignorant, such as sanitary arrangements which are grossly defective in every essential on the part of numbers who own stock; the gross want in numerous instances of even the most common attention in the separation of the sick from the healthy, or the absolute impossibility of doing this; also the proneness of numerous stockholders to quack and interfere with our treatment in every way conceivable; the difficulty in the majority of instances of procuring proper clothing and food; all these, and many other obstacles of a like character, are constantly being presented, so that, if we do not perform miracles, we are regarded as useless, and looked upon with contempt.

Before it can be known what per-centage of diseased animals are curable by medicine it is necessary to know what would be the average recoveries if left without medicine. We are totally ignorant of such a result, and, I may add, of many other essentials respecting this most mysterious and most direful malady.

On the Art of Shoeing Horses, and its relation to the Veterinary Art.—The last topic I shall treat upon is the art of shoeing horses, and its relation to the veterinary surgeon. I take up this branch of our subject because others have alluded to it in a way which I am satisfied is not only erroneous, but calculated to have an injurious effect in what I consider is strictly cognate to the perfection of the power of a veterinary surgeon in the practice of his art.

I contend that a veterinary surgeon cannot become a thorough workman at practice unless he owns a shoeing-forge. I do not assert that the mere owning of a forge will necessarily make perfect a veterinary surgeon as a practitioner, because he may own a shoeing-forge and be ignorant of almost everything he ought to know; but I state most emphatically he cannot become a thorough master of practice without he has owned or does own, or has been or is in association with, a shoeing-forge.

We are told that veterinary medicine and the art of horseshoeing are no more connected than human surgery is with the making of shoes for human beings. I am perfectly aware that an ingenious reasoner could make a display with an argument of this kind, but, after all, it would only *be* a display. The analogy between the two is very slight; in fact, the only clear ground of similarity is this—*they are used to protect the feet*—the iron shoe to protect the foot of the horse, the leather shoe that of the human being; beyond this the analogy ceases, and the argument is worthless.

In large towns like Manchester it is a matter of paramount necessity that a veterinary surgeon should be constantly associated with a shoeing-forge. In the first place, a large per-centage of our

practical skill is required in the treatment of injuries and maladies confined to the feet, and arising from causes of a very simple nature, such as undue pressure of the shoe upon the heels and quarters of feet, especially such as are flat and associated with low weak heels; lodgment of nail-stumps in the wall of the foot, causing mischief by undue pressure; stabs and pricks with nails within the sensitive tissues of the foot; placing the shoe awry; undue pressure of the nails upon the vascular laminæ; undue pressure of the clips upon the toe and sides of the foot; undue tightness of the nails; undue pressure of the shoe upon the sole of the foot, especially with flat-soled horses; using shoes that are too heavy or that are too light and deficient of cover; breaking of shoes and pressure of the broken pieces upon the sole; violent tearing and twisting of the shoes from the feet while the horse is at work, and afterwards placing the exposed feet upon the exposed nails; treads and overreaches; severe punctures and injuries to the coronet; punctures and injuries to the sole with broken pieces of iron, rusty nails, glass, and sharp pieces of flint or stone.

Such are a few of the almost innumerable forms of injury and disease regularly presented to us in a town like Manchester. Perhaps I may be told that a veterinary surgeon is capable of treating such abnormalities without being saddled with the ownership of a shoeing-forge. Granted; but he never will learn to treat them either with that certainty or facility he would if associated with a shoeing-forge. Associated with a shoeing-forge, where business is brisk, he is day after day in close contact with these things; familiarity with feet, nails, and horseshoes, gradually endow the man with a new sense, which only the possession of a forge can bestow; and bear in mind, gentlemen, it is the obtainment of this sense, the possession, so to speak, of eye and brain within the fingers, which perfects the veterinary surgeon in the practice of his profession, and renders him of that high value to society and the equine creation around.

I beg for a moment to direct your attention to another feature of this question. The veterinary surgeon, when stood upon ground relating to the diseases of the feet and the shoeing of horses, stands upon ground entirely his own; here he is *not* indebted to the surgeon, neither can the surgeon bestow much, so that if we separate him from the shoeing-forge we are removing him, so to speak, from his own property, and placing him wholly upon ground upon which he can never do otherwise than play a subordinate part.

The proper way, however, to regard this question is in its relation to commerce, and to the health and comfort of the animal whose welfare we are met to consider.

The foot of the horse is one of the most beautiful and wondrous organs the mind of man can contemplate, and the only structure at all analogous to it in ourselves is the extremity of a toe or a finger. Now, the value and importance of the horse to the commerce of the world is almost beyond calculation; and when we reflect that this high value to commerce and the health and comfort of the

animal itself entirely depend upon the integrity of the foot, should we, I ask, be acting in accordance with our mission in the world to leave the shoeing and general management of an organ of such vast importance to the mere skill of an unlettered shoeing-smith—of a man who is all but entirely ignorant of the complex and marvellous structure he operates upon? Or shall we say the foot of the horse is an organ which requires the educated eye and active supervision of a thoroughly practical and scientific veterinary surgeon? Gentlemen, the common-sense answer to this question is plain. *It is the province of the veterinary surgeon to be associated with the shoeing-forge.* The argument of the surgeon and the boot-making business is fairly met. It is clear the possession of a shoeing-forge perfects the veterinary surgeon as a practitioner; but who will assert that selling shoes or cobbling boots would aid in perfecting the great practical skill of men like Professor Fergusson, of London, or of Professor Syme, of Edinburgh, or would at any time have aided them to acquire such high skill?

In one respect, the possession of a shoeing-forge by a veterinarian is at times both annoying and troublesome to a degree. I allude to the intemperate habits and uneducated condition of the men engaged in the performance of its more active duties; and the question arises, how are we to remedy these defects?

Greater skill is required in the practice of the art. The importance of the horse to society, and the difficulties which beset the shoeing of the animal, alike call for higher skill and education on the part of the shoeing-smith.

The business, considered merely as such, is certainly one of the best and most certain to which a youth can be apprenticed; the occupation is one worthy of the highest mechanical skill; it cannot be taken out of the hands of the skilful workman. Horseshoes can be readily made by machinery, but machinery will never be used to nail them to the living foot. The advancement of the shoeing-smith is a question, then, worthy of our earnest consideration. A scheme might be readily devised to enable the smith to gain a knowledge of the anatomy and physiology of the foot of the horse, and of the principles and practice of horseshoeing. A course of instruction might be given, at the end of which the workman should present himself for examination; and if the answers given, and certain work done at the time, were of a nature to prove the candidate understood his business, a certificate signed by the examiners should be awarded. This, if honestly carried out, would ultimately prove highly beneficial to society, the certificate being a guarantee that its possessor understood something of the art, while the continuation of the practice would slowly but surely raise the character and position of the workman in the social scale.

In desiring to elevate and better educate the shoeing-smith by the plan proposed we are not without one or two striking precedents in its favour. Seventy-four years ago the first English veterinary school was opened to elevate and better educate a class of men whose position at that time was no better than the position of the

shoeing-smith of the present, and with what result you all know; while long subsequently, the Pharmaceutical Society of Great Britain has been established to raise the character, intelligence, and standing of the druggist, and the result in this instance is said to be highly satisfactory. We need not, then, regard the plan with doubt or suspicion. By its adoption good to all whom it may concern would ultimately result. If carried out, gentlemen, depend upon it less intemperance would prevail amongst the men who work in our forges, while strikes amongst them would become events *only* of the shadowy past. We are in duty bound, gentlemen, to aid in the removal of all obstacles which impede the progress of our profession, and the evils I speak of are of this nature. It is not for us in such cases to question our responsibility, but to place our strength against the obstacles, and to labour without ceasing until their existence is but a matter of history.

I cannot conclude without a few observations respecting veterinary medical associations. An indifference, to say the least of it, to their welfare possesses many of our body; numbers of veterinary surgeons keep aloof from the movement, while others who join our ranks are scarcely lukewarm in the good cause. Does this arise from timidity, or from a mental torpor which is alike deplorable to themselves and to the progress of the profession? The advantages to be derived from professional association are incalculable—*we gain new ideas;* and whether we regard their value to ourselves intellectually and morally or in a commercial sense, it is still a matter of surprise that such torpor should exist. If we regard their acquisition in the latter sense, every new idea is simply a fresh aid to professional advancement or a new vein of wealth to the possessor.

"The progress of every man," says Emerson, "is through a succession of teachers; and filled with vain weakness is he who will not, and poor is he who cannot, impart to his professional brethren—*an idea.*"