

quantity of free iodine necessary to excite the cutaneous action of the remedy, I do not feel it necessary to describe here the mode of analysis by which the quantities of the respective ingredients in a given quantity of water may be ascertained. The analysis is, moreover, so complicated that I could scarcely hope to render it intelligible but to practised chemists, who of course do not require the information."

With these extracts and analysis, we for the present submit this work to the attention of our readers. The value of the book is scarcely a matter of opinion, for that must be decided on by practical trials and practical men. If by their verdict our own opinion of the importance of M. Lugol's researches be corroborated as fully as we expect, we shall then not hesitate to declare that M. Lugol has effected a great public good, and that his translator, independently of the Appendix, has done the members of the medical profession in Great Britain a corresponding service by submitting that author's labours to their immediate observation.

INTRODUCTORY LECTURE
ON
VETERINARY MEDICINE
AND SURGERY:
BY MR. YOUATT.

DELIVERED AT THE
UNIVERSITY OF LONDON,

Wednesday, October 5, 1831.

GENTLEMEN,—When, in the beginning of the present year, I had the honour to appear in this place as a *permitted* lecturer on veterinary medicine and surgery, I thought it a proud day for the degraded and undervalued profession to which I belonged. I felt truly grateful to the Council of this excellent institution, that they, first among the universities of England, bestowed, although perhaps but for a little while, their fostering patronage on this disregarded branch of science,—a branch of science, however, connected with many of the rational enjoyments of life—with human medicine, and the agricultural interests of the country.

I will not now speak of the deep feeling of responsibility that alternately stimulated and depressed every mental energy when I stood first and alone in such a place, the imperfectly-recognised advocate of an art to which from habit, as well as from a conviction of its importance, I was ardently attach-

ed; but I will speak of the kind encouragement I experienced from some of the professors whom I now see before me, which I so much needed, and which they, unsolicited and beyond what I dared to hope, bestowed; and I will speak too of the uniform attention and expression of regard which I received from a class, small, indeed, but which did not disgrace even this institution; and their manifest improvement in veterinary science, creditable to themselves, and the most dearly-cherished reward they could yield their preceptor; and I will tell them that if ever their object and mine is accomplished, and the veterinary art is permitted to assert her just rank, there is one who will never forget how mainly they were instrumental in accomplishing this purpose, and the recollection of them will be associated with some of the happiest, because the most useful hours of his life.

And now, Gentlemen, when I can stand before you the *appointed* lecturer on veterinary medicine and surgery—when the temporary shelter is exchanged for a permanent abode—when the art I am to teach is acknowledged to be a legitimate branch of medical and scientific education—when the claim of relationship is sanctioned by those who are the best judges of the degree of consanguinity, I can only say in behalf of my profession and myself, that we are thankful—that we will endeavour not to disgrace the alliance, and that we will become, although inferior, yet zealous, and we trust, not quite unsuccessful labourers in the cause of science and humanity.

In the prospectus of the University, veterinary surgery stands acknowledged as one of the divisions of the medical school. While I am grateful for this I must be permitted to maintain that it is an act of justice that has been too long delayed in our schools and by the public. The veterinarian had perhaps contributed to the refusal of the claim, by his lack of education, or his unprofessional bearing or conduct,—too glaring and too degrading, I must confess, in times past. Many centuries, however, have not elapsed since our elder brethren of the medical profession were not much better educated, and but little more worthy of respect. They have attained the rank in society to which they are justly entitled, and we are attempting to follow them *haud passibus æquis*, but surely, we trust, although slowly.

In the earliest period of medical history veterinary surgery was acknowledged as a branch of the medical profession. If we may believe the annals of very ancient times, Chiron, the son of Saturn, and the preceptor of Æsculapius, obtained the name of Centaur, a strange compound of man and horse, not only, as is commonly said, on account of

his skill in horsemanship, but his knowledge of that animal and his diseases, for he was a teacher of medicine.

Many centuries afterwards flourished Hippocrates, "the father of medicine." He was acquainted with, and wrote concerning, if he did not practise the veterinary art. It is somewhat singular that a late author, who has published "A History of Medicine, Surgery, and Anatomy, from the Creation of the World," while he does full justice to the claims of Hippocrates as a zealous and profound comparative anatomist, says nothing of one result of his researches into the structure of the inferior animals, a knowledge of their diseases; nor of his work which still survives, and with which that writer ought to have been acquainted, and which is pregnant with useful information, even at the present day, on every branch of the veterinary art.

The truth of the matter is, that Dr. Harrison affords a tolerably accurate although a mortifying proof of the low estimation in which veterinary science has been, and is by many held; for from the beginning to the end of his work he does not say a single word of the veterinary practitioner or veterinary practice. Well! be it so. We will endeavour to remedy this in the right way.

To pass over many writers on veterinary affairs, suffice it to mention, that, although it will probably never again occur, for it would not suit the present very proper divisions of medical practice, we have reason to believe that in Greece, and we know that in Rome, the same person frequently if not generally, practised both human and veterinary surgery. If we recur to the history of human medicine in our own country in the earlier ages, there was much association between the surgeon and the veterinarian, if not an identification of person. The farrier, from his experience in the use of the instruments of his forge, was often called in to the aid of the human practitioner. He was the principal operator, or the consulting surgeon; or rather, he flourished for a long period when the human surgeon was scarcely heard of. He acted under the direction of the leech of the monastery, or the Lady Bountiful of the castle, or he operated too frequently on his own responsibility, and the practice of medicine was disgraced by many of his absurd and barbarous customs.

In process of time the value of life, and of the lives of those we love, and the comfort of life as connected with a state of freedom from pain, awoke the public mind to the necessity of a reform in medical practice, and, by steps which it becomes not me to trace, the human practitioner has arisen to deserved eminence.

The farrier had not the same chance: the same motive did not operate on the pub-

lic mind, or on the minds of those by whom the public was influenced. Domesticated animals were then of comparatively little value. The Arab blood had not produced the unrivalled English courser. The cattle and sheep were stunted in their growth, and little celebrated either for beauty or produce. They were not in the hands of large and opulent proprietors, who might have both the spirit and the means to improve them, but in those of the vassals, who then paid their rent in kind and not in money, in cattle and poultry and corn for the consumption of the chieftain's household, and who cared little about the quality of the beasts, if they only furnished the requisite number of heads. The enslaved, and consequently ignorant peasant, neither attempted to prevent or to cure the diseases of any of his domesticated animals, nor would he employ others to do either; but if the assistance of any one was required, it was that of the wise man of the glen, who with many a strange incantation was to extract the *elf-bolt*, or to kindle the *need-fire*, or to produce the *devote smoke*, or to point out some poor persecuted wretch who was to be pricked and tortured until she reversed the fatal charm. It is not then to be wondered at, that veterinary science should have lagged behind, when her elder sister was advancing to honour and emolument.

The improvement of horses and of cattle—the formation of veterinary schools—the progress of general education—the establishment of veterinary societies,—and the diffusion of veterinary periodicals, have gradually brought forward a different class of men; not perhaps, even yet, taking them as a body, altogether worthy of their profession, but somewhat more deserving—more sensible of the nature and value of their profession—more anxious to improve themselves and it—more worthy of public confidence, and a little more resembling medical men. In consequence of this, the rank in society which the veterinary practitioner occupied, has been materially raised; the English veterinary surgeon in a cavalry regiment is a commissioned officer, and in one of the Scotch, and in many of the continental Universities, the veterinary lecturer occupies a professor's chair.

When, Gentlemen, I had the honour to address some of you in February last, I ventured to maintain that ours was a branch of medical science, because there was an identification of object. To preserve health and to relieve disease, are the common objects of the human surgeon and the veterinarian.

True, our patients are not possessed of the high intellectual powers of man. The support of a family, or the welfare of a

kingdom, may not depend on the exertion of our skill ; but there is that about our patients which will give interest and importance to our profession. I might speak of the pecuniary value of horses and cattle in their present state of improvement. At the period to which I allude, I calculated the proportion they formed of the general wealth of the state, and it was a very considerable one. I might also plead that the intellectual, ay, and even the moral qualities of many of our patients, rendered them highly deserving of our care.

" Superior as we are, they yet depend
Not more on human help than we on theirs.
Their strength, or speed, or vigilance, was given
In aid of our defects. In some are found
Such teachable and apprehensive parts,
That man's attainments in his own concerns,
Match'd with the experience of the brutes in
theirs,
Are oft-times vanquish'd, and thrown far behind.
And learn we might, if not too proud to stoop
To quadruped instructors, many a good and
Useful quality, and virtue too,
Rarely exemplified among ourselves.
Attachment never to be weaned or changed
By change of fortune : proof alike
Against unkindness, absence and neglect.
Fidelity that neither bribe nor threat
Can move or warp ; and gratitude
For small and trivial favours, lasting as the life,
And glistening even in the dying eyes "

I might add to this, the consideration that we have taken them from their native plains, and coerced and confined them, and too often exacted their labour with reckless cruelty, and entailed on them, by our absurd practices, or too frequent and disgraceful brutality, numerous diseases, and a premature death. I might content myself, however, with these undeniable facts, that *they are susceptible of pleasure and of pain* ; that we can never be unprofitably or dishonourably employed while we are increasing the former and diminishing the latter, and that, while thus employed, we are in the strictest sense accomplishing the grand object of medical science. I will proceed to other grounds. The principles by which both are guided in the accomplishment of their noble object, are the same. We have some excess of action to abate, or some defect of stimulus or of sensibility to supply, or some diseased habit to reform. We must prepare ourselves for practice precisely in the same way. We must become acquainted with the structure of the diseased part, or, rather, of the animal generally. We must study deeply the natural and healthy function of every organ ; we must acquire a knowledge of the connexion between change of structure and of function, or change of function and the gradual alteration of parts ; we must diligently inquire into the causes of these changes, and the manner and extent to which they act, and how we shall best remove the cause, or arrest the effect, or repair the injury. We

must make ourselves acquainted with the effect of medicinal agents, and as bearing on one or all of these points.

The process, then, is the same ; the distinction is in the value of the patient, and human and veterinary practice differ in this particular, and in this alone. When, however, we inquire into the means by which our indications of cure are to be accomplished, we shall begin to find a variation, wider perhaps than the medical student imagined. The veterinarian is concerned with many patients, strangely different in general structure, and in the mechanism by which each function is performed. If the mechanism is different, the characters of healthy and diseased function will differ too, and our remedial measures will proportionally differ. We shall have to study this, in order that we may draw the proper inference from varieties of organisation and function and disease.

Why does comparative anatomy form an essential branch of medical study ? That by observing the different apparatus by which the same function is discharged in different animals, always in benevolent and wise accordance with the situation and the destiny of each, and the perfection of the function in each, at least so far as the enjoyment of the animal and the accomplishment of his destiny are concerned, the student may acquire a more enlarged and accurate conception of the nature of each function, and its connexion with structure and situation and enjoyment, and may better appreciate its healthy state, and derive many useful hints as to the cause or remedy of disease.

In the study of veterinary medicine, our attention is directed to a subject even more interesting and important—the influence of difference of structure and function on disease. It is comparative anatomy made to bear upon pathology. It is comparative anatomy brought home to practice.

When in the animals that come oftenest under our notice, and whose maladies we may watch from their commencement to their termination, we find immunity from certain diseases in some, maladies peculiar to others, and the same disease strangely varying its character in different animals, and varying too in the same animal, according to the kind of food, the system of management, the season of the year, the state of the constitution, and particularly, and in the most marked degree, with reference to *condition*—that artificial and unnatural state into which the animal is too often brought,—it is impossible that we can ponder on these things, without many a useful hint of practice. Comparative anatomy is now deservedly admitted to be a useful branch of medical education, from the en-

larged conception it gives us of healthy function; let me not be charged with presumption if I venture to predict, that the time will come, when comparative pathology will be considered as essential, and be found even more useful.

The medical student may derive valuable knowledge, or he may be led far astray in the effect of drugs on different animals, and their supposed efficacy on man, accordingly as he takes into account or neglects the peculiarity of structure and function, and the character of disease in each. No conclusion should be hastily drawn from the effect of a certain medicine on any animal in health or disease, as to its effect on other animals, much less on the human being. It is an old adage, that "one man's meat may be another man's poison," and there are in our pastures few plants which, although generally innocuous, are not occasionally injurious to some particular animal; and there is no plant, generally poisonous, which is not eaten with impunity by some quadruped. So in the treatment of disease, the same drug may be the bane or the antidote, according to the nature of the animal to which it is administered. Our lectures will be full of illustrations of this. The medical pupil may hence derive instruction as to the manner in which he is to pursue his experiments on drugs and poisons, and caution as to the conclusions he is to draw from his experiments. I will not say that no dependence is to be placed on the effect of certain drugs in an inferior animal, with reference to their probable effect on the human being, but I will affirm that the majority of these experiments are inconclusive, and therefore useless and cruel. The stomach and intestines of the dog are, generally speaking, similarly affected with those of the human being by many drugs; yet we can scarcely destroy him with opium, or purge him with julep or aloes.

The medical student may derive a few other not unprofitable lessons in our humbler school. He will learn the paramount importance of an attention to minute symptoms. The human practitioner has many auxiliaries in the detection of disease, and its changes and combinations; and especially he can obtain from his patients an account of the seat, and kind, and degree of inconvenience or pain; its increase or diminution, its constancy or intermittence.

In the majority of cases the veterinarian has nothing to guide him but the eye and the feeling; and even there, from the structure of his patients, he is deprived of much information which the human surgeon obtains, for the skin seldom changes its hue, and the countenance is comparatively devoid of expression. He has far fewer symptoms to guide him through the intricacies

of many a case. Then he must make up for this by the quickness with which he catches these few—by the tact with which he appreciates their real character and frequent changes—by the accuracy with which he classes them, and compares them, and founds his diagnosis upon them. He must be a perfect adept in symptomatology; he must possess the faculty which is, of all others, most valuable in a medical man, that of forming, from his own observation, and led not astray by the surmises and false conclusions of others, and even of the patient himself, a speedy and just appreciation of the actual state of his patient, the disease, its seat, its extent, its combinations, its accessories, its consequences.

He may likewise learn the importance of prompt and decisive treatment of disease. The owner can seldom afford to let his horse lie idle; or the animal may not be of sufficient value to warrant the surgeon in running up a long bill. We must have no placebos; no *medulla panis*, and powder of *post*. Having carefully studied the character of the disease, we must attack it at once energetically and decisively. I do not mean that we should proceed rashly or brutally, or that one step should be taken which calm consideration and long experience would not justify; but we must go to work at once and in good earnest. I will tell you what is the result of this, and the invaluable lesson which may be imprinted on the mind of the student, that—*anxious attention to the symptoms being premised*—an accurate judgment of the case being formed, a separation being made between that which is essential and that which is merely secondary and fortuitous, we rarely repent the most active treatment. We do often repent half-measures and vacillating conduct, but rarely or never bold and straightforward practice.

Connected with this, and another lesson of no mean value, is the habit of systematically attacking the disease, and not merely some of its symptoms. The total eradication of the complaint, and not merely a palliative of some of the circumstances attending it, is the object at which we are compelled to aim; for it would be of little service to abate inflammation of the eye while we left such defect of vision that the horse became a starter, and endangered the neck of his rider, and it would add little to our reputation, that we cured inflammation of the lungs, if the animal remained thick or broken-winded.

To what extent our prompt and decisive treatment might be adopted in human practice I have not the presumption to attempt to describe; but of this I am sure, that—so far as the safety of the patient will permit, and all personal considerations and scruples

ples and fears being put quite out of the question—there is not a surer character of a skilful and honest practitioner than the straightforward use of the means he possesses to alleviate or remove disease.

Gentlemen, appearing for the first time before you as a recognised teacher in the medical school of this University, my observations have necessarily been confined to the connexion between veterinary and medical science; otherwise I might have shown the importance of these lectures as a portion of general science, and as connected with agriculture; as unfolding those principles on which a judgment of the exterior of horses and cattle depends; their beauty; their general utility; their adaptation to particular purposes; the proper management of them, and the enjoyment of profit we may derive from them. These will be points that I shall never lose sight of; all my descriptions of structure or disease will have this as their grand aim and object.

I have addressed myself to-day to the medical student; but I am free to confess, that my lectures will be equally, or indeed more anxiously, composed for other classes—the veterinary pupil and the possessor of horses and cattle; that the one may be prepared for the exercise of his profession, and the other for the management and enjoyment of his agricultural property. So far I may be considered as occupying a kind of border-ground between the two schools, and I must endeavour to accomplish the difficult task of adapting myself to the character of each—to render my lectures sufficiently scientific to satisfy the veterinary and medical student, yet not so abstruse or intricate as to cease to interest the general inquirer.

I am painfully sensible of the extent as well as difficulty of that which I have undertaken. While nine professors, of whom as a collective body this University and the medical world may well be proud, unite their labours in unfolding the principles of human medicine, on one poor individual is thrown the task of teaching those of veterinary practice. Well, I must apply myself in good earnest to my work. A sense of its extent and importance must stimulate and not depress; zeal and industry must supply the place of other requisites, and, perhaps, at some future period, and the sooner the better for the interests of science, and I do trust of this Institution too, other and abler men may be permitted to unite with me in demonstrating, that in the importance of its object, and its connexion with science—*Ars veterinaria, post medicinam, secunda est.*

UNIVERSITY OF LONDON.

REPLY OF MR. EX-PROFESSOR PATTISON TO THE LETTERS OF DRs. TURNER AND THOMSON, AND THE STRICTURES OF THE EDITOR OF THE LANCET.

To the Editor of THE LANCET.

SIR,—I prefaced my communication at p. 225, (last vol.) which contained an examination of the facts of Dr. Turner's letter, by stating that the letters of Drs. Turner and Thomson are to be considered as joint productions, and consequently that the charges or denials contained in either are to be considered as having been made by both parties. This fact being borne in the mind of your reader, I now take up the review of

DR. THOMSON'S LETTER.

I have accused Drs. Turner and Thomson of having been engaged in "a most wicked conspiracy" to drive me from the University of London, and of their having been active agents in caballing with the warden, and certain of the students, to accomplish that object. As might be expected, these individuals deny the charge. It is natural for them to do so. It is one of a very heinous character, and if it can be substantiated, their reputation for gentlemanly feeling and moral principle is for ever forfeited. I think you will admit, Sir, that if you happened to be placed in the jury-box at the Old Bailey, your belief as to the innocence or guilt of a prisoner brought up to the bar for trial, would be in no degree affected by his entering the plea "Not guilty." Or if you had been fortunate enough to have succeeded in the object of your ambition, and had been appointed one of the coroners for Middlesex, your judicial decisions would have been dictated by the impressions received from the evidence presumptive or positive adduced on any particular investigation, and not from the declaration of innocence, however loudly pronounced by the accused party. I repeat that the charge which I have brought against Drs. Turner and Thomson is a very serious one, and I would insist, that on every principle of law and justice the question of their innocence or guilt ought not to be decided by their denial of the charge, but by a deliberate and dispassionate examination of the evidence on which it is supported.

I shall support my charge as to the guilt of Drs. Turner and Thomson, 1st. By the confession of a party in the conspiracy, Dr. Alexander Thomson, who admits that he was employed as a "tool" to accomplish my ruin, and who, to use his own language, became "king's evidence." To prevent