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### EXAMINATIONS

#### FOR A

## VETERINARY DIPLOMA.

BY

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### ON VETERINARY EXAMINATIONS.

DURING the last two sessions in which I was a student at St. Pancras, the approach of the yearly examination was the topic of anxious inquiry, in consequence of the existence of the apprenticeship clause in the By-laws, by which all those students who had not a legalized certificate of three years' apprenticeship were excluded from the right of examination after two years' attendance at College. In 1848, the Council of the Royal College of Veterinary Surgeons were pleased to suspend that by-law, pro tem., in compliance with the petition of a large number of students. In 1849, it was with great difficulty that the candidates for examination could be registered, as demanded by law. In both these instances the students were the compromised party. That this should be the case certainly was not just; but I shall not stop to inquire who were the culpable parties, whether the Professors at St. Pancras, or the Council of the corporate body. I shall start by forgetting all the past mismanagement and party spirit which have so long distracted the members of our profession, and shall, in the name of peace and justice, raise my feeble voice in order that the proceedings which have, of late, so materially impeded the veterinary students' progress be not again enacted. I mean, that the class of students be not made the sufferers of personal or party ill-feeling, but that their education be so conducted as to ensure their entrance into professional life with a stock of sound knowledge.

It is irrelevant to know whether or not the apprenticeship law is again to be enforced; but I shall limit myself to the fact, that a law which was intended as a guarantee for the abilities of young men entering the veterinary profession has been, if not suspended, at least never enforced; and I now purpose to inquire into the precautions taken by the Board of Examiners to admit such men only members of the profession as are fitted to do honour to themselves and justice to the public; and to remand all others who have only acquired a superficial and imperfect knowledge, and who are, therefore, not competent to practise the veterinary art.

The branches of medical science professed at the veterinary schools of London and Edinburgh are, anatomy, physiology, chemistry, materia medica and pharmacy, medicine and surgery as applicable to the horse, ox, and other domesticated animals. All these branches are of undoubted importance in a medical education, and it is therefore necessary that the students' proficiency in each of them be tested. For this purpose the Council direct that the candidates for a veterinary diploma be submitted to one hour's examination; one quarter of which is devoted to anatomy-the active examiners in this department being two members of the medical profession. However much I may feel grateful to that profession of which a Coleman, a Bell, an Astley Cooper, were members, I must assert my conviction, that surgeons, however distinguished in the wards of a human hospital, cannot be qualified to examine on the descriptive anatomy of the horse, unless the structure of this animal has been practically examined by them. A human anatomist may, by analogy, examine on the general points connected with the structure of the digestive and respiratory organs, of the eye or nervous centres, and inquire into the peculiarities of the digastric or superior oblique muscles (of the eye); but this is not the anatomy which is most needed to constitute the useful veterinary surgeon. It is the relative position of the tendons, ligaments, bloodvessels, and nerves in the extremities; the structure of the foot; the relative position of parts in the perinæum, and the anatomy of the generative organs: this is the anatomy with which the student should be thoroughly acquainted; and none can test his knowledge of it but those who have examined those parts with the scalpel.

In general anatomy and physiology, I believe I am correct in stating that the pupils are never examined. I do not believe, with some, that all pathology is founded on physiology alone; but certainly I hold that the nature and treatment of disease cannot be scientifically and therefore profitably investigated, unless the normal functions of the parts liable to disease be previously studied. It is extremely desirable that those whom I address may not imagine that I am forming too high a standard for the education of the veterinary student. It is not necessary that in an examination he should give proof of intimate acquaintance with all the theories in physiology, which, from Haller to our day, may have been propounded on any particular subject; but I should deem it indispensable that a veterinary student had a correct knowledge of the movements and sounds of the heart, the functions of respiration, digestion, secretion, absorption, and of the nervous system, because such knowledge must inevitably prove serviceable to him in the study of pathology.

To be examiners in physiology none are more fit than members of the medical profession; and such is the uniformity of functions in the higher classes of animal beings, that they would not be so liable to be deceived from false analogy as in the case of anatomical details; and while we should be deriving real advantages from the co-operation of medical men as examiners in physiology, an ample guarantee would be afforded to prove that we are as anxious as ever (if not more so) that the professions of human and veterinary medicine be cordially united, in order that the latter may continue to derive from the former renewed supplies of that scientific knowledge which has so materially contributed to raise veterinary surgeons to their present position, and which veterinary students must seek after, if in future life they be desirous of gaining honourable repute and benefitting mankind.

I have been thus prolix with reference to anatomy and physiology, because these foundations of a veterinary medical education have been well nigh totally neglected; and I beg respectfully to urge upon the Council of the Royal College of Veterinary Surgeons the necessity of making, for the future, such arrangements in the system of examination as may obviate the danger, not only of pupils, but perhaps even of teachers, treating those departments of science lightly, because the candidate for examination is not tested on them before he is granted a legalized diploma.

To chemistry, materia medica, and pharmacy, is devoted another quarter of the hour appointed for the examination. With due deference to the eminent men who are examiners in those sciences, the practical value of the examination appears doubtful. The majority of the questions are on chemistry: in pharmacy only such points as the preparation of calomel or tartarized antimony are touched upon; and in materia medica, as applicable to the horse, the pupil's knowledge is seldom, if ever, tested. I am here prepared to meet the objection that, even in the quarter of an hour appointed, the pupils by no means give evidence of proficiency in chemical science, and that a prolongation of the time would only demonstrate deficiency to a greater extent. This probably may depend on the system of instruction. Chemistry, materia medica, and pharmacy, are professed at St. Pancras by a teacher who delivers three lectures weekly, viz., at utmost, seventy-two lectures in the whole session. In such limited time, it is impossible to impress the principles of those sciences on the pupil's mind with any degree of advantage. In expressing this conviction, I am not unmindful of the fact, that to the present teacher in these departments at St. Pancras is due the merit of having first established lectures on those sciences in the veterinary schools of Great Britain. But while we are grateful for the past, we are nevertheless anxious for the future. The instruction imparted ten years since is not sufficient at the present day in any branch of science, but especially in chemistry, which has surpassed all other branches of human knowledge in the rate of its progress. Moreover, it is not unreasonable to presume that any limited system of instruction which might have been admissible when chemistry and pharmacy were first professed in a veterinary school, should be improved and extended as experience and necessity dictate.

In the half hour which remains after the pupil has been examined in anatomy and chemistry, his knowledge is tested in pathology, as applicable to the horse, ox, and other domesticated animals; the anatomical peculiarities of the latter being at the same time made the subject of consideration. Premising that the examiners in these departments deservedly occupy the foremost rank in the veterinary profession, it is equally true, that, to test the candidate's theoretical and practical knowledge in those branches, the time allotted for examination is not sufficient. To presume that such a number of questions as are calculated to test the student's proficiency in the anatomical characteristics of ruminant and carnivorous animals, and in the nature, symptoms, and treatment of one or more of the diseases to which they and the horse are liable, can be put and answered in thirty minutes, is an improbable hypothesis. Should it be argued that, at the College of Surgeons, gentlemen are submitted to only one hour's examination, and therefore that time should be amply sufficient at our Board; it can be replied, that the whole hour is in that case devoted to anatomy, physiology, and surgery; and though a man may honourably acquit himself on these points, he is not allowed to practise medicine and surgery, and to dispense the necessary medicaments, until he has been examined on medicine, chemistry, materia medica, botany, &c., at Apothecaries' Hall; at which institution power is vested in the examiners to extend the examination to an unlimited time, until such time as the candidate shall have given proof of his general proficiency.

But there are other points on which the candidate for a diploma should be tested by the veterinary surgeons of the Examining Committee : I allude to the principles and practice of the art of shoeing; and to that important subject, " Examination as to Soundness." To include these, time certainly will not permit; and, yet, who will deny their importance? With regard to the former subject, some persons may urge, that a man devoted to science cannot be supposed to be the practised farrier. But I do not wish that such should be the case; however much it may be desirable that every veterinary student, at the completion of his studies, should be well acquainted with the principles of shoeing, and, by close attendance to a forge, have become acquainted with the peculiarities of shoes applicable in different kinds of lameness; and be able himself not only to suggest, but to carry into execution, such measures as may be devised to relieve the animal's sufferings in cases of emergency. Lamenesses are, on the whole, more numerous than any other forms of disease for which the veterinary surgeon's aid is sought, and they are, perhaps, the most tedious and difficult to treat; and unless the practitioner be able to treat with

success foot diseases, as well as affections of other organs, he has no claim to the title of being the reliever of the sufferings to which the horse is liable.

The many controversies on horse warranty, of which the courts of justice in this country are so frequently the scene, obviously demonstrate how great should be the importance attached to veterinary jurisprudence. But so far from this being the case, not only are the examiners commonly silent on the subject, but even the veterinary professors do not include it in their courses of lectures. Veterinary jurisprudence is certainly an uncultivated branch of our science; but if those men do not engage in its cultivation who are expressly selected and adequately paid as teachers, is each private practitioner supposed to dedicate his time and talent to the task? The veterinary profession is said to be in its infancy; and so it is likely to remain, unless its professors endeavour so to educate their pupils as may enable them to confer increased benefits on the public, and by talent and real merit raise the science they profess to a level with other branches of human knowledge.

Reviewing the preceding observations, we may arrange them under two heads: 1st, we respectfully direct the attention of the Council of the Royal College of Veterinary Surgeons to the propriety of extending the system of examination; 2dly, we call on the professors of veterinary science to lend their valuable cooperation in reforming that grand basis to which every science must look as the criterion of its future prosperity, "Education." With reference to the former point, the Council would reap direct advantages from the proposed reform. They would give to the public the most ample proof that the powers vested in them were exercised in the best manner calculated to insure the welfare of the veterinary profession; and by abolishing all prohibitory laws of entrance on the career of a veterinary student, and establishing stringent measures to regulate the admission of members in the veterinary profession, they would obviate all dispute in reference to that part of the Charter which refers to the "Curriculum of Study at the Colleges." Even admitting that the Council have no right to interfere on this point, they certainly have a right to exercise their prerogative in testing the abilities of the men educated at those colleges, when presenting themselves as candidates for a The institution of a fair system of examination would, diploma. moreover, preclude the chance of another Board of Examiners being called upon to grant diplomas to practise; because the public would soon become aware that the distinctive characteristic of members of the Royal College of Veterinary Surgeons was that of having undergone such an examination as guaranteed beyond all suspicion their talent and practical skill.

With reference to the second point, painful it is to admit that

already an indisposition has been evinced on the part of the constituted authorities to admit any interference in reference to the plan of veterinary education. But we are quite willing to believe that advice may not have been taken, because inopportunely if not improperly given. It is not radical change which is required, but gradual and pacific reforms. Durable good is not the result of casual or instantaneous influences, but can only be the consequence of wise and prudent measures, for the development of which time and unanimity are required. Accordingly, it is not a hasty change in the plan and nature of veterinary instruction which is to be anticipated or desired: but it is to be hoped that the Professors will steadily follow the path of improvement; not availing themselves of the miserable shelter afforded for the evasion of responsible duties by the despotic government of an institution, but devoting their talents and energies to the public good, with the sure conviction that by such conduct alone can durable repute be acquired.

While I strongly advocate a more complete and extended system of examination than that to which candidates for a veterinary diploma have hitherto been subjected, I cannot too forcibly express a conviction that such a change can only be effected with real advantage gradually, and by the concurrence of the teachers of veterinary science and the Council of the corporate body. This co-operation is indispensable, because the extension of the system of examination and of collegiate education are inseparably related to each other: the former must fail unless the latter progress; and while the period and nature of the examination require modification, so do the period and nature of the veterinary education. Not only is much to be desired in the time already devoted to study at the veterinary colleges, but even the period of such study requires extension. Two sessions of six months each are by far too limited time to complete a scientific education; and a longer time must be devoted to study, in proportion as the instruction becomes more complete and perfect.

In conclusion, we solicit the forbearance of our readers, if we have been more prolix than even we, at first, intended; and of the Council of the Royal College of Veterinary Surgeons, and of the Professors at St. Pancras, if we have dared, thus early in life, to urge such palpable and important truths upon their notice. The evil was too evident to be allowed to continue undisturbed. It is the rising generation which is suffering from past mismanagement; and therefore every reasonable and prudent effort in their power should be directed, by the combined professors and legislators of the veterinary profession, to confer upon its rising members that which alone can render them useful, esteemed, and honoured, i. e. "A Scientific Education."

J. S. GAMGEE.

London, 17th January, 1850.



