

The University of St. Andrews requires *six months* attendance of lectures on clinical medicine, and the same on clinical surgery, and *twenty-four months* attendance in a medical, and the same in a surgical hospital.

The London University requires, for its full medical degree, that the candidate should have attended *twelve months* on each of the four courses of clinical instruction, viz.: clinical medicine, clinical surgery, medical hospital, and surgical hospital.

The Dublin University requires, for the lowest degree of M. B., *nine months* attendance upon clinical medicine; and for the surgical diploma, *twenty-seven months* upon each of the courses, medical hospital, clinical medicine, surgical hospital and clinical surgery.

The Queen's University, of Ireland, requires, for the first degree, *six months* attendance upon each of the above courses; and for the second degree, *eighteen months* in each of the two hospitals, and the same length of time on clinical surgery.

The Royal College of Physicians, London, requires *thirty-six months* attendance upon lectures in clinical medicine, and the same length of time in a medical hospital.

The King and Queen's College of Physicians, Ireland, requires attendance upon clinical medicine and a medical hospital, each *six months*, and upon clinical surgery and a surgical hospital, each *twenty-four months*.

The Royal College of Surgeons, Edinburgh, requires attendance upon clinical medicine and clinical surgery, each *six months*, and the two hospitals each *twenty-one months*.

The Faculty of Physicians and Surgeons, of Glasgow, requires the same.

The Royal College of Surgeons, London, requires *nine months* in clinical medicine, *twenty-seven* in clinical surgery, attendance of *one winter* and *one summer* in a medical hospital, and *three winters* and *two summers* in a surgical hospital.

The Royal College of Surgeons, Dublin, requires attendance on each of the four courses of clinical instruction before named, *twenty-seven months*.

The Apothecaries' Hall, England, requires *nine months* of clinical medicine, and *eighteen months* in a medical hospital.

The Apothecaries' Hall, Ireland, requires *eighteen months* attendance upon each of the four courses.

The Army Medical Board requires, of clinical medicine and clinical surgery, each *eight months*, and attendance upon each of the hospitals *eighteen months*.

The Navy Medical Board requires the same attendance of *eighteen months* in each of the hospitals, and *six months* attendance upon each of the courses of clinical lectures.

The East India Company Medical Service requires *six months* attendance upon lectures in clinical medicine.

By this statement it will be seen that clinical instruction is regarded so essential in Great Britain, that not a single institution grants a diploma to a candidate who has not availed himself of such advantages."

## CORRESPONDENCE.

## A STUDENT'S LETTERS.

No. V.

Edinburgh has been visited lately by a curiosity in a physiological point of view, in the shape of a German, who, by an arrest of development, is deficient of a sternum, and thus enables the movements of the heart and arteries to be very clearly seen. By some the sternum is said to be wanting, but Professor Goodsir says that it is merely a fissure in that bone. The case appears to be almost unique. I say almost, because he has travelled all over the Continent, and been at most medical schools, as Paris, Vienna, St. Petersburg, &c., as well as London, and no case similar to his own had been seen; but when he came to Edinburgh Professor Bennett showed him a preparation which was met with in the Pathological theatre, in which the sternum was deficient, there being a membrane merely between the anterior extremities of the ribs. He is a man of about 22 years of age, and at first sight does not appear to have anything the matter with him. He has a fair amount of muscular strength, and enjoys good health. He was never aware of any peculiarity in his conformation until a few years ago, when he was troubled with some slight thoracic affection, and went to an hospital to be relieved, when the deformity (so to speak) was first noticed.

I was present when Dr. Bennett gave a lecture on the case, and explained the motions which were visible. After first pointing out the relations of the heart with regard to its position, etc., he showed that the heart is in reality more in the medium line than we are generally inclined to consider it. When the parts are first exposed, you merely see a slight depression in the sternal locality, with a tumour pulsating in its middle, apparently only covered with integument. But as the individual has the power of increasing this space by taking a full

inspiration, and then the parts become more visible, and two pulsations can be distinguished, one directly in the centre and one nearer the clavicle. The one in the middle has been supposed to be the ventricle and the upper the auricle, but Dr. Bennett has shown that the former is the auricle and the latter the aorta, as beneath the middle pulsation another can be distinguished in full inspiration.

By attaching slips of adhesive plaster, 2 or 3 inches long, to the parts corresponding with these movements, so that one end is allowed to be free, then you see that the motion conveyed to the lowest is synchronous with that of the highest, and that the one in the centre is intermediate with the other two in respect of its motion, thus showing that this must be the auricle. It can also be more clearly proved in another way. A caoutchouc tube, with a bulbous extremity at one end, has a glass tube attached to the other. This is nearly filled with a coloured fluid, and the bulbous part being applied beneath the nipple in the normal situation of the beat of the apex, each of the ventricular pulsations is conveyed to the fluid, and it is thus made to rise and fall in the glass tube, when this tube is then placed near the strips of plaster which indicate the precise period of movement beneath. It is found that the fluid rises in the tube when the upper strip moves and falls when the one in the centre is in motion. The stethoscope reveals nothing more than the normal sound of the heart.

When he makes a violent expiration the left lung is driven very forcibly through the opening, and forms a very large tumour in front. When this is percussed the common resonant pulmonic sound is elicited, and the stethoscope applied over it enables the vesicular murmur to be clearly perceived.

The lung cannot thus be made to protrude in normal respiration but by forced expiration only. This peculiarity appears to throw some light on the cause of emphysema, which has been found to affect the upper and anterior portions as a general rule, while the inferior posterior parts are very often collapsed.

Dr. Gairdner's theory of this cause is (as you no doubt know) that as the malady is generally connected with chronic bronchitis, the smaller bronchial tubes are filled with viscid mucus which acts as a ball valve plugging up the tube and allowing air to be expelled from the air vesicles but not to return, and thus they become collapsed after a time, then in order to make up for this deficient expansibility in one part, the vesicles in the other become enlarged by the continued expanding force of the air, which is propelled into them by the expansion of the thorax, but why the posterior lobes were always the parts collapsed, and the

anterior always dilated, was not clearly solved, but which I think can now be easily explained. Because, as clearly seen in this case, during expiration, the anterior lobes become very much more filled with air than during inspiration. The tracheal and bronchial tubes apparently not being able to allow all the air to pass out at once, and when it leaves the posterior it accumulates in those in front for a space of time sufficient to allow it gradually to pass away, and also, I think, it can be easily perceived that as the lungs are never wholly empty of air, that the antero superior lobes contain more than the postero inferior. Reasoning from these data, I think we might possibly find out why inflammation of the upper lobes is so much more fatal than when it attacks those below, and likewise we might get a clue as to the reason why the superior are more apt to be affected with phthisis, and the inferior with pneumonia; but I am rather digressing from my subject. Prof. Goodsir thinks that the ribs on each side are attached to the sternum, and no doubt he is correct; because although they cannot be moved nearer one another yet they may be pressed inwards towards the vertebral column to an incredible extent, and the fissure can be increased from half an inch to 3 or 4 inches. What is more remarkable, these unnatural movements which interfere so much with the most important organs, neither gives him any pain nor affects his health in the least, although he has undergone many and long continued examinations. I hope I have not taken up too much of your valuable space, but I thought that the case might be interesting.

We will have a new work out here by the first of March, from the pen of Dr. Bennett. I am not sure of its title, but I think it will be either a Practice of Medicine or Clinical Medicine. It will be about as large as the second volume of Watson's Practice, as published here.

In this work will be developed his most recent views with regard to inflammation, which have been causing so much noise in the medical world on this side, and which appear to be so much at variance with our most established principles. He has come out against antiphlogistics and blood-letting in particular with most vehemence, and which has called forth a most severe criticism from Watson in the latest publication of his lectures. (1857, fourth edition.) It is amusing to go round the wards with Dr. Bennett, as he never allows a chance to escape without uttering a tirade against mercury and blood-letting. He says the benefit from cupping and leeching is not so much due to the blood abstracted but to the warmth which is kept up during and after their application. Whether Dr. Bennett's theory will stand the test of time or not is another question.

Edinburgh, 1st Feb. 1858.