sion into the Meath Hospital. In eight of the cases, death was sudden. The others varied from half an hour to three or four days. The largest definite quantity of blood mentioned is three pounds.

RECOLLECTIONS OF THE MEDICAL SCHOOL OF VIENNA.

By J. F. PAYNE, M.B.Oxon; late Radcliffe Travelling Fellow.

III.

THE arrangements for the study of anatomy and physiology at Vienna ought not to go unnoticed. These departments are by no means so well lodged as pathological anatomy; they are taught in a large building which was formerly an artillery factory, which has no conveniences or advantages beside its size. It is fair to say that these arrangements are regarded as temporary, and only intended to continue till the long-promised University buildings are ready. In this building are given the lectures of Professor Hyrtl, an unsurpassed teacher of anatomy, whose lectures have only to be heard to refute once for all the notion that anatomical lectures are useless. Hyrtl is a marvellous injector, and sent some remarkable preparations to the London and Paris exhibitions. Professor Brücke, the physiologist, is a Prussian by birth, and has, perhaps, the largest class and the most inconvenient lecture-room in Vienna. So inadequate is the latter, that there are more tickets issued than there are places for the hearers. Professor Brücke pays, perhaps, more attention to histology than to physiology proper, but the amount of lecturing he gets through would astonish a London or Oxford professor. Five lectures a week through the whole of the winter and the summer sessions are the regular amount, and there are often extra courses. In the same building is the histological laboratory of Professor Wedl, author of *Pathological Histology*, a most laborious and accurate observer, who is very cordial towards our countrymen. Histology is, in fact, very strongly represented in Vienna. There are other laboratories beside those which we have mentioned, where practical instruction is given; and, as several of the teachers speak English perfectly, want of acquaintance with the German language need be no bar to profiting by their instructions. Experimental physiology is less studied in Vienna since the departure of Ludwig, formerly professor at the Josephinum or Military Medical School, now head of the magnificent Physiological Institute at Leipzig; but the projected new University buildings will probably provide a suitable locality for this as for other now neglected studies.

As we said before, one of the main attractions of Vienna will always be the arrangements for the study of special branches of medicine and surgery; we may therefore run over the names of some of the more popular teachers of these branches. That for which Vienna has, perhaps, won the greatest reputation of late years, is the treatment of skin-diseases, especially as practised by the ingenious and humorous Professor Hebra. Originally a pupil of Skoda (and also of Bohemian birth), he was encouraged by his teacher to devote himself to the study of skin-diseases. How well he has justified the wisdom of this advice, is a matter of European notoriety; how amusing his lectures are, one must go to Vienna to know. In his most valuable clinique, there are few who do not learn, but perhaps fewer who do not laugh. The peculiarities of manner, costume, and character, of the Vienna patients, give endless opportunities for the humour of the professor; but, although he is certainly unflinching in the application of painful remedies, it cannot be said that he is really deficient in consideration for the poor and suffering. Some of his stories ought to be classical. A stalwart patient, who appeared in the middle of summer, once gave a remarkable extension to the phrase "out of work." Being asked how he could be out of work at this season of the year, when it was almost harvest-time, he replied that his only occupation was "snow-shovelling", or clearing the streets after a fall of snow, so that he really had very seldom anything to do! Professor Hebra is very severe on the French dermatologists, and fond of a little more good-natured chaff at the expense of the English. His favourite *mot* about the Skin-Hospital in Blackfriars Road, is that, though the name "Hospital" is put up in very large letters, it is really "no hospital at all, but only a *colossales ambulatorium*."*

Hebra's lecture-room is a kind of little amphitheatre, the patients being marched round the central area for inspection. The lecture lasts some two hours, and is quite distinct from the regular visit, or prescribing for out-patients, so that the whole time can be given to

demonstration. As is well known, the Vienna professor gives great prominence to local treatment, neglecting, comparatively, constitutional remedies; and for this reason it is absolutely necessary to see his practice, in order to pass any judgment upon it. For in these matters it is most emphatically true, "whatever's best administered is best", and the details of management are really the gist of the whole matter. To attempt to apply "Hebra's treatment" without the skilled assistance, or the baths and other appliances, which are at present almost entirely wanting in London, is really not to apply it at all. We must not call two things by the same name. To present an ignorant patient with a mass of ointment or a bottle of lotion, is one thing; to apply these remedies systematically and carefully, is something entirely different, and it is absurd to expect the same results from the two.

There are other cliniques for skin-diseases in Vienna beside that of Hebra; and the lectures of Dr. Neumann, Privat-docent in the University, should be especially mentioned. Dr. Neumann, in his excellent *Manual of Skin-Diseases*, has for the first time given a clear account of the anatomical changes in these diseases, on the basis of modern pathological histology. For those who are drawn to other specialities, there is no lack of material for observation, or of teachers. In ophthalmic surgery, the names of Arlt and Jäger; in aural surgery, of Gruber and Politzer, are well known. In syphilis and venereal diseases, there are two very highly esteemed teachers—Professor Sigmund, who has charge of this department in the General Hospital, and Professor Zeissl, the author of a manual well known in Germany. Both, we may say, are decided supporters of the "dualist" theory. For the diseases of children, there is a charming little hospital, the St. Anne, where clinical lectures are given by Dr. Widerhofer. The Foundling Hospital presents, also, an immense field for the observation of infantile maladies, and there, also, clinical instruction is given. In obstetrics, the Hospital at Vienna has achieved an undeniable reputation; and the large number of births constantly taking place supply opportunities for study and practice which cannot be got in our own country without a very great expenditure of time and trouble. Well qualified students, also, have the advantage of being often able to perform important obstetric operations themselves, under proper guidance. It would be tedious to go through the list of special teachers, which would be a very long one; but we must not omit to mention one special and very interesting department of study for which remarkable facilities exist—namely, morbid conditions of the brain. A lunatic asylum exists in close proximity to the General Hospital, and the autopsies of patients dying there are conducted in the Pathological Institute by Dr. Meynert, well known for his brilliant researches on the structure of the brain. Dr. Meynert occasionally gives a course of lectures and demonstrations on the morbid conditions of the nervous centres, of which it is not enough to say that it is unrivalled, since it is probably unique in Europe.

In conclusion, we must say a word in answer to an obvious question which will probably occur to many readers: Why should we go so far in search of instruction in these subjects, when so many specialists and special hospitals exist at home? Is not London a sufficiently large field? The answer to this objection is certainly not that there are more patients or more remarkable cases in Vienna, since a population of three millions must supply more medical curiosities than one of half a million; nor yet that our physicians and surgeons are inferior in skill, for many in London are acknowledged to stand in the first rank in their respective lines of practice; but the simple fact is, that in Vienna these subjects are *taught*; in London they are, comparatively, not taught. There is all the difference between assisted and unassisted study. A visitor to the special hospitals, or special departments of hospitals in London, may learn much by using his eyes, and occasionally pick up a hint or two from the medical officer; but the latter seldom has the time or opportunities for, and therefore never acquires the habit of, serious teaching. It is not primarily his own fault. In the first place, he has far too many patients, and the managers or governors are anxious rather to swell the total number of patients receiving relief, and thus make out a strong case to the public, than to show their staff much consideration in this particular. In the next place, he has generally other irons in the fire, and is due at some other hospital three or four miles off, the moment he can get away; and, finally, the custom of teaching never having been formed, there is no class of students desirous to learn. This last difficulty certainly strikes us as the most formidable, and were there any demand, probably the others might soon be overcome by assigning a special hour to instruction, as is done in Vienna; but why there is no demand, and whether this depends on the absence of a supply of instruction, we cannot now inquire. One thing only must, in fairness, be mentioned: that the special courses of instruction in Germany (and notably those very valuable courses given by assistants and demonstrators) are supported in great measure by foreigners, especially by Americans and Russians, though also by gradu-

* The Germans quaintly call out-patients "ambulants", as being able to walk; and an institution or department for out-patients, an ambulatorium. The name hospital resupposes in-patients.

ated students from other German Universities. The ordinary undergraduate student has, as with us, but little time for extra courses, so that the supply of more advanced special instruction is closely connected with the attractiveness of the school as a whole, which causes it to be visited by learners from a distance, who have already acquired their necessary qualifications. It would be impossible here to discuss the question how such an attractiveness is to be given to the schools of London.

LARGE FLUCTUATING ABDOMINAL SWELLING: RAPID DISAPPEARANCE, WITH EXCESSIVE URINARY DISCHARGE.

By WILLIAM R. LANE, Esq., Surgeon Second Battalion Grenadier Guards.

CORPORAL —, of the Second Battalion Grenadier Guards, was brought to hospital in a cab on December 28th, 1869, at 11.30 P.M. He was on leave, and had fallen down a flight of stairs. On admission, he complained of pain over the crest of the ilium of the right side, the skin over which was slightly discoloured from bruising. There were also pain and tenderness over the region of the bladder. The tongue was white and loaded; the pulse full and rapid. The bowels were constipated. He was ordered to have three grains of calomel immediately, and a dose of castor-oil in four hours.

On December 31st, three days after admission, he was attacked with severe pain and tenderness in the region of the right kidney. He passed a large quantity of blood with the urine. The pulse was very small and rapid. He was ordered to have a grain of powdered opium three times a day. From this date to January 8th, eleven days after admission, the blood in the urine gradually diminished; but on the 10th he complained of a return of pain in the back; and, on examination, there was found enlargement with extensive dulness over the hepatic region. The enlargement gradually increased, distending the right hypochondriac, epigastric, right lumbar, and iliac regions; and, from the swelling pressing upwards on the lung, breathing was much impeded. Fluctuation was distinctly discovered at the back; there was every appearance of a large abscess forming and pointing posteriorly just below the floating rib, and the fluid felt very superficial. Matters remained very much in the same state up to March 1st, and it was then decided that on the following day an exploring needle should be used. On paying my visit to the hospital on the 2nd, the patient said that he felt very much better; and I was surprised to find that all the swelling had entirely disappeared, and that nothing but redness of the skin remained. He stated that the swelling gradually began to subside after I had seen him the day before, and that he passed during the day and night upwards of six quarts of urine. Convalescence was very rapid; and on March 18th he was discharged from hospital perfectly recovered, and has ever since done the whole of his duty.

What was the swelling? and how was it produced? At first it was taken for a large abscess of the liver; but, considering the rapidity with which it disappeared, and the absence of pus in the enormous quantity of urine which passed concurrently with its subsidence, this supposition must have been incorrect. It could not have been urine from rupture of the kidney, or there would have been the symptoms of extravasation of urine—viz., inflammation, suppuration, and sloughing. If it were serum, how did it find its way so rapidly into the bladder? The rupture of large cysts into the peritoneal cavity, and the passing off of their contents by the kidneys after absorption, are not very uncommon, especially in females from rupture of an ovarian cyst. Could this have been an urinary cyst, the urine being deprived of its irritating qualities by the cyst-wall while resident in it? If so, the rupture of the cyst into the peritoneal cavity will account for its disappearance and the enormous quantity of urine passed. The case is so obscure, that I scarcely like to venture a theory to account for it.

PROFESSOR FLOWER'S HUNTERIAN LECTURES ON THE TEETH AND ALLIED ORGANS IN THE MAMMALIA.

Delivered at the Royal College of Surgeons of England.

LECTURE IX.—*Wednesday, March 8th.*

THE Pinnipedia or Aquatic Carnivora are mainly distinguished by the characters of their limbs, which are organised for swimming. The incisors have not the ordinary formula $\frac{3}{3}$, but vary much. The canines are large and well developed. The molars differ from those of other

Carnivora, being very uniform in character, and never having more than two roots. Their crowns are always compressed and more or less pointed, and may have some little accessory tubercles. None of the teeth presents sectorial characters. There are usually five molar teeth above, and the same number below, on each side. The Pinnipedia are divided into several families; viz., Otariidæ, Phocidæ, and Trichechinæ.

The Otariidæ comprehend about twelve species, of which the Sea Lion or Sea Bear (Otaria) is an example. In this animal, the hind limbs are more adapted for walking than those of the Seal; and small external ears are present. There are three incisors in the upper jaw, and two in the lower, on each side. The middle incisors are the smallest; the upper outer ones are very large. Each upper central incisor is divided by a deep groove into an anterior and a posterior cusp. The two lower incisors do not differ much in size; in the young animal, they appear to be lobed in a different direction from the upper teeth. The canines are large and recurved. There are generally five teeth of the molar series, of which the second, third, and fourth are preceded by milk-teeth; the first has no predecessor, nor has the fifth (the true molar). The roots are simple, often connate. The milk-teeth appear at an early period, and are mostly shed before birth. The permanent teeth, in the Otaria and the true Seals, appear to come up at about the same time. In an Otaria about a fortnight old, the milk-canines only were present; a few months later, all traces of the milk-dentition were gone, and several crowns of the permanent teeth had appeared above the surface. In the old animal, the canines become greatly developed through the growth of the roots, and wear away. It is the Otaria that furnishes the article used for clothing known as "sealskin". In another form of Otaria from Behring's Straits, the last molar is separated from the others by an interval. Some Otariidæ have six molars on each side in the upper jaw.

The Phocidæ or true Seals comprehend three groups—Phocinæ, Stenorhynchinæ, and Cystophoridæ. In the Phocinæ, the dental formula is $i \frac{3}{3}, c \frac{1}{1}, p \frac{2}{2}, m \frac{1}{1}$. The upper incisors are sharp and curved backwards, the outer ones being the largest. The canine is large and curved backwards. The molars are all alike; each has a small cingulum, and, except the first, two roots. The crown has a main cusp, with small ones before and behind. The milk-dentition is perhaps even more rudimentary than in the Otaria. In a new-born Seal (Phoca) at the Zoological Gardens, the tops of the permanent teeth were all on a level with the alveolar ridge, and the milk-teeth were nearly absorbed. At an earlier stage, the milk-molars have two roots. In a Seal a week old, scarcely a trace of the milk-teeth was left. In the Phoca barbata, all the teeth become worn down to stumps, until not a fragment of tooth is left. In the Halicæurus or Grey Seal, the teeth are very simple, and are single-rooted—except, perhaps, the posterior molars.

The Stenorhynchinæ are all—with the exception of the Mediterranean Seal—inhabitants of the Southern seas. There are two incisors above on each side, and two below. The molars are simple, and have two roots. In the large Seal of the Southern seas, the molars have a strong lobe, with accessories behind and before. In the Lobodon or saw-toothed Seal, the molar teeth have each a compressed cone with a number of accessory cusps.

The Cystophorinæ or hooded Seals have two incisors on each side in the upper jaw, and one in the lower. The molar teeth are very simple, and generally have each only one root; they have a slight tendency to the formation of a cone with accessory lobes. In the great Elephant Seal of the Southern seas (Macrorrhinus), the canines are large and much furrowed on the side. The molars are single-rooted, and have simple slightly compressed crowns, almost like the homodont teeth of the Cetacea.

The Trichechus or Walrus, which is found in the Arctic seas only, has an enormous tooth projecting at each side from the upper jaw. These tusks are massive, and somewhat resemble those of the Machairodus, but have not sharp edges. They are the upper canines. In the lower jaw, the canines do not project; they are not in a line with the other teeth. The skull is specially modified for the attachment of the large tusks. The tusk is composed of true dentine about half an inch thick, covered with about one-tenth of an inch of cement; there is no enamel on the surface. The growth of the tooth is continuous; and, as it wears, the pulp-cavity becomes filled up with osteodentine. There are generally also four round massive teeth, with flat surfaces on each side above and below. They have single roots; the enamel covering the crowns soon wears off. In the upper jaw, the first of these molar-like teeth lies between the maxilla and premaxilla, and is generally regarded as an incisor. In the lower jaw, the first of these teeth may be called a canine, the next three præmolars or molars. In the young Walrus there seem to be more teeth than in the adult. In a young animal, which