ON HOSPITAL MANAGEMENT; AND ON MEDICAL EDUCATION.

By ALBERT NAPPER, Esq., Cranley, Guildford.*

OF the modern buildings in Guildford, there are none to which I need particularly refer, if I except that in which we have the privilege of meeting to-day. Of its merits as a building, every one present will have the opportunity of forming his own opinion. Projected at a time when the want of such an institution was deeply felt both by the medical profession and the public, it speedily received such support as to ensure its successful accomplishment. Designs were offered by many eminent architects, from which that of Mr. Lewer, a resident of the town, was selected. Much pains were taken by the architect, as well as by several members of the committee, to discover the defects and ascertain the result of improvements in various similar institutions, and the result is now before you.

Were I casually asked to express an opinion of it, it would be, that it is an admirable specimen of a modern hospital, so far as it accords with the popular notion of what a model hospital should be; but I must confess that it does not come up to that degree of perfection to which I think these institutions are capable of attaining; and, as this is a subject in which I have long felt especial interest, I have proposed to make it the topic of the address I have the honour of submitting to you to-day. I may, and probably shall, by some be thought presumptuous in openly expressing my opinions on such a subject. We are naturally wedded to old customs and ancient institutions, and, in our affection for them, are apt to lose sight of their imperfections; but these, nevertheless, should be remedied, and the readiest means of attaining this end is by pointing them out. One of the defects of which I complain consists in the absence of a common room, to which all patients capable of so doing should resort during the day, thus relieving the dormitory-wards of much noise and foulness of atmosphere, and at the same time affording to those convalescents the means of obtaining purer air, more comfortable meals, and a security against much that is unpleasant to be witnessed in the wards. Whatever may have been the object and purposes for which our hospitals were originally instituted, there can be no doubt, in the present day, they are ostensibly maintained for the medical and surgical relief of the necessitous poor and such other persons as cannot be thus provided for from other sources; but in their practical working what do we find? Go through the wards of any of the larger hospitals, particularly those supported mainly by the annual contributions of governors, and you will see many of the beds filled by well-to-do tradesmen, ladies' maids, butlers, coachmen, and other highly salaried servants of the upper classes, most of them well capable of paying for their medical attendance, whilst the legitimate recipients of the charity are thus excluded. Here, then, is one of the objections to the present system of conducting hospitals, which has crept into practice by allowing the supporters of these charities a premium on their contributions, in the form of nominations of candidates for admission, said to be simply recommendations, but which, as is well known, practically amount to orders, as few would risk the loss of a good subscriber by refusing to comply with his wishes. The only effectual remedy for this consists in doing away with this privilege of the governors, and leaving every case to be admitted by the medical officers on its own merits, as is the practice in some of the large but well endowed hospitals. As a rule, to which there are doubtless many noble exceptions, governors are much influenced by the indirect substantial benefit accruing to themselves, and, in reserving their recommendations for the admission of their own dependents, too frequently fill the beds with patients whose ailments are not of such a character as to entitle them to admission, whilst the friendless sufferer whose case is more urgent is unable to obtain one.

I am aware it may urged, that governors will not subscribe if deprived of these privileges. On this score, I think, little need be feared. Should their charity require to be kindled by the stimulus of self-interest, their loss would not be great, and the institution would be spared the heavy expense of supporting their nominees, whilst those who with true charity subscribe their money with the sole object of benefiting their poor and necessitous fellow-creatures, will do so the more readily from feeling a security that it is not applied to the relief of the undeserving. Whilst condemning this abuse as a great evil of the present system, I am quite ready to admit, that the necessity that has led to it is one that needs a remedy. Families will not submit to the expense and inconvenience of providing medical and other attendance for sick servants in their own homes; and it is very desirable that special hospitals should be provided for their reception and treatment, based upon the principle

* Part of an address delivered by Mr. Napper, as President of the South Eastern Branch, at the annual meeting.

of a fixed weekly payment, of which the medical attendant should receive a fair proportion. The principle of affording remuneration to the medical officers of hospitals has been much canvassed lately by Dr. Markham and others, whose efforts to mitigate the evils of gratuitous medical services demand our best thanks. The proposition, as applied to the senior medical officers of hospitals, raises a question far too intricate to be disposed of in such a paper as this; but I cannot help thinking that it might tend to deprive them of that independent position so essential to a due performance of their duties.

It has also occurred to me, that events arising out of the ever-changing circumstances of the times, over which we have no control, have rendered necessary a reform in the hospital medical schools. As is well known, the medical student of the present time differs greatly from him of a few years since, whose professional career commenced with an apprenticeship, during which he acquired a practical knowledge of the names, the doses, and the therapeutic effects of drugs, the method of compounding them, the art of writing and reading prescriptions, of book-keeping, and many other useful details of practice. He had also, especially in the country, the opportunity of acquiring a considerable practical knowledge of the nature and treatment of disease, and of the correct mode of conducting himself towards a patient, thus laying a solid foundation on which to base the superstructure of his future career. But what do we see now? The school-boy of to-day is the medical student of to-morrow; like the architect who, spurning the drudgery of laying the solid foundation, hastens on to the more captivating erection of the edifice, doomed to discover, when too late, the necessity of supplying it at great additional cost and sacrifice of time.

I am led to make these remarks from the fact of having more than once been asked to take young men as assistants who, having obtained their legal qualifications, were desirous of acquiring a knowledge of these details, without which no young practitioner can expect to succeed in general practice; and I fear this has been one of the most fruitful causes of so many having lately had recourse to homeopathy and other irregular modes of practice. As there is no likelihood that apprenticeships will ever be renewed, other means should be devised to supply the place of it; and I think this might be effectually done by an improved system of conducting the hospital medical education. It is thought by many, that the too frequent compulsory attendance of students at lectures on medicine and surgery, of an hour's duration, is a misapplication of their time, which might be much more profitably spent in clinical instruction, and for which our hospitals are well adapted. Why is that inexhaustible source of practical knowledge supplied by the numerous out-patients to be turned to so little account? Could not an arrangement be made, by which every second and third year's student might, under the supervision of the professors and their assistants, prescribe for these patients, whilst first year's students would be employed, under proper superintendence, in the dispensary?

In calling to the notice of the associates some of the defects in connection with our hospitals, I am not so sanguine as to expect that they will be speedily remedied, or that my views may be generally endorsed; but I trust, by awakening attention to the subject, that some good may eventually accrue.

LABOUR TERMINATING IN EXPULSION OF HYDATIDS.*

By EDWARD CROSSMAN, Esq., Hambrook.

THE case I wish to report is by no means unique, but has, I think, characters of practical interest sufficient to warrant a brief record. It is a case of pregnancy and labour at full time, terminating in the expulsion of a large mass of spurious hydatids.

My patient, aged 28, the wife of a well-to-do farmer, in October 1865 bore a healthy child, which she suckled till the following July. In August she menstruated, and then became pregnant again. The usual symptoms of pregnancy were present, and all went well with her till January of this year, when a slight hæmorrhage commenced, and, notwithstanding appropriate treatment, persisted for more than a month. From the middle of February till the middle of April, she was pretty well. Occasionally a slight sign appeared, but not enough to call for more than a few hours' rest upon the sofa. She felt the movements of the child, frequent, but very weak. Her arrangements were accordingly made for lying in during the month of May.

On April 20th, while spending the evening from home, she experienced a sudden and severe hæmorrhage, with slight uterine pains. The pains subsided; but the hæmorrhage continued more or less until the

* Read before the Bath and Bristol Branch.

morning of the 3rd of May, when active labour appeared to be coming on, and a message was sent to me to hold myself disengaged.

Six hours later, I was summoned. The pains had steadily increased, accompanied by considerable but not alarming hæmorrhage; and, just before my arrival, two large masses of an hydatidiform growth, together filling a chamber-pot, had been passed. The pains continued; and half an hour later, a third portion, equal in volume to either of the others, was voided; after which the pains subsided, and the uterus was felt hard and firmly contracted, as after natural labour. Altogether a considerable quantity of blood was lost, and my patient was very faint; but, at the expiration of an hour, I was able to leave her in as good condition as that of a woman recently delivered of a child, with after-pains and lochia fully established.

The sequel was most satisfactory. She went through the usual routine of a lying in. On the third day, there was a profuse secretion of milk; and the involution of the uterus subsequently proceeded as after childbirth.

I made a careful examination of the substance expelled. It filled a chamber-pot and a half. So far as I could ascertain, there was little or no fluid discharged from the uterus. I could find nothing representing foetus or placenta; but several large masses of solid half-organised coagulum, and pieces of tough white membrane. The bulk of the mass was made up of transparent vesicles, varying in size from one-eighth of an inch to an inch and a half in diameter; and these were arranged in lines and clusters, like branches of grapes, and were attached to the pieces of membrane and coagula.

I need hardly say that I was unprepared for the advent of such a "baby". My patient had so often spoken to me of feeling the movements of the child, that I did not for a moment doubt the presence of a foetus in utero. The hæmorrhage I had accounted for, by supposing there was some malposition of the placenta.

PROGRESS OF MEDICAL SCIENCE.

ANATOMY, PHYSIOLOGY, AND PATHOLOGY.

DEVELOPMENT OF BLOOD-CORPUSCLES.—Dr. Van der Lith calls attention to the hypothesis of Donders and Moleschott, respecting the mode of development of the blood-corpuscles in the frog. These physiologists examined the blood of frogs which had been kept without food for various periods, and, in addition to the red blood corpuscles, found nucleated cells and free nuclei, the last especially being in greater number the longer the animal had been kept without food. Hence they correctly look upon these nucleated cells as blood-corpuscles in a state of retrogression, and to which at last the periphery disappears, leaving only the nucleus. Lith considers that the view entertained by Wharton Jones, Ecker, Kneutlinger, and others, that these nucleated cells are young blood-corpuscles, presents many difficulties.—*Nederlandsch Archief*.

MENSTRUATION IN THE MALE.—Dr. V. O. King records (*Southern Journ. Med. Science*, Feb. 1867) a case of this in a young man, about 22 years of age. The discharge flowed from the sebaceous glands of the deep fossa behind the corona glandis, was of a sanguineous appearance, homogeneous and thick; the quantity varied from one to two ounces at each period, and the period lasted from three to six days. When Dr. King made the acquaintance of the subject of this anomaly, the vicarious secretion had been observed for three years.

BLOOD.—According to Hoppe-Seyler (Hoppe-Seyler's *Untersuch.* i, 130,) the constituents of the tissues are oxidised outside the blood-vessels, and not after they have found their way into the blood, as maintained by Estor and Saintpierre. Moreover, Hirschmann (*Reichert's Archives*, p. 502, 1866) opposes Estor and Saintpierre's view that carbonic acid is formed in the blood; Hirschmann maintaining from his experiments that it is formed outside the blood-vessels, and afterwards passes into the blood. Gwosdew (*Centrabblatt*, No. 49, 1866) recommends the following process for obtaining hæmin crystals in great abundance. Dried and powdered defibrinated blood is mixed with one-fifth of its weight of pure carbonate of potassium, and is then digested with alcohol of 93 to 94 per cent. at a temperature of from 40 to 45° C.; the red solution is filtered, and the residue again extracted: the solution is diluted with more than its volume of distilled water, and rendered slightly acid by means of acetic acid: the colouring matter is then precipitated in brown flakes, which, when dried at 100° C., treated with one-fifth of its weight of chloride of sodium and 20 to 30 parts of glacial acetic acid, and then digested at 60° C., yields a solution which becomes almost completely transformed into crystals of hæmin.—Preyer

(*Ann. der Chemie und Pharmacie*, cxl, 187) disapproves of the quantitative estimation of hæmoglobin by reckoning the amount of iron it contains, because the quantity of iron is extremely small, and the hæmoglobin of different animals may not contain an equal amount of iron. He moreover disapproves of Hoppe-Seyler's colorimetric method of estimating it, owing to the difficulties which most persons experience in perceiving nice differences in colour. He proposes spectrum analysis, instead of the two above-mentioned methods. A measured portion of blood must be diluted with water until the green is visible in the spectrum. Such a solution is taken as a standard for future calculations, its strength is ascertained by referring to a solution of pure hæmoglobin of known strength. In order then to calculate the percentage amount of hæmoglobin in blood, it is only necessary to take a known quantity of blood, observe the extent of its dilution when the green becomes visible in its spectrum, and by referring to the percentage of hæmoglobin in the original standard solution to calculate the amount in the blood we may use. Perhaps for complete accuracy, the blood ought first to be saturated with oxygen. Preyer has found this method to be very exact. According to Hoppe-Seyler (Hoppe-Seyler's *Untersuch.* i, 140), protagon (see *Journal of Anat. and Physiology*, No. 1, 161), together with cholesterin, is present in serum as well as in the blood corpuscles. Leucocythæmic blood contains it in great abundance. Protogon is also present in chyle in considerable quantity. Hoppe-Seyler supposes that it plays an important part in the formation of fats. His paper contains also some observations on cholesterin in blood.—*Journal of Anat., etc.*

DEVELOPMENT OF STRIATED MUSCULAR FIBRE.—Eckhard (*Henne und Pfeuffer's Zeitschrift*, Dritte Reihe, xxix, 56) agrees with Savory, Lockhart Clarke, and F. Schulz, that striated muscular fibre is not developed from cells but from a nucleated blastema. This conclusion is also supported by Braidwood (see *Journal of Anat. and Physiology*, No. 1). All agree that the fibres are formed from the molecular matter in which the nuclei are embedded. Eckhard has also made observations on the development of the heart of the chick, and states that at no period can cells be seen, but here, as in the muscles of the skeleton, the earliest stage is a nucleated blastema which rhythmically contracts before fibres make their appearance, the latter are developed from the inter-nuclear matter directly. Lockhart Clarke had previously pointed out the fact, that the development of the cardiac muscular fibre is the same as that of the voluntary muscles.

SURGERY.

WOUNDS OF THE INTERNAL JUGULAR VEIN.—Dr. S. W. Gross arrives at the following conclusions from the study of eighty-five recorded cases. 1. Incised and punctured wounds of the internal jugular vein are to be classed among the most fatal of accidents; and, if subjected to no treatment, are invariably mortal from primary hæmorrhage, the introduction of air, pyæmia, or secondary hæmorrhage. 2. Gunshot wounds of the vein alone are always fatal from primary or secondary hæmorrhage, or pyæmia. 3. When the carotid artery is opened at the same time, either as a result of gunshot, incised, or punctured wound, the case may, under favourable circumstances, recover, but with the formation of an arterio-venous aneurism. 4. Compression is followed by a fatal result as often as ligation; is more painful and inconvenient, and is to be resorted to in those cases only in which a thread is inapplicable from the high situation of the wound, or when the vein is merely punctured, and the measure can be applied mediately. 5. Ligation is more convenient, as it produces neither pain nor a suppurating cavity; and the fears of exciting diffused phlebitis are utterly groundless, as there is not a single example showing that such an inflammation has followed its employment. The ligature is, moreover, called for to guard against the introduction of air, and prevent its further ingress, as well as to prevent the occurrence of diffused phlebitis. 6. The lateral ligature is to be avoided, as it has been the cause of all the fatal results from secondary hæmorrhage; and both ends of the wounded or divided vessels are to be tied, since reflux hæmorrhage is not an infrequent occurrence. 7. Ligation of the common carotid artery will not restrain the flow of blood from a wounded internal jugular vein, and is, therefore, to be rejected as a hæmostatic measure. 8. Not only has the danger of pyæmia after ligation of the vein been greatly exaggerated, but all the dangers are also hypothetical, as neither apoplexy, softening of the brain, nor other cerebral disorders have ensued from its employment, the collateral circulation being amply sufficient to prevent those accidents. 9. The cause of death after ligation is not to be looked for in the production of pyæmia, as the fatal issue has, in every instance, been due to secondary hæmorrhage, coming on about the time of the separation of the thread.—*American Journal of Medical Sciences*.