by our fellow workers, I have said sufficient, I hope, to demonstrate the existence of much remaining vitality in the world of surgery, and to justify the promise of still further triumphs to some.

BILHARZIA HÆMATOBIA IN CONNECTION WITH A FORM OF DYSENTERY IN EGYPT. . .

By JAMES MACKIE, M.B.,

Surgeon to H.M. Consulate and the Deaconesses' Hospital, Alexandria.

FROM what has lately been written on the subject of *Bilharzia* in connection with our expeditionary force to Egypt, one might be led to infer that *Bilharzia hamatobia* and endemic Egyptian hæmaturia are almost interchangeable terms, and that the one never exists without the other. This, in the great majority of cases, is true; but, it does not seem to have received the attention it deserves, that persons may suffer severely from the parasite without showing any symptom of hæmaturia or other urinary disorder. Many cases of supposed dysentery and severe internal hæmorrhoidal affections are caused by the presence of, and irritation caused by, multitudes of the ova of *Bilharzia hamatobia* imbedded in the walls of the rectum; and to this I wish to draw attention, as being of interest in relation to chronic dysenteric affections which may present themselves amongst our troops remaining long in the country. Many natives from the interior of Egypt present themselves for advice in our out-patient department at the Deaconesses' Hospital, complaining sometimes of "piles", sometimes of "dysentery", sometimes of "constant pain and weight in the rectum with tenesmus". Whatever name they may give to their complaint when asked what it is, they all complain pretty much of the same symptoms—viz., straining at stool, constant weight and discomfort, perhaps pain about the rectum, constant or frequent desire to go to stool, and passing only a little mucus and blood, pain at hypogastrium, emaciation, etc., having generally been ill for months before they apply. If closely inquired into, those cases hardly present a history of ordinary dysentery or hæmorrhoids; there is a something in the history more nearly resembling a mild form of malignant disease; but the history of the case can only be got from a native by those knowing their language and accustomed to examine them. To clear up the diagnosis: if the forefinger is introduced well up into the rectum—and it generally requires to be pushed up as far as it can reach—small, soft, but firm nodules will be felt, generally about the size of a small bean, often very numerous, and giving the impression to the feel of a small, well-defined sessile pile, but too high up for piles, and not hard enough for malignant disease. By introducing carefully along the finger a small hæmorrhoidal forceps, one of these small tumours can easily be twisted off for examination under the microscope, when its blood-vessels will be found to be filled with the ova of *Bilharzia hamatobia*; and in my own experience the ova found in the rectum have in nearly all cases the spike placed laterally, differing from those generally found in the urine, which have the spike at the extremity. The presence of *Bilharzia hamatobia* may be manifested by dysenteric symptoms, as I have already mentioned, without the patient ever having shown any sign of urinary disorder, or any ova being found in the urine after repeated and careful microscopic examinations.

One case, which was under my care last winter in the Deaconesses' Hospital, impressed me very much at the time—happening to be under treatment when a correspondence was going on between me and the directors of the Eastern Telegraph Company in Egypt, and the directors and Dr. Cobbold in London, regarding a number of cases of hæmaturia amongst the company's staff at Suez, which has already been referred to in the *Times* war correspondence, and lately by Dr. Cobbold in the *BRITISH MEDICAL JOURNAL* and elsewhere. Acting on advice in London, the directors of the company suggested that the urine of all the employees should be sent to me for examination from time to time, in order to detect the presence of the parasite as early as possible. In a letter to the company, I pointed out that the disease often existed without any evidence of it to be found in the urine. I instanced the case of the patient, an Arab above referred to, who happened to be under observation. The urine of this man was carefully and repeatedly examined for me by Dr. Murison, a most careful and accurate observer, by Dr. Vernoni, and by myself. We took every care to examine the last drop drawn from the bladder; we even irritated the bladder by the catheter to obtain a little blood; we never found a single ovum from the bladder, while his rectum was full of small tumours, each of which was crowded with ova. The man's sufferings were great, and state bad. He seemed to be, as I described it, infested with bilharzia, and never had had a symptom of any urinary disorder, according to his own statement, which I can confirm from observation while in hospital.

In all cases of what may be termed subacute chronic dysentery in people who have been some time resident in Egypt, and exposed to drinking unfiltered water, the rectum should be carefully examined by the finger pushed up as high as possible; and if small tumours, such as I have described, are found, they should be examined under the microscope.

THE EFFICACY OF VACCINATION.

By J. HIGHAM HILL, M.D., F.R.C.S.E.,

Special Medical Officer appointed by the Government during the recent Epidemic of Small-pox in Sydney.

DURING the late outbreak of small-pox in Sydney I had many very favourable opportunities of witnessing the great efficacy of vaccination as a prophylactic against that disease; and as in some respects the experience was remarkable, I hope that I shall not be considered a slayer of the slain in writing to bear additional testimony to such a well recognised fact. I think it will be generally conceded that, while sceptics of the efficacy of vaccination and antivaccination agitators exist, it is well that practitioners who have had special opportunities of personally observing that efficacy should place upon record their convictions on this important subject, together with some of the facts upon which they are founded.

In the first place, vaccination not being compulsory in the colony of New South Wales, there was a large amount of unprotected material in the shape of unvaccinated people, adults and children, for the disease to prey upon; and a feeling amounting almost to panic on its sudden and unexpected appearance in Sydney in June of last year.

Secondly. The measures adopted by the Government to prevent the spreading of the disease were unusual, and apart from the question of their intrinsic value, afforded peculiarly good opportunities of testing the protective influence of vaccination.

On a suspected case of small-pox being reported to the authorities, the house was at once visited by a member of the Government Medical Staff, specially appointed; and if, on examination of the individual, the suspicion proved well founded, the house and its inmates were immediately placed in a state of strict quarantine, and no unauthorised person allowed to leave it; special police arrangements having been made to enable this to be done under the Colonial Quarantine Act. If the affected person could not or would not be removed to hospital, as was frequently the case, the other inmates were in very many instances kept in the same house, there being often no accommodation for them in the "sanitary camp", which was erected some miles out of town near Botany Bay. The patient was isolated as much as possible, but the isolation which could be effected in small or overcrowded houses was practically nominal. Under such circumstances, the protection of the unaffected inmates and neighbours by prophylactic means was a matter of the greatest importance, and to the credit of vaccination I can safely assert that results proved it to be a protector equal to the occasion—very few vaccinated inmates of quarantined houses contracting this most infectious disease, and those few having as a rule very mild, modified attacks, although all were greatly exposed to the infection while living under depressing influences and bad hygienic conditions, being confined in small houses, with little or no opportunity for obtaining fresh air, exercise, etc. Many nurses were employed, but none contracted the disease, all having been protected by previous attacks or efficient vaccination before commencing their duties. On the other hand, in every instance where anti-vaccination prejudices could not be overcome, and although small-pox was in their houses, persons would not be vaccinated, or allow their children to be vaccinated, severe, and very often fatal, attacks were the rule without exception; and, when too late, these persons bitterly bewailed their ignorance and stupidity.

I could mention many cases where only the unvaccinated members of households were picked out by the disease and attacked, the others leading, as it were, "charmed lives," although exposed freely to the infection, and, as I have stated, under bad hygienic conditions, thus testing, with unusual severity, the protective power of their vaccination. And as with households so with neighbourhoods, as the following instances taken from many will show.

A woman, living in a semi-detached wooden house, was attacked with small-pox of the severe confluent type. Neither she, nor her husband, nor her daughter, aged 16, the only occupants of the house, had been vaccinated. I vaccinated the two latter as soon as possible; the daughter escaped altogether, although acting as nurse to her mother. The husband had a very mild attack, consisting of only half-a-dozen modified variolous pustules on the face and hands, with very little constitutional disturbance, and no secondary fever. Next door was a

family, consisting of man and wife and eight children, all unvaccinated. These I vaccinated without delay, and none contracted the disease, although the division between the two houses was of a very slight nature, being merely a wooden partition.

Again, small-pox existed in a house, one of a row of brick ones. An unvaccinated girl, in the sixth house distant, contracted the disease in the confluent form. Her mother and two sisters consented to be vaccinated, but her father, who said he had been vaccinated in childhood, but whose arms bore only one indistinct and by no means characteristic mark, refused vaccination, soon contracted the disease in a severe form, and both he and his unvaccinated daughter died, the others escaping altogether.

The only unvaccinated person in the third house distant, a boy, aged 10, whose doting foster-parents had refrained from having him vaccinated, for fear, as they said, of injuring his health, but who had anxiously taken every other precaution, contracted small-pox in the confluent form, but recovered, with great disfigurement. All the other inmates of this and the intermediate houses, having been efficiently vaccinated, escaped the disease entirely.

AMPUTATION AT THE HIP-JOINT BY FURNEAUX JORDAN'S METHOD.*

By LEWIS W. MARSHALL, M.D.,
Surgeon to the Children's Hospital, Nottingham.

In the *Lancet* of March 23rd, 1879, a case was published, with remarks, of amputation at the hip-joint by a modified method, by Mr. Jordan. Struck with the simplicity of the operation, and the probability of a much more favourable result than by the performance of the older flap amputation, I have adopted it; and the three cases now shown in the wards at the Children's Hospital, are, with exception of one since dead, those which have occurred in my practice since the date of Mr. Jordan's paper.

The method of operating is as follows:—If incision has been previously practised, the existing incision is prolonged to about the middle of the thigh; the femur enucleated; the soft parts cut through with a circular sweep of the knife, and the femoral artery tied. Mr. Jordan, in his case, controlled the bleeding by a tourniquet on the external iliac; but, as will be shown subsequently, in children's work at least, the fingers on the common femoral have hitherto proved sufficient.

Summarised, my cases stand thus. Four in number; three after failure from incision, and one where that operation was deemed inadmissible on account of the extent of disease in the shaft of the femur. All were, as to their general condition, in such a state, that a fatal termination might be predicted at an early date; and, one, the girl, had a very large and persistent deposit of albumen, lasting up to and beyond the time of her discharge from the hospital. However, I am glad to say, she has for some months been free from any symptom of this kind. Their ages were: two at seven years, one at five years, and one at two years and five months. In all, the fingers were used to compress the common femoral; but in No. 1 E-march's band was applied. This slipping, the fingers were substituted for it. Owing to the change in the means chosen for restraining hæmorrhage, more blood was lost in this case than in any of those afterwards. No more than two vessels were ligatured in any instance, and in some the femoral only. Two drachms would represent the maximum blood-loss. Catgut was the ligature used; the dressing employed being in No. 1 thymol; and in all the others a loose covering of carbolic oil and lint. Drainage was secured by horse-hair. The fatal case occurred three months after the date of operation from visceral lesions.

Mr. Jordan remarks upon his single case that as "compared with the ordinary operation of two flaps, the wound was less severe, the cut surfaces were less extensive, and, in a manner, further removed from the trunk; it was followed by less shock, less hæmorrhage, less opportunity for septic infection. The vessels cut were more easily dealt with. The thigh might be simply cut through with a circular sweep of a few sawing movements. The boneless thigh should be firmly held, and somewhat flattened, if cut across. The muscles may be cut on the same level as the skin, the bone being absent, they retract so strongly that the skin readily covers them; its vitality is less endangered; and a great cellular plane is not opened. The bulk of the soft parts of the thigh, especially near the pelvis, lies at the inner side of the femur. Why put a knife through these parts? It is better to enucleate the femur when it is covered, and cut across the limb where it is smaller and further removed from the trunk. In removing the thigh very low down, the area of the wound is, no doubt, increased; but even then it

would be a much less dangerous wound in character and locality." He goes on to say that the operation is more suitable for those cases in which the soft parts can be freely left. "The surgeon may, if he choose, make the circular sweep before the shaft of the bone is turned out, if precaution against hæmorrhage have been very complete." He also calls attention to the value of the operation as giving safe access and free drainage for any length of time. The principle of the operation is suggested by Mr. Jordan as a valuable one to adopt for amputations in other localities.

My chief object in bringing these cases before the meeting is to call attention to (judging from the number of cases published and the reports of the meetings of the Clinical and other Societies in London) the somewhat tardy manner in which this method has been adopted by the profession. Holding forth the advantages it has, as compared with the double flap operation, more particularly with respect to blood-loss and the shock sustained, rendering handling *per rectum* perfectly unnecessary, the gluteal vessels being untouched, I am at a loss to explain why, when Dr. Stokes of Dublin related his cases by the older method at the Clinical Society on April 23rd, that no question was raised by any member present as to the operation performed. In the subsequent discussion, great stress was laid on the anxiety with which amputation at the hip-joint was undertaken, on account of the bleeding from the posterior flap, and the respective values of abdominal tourniquets and Davy's lever were freely discussed, the latter appliance being much extolled. That it may be, and probably is, of great service in the flap operation, one can quite see; but surely it is undesirable to pursue such a course when everything else is in favour of a choice of methods of operating such as render this procedure absolutely unnecessary. The cases shown to you to-day prove, I think, clearly the advantage of Mr. Jordan's operation, because in not a single instance should I have cared to have removed the limb by other means; in fact, in publishing my first two cases, I remarked that No. 1 had, I believed, suffered to some extent by delay on account of my shrinking from an operation which necessitated so much hæmorrhage and shock. The method I am now advocating had not at that time been brought forward; I had therefore no choice but to operate by the double flap.

Although of secondary importance, operations at the hip-joint being usually undertaken principally for the saving of life, I may point out that the stump left by Jordan's method is in every way all we could wish for. Limp, flaccid, and flabby at first—in fact, unsightly—it soon contracts, and, long before the old sinuses and abscess-cavities have healed, has assumed a shape not to be despised, and, in my judgment, as capable of bearing support as any other.

By giving to us this plan of removing the limb (a modification as it is, I think, of Dieffenbach's), Mr. Jordan, we must admit, has conferred a boon on the patients and an addition to surgery. More lives will be saved by the removal of useless and harmful limbs, fewer deaths will result than by other operations, and the risk of prolonged suffering ending in lardaceous disease will be lessened, if, as I feel it must, the utility of this measure be eventually recognised.

REMARKS UPON THE STAGES OF INFECTIVENESS OF MEASLES.

By T. FREDERICK PEARSE, M.D., LIPHOOK, HANTS.

THE following cases are particularly instructive as well as interesting, from the exact as well as reliable data which were able to be obtained. Two brothers, C. and H., returned home for their holidays on Friday, April 21st. Exactly a week before they "broke up", a boy returned to school from the Isle of Wight, where he had been about a fortnight for a change after an attack of measles. The convalescent was a day boarder, but played about with the other boys, and is said to have been wearing the same clothes in which he went away ill. A few days before the "break up", another boy was separated from the rest of the school with a so-called "cold". Three days after the return home of the two brothers, viz., on Monday, April 24th, the eldest of the two was taken poorly, but with no very definite symptoms beyond those of a "cold" until Friday, the 28th. On the afternoon of that day, his face was noticed to be "blotchy", and he showed a few red spots about the neck. There being a younger son at home who had not been to school on account of his health, the parents promptly separated him from his two brothers to another part of the house. Up to this time, the second boy who had been to school appeared quite well. A rash, however, of an unmistakable character was recognised on the following day (29th). These two boys passed through a typical, though favourable, attack of measles. The crisis in each case occurred on the night of the sixth day of the disease; and, after the rash had been visible

* Read before the Midland Branch.