

useless and vastly increased the dyspnoea, but also gave rise to a septic pleurisy causing grave constitutional disturbance and serious risk to life. She left the hospital in a very weak condition, and is supposed to have died since, but we have not been able to ascertain when or how this happened.

I might multiply the account of such cases, but as this would be tedious, I will only mention in any detail one other, in which no operation was attempted, though, as was shown by the necropsy, it was the only one in the series at present in which any great good was likely to be gained.

J. W.—, aged thirty-two, a patient of Dr. Powell's, a plasterer by trade, had inflammation of the lungs seven years before, from which he apparently completely recovered, with the exception that he suffered from a dry hacking cough for a year. Twelve months before admission he had an acute illness, accompanied by a severe cough, with shiverings and dyspnoea, after which he began to expectorate between one and two pints daily, the expectoration being odourless at first, but gradually becoming highly offensive. He is said to have had a left pleurisy six months before admission, which made matters much worse. On admission, in October, 1885, he exhibited very puzzling physical signs: the right side seemed fairly healthy, but on the left side there were at times all the signs of a large cavity in the neighbourhood of the angle of the scapula, while at others these signs were altogether absent. His temperature varied, being sometimes almost normal, sometimes varying between 99° and 103° . It was found that by inverting him a copious flow of expectoration could be obtained, generally accompanied by some marked alteration in the physical signs in the back. So doubtful, however, did the indication appear to be, that the point of recommending surgical interference was never actually reached, and about Nov. 12th his temperature rose, he became rapidly worse, and died on Nov. 16th. At the post-mortem it was found that there were considerable adhesions on both sides, more on the left than the right, and a small localised purulent collection on the right side. The left lung showed remarkably little fibroid thickening, but was studded with bronchiectatic cavities, the largest of which was in the posterior axillary line, the next largest being near the angle of the scapula—in fact, in the position diagnosed. Dr. Kidd, before making the post-mortem, inserted a knife at the point indicated by him during life, and it entered the cavity directly. There was slight but not excessive bronchial dilatation on the right side.

The noticeable point about this case is the very large size of the main cavities. One at least could clearly have been reached by an incision, but it is certain that even this would only have afforded the patient very partial relief, as there were many others in this lung, and a similar condition was starting upon the opposite side, and even the cavity which could be reached was much branched, and probably would not have been very efficiently drained even if it had been fully incised. The condition of the apex of the right lung is very remarkable; there seems to be an interstitial change, not starting from anything caused by retained bronchial secretion.

To sum up the state of opinion at the present time with regard to the whole subject, it may be said—1. Gangrenous cavities should always be sought, and, if possible, opened; and the prognosis, if the operation be successful, is not bad. 2. The same may be said in regard to abscesses caused by the rupture of purulent collections from other parts into the lung, at least as regards the pulmonary complication. 3. Abscesses connected with foreign bodies must be opened, and if the body be not found, it must be remembered that, if of any considerable size, it probably lies pretty near the middle line. If possible, these cases should be treated early by tracheotomy and incision. 4. Bronchiectatic cavities, when single (a very rare condition), will be cured by operation. When multiple (a very common condition), they offer but small chance of relief by our present surgical methods. Still, for the reasons stated, an attempt may be made to open the main one if such is to be found, but only if the pleura has been ascertained to be adherent. 5. Tubercular cavities should only be opened in cases where the cough is harassing and the cavity single. Injections may be used to relieve symptoms, but cannot be expected to be curative.

NOTE ON PUNCTURE OF THE ABDOMEN FOR EXTREME FLATULENT DISTENSION IN PUERPERAL CASES.

BY W. O. PRIESTLEY, M.D., LL.D.

I HAVE received from Surgeon-Major Franklin (at present on duty with the Lieut.-Governor of the Punjab) notes of a puerperal case which he attended while at Simla in April last year, and which raises the interesting question as to the propriety and utility of puncturing the colon in cases of extreme abdominal distension after delivery. Surgeon-Major Franklin's patient, whom I had known as a girl, went out to be married in India two or three years ago, and her first labour began on April 8th, 1886. The presentation was natural, but after a long and tedious labour, resulting from inefficient pains, the case had to be terminated by forceps under an anæsthetic, and the perineum was ruptured. Sutures were put in the perineum, and all went well until two days later, when the patient became hysterical, and began to suffer from nausea and vomiting; at the same time the abdomen became much distended. Hypodermic injections of morphia, with the application of turpentine to the abdomen, checked the sickness, and allowed milk and lime-water to be taken for a time. Next day the abdominal distension had enormously increased, there was constant vomiting, some dyspnoea, occasional rigors, and signs of exhaustion.

My correspondent says, the obstetric authorities, Playfair, Barnes, and Ramsbotham, gave him no help as to the way he was to relieve the extreme abdominal distension which was threatening the life of his patient. He had tried all the usual remedies without effect, and so was obliged to act for himself. After consultation with a colleague, Dr. Harris, he punctured the ascending colon with a small trocar. The gas escaped with considerable force, making a whistling noise as it passed through the small cannula. With the aid of pressure the greater part of it was expelled and a binder adjusted. Immediate relief was afforded, vomiting ceased, and only slight nausea remained. She had a good night, and next morning the temperature was normal. This first puncture was made about seventy-two hours after the birth of the child. Forty-eight hours later it was necessary to puncture the colon again, and this was followed, as after the first operation, by immediate relief to all the distressing symptoms. The second operation was followed by the giving of calomel, in doses of one-twelfth of a grain, every half-hour, and continued for about sixty hours, until the bowels acted freely. The temperature rose to 102° after the second puncture, and for ten days the case continued to cause some anxiety, owing to nausea and want of sleep. After this the improvement was steady, and the patient eventually got quite well. There is no record of the temperature during the access of the illness, and nothing is said of pain or subsequent inconvenience from the abdominal punctures.

The practice of tapping the abdomen for dangerous retention of flatus is a well-known remedy in some of the ailments of domestic animals, and more particularly the operation is said to be often practised on sheep when they have "blown themselves," as it is called, by having eaten too largely of a very succulent pasture, or of some herbage which is improper for them. The operation is described in some detail in a recent work of fiction depicting country life, and a farmer is spoken of as skilled in the employment of a perforating tube, the proper use of which is alone capable of saving a whole flock of sheep "blown up" after straying into wrong pasture. There are various records of cases where the intestine has been punctured in the human subject for extreme distension in connexion with obstruction of the bowels or hernia. For example, Wagstaffe mentions a case in the *British Medical Journal* for 1877, and Broadbent another in the same journal for 1879. Further references are to be found in "Neale's Digest"; and Mr. Bryant, in the *Medical Times and Gazette* for 1872, details a case of hernia, with intestinal distension, where punctures were made in the bowel without bad result; there was no escape of the bowel contents, and only a drop of blood. That the proceeding is ordinarily innocuous enough is proved by the fact communicated to me by Dr. Broadbent, that in one patient the bowel was tapped for flatus some-

THE treasurer of the Queen's Hospital, Birmingham, has received from Her Majesty a cheque for £100 in aid of the funds of the institution.

where about twenty-eight times, without bad result. Prof. Foussagrives, in the *Gazette Hebdomadaire* for 1877, says that he has seen intestinal puncture practised by Nélaton, Blache, and Velpeau, and that "it is a sovereign operation in some cases, and not dangerous even where there are multiple punctures." Surgeon-Major Franklin says, in one of his letters to me, that he had some recollection of a suggestion made by Dr. Braxton Hicks concerning tapping a flatulent abdomen in puerperal cases, and Dr. Hicks tells me that, though he had suggested it as applicable under certain circumstances, he has not himself employed it. I may remark that in some forms of illness after delivery there is no doubt grave danger arising from extreme abdominal tympanites. It is even probable that with the decline of other untoward symptoms the mere continued pressure of the distended intestines may so keep up irritation of the stomach and depress the heart's action as to become itself a source of peril. In these cases puncturing the intestine where it is most distended may afford notable relief, and experience seems to teach that it may be practised with impunity.

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THE PLACE OF HEALTH IN EVOLUTION.¹

By W. R. MACDERMOTT, M.B. DUB.

SOMEONE once, on asking a little negro girl in Kentucky who made her, got for answer, "Nobody made me; I grewed." If I asked how we came by our health, a like answer might be given. It might be said that nobody made our health; that we did not make it ourselves; that it came as a gift of nature. If ill-health afflicts us, it would be said that it, too, comes as part of our natural lot. Health and nature here are terms of loose meaning. Health may be taken as a state of being, as a relation of condition, as a formative process. We will take it here as a state of being, made in the sense that it is the outcome of antecedent condition. We take it as expressing a state of being continuous with prior states of the same kind, and shall consider whether variation from current normal condition stands in relation to variation from prior condition.

An idea of fitness comes as an introduction to our subject. It is more, however—it is the beginning, middle, and end of it. We usually think of fitness as something qualifying a man beforehand for health, but it is, in fact, a synonym for health. It is not a mere rhetorical phrase, but a term expressing physical truth. Fitness means health in the physical sense; the strong man who wants fitness for health has, in reality, want of health. Health, in truth, means the fitness of states of being to the conditions of life. It is, therefore, as these conditions are unstable, a thing not fixed, but changeable. In the world, as it exists, we find life fitted to many different conditions. Man himself we find fitted to many climates, to lofty mountains and tropical swamps. But as his fitness to one set of conditions so usually is his unfitness to the opposite set. The fitness of the negro to tropic heat means unfitness to a cold climate. The fitness of the European to temperate conditions means unfitness to the extremes experienced elsewhere. We have thus many different states of being, each of which is health only as corresponding to certain conditions. In the end fitness comes to be expressed as structure, and particular modes of structure-growth. The outcome of the fitness of the negro to heat is a mode of structure; his body becomes physically moulded to the condition. On the other hand, the condition is necessary to maintain the fitness. In the northern States of America the negroes are very sickly, one out of every six born in these States being deaf, dumb, blind, idiot, insane, pauper, or in prison. Europeans in hot countries show a like inability to conform easily to the condition of climate. We thus find that a mode of structure once formed subsists for a long time in a race, becoming under unfitting condition a source of ill-health. The fitness to condition means perhaps, in proportion to its completeness, a want of power of accommodation to change of condition. The very fitness of the negro to heat makes it the harder for him to fit himself to cold. When, therefore, we have a people of mixed descent,

such descent will bring into it many states, varying from fitness to unfitness, in reference to its conditions of existence. Is this composite state represented in the actual health of the people? In the first place, all modern societies of any importance are extremely composite by descent. They contain elements representing every different condition to which man has fitted himself from time to time. We are so accustomed to the idea of our descent from one man that we do not easily heed the more immediate fact of our descent from mankind *en masse*. Each man has a father and mother, probably brothers and sisters. He will have four grandparents, eight great-grandparents, and so on going backwards. At the tenth generation backwards he may have theoretically 1024 direct ancestors; at the twentieth only 1,048,576, and a corresponding number of collateral relatives. He will not, of course, have so many, but still he must have a vast number. When we remember that twenty, or even a hundred generations cover but a short period in our race history, and that such history records incessant movements of population, we can easily believe that each one of us has built into his constitution part of the negro's state of fitness to heat, part of the Laplander's to cold, part of every state to which man's body has been moulded; it may be said, blended into a sweet and reasonable mean. Yes, but not indissolubly, not perfectly. In Europeans we constantly find characters of skull and feature—of structure belonging to remote and perhaps extinct races. We find the negro Tartar and Malay structural type showing often amongst us more or less distinctly. In idiots and the insane I have seen structural character which I could assign to no race I knew, but which I felt sure belonged to facts of race structure, most likely of remote antique nature. Now, these types are exhibited in a peculiar way. They show in single members of a family as a manifestation of something underlying in latent or dormant form the whole connexion. I have seen the Tartar type in single individuals standing in the relation of third or fourth cousins, the rest of the connexion being Caucasian in appearance. I have seen the negro type assert itself in just the same way. We have here two significant facts—the fact of latency and the fact of exceptional manifestation of structural character; both we must admit, though we fail as a rule to find adequate explanation for them. We know them as unexplained facts of inheritance. They mean that variations of structure corresponding to man's experiences of condition subsist potentially in him and exhibit themselves exceptionally under circumstances for the most part unknown to us.

Let us now ask ourselves what is the sum of the variations of structure thus represented in inheritance. We can see easily enough that we may find in ourselves all, or nearly all, the states which man experiences locally or has experienced historically as man. We can see, too, that many of these states, coming back out of place, out of time, as characters of race structure do, would appear in him as states of unfitness, of ill-health. When, however, the history of the bodily man has to be taken as going back continuously into pre-human experiences, the question arises whether abnormal variations of structure and mode of structure-growth do not also express those experiences. Taking structure generally in relation to both antecedent and current circumstance, we find that change is always not to something new, but to something which exists in some other place or has existed at some other time. When an organ or part of the body exhibits an unfitting pattern, such pattern exists normally somewhere else in the body, or did exist in it at some other time. So far this explains something usually seen in states of ill-health. But the normal pattern itself, which we suppose to change, is a thing determined in inheritance; it is but one of a series of patterns occurring therein. The items in the series, again, are continuous; they not only pass continuously from one into another, but they inhere in a general programme. Thus the great fact of the mammalian pattern in man is determined in inheritance, and is a result in a programme or pattern, not of structure, but of change of structure containing pre-mammalian patterns as items. But this fact conditions the actual pattern; it cannot be taken apart from its determined mode of formation, which always remains represented in it. The pattern is an elaboration out of pre-existing details which always remain in it as potential elements expressing its process of making. It is this process, this programme of living, that brings out the details; to it they belong. But the very nature of such a programme involves variability, which, in reality, means

¹ Abstract of a lecture delivered at a Young Men's Association, Dromantine, Newry, Nov. 15th, 1886.