and carbolic acid, do not retain their antiseptic powers, but allow the secretions of the wound to collect within their fibres and there to putrefy, they cause detached marks of a black or reddish brown colour on the oiled silk protective which cannot be washed off; and when such marks are to be seen, all the sutures should be removed immediately.

6. The sixth and last cause of failure is, being needlessly alarmed at certain complications which often arise; these being regarded as the harbingers of evil, the system is followed out less exactly, as if the case were hopeless, or it is forthwith discarded altogether.

The most common of these complications is the sudden appearance of redness in the skin near to the wound, which seems to forebode the advent of erysipelas; yet this rarely goes beyond the condition of severe erythema, and it is generally most easily subdued by using freely the oiled silk protective already referred to. This seems to moderate the irritation which the carbolic acid had occasioned, and the skin quickly recovers its healthy state. Even, likewise, where the pulse has become very rapid, the temperature very high, and some constitutional disturbance has been set up, these symptoms will eventually subside, and not advance to any very serious degree if the conditions of antisepticity be again secured.

The summing up of the whole matter is this: "*when you ask for Glenfield starch, see that you get it*"; and when you propose to conduct a wound or an abscess to a successful and speedy issue by the antiseptic method, if you seek for antisepticity, "*see that you really have it*"; from the very first moment in which you adopt the treatment to the last, see that you watch with scrupulous and suspicious care every possible inlet for sources of fallacy and failure, before you condemn or reject a system upon which judgment should not be held until it has been rigidly and fairly tried in all its details.

ON A DIGITAL IMPRESSION PRODUCED BY THE ACCOUCHEUR IN THE CRANIUM OF A FŒTUS DURING BIRTH: ITS HISTORY AND RESULTS.*

By J. MATTHEWS DUNCAN, M.D.

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I NARRATE the following case, only partly on account of its own interest and importance, having for a chief object to use it in order to make some remarks on a point in obstetrics which, I am convinced, does not receive due attention and consideration. It is well known that, in reporting results of medicinal or operative treatment or interference, a very common, if not the regular, mode of narrating the most favourable for the child is by such phrases as "Born alive", or "Born alive and survived". Such phrases give neither a complete statement, nor do they indicate what were the ultimate results of the treatment or interference. Conditions and results are omitted which are of the gravest importance—of an importance only less than that of life itself.

Many individual observations and the researches of Dr. Arthur Mitchell have shown that difficult labour, and especially operative interference, is occasionally the cause of insanity in various forms. Injuries of the physical frame of the child during labour may lead to permanent corporeal disabilities, as is well known; but it should not be forgotten that the soft and rapidly growing head of the child may be the subject of injury producing irremediable and awful results, even when the child is born alive and apparently in good health, without visible injury, and even although it may for many months appear to be in every way a proper child. The delicate brain may sustain irreparable damage even from the compression and shearing it undergoes, in what would be called a common moderately severe labour which terminates spontaneously. Paralysis, epilepsy, imbecility, insanity, may thus be produced; and there can be no doubt that more definite physical injury by instruments is still more likely to have such baneful consequences.

It may, indeed, be difficult in many cases to bring these ulterior results in surviving children home to their real cause; but the subject is still novel, and very much may be expected from continued careful investigation of the matter.

It is plain that all these results to which we have referred subtract from the reputed success of operations and interferences; and that, in

future, they cannot with propriety be neglected in forming judgments as to the value of them—inquiries in which the present race of obstetricians are warmly interested and actively engaged.

In the case to be narrated, the injury was inflicted by the finger of the accoucheur producing artificial rotation of the head in a case of narrow pelvic outlet, which the head was affronting in a slightly unfavourable position. The injury was a persistent digital impression on a parietal bone, such as the index finger would produce on the flat surface of a mass of dough into which its terminal phalanx was pushed to the depth of about half the finger's thickness. The result was slight, short, but very frequently repeated epileptiform seizures, which lasted for some time after the digital impression had become cured or disappeared, and which at last were gradually modified, becoming less and less, till now they are gone, being replaced by slightly awkward movements somewhat choreic in appearance.*

Mrs. C., married late in life, had her first child in England, in 1871. It presented the breech, and, after much time had been spent and much difficulty experienced, was extracted dead. The perineum was extensively torn, the sphincter being completely divided. In her second pregnancy, she came to Edinburgh, and was confined under my care. The propriety of inducing premature labour was urged upon me, but I decided not to interfere with the course of the pregnancy. At the proper time, labour came on, and advanced naturally and quickly till the head was arrested at the outlet of the bony pelvis. The vertex presented in the second position at the outlet, lying nearly transversely. The pains were powerful, and for about two hours did not move the head in the least from its position. Owing to the absence of perineal obstruction, the head was easily felt, and its condition examined. It was jammed in its position. Manipulation of it was easily effected; and I proceeded, in the absence of pains, to rectify its position by pressure on the left parietal bone in front of the parietal protuberance. The bone was felt to yield under the pressure, which had, however, some beneficial effect—the head rotating slightly, so as to bring the occiput more directly under the arch of the pubes. Repeated examination showed me at the time that a digital impression was produced and persisted; but for three days I took no further notice of it, not expecting any notable evil to arise from it. The child was born alive soon after the attempts at rectification, and did well. It is now alive, plump and happy.

On the third day after the child's birth, the monthly nurse attracted my attention to twitchings of the face and superior extremities. She had then noticed them for the first time; and for about three weeks they grew gradually worse, occurring frequently during night and day, but not greatly interfering with efficient sucking, and little with sleep. The nurse alleges that the spasms at first affected the right side only. After three weeks or thereabout, the twitchings were not so severe, but they continued distinctly till the child was six weeks old; they then gradually disappeared, and now the child, being 4½ months old, has only some occasional awkward movements of the upper limbs, as already said. Bromide of potassium was given irregularly, four grains being generally administered during the day. The irregularities in its administration led to the mother and nurse observing a coincidence of lessened severity and frequency of the fits and the regular use of the medicine, as well as the reverse.

At the end of a fortnight after birth, the impression had distinctly flattened out; and it rapidly became less and less marked till about six weeks after birth, when its previous site could no longer be made out.

SHORT NOTES OF A CASE OF IMPERFORATE HYMEN:

IN WHICH UPWARDS OF ONE HUNDRED OUNCES OF RETAINED MENSTRUAL FLUID WERE EVACUATED.†

By D. LLOYD ROBERTS, M.D., M.R.C.P. Lond.,

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MARIA S., aged 20, single, was admitted into St. Mary's Hospital on April 30th, 1873. She stated that the abdomen had been gradually enlarging for some years without much discomfort, until the last few months. There had been no hæmorrhages. The abdominal cavity was occupied by a tumour which sprang from the pelvis, fluctuated freely, was dull on percussion, and extended centrally above the umbilicus, and laterally into the flanks. She voided her urine on her hands and knees with great difficulty. She suffered from constant

* The child is now perfectly well.

† Read before the Obstetric Medicine Section at the Annual Meeting of the British Medical Association in London, August 1873.

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backache, and shooting pains in the pelvis and down the thighs. The bowels were much constipated, and after an evacuation she suffered severe and prolonged pain. She had constant headache. The vulvo-vaginal aperture was occluded by a congenital fibroid-like and unyielding hymen. A semi-purulent discharge issued from the urethra, which was red and inflamed, and so patulous that the little finger could be easily passed into it. Through the hymen fluctuation was distinct, especially during straining or coughing. A rectal examination conveyed the impression that the vagina was filled with viscid fluid, which exercised considerable pressure on the gut.

On May 17th, 1873, after chloroforming her, a small exploratory trocar was pushed through the centre of the imperforate hymen, and a dark treacly fluid showed itself at the external orifice, too thick to flow through the cannula. The small cannula was withdrawn, and a larger trocar was introduced through the orifice already made; the fluid now slowly passed through the tube, aided by gentle but firm pressure, until the fluid, becoming more inspissated, almost ceased to pass. On withdrawing the cannula, a bandage with pads above the pubes was applied firmly to the abdomen, and the patient placed in bed. The fluid removed measured eighty-four ounces, and it was estimated that twenty ounces more oozed away during the subsequent fortnight. She progressed favourably until May 21st, 1873, four days after the operation, when she became very restless and uneasy with symptoms of general pyrexia, with abdominal pain and tenderness. It was found that the fluid had ceased to pass, although the parts were regularly cleansed with an antiseptic fluid. However, at the next syringing, the fluid, which had become intensely offensive, freely escaped; and then the feverish symptoms, and the abdominal and pelvic pains, which had continued for twenty-four hours, quickly subsided.

On June 14th, 1873, a probe was passed into the orifice already made in the hymen, and the opening was enlarged with bougies. The membrane was then divided obliquely downwards on each side of a bougie, and the aperture was still further enlarged by the introduction of the finger; very little hæmorrhage occurred. During the passage of the bougies, about two ounces of yellow purulent matter passed. The os and cervix uteri could not be made out by a digital examination. A second examination, made on June 24th, revealed the large and patulous cervix. The body of the uterus could be felt *per rectum*.

On June 25th, she commenced to menstruate; the flow lasted several days, and was of good colour. She left the hospital on June 28th.

For the following report of the fluid removed, I am indebted to my friend Dr. Mann. The fluid was of a chocolate colour, about the consistency of treacle, without odour, and of neutral reaction; specific gravity, 1055.

Microscopic Appearances.—Red corpuscles were present in various stages of disintegration; some were shrivelled, and assuming a granular appearance, as though undergoing fatty degeneration; others were almost of normal character. A number of highly coloured bodies were seen, which consisted of aggregations of red corpuscles matted together. On addition of acetic acid, they were resolved into individual discs; some of these bodies were spherical, reaching 1-1200th of an inch in diameter; others were of irregular outline. Epithelium was but sparingly represented; a few specimens from the vagina, in a state of fatty degeneration, being the only ones seen. White corpuscles and free fat-granules complete the list.

Spectroscopic Appearances.—A portion of the fluid being diluted with distilled water gave the absorption-bands of oxyhæmoglobin and hæmatin; the reaction was but slight, even when the solution was highly coloured. On adding a little of Stokes' protosulphate of iron solution, the bands of reduced hæmatin were developed with much more distinctness than the original bands displayed. A portion of the fluid being treated with acetic acid and extracted with ether, gave the bands of hæmatoin with great distinctness. The oxyhæmoglobin reaction was produced by the fresh blood which had been poured into the uterus at the last menstrual period; whilst the hæmatin reaction proceeded from that portion of the blood which had been pent up in the uterus for some time, this being the condition which the colouring matter of blood assumes in old blood-stains and in blood extravasated in the body and thus removed from the circulation.

These cases are always interesting not alone for their rarity, but likewise in consequence of the mortality attending the operation for the evacuation of the pent-up fluid. As to the treatment: in making the aperture, the incision, in the first instance, should be sufficiently large to enable the fluid to pass easily, the more complete division of the membrane being delayed until after the evacuation of retained fluid. After the withdrawal of the cannula, care should be taken to keep the opening patent for the free passage of the fluid, as the discharge, inodorous when first passed, soon becomes decomposed; it may develop symptoms of blood-poisoning. This fact was illustrated in a

small degree by the severe constitutional symptoms set up in consequence of the discharge having ceased to pass for a few hours, and the rapid disappearance of these ominous symptoms on the re-establishment of the flow. Some difference of opinion exists as to the advisability of making abdominal pressure to favour the passage of the fluid. I fail to see any objection to a gradual and increasing compression on the abdominal swelling during the passage of the bulk of the fluid. Pressure ought afterwards to be kept up by an abdominal bandage and pads. By this means a flaccid and over-distended uterus may thus the more readily contract upon its contents, so inducing a more regular and continuous discharge of the fluid, and perhaps a more rapid involution of the enlarged uterus.

A word in reference to the cause of the mortality in these cases. From observation of the causes of death after pelvic and abdominal operations, I would venture the opinion that the high death-rate in these cases is due to septicæmia, and not, as is generally supposed, to metritis or peritonitis.

HÆMATOMA AURIS.

By C. W. S. COBBOLD.

AS this subject has lately been brought forward in the JOURNAL by Dr. Yeats, I think it a fitting opportunity to record the following case, which occurred in the Metropolitan Asylum at Leavesden, under the care of Dr. T. Claye Shaw; together with the result of an examination of the ear after death. One point of interest in the case is, that it occurred in an idiot; whereas hæmatoma aurium has been spoken of more in connection with forms of unsoundness of mind other than idiocy and imbecility. Dr. Grabham, of Earlswood, however, has told Dr. Shaw that he has seen othæmatoma in three idiots (boys) under his care.

R. C., aged 27 years, was an idiot, quite unable to speak, understand the simplest questions, or attend to himself. A hæmatoma developed itself in the left ear about four years ago, in the usual way of an effusion in the fossa of the antihelix, and was in no way to be traced to injury or violence. After passing through the stage of effusion, absorption set in, resulting in the firm thickened structure which is familiar in these cases. The patient lately died from phthisis; after death, the cartilages of the nose and eyelids were found to be unaffected. The weight of the brain was 48 ounces, and its chief defect was in the posterior cerebral lobes, which, when *in situ*, failed to cover the upper surface of the cerebellum. At the *post mortem* examination, Dr. Shaw removed the external ear, and afterwards gave it to me to examine.

The usual thickening and unevenness of the cartilages were present, with an especially hard nodule in the position of the fossa of the antihelix. On section, the cartilage was seen to be split irregularly into two layers over a portion of the ear; these were separated, for the most part, by a fibrous structure; and at one place there was a small bony mass between them, about the size of a small pea, but flattened. This was the hard substance which had been plainly felt before the ear was cut into. I have made sections through this body, with the layers of cartilage on each side of it. Under the microscope it is distinctly seen to consist of true bone, with well-formed Haversian systems. The bone is very vascular and soft, owing to the large number of its Haversian canals; these run irregularly in all directions, so that no section of the bone could be said to be longitudinal or transverse, except with regard to particular systems. Its softness is sufficiently indicated by the fact of my being able to cut very tolerable sections with a large scalpel. Beside this bony development, there were, irregularly scattered about in the tissue between the two plates of cartilage, small isolated portions of cartilage, quite resembling in structure the normal cartilage of the ear.

I do not find, in the essays by Dr. Stiff and Dr. Nicol, any account of the *post mortem* examination of hæmatomatous ears. The observations of Dr. Fischer, in his essay, seem to be based upon such examinations, although it is not expressly so stated in the translation given in the *Asylum Journal*. He says: "Both cartilage plates (the old and the newly formed) are indurated and present ossific points." Dr. Yeats says, in his paper, that sometimes the cartilages are left "hard, as if they were ossified, although only very little thickened." Ossification of yellow fibro-cartilage, if it ever occur, must be extremely rare; this substance is not one of those from which bone is naturally developed, and I do not regard the present case as an instance in which it has been so formed. My sections do not present the appearances usually seen in ossifying cartilage; there is no arrangement of the cells in rows; and, in fact, the bone is nowhere continuous with the cartilage, without the interposition of a layer of fibrous tissue, from which the bone seems to be developed by a process similar to that of ossification in membrane.