was either incurable, or at most yielded only to some magic "charm" or "cure," the secret of which was known but to a few—mostly old women.

In almost all the cases the stools had been observed to be pale and clay-coloured, and generally of stiff consistence. In some, however, there was diarrhoea, and in these the appearance would be deceptive. The colour of the urine had also been noted in most cases. Suffice it to say that these were cases of jaundice, and jaundice in a comparatively simple form.

I kept the patients on milk diet. The medicinal treatment I have already indicated. In no case did I find it necessary to confine them to bed. There was seldom any rise of temperature or quickening of the pulse. They were generally out of sorts for a week or ten days, but recovery was rapid and complete. Whether the treatment adopted had much to do with the cure I am not at all certain, but of this I am satisfied—that other cases which received no treatment, or at most a dose of senna or castor oil, also recovered, and recovered rapidly.

Here are a series of cases in regard to which one cannot say they belong wholly to either the obstructive or the non-obstructive form. If to the obstructive, they must have been cases of gastro-duodenal catarrh, starting probably as a primary catarrh of the stomach, which extended to the duodenum and thence to the gall duct, which became blocked with exudation. The only admissible causes in these cases would be "errors in diet" or "catching cold." Possibly they may have been due to errors in diet; possibly they may have been due to catching cold, but if so, to me it seems very remarkable that so many cases should have occurred within a comparatively short time, and that they should have been limited to a comparatively small area. If, on the other hand, these cases belong to the non-obstructive form, they must come under the division "Poisons in the blood interfering with the normal metamorphosis of bile," and under the subdivision "Poisons of a specific nature."

Now these cases all occurred in young people (eldest 13 years). Sometimes all the children in the house became affected but in no case an adult. They occurred in a particular district of country limited in area, but not having a common water supply, and they occurred, as far as I can make out, when there was no influenza, or, at least, not what is commonly recognised as influenza. Influenza, however, assumes so many different forms, that it is quite possible to have it attacking chiefly the gastro-intestinal tract instead of the bronchial or nervous, as under ordinary circumstances. We might thus have jaundice due to a specific poison and yet of the obstructive form. But, it may be said, is it at all likely that you can have jaundice due to the poison of a specific fever and yet unaccompanied by fever? In all the cases which I saw the jaundice had already developed when I was called in, and it is quite possible that, even had there been a premonitory febrile stage, it had passed off, for, as a rule, when jaundice develops, the temperature and pulse fall. I am forced to the conclusion that, like influenza, we have here to deal with an affection of a distinct specific nature, fortunately of a mild type, and not attended with the many and serious consequences so often met with in influenza. As regards the exact nature of the poison, I am unable to form any definite opinion. Whether it is the influenza poison or whether the affection is a sequela of some obscure form of influenza or whether due to a poison of its own are questions on which I am still undecided, but that the disease is due to a poison of some kind is, I think, beyond doubt.

[Since writing this paper four fresh cases have come under my notice, all in the same district of country as those before referred to, now making a total of 23 since the beginning of March last.]

PRESENTATION.—Dr. James Skeen, who has acted for four years as junior assistant physician in the Stirling District Asylum, has been presented with a gold hunting watch, together with albert and pencil case, on the occasion of his leaving the Asylum for Bothwell, having received the appointment of medical superintendent of Kirkland's Asylum there.

INTESTINAL OBSTRUCTION DUE TO OCCLUSION OF THE ILEUM BY PRESSURE BAND: OPERATION: RECOVERY.

By ROBERT JONES, F.R.C.S.E.,

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On Tuesday, December 19th, 1893, I was asked by Dr. Hugh Shaw to examine a case of intestinal obstruction. The patient was H. A. S., a milliner's apprentice, aged 14. On December 7th, whilst at her work, she was suddenly seized with violent pains shooting across the abdomen in the line of the umbilicus. She vomited several times on her way home, and, on her arrival, went to bed. A little later her bowels were freely moved. This attack was not regarded seriously by her family, and as the acute symptoms seemed to abate domestic antidotes were relied on. For two or three days she remained in considerable pain, with occasional sickness, when her mother administered a copious soap and water enema. This gave temporary relief by emptying the large bowel of gas, but the pain and vomiting returned with severity, and on December 13th Dr. Shaw was sent for. He found the patient in great pain, with moderate distension, good pulse, moist tongue, and normal temperature, and, thinking it best to act conservatively, he gave appropriate directions with a view to lessening intra-abdominal pressure and to relieving pain. All the symptoms, however, increased, the pain becoming intense, and the vomiting more and more frequent, while the temperature remained at about 102° F. On December 15th the vomiting became fæculent, and from that time until December 19th, when I first saw the patient, nothing was retained. She then presented symptoms of impending collapse—a small quick pulse, dry tongue, a haggard look, listless demeanour, and rapid shallow respirations. The abdomen was distended and tympanitic, especially round the middle line. Fæculent material was being vomited every few minutes, thirst was intense, and there was pain on pressure over the right side of the abdomen. The patient, despite all this, was mentally alert, and took an intelligent interest in her affairs.

I was told she had been a well-developed girl, and well nourished, and had never needed a doctor in her life. For the last four years, however, she had been subject to what were called bilious attacks, the prominent symptom of which was vomiting, which lasted for one or two days, and was often accompanied by pain and sometimes by diarrhoea. For twelve months she had had considerable pain in the epigastrium, which came on directly after food, and often resulted in sickness. About two years back she suffered great pain in the right side on exertion, more particularly if she attempted to walk quickly or to run.

We decided, in view of the previous history and the patient's condition, that laparotomy should be performed without delay. That evening a median incision 3 or 4 inches long was made below the umbilicus, and the cavity of the abdomen exposed. Distended gut, pinkish in colour and dotted with flaky lymph, presented. On introducing my finger, the coils of intestine were sufficiently adherent to each other to require care in separating them. I was able quite easily to recognise the cæcum, and found it collapsed. There were also in the pelvis a few coils of empty small intestine. By very gently following this without exposing bowel, I felt a distended loop of intestine, which was carefully brought towards the wound. Immediately below I found a band about half an inch broad, which obviously compressed the intestine. I did not feel justified in accurately defining its limits, but it stretched transversely across the gut from the direction of the right kidney. The bowel was not kinked, but was sufficiently pressed upon to be quite occluded. Ligatures were applied and the strand severed. The wound was adjusted, and the patient placed in bed. Here a somewhat dramatic incident occurred. It was found that owing to a blunder a sponge was short. After a brief and fruitless hunt in basins, pails, and *débris*, I decided to reopen the abdomen. Luckily this was done, and the sponge recovered from within.

It is needless to report the subsequent events at length. The operation, which only lasted twenty minutes, had but a

very slightly depressing action on the patient. The vomiting once and for all completely ceased. The temperature was normal next morning, and only once again, on the third day and for a few hours, rose to 101° . On the second day (December 21st) there was a suspicion of the passage of flatus; on December 22nd, a certainty of it; on December 24th, the tongue became moist, and the bowels were opened at 3 P.M. and 4 P.M. The first motion, about 4 ounces, was similar to the vomit, the second consisted of mucus. Shortly following the evacuation there were sharp abdominal pains, and the tongue became a little dry. From this time on the bowels were frequently opened, and the patient rapidly got well.

There are a few points of interest to which I would wish to allude. 1. The operation was performed on the twelfth day of obstruction and during considerable abdominal distension. I have often expressed an opinion that it is useless and dangerous to hunt for obstruction while peritonitis and distended gut are present, and that the indications are best met by a carefully performed enterostomy; opening of course a distended coil. The empty condition of the cæcum, however, together with the collapsed small intestine, pointed to obstruction high up—a condition ill-suited for enterostomy. Again, although the obstruction was high up, faecal vomiting did not appear for eight days, and this suggested that probably the obstruction, very incomplete at first, became more complete by distension from above, and that had care been exercised early the symptoms might have continued, as they had begun, to abate.

This opinion is fortified by the fact that the pain she complained of during exercise and hurry was over the neighbourhood of the band, and that probably her frequent so-called bilious attacks emanated from the same source. Amongst the causes which deprive an early obstruction of a fair chance, next to cathartics, should be placed enemata, which, as Niemeyer pointed out years ago, induce peristalsis above as well as below the seat of obstruction.

There was another symptom in this case which interested me, and that was the sharp abdominal pain which followed shortly after the anal evacuation. I have frequently observed this before. In one case, which was being treated expectantly, the patient died on the twentieth day, four hours after the relief of obstruction, having endured sharp abdominal twinges. In another case after the relief of a very simple hernia, an evacuation of bowel took place, followed by collapse and death.

FORMIC ALDEHYDE AS A RAPID HARDENING REAGENT FOR ANIMAL TISSUES.

By W. McADAM ECCLES, M.B., B.S., F.R.C.S.,
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In the busy life of the present day the saving of time in all parts of medical work is of the utmost importance, and this is especially so in regard to microscopic pathology. Too often a portion of tissue, removed either for diagnosis or in the way of treatment, is never thoroughly examined on account of the inordinate length of time which the processes of hardening, cutting, staining, and mounting will require. Fresh sections of tissues are difficult to prepare, and often decidedly unsatisfactory. Of the various fluids in use for hardening animal tissues before section, two are commonly employed—namely, alcohol and chromic acid. Absolute alcohol hardens most tissues in some four or five days, but has the great disadvantage of being apt to render them brittle, or to harden them very unequally. Methylated spirit will take a fortnight or more to produce a satisfactory result. Chromic acid is generally used as potassium bichromate in solution, with some sodium sulphate in the well known Müller's fluid. Wherever the sulphate penetrates—and it has great power in this direction—the chromic salt will follow, and harden the tissue extremely well; but the process requires an inconvenient length of time—in fact, often as long as six weeks, and with many renewals of the reagents. Pure chromic acid, or chromic acid with spirit, hardens in about a week, but again is liable to make the tissue brittle. Perchloride of mercury interferes much with staining, though it hardens rapidly. Thus any reagent

which tends to shorten this period of time, and yet produce satisfactory results, is to be welcomed.

Experimenting in some other ways with formic aldehyde, I was much struck by its extremely powerful and rapid hardening effect. I therefore determined to test its action upon tissues, especially very soft varieties of normal and pathological structures, just indeed those most difficult to prepare for section. Normal cerebellum, testis, lung, thymus gland, and ciliated epithelium of the trachea all hardened well in three days when immersed in a 20 per cent. solution of the aldehyde, though for the testis and lung a 40 per cent. strength is the better. None of the tissues became brittle, but all were easily cut after soaking in gum with an ether-freezing microtome, and all stained well with logwood, and some with logwood and eosine. None of the cells of the various specimens were altered in shape or character.

Of pathological tissues, a very soft round-celled sarcoma from the head, an adenoma of the thyroid gland, and some emphysematous lung were treated with a 40 per cent. solution, and all were sufficiently firm in forty-eight hours for cutting; and again all the sections took the ordinary stains well. The lung tissue was, however, somewhat brittle. Compact growths, such as scirrhus or renal tissue, require only a 10 per cent. solution for twenty-four hours.

I am thus led to think formic aldehyde in 40 per cent. solution for very soft tissues, in 20 per cent. for firmer, and 10 per cent. for quite firm material, acts as a most rapid and satisfactory hardening reagent. It does not render any tissue brittle in the way spirit does, and in no way prevents a stain acting well on the sections. It is therefore a useful adjunct in pathological and histological work.

A CASE OF HYDATIDS OF FEMUR IN THE SITE OF FRACTURE:

WITH REMARKS ON THE METHOD OF AMPUTATION THROUGH THE HIP-JOINT.

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Previous History.—A. B., a Pathan, male, aged 25, was admitted to the Mission Hospital, Quetta, in March, 1893, suffering from a fracture of the shaft of the right femur at the junction of the upper with the middle thirds of the bone. The history he gave was that a year before his admission to hospital he was knocked down by a horse, and had his right thigh fractured. He was laid up with this for six months, but after this time was able to get about again. Four months before coming to hospital the thigh fractured spontaneously at the same place, and a swelling began to form at the site of fracture.

Condition on Admission.—The patient was very emaciated and weak, the very slightest movement causing him severe agony. A round fluctuating tumour separated the ends of the fractured bone. The hypodermic syringe gave only negative evidence. The patient was suffering from hectic, and could only take fluid nourishment.

Exploratory Operation.—Two days after admission a small incision was made into the tumour, which revealed the presence of hydatids, and by slightly increasing this a large number of daughter cysts were evacuated. On further examination of the fractured ends it was found that the whole shaft of the femur was involved by these organisms, and it was proved beyond all doubt that the only thing that could save the patient would be amputation through the hip-joint. Although this operation was so slight, yet owing to the weak condition of the patient he nearly died on the table. After six weeks' careful nursing and feeding, I thought that the condition of the patient had so far improved that amputation might be performed without serious risk. However, the next day he was not so well, and I concluded that death on the table could only follow.

Amputation through the Hip-joint.—A few days after this I undertook to operate at the patient's earnest request, adopting the following precautions, which I think will be of interest to many. The use of skewers in amputation through the hip-