when the suture is applied; they had better be too long than too short. 5: The apices of the tongues are very small, so that a very small needle should be used to carry the suture. 6. In shaping the tongues the line of the natural web should be carefully observed. If the tongues heal by first intention, no web can redevelop. There is no reason whatever why union by the first intention should not invariably take place if the above points are remembered whilst performing the operation, and thus one of the most troublesome and unsuccessful of operations is converted into one of the most simple and most certain of success.

RHEUMATIC FEVER WITH PERICARDITIS: HYPERPYREXIA: TREATMENT BY COLD: RECOVERY.

By J. MAGEE FINNY, M.D. Dub., F.K.Q.C.P.I.,
Visiting Physician to, and Lecturer on Clinical Medicine in, the City of
Dublin Hospital.

MARY L., aged 37, a mother of five children, was admitted to hospital on July 27th, 1881, suffering from well-marked arthritic rheumatism, the ankles, knees, and elbows being chiefly engaged. She was ill for about a fortnight before admission. Careful examination failed to detect any cardiac complication. Pulse 108; temperature 101.8°. She was ordered salicin in fifteen-grain doses every fourth hour; the patient was placed between blankets, and the painful joints were wrapped in wadding covered with gutta-percha tissue. Relief followed the treatment, though not in so marked a degree as had occurred in other cases similarly treated, and the temperature fell a degree in twenty-four hours. On the third day, the temperature in the morning was higher

chloric acid and water; it was not, however, retained, being vomited at once. The patient was now partly unconscious, wandered in her mind, complained of no pain, while her face and lips were flushed of a purplish tinge; the respiration was shallow and rapid; the temperature in the axilla was 107°, and pulse 136. I was communicated with, and I saw her at 5.20 P.M., when the heat had increased by a fifth. The cardiac phenomena had not increased; but, as the heart was beating 136, it was not possible to speak positively as to the presence or absence of the friction-sound. Percussion showed there was no effusion. As it was evident that the patient was in imminent danger of dying of hyperpyrexia, I proceeded at once to apply cold in the following manner; the cold bath being kept in readiness in case it became necessary to employ it.

The patient was stripped of the blanket covering her, gradually from above downwards; and towels wrung out of water, in which stood a large block of ice, were assiduously applied, one after another, first to the head and neck, then over the front of the thorax, next over the abdomen, then the thighs and legs. By the time the last cloth was applied, the first had become warm, and it was replaced by a cold towel, and so on with each. In ten minutes, the temperature fell half a degree, and, after this process was continued for forty minutes, the temperature had fallen from 107.2° to 103.8°, and the pulse from 136 to 120. The face and lips had lost their flushed appearance, and the patient made complaints of feeling cold. The iced cloths were placed quite irrespectively of the inflamed pericardium or the joints. The temperature was observed every ten minutes by a thermometer placed in the axilla, which had been kept closed by the approximation of the arm (the parts being fat). The patient was then well dried, and fresh blankets were placed under and over her. At 9 P.M., the patient was very much inclined to sleep, answered questions dreamily, and appeared to

by .5° than the preceding night, and much pain was complained of in the left ankle. The salicin was then ordered to be given every third hour. At this time, there was noticed occasionally a third sound with each movement of the heart, presystolic in time, and resembling a reduplication of one of the sounds. Its locality was towards the base, in the left parasternal line. This sound was better marked in the evening, and was considered to be pericardial in nature. The following morning (July 30th), the temperature showed signs of a tendency to rise, having gone up rapidly from 101.2° on the morning of the 29th to 104.4° in the evening, and 104.6° this morning, and the pulse from 100 to 114. The abnormal cardiac sounds had also assumed a more decidedly frictional character, confined to the apex of the pericardium. As it was evident that no good had been obtained from salicin, it was stopped, and instead, five grains of quinine were given at once and ordered to be repeated every third hour; and six leeches were applied to the præcordium.

At 5 o'clock P.M., my resident pupil, Mr. Law, finding that four five-grain doses of quinine had been taken without producing any effect on the temperature, gave twenty grains, dissolved in a little hydro-

have little or no recollection of what had happened. She vomited three times in the last two hours. Temperature 100.6° in the axilla, and 101° in the rectum. Pulse 108°. At 10 o'clock P.M., the temperature in the axilla was 101°; and the bowels, which were very free all day, were moved unconsciously at this time. The patient slept well during the night, and on the morning of July 31st the pulse was 96, and the temperature 102°. The tongue was coated with white fur; she had slight sordes on the teeth; and she complained chiefly of pain in the right foot and ankle. There was no effusion into the pericardium; and, at the base, the friction-sound was slightly audible, presystolic in time. The heart was acting strongly. During the last twenty-four hours, the bowels had been moved six times, and they continued free all through the day, until checked by starch and opium injection at 9 P.M. A sleeping-draught was given, and she had a good night. There had been no return of hyperpyrexia. Temperature 100.4°; pulse 92.

August 1st. The pericardial sounds had disappeared, and the first sound was quite clear, loudest at the apex. The urine was examined, and found to be alkaline and phosphatic, and free from albumen.

From this day forward, the patient uninterruptedly progressed to

recovery, on August 30th, the pains being chiefly confined to the right ankle and knee; the fever-heat ranged from normal in the mornings, to 101.4° (the highest on four occasions) in the evenings, and the pulse from 80 to 100.

REMARKS.—The case exemplifies in part the failure of salicine to relieve pain, prevent pericarditis, or act as a febrifuge. Three drachms were taken daily for two days; and on the third, the day of the first high temperature (104° in the evening), two drachms were administered. This dose I have generally found adequate, in cases where it suited, to relieve pain and reduce the temperature, although Drs. Mac-lagan, Ringer, and others advise much larger doses, and more frequently repeated. It is a matter for consideration if the diarrhoea, which lasted for two days (July 30th and 31st), and the alkalinity of the urine on August 1st, were in any way connected with the drug. Ringer suggests the possibility of the latter, though he gives no grounds for the suggestion. The chief interest of the case lies in the hyper-pyrexia, and the instantaneous benefits derived from cold applications. The assiduous application of towels wrung out of cold or ice-cold water—a method suggested by Dr. Sydney Ringer—has the following advantages over immersion in the cold bath. 1. The means are ready at hand on every emergency, and can be used without any delay, and without assistants. 2. They do not alarm the patient or his friends. 3. They can be applied without the exposure necessary in a bath, and the pain and fatigue consequent upon being lifted in and out of a bath, and being dried before returned to bed. 4. The reduction of the temperature can be more readily watched and more accurately gauged by cold cloths than by immersion in a bath, and seems to be quite as prompt. In the case given above, it fell from 107.2° to 103.8° in forty minutes (the pulse coming down from 136 to 120), and it continued to fall to 100.6° during the subsequent three hours. Another, and not the least point of interest, lies in the absence of any ill consequences to the inflamed pericardium or joints by the application of external cold.

DERMOID OVARIAN TUMOUR IN A CHILD AGED SEVEN YEARS: OVARIOTOMY: RECOVERY.

By J. KNOWSLEY THORNTON, M.B., C.M.,
Surgeon to the Samaritan Free Hospital for Women and Children.

On April 5th, 1881, I was asked by my friend and colleague Mr. Meredith to see, with him, a little girl seven years of age, the subject of a large abdominal tumour. The patient had been brought from the United States to this country by her parents for further advice; several distinguished physicians who had seen her in the States having given an unfavourable prognosis, both as to the nature of the tumour and as to the advisability of attempting its removal.

We found the right side of the abdomen occupied and much distended by a firm elastic tumour, some parts of which were as hard as bone, while others were quite soft. No distinct fluctuation could be made out. The tumour was most prominent to the right of, and above, the umbilicus; but it occupied the whole of the right side of the abdomen. A narrow band of clear percussion was found between the liver and the tumour, between the pubes and the tumour, and far back in the right flank. The left side of the abdomen was everywhere clear; and along the left upper border of the tumour some distended coils of intestine could be traced, apparently adherent to the mass. The tumour possessed considerable mobility; so that, when the patient turned on to her left side, its position became more central, and the clear area in the right flank was increased. The general health of the little patient appeared very good; and she suffered little, if any, pain or inconvenience from the tumour.

History.—The mother first noticed increase of size in the summer of 1880; and there was then, just above the pubes, a central mobile tumour about the size of an orange. On October 13th, 1880, while running on the grass, the patient fell forward on her abdomen. The fall was not a violent one; but it was followed by some immediate collapse, and subsequently by severe general peritonitis, which began to subside at the end of a fortnight. When the tympanitic distension had quite passed off, a hard tumour was found, nearly filling the right lateral half of the abdomen. Careful measurements showed that this tumour steadily increased in size for some time, and then became almost stationary. Careful examination and consideration of the case led Mr. Meredith and myself to exclude the question of renal or hepatic tumour, and incline to the view that it was ovarian; but we could not decide whether it was a dermoid tumour or a malignant growth—the general health of the child, together with the history, seeming to us to suggest the more favourable view; while the rapid growth and peculiar outline and varying consistency made us fear the possibility of its

proving to be a mixed sarcoma. We advised that a careful antiseptic puncture should be made in the softest portion of the tumour, and that further proceedings should be guided by the information thus obtained. We also advised that Sir James Paget should be asked to see the case with us; and he accordingly joined us next day, and agreed with us both as to alternative diagnosis, and to the advisability of making an antiseptic puncture. Two days later, Mr. Spencer Wells joined us in consultation; and, Mr. Meredith having administered bichloride of methylene, I punctured with a No. 3 trocar under the spray, and obtained a few drops of glairy mucoid fluid, which we all thought to be probably ovarian. The ovarian granule-cells were found under the microscope; as were also some large round granular cells, which did not aid us in our diagnosis.

It was now agreed, in a consultation in which Sir James Paget and Mr. Spencer Wells took part, that an exploratory incision should be made antiseptically; and that, if the tumour proved to be malignant, nothing more should be done.

I entered in my case-book the following diagnosis: 1. Dermoid ovarian tumour, probably with twisted pedicle, and certainly with rupture and consequent adhesions; 2. Sarcoma of ovary, bone-cartilage, etc., alternating with small cysts.

On April 14th, Mr. Meredith again administered bichloride of methylene; and, in the presence of Sir James Paget and Dr. Meyer of Copenhagen, and with the kind assistance of Mr. Spencer Wells, I performed ovariectomy. Commencing with a three-inch incision above and to the left of the umbilicus, but nearly in the median line, I gradually extended it to six inches, and exposed a dermoid ovarian tumour covered with adherent omentum. Tapping yielded some colloid material mixed with lumps of white fat. Having enlarged the trocar-opening, I introduced my hand, but could not reduce the size of the tumour much, as the cysts were numerous and small, and my hand everywhere encountered large masses of bone. Having gradually cleared the tumour of numerous masses of adherent omentum, some very close to intestine, and divided some very dense adhesions to the parietes on the right side, and temporarily secured them all with Wells's pressure-forceps, I raised the tumour out of the abdomen, and exposed a long, thin, and broad pedicle to the left of the uterus, doubled up, but not twisted. I transfixed it with No. 3 silk; and, tying the inner loop first, to save loss of blood, I tied the outer half separately. I then carried one loop round the whole, and, cutting off the ligatures close to the knots, cut away the tumour. Numerous fine silk ligatures were applied on the omental, mesenteric, and intestinal adhesions, including the appendix cæci; and a large mass of adhesions on the right parietes was treated by a ligature run in and out, and tied up bag-mouth fashion. Altogether, there was a good deal of exposure to the spray and sponging. The right ovary and uterus were quite healthy. The wound was closed with a dozen fine silk sutures, and my usual carbolic gauze dressing was applied. The tumour weighed 4 lbs. 3 oz.; the operation lasted one hour. The patient had ten minims of tincture of opium in a little starch administered by the rectum as she was placed in bed. The temperature was then 97.0°, pulse 120, respirations 36. There is little to record in the after-progress of the case. The temperature remained over 100° Fahr. for two days, and then gradually fell to normal on the third day, and did not again rise above 99.0°.

The catheter was used for the first twenty-four hours. Tincture of opium and bromide of potassium were given *per rectum*, as indicated by the condition of the patient. The only period during which the case gave any anxiety was during the third twelve hours after the operation (*i.e.*, the afternoon and evening of the first day). During this time, the skin was inclined to dry; the patient was restless, and suffered a good deal from mucus in the chest, which was with difficulty expectorated; the temperature for four hours was 102.4°, the pulse 130 to 140, respirations 36. Hot water used as an emetic cleared the lungs, and the other unfavourable conditions rapidly subsided. Flatus passed well from the first, and there was very little sickness; but for some days I thought it well to feed by the rectum. On the third day, she began to enjoy milk, and on the fifth began solid food. The bowels acted after an enema on the sixth day. The wound was dressed for the first time, and all the sutures removed, on the tenth day; the patient was out of bed on a couch on the fifteenth day; and two days later she was allowed to sit up and to walk about.

The case is interesting, as one of a very small number on record in which an ovarian tumour has been found in so young a child, and the still smaller number in which ovariectomy has been performed. It was an unusually difficult one as regards diagnosis; the balance of probabilities was, however, in favour of its being a dermoid ovarian tumour. The result of the operation proved the wisdom of the decision at which we arrived, to make an exploratory incision. It would, indeed, have been a calamity, if the little patient had been allowed to die without