Notwithstanding the fact that rigors took place and that the temperature fell by crisis from 103.5° to 101.5° and the respirations from 40 to 32, and also that in the course of twelve hours he coughed up two large basins-full of expectoration which cleared the lung in a short time, it is noteworthy that with the crisis the temperature did not come down to normal. The great amount of septic mischief in the arm no doubt accounted for this.

I regret that the patient lived in an outlandish district and a most inaccessible place, so that more details cannot be given. I believe, however, that my thorough irrigation with lysol of all the wounds and pus pouches would have been better omitted, for there is no doubt in my mind that the subsequent exacerbation was due to this.

The patient consulted me twice during April. His arm is in a weak condition, so weak that there was no response to slight electrical current, but with a fairly strong current the condition of the arm has greatly improved.

A CASE OF ACUTE ABDOMINAL INFECTION IN A TYPHOID CARRIER.

By T. H. GARDNER, M.B.LOND.,

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The following case, which has recently occurred in my practice, may be of interest in connexion with the question of typhoid carriers—a matter of considerable importance:

J. B. B., aged 56, a prematurely-aged looking man with sallow complexion, recently had a severe illness, presently to be described.

Past History.

He had enjoyed good health, and had no serious illness until 1900, when he had severe peripheral neuritis, with almost complete loss of power in arms and legs. He was at that time residing in Manchester, and the condition was put down to arsenic or lead in beer, of which he drank a good deal at that time. The arms recovered in three months, but the legs not for ten months, and during that time he was confined to bed. During this illness he had no vomiting or diarrhoea, no hæmorrhages, no colic, no mental change. In 1906 he had an attack of typhoid fever, and was in bed ten weeks. He states that this illness began with diarrhoea, and his temperature rose to 103° and 104°. There was no hæmorrhage. His wife, who nursed him, states that his motions were always very green.

History of Present Illness.

He states that he felt perfectly well when he left home, and went to his office on the morning of January 26th. During the day he began to feel pain in the abdomen and nausea. He thought something he had eaten had disagreed with him, and being of a bilious nature, he put it down to some pea soup he had partaken of at dinner the previous evening. Others of the family, however, had partaken of it, and were in no way ill. The pain in the abdomen gradually got worse during the day, and became very severe, so that on leaving business in the afternoon he paid a visit to his medical adviser, Dr. Norman Sinclair, before returning home. Dr. Sinclair informs me that the patient was obviously in very acute pain and looked "ghastly"; he thought he might possibly be passing a gall stone. On account of his condition, and the fact that he had some distance to return home, he withheld morphine, prescribed a stomachic mixture, and applied a very hot fomentation to the epigastric region, which gave considerable relief. The patient returned home feeling very cold, and vomited once on the way. He shivered violently when put to bed, and again vomited. Next day he appeared to be very ill, the vomiting continued, and the bowels were not relieved.

Owing to his medical adviser being at too great a distance the patient was not seen on this day, and I was called in on the following day, January 28th. He was then in a semi-comatose condition, but could be roused when spoken to loudly, and answered some questions in monosyllables. He was not in any acute pain. The temperature was 102°; the pulse 120, very small and feeble. The abdomen was somewhat distended and generally tender, more so in the epigastric region, where there was also a good blister from the hot fomentation, and in the right hypochondriac region, where the liver was felt slightly enlarged and tender. The tongue was coated with a thick brown fur and the breath was very offensive. There was a slight icteric tinge of the conjunctiva, but at no time during the illness was there any marked jaundice. No urine had been passed since he returned home on January 26th, and the bowels had not been relieved. On January 28th $\frac{1}{2}$ oz. only of urine was passed; this was very dark in colour, containing much bile, a large quantity of albumen (half on boiling), and reduced Fehling's solution considerably, but not fully.

Treatment was symptomatic, being directed to the re-establishment of the excretions. Calomel gr. v produced

a large, semi-solid, homogeneous, slaty-grey, very offensive motion. Hypodermic injections of pilocarpin nitrate gr. $\frac{1}{2}$, and hot wet packs, with copious drinks of barley water and cream of tartar water, produced slight diaphoresis at first, which gradually increased on the following days. Slow but gradual improvement in all the symptoms ensued. The temperature fell to 101° on January 29th, and was normal by the end of the first week. The urine passed on January 29th was $2\frac{1}{2}$ oz.; by February 1st it had reached 10 $\frac{1}{2}$ oz.; on February 2nd it had increased to 23 $\frac{1}{2}$ oz., was much lighter in colour, giving no reaction for bile nor reducing Fehling's, but still containing a fair amount of albumen, which persisted till the end of the second week. The amount of urine on February 8th had increased to 74 oz., after which it decreased somewhat, till finally it remained between 50 oz. and 60 oz. The bowels were kept regular by means of aperients; those used being chiefly calomel and magnesium sulphate and pil. rhei co. During the febrile stage quinine sulph. gr. ij was given every four hours.

So far the case was one of extreme interest from the point of view of diagnosis, but in the light of subsequent illnesses of other members of the household, its interest was increased.

The patient was nursed during his illness by his wife (herself an invalid with disseminated sclerosis), a son, and the housekeeper.

Mrs. E. P., aged 40 years, a widow, with three children, acted as daily housekeeper and nurse, and had been with the family five years, and had helped to nurse J. B. B. in the attack of typhoid four years ago. She came daily, returning to her own home each night to sleep. She was not considered a healthy woman, and suffered a good deal from dyspepsia. On February 26th she came as usual, but complained of feeling unwell, and was sick, but did not return home until the evening. Next day she sent word that she had a bad bilious attack, and would not be able to come. She was subsequently seen by her medical adviser, who diagnosed typhoid fever and had her removed to the Stockwell Fever Hospital on March 9th, where she had very severe hæmorrhage, and died on March 15th.

J. T. B., aged 30 years, the son of J. B. B., who also assisted very largely in nursing his father, first complained of not feeling well on March 6th, on which day he had been to see Mrs. E. P. He was first seen by me on March 10th, and typhoid spots appeared on March 14th. He also was transferred to the Stockwell Hospital, where he now is recovering from a moderate attack of typhoid fever.

Under these circumstances it seemed advisable to ascertain whether J. B. B. was a typhoid carrier, especially as the medical officer of health informed me that the source of infection of the two cases could not be traced in either of the boroughs in which they were notified. A specimen of the blood of J. B. B. was therefore sent to the Lister Institute, and a positive Widal reaction obtained. Through the instrumentality of the medical officer of health also, specimens of the urine and faeces were also sent to the same institution, and the report given was that the faeces contained *B. typhosus*, but that the urine was sterile. No cathartic had been given before the specimens were obtained.

In conclusion, with reference to the diagnosis of the primary case, I have described it as one of acute abdominal infection. It seems probable that a gall stone was passed, and an infective condition akin to cholecystitis acuta referred to by Osler, set up by the *B. typhosus*.

THE KNIFE AND ITS POINT.*

By

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WHY has a scalpel a point? It always has had one, and in times gone by the larger knives had one for a purpose—for instance, the transfixing amputation knife; it has been perpetuated to the present time when the need has disappeared, simply from habit.

It is very usual when opening an abscess to plunge the knife rather than cut, and if the pus is near the surface no harm will result; but if the pus is $\frac{1}{2}$ in. deep or more, a vessel may very easily be cut on the way. Lister saw the danger of this long ago when he advocated his well known method of opening an abscess. In making an incision the point of the knife is pressed through the skin and the blade drawn in the direction the incision is to be made;

* Read before the Croydon Division of the British Medical Association.