swellings, combined with the internal administration of carbolic acid, or sulphate of quinine. In some cases, these remedies were thought to do good, while in others they proved useless, if not detrimental, and Dr. Cabiadis is convinced that we know as little about the cure of this disease as we do about its essence.

He concludes his interesting notes on this subject by expressing astonishment and regret that no public hospital exists in Bagdad, an extensive city of 150,000 inhabitants.* A large *military* hospital was built there by Midhat Pasha, on a fine and healthy site, but no use has been made of it. He therefore suggests that the Government should turn it into a civil hospital for the benefit of the people of Bagdad.

NOTE ON A PECULIAR CONDITION OF THE SKIN IN PARAPLEGIA.

By DAVID FERRIER, M.D., F.R.S.,
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IN a case of tumour of the neck complicated with paralysis of the cervical sympathetic on the left side, and complete paraplegia from the mid-thoracic region downwards, under the care of Mr. Wood in the Albert Ward of King's College Hospital, Mr. Wood, while examining the patient, was incidentally struck with the remarkable facility with which a clean silver probe made dark pencil-marks on the paralysed parts, while it produced only a red mark of vascular dilatation on those parts of the same patient which were not paralysed. When I was told of the circumstance by the house-surgeon, I was at first somewhat incredulous, and inclined to attribute it to some silver compound on the probe; or at any rate that any other metal, such as a key or hard substance, would probably produce a similar effect. I was told, however, this was not the case; and, on examining for myself, I found that most undoubtedly a silver probe or the bright edge of a shilling produced a dark pencil-mark on the abdomen and legs, while a key and a piece of ivory were absolutely negative. But I also found that the edge of a bright sovereign would produce a similar mark, though less readily and not so distinct, and the same with a bronze coin.

Thinking these facts rather remarkable, I determined to pursue the subject: and, with Mr. Wood's permission, I instituted a further series of experiments. The various hypotheses which suggested themselves at first to myself and those who witnessed the facts will appear somewhat ludicrous when viewed in the light of what turned out to be the real explanation; but, as they served to eliminate the truth, they may as well be detailed.

From the fact that silver in particular marked the skin, it was supposed that it might be due to the formation of a sulphide on the skin. To test this, I provided myself with acetate of lead papers, and also with metals which do not form dark sulphides, as zinc, magnesium, and metallic arsenic. The reaction of the skin was neutral to litmus. The acetate of lead test-papers did not become blackened when applied to the skin—at once excluding sulphurous exhalations; and, as zinc and magnesium also caused dark pencil-marks, the theory of sulphides could not be entertained. The metals which were found to give distinct marks were silver, gold, copper (pure and in alloy), lead, zinc, and magnesium; while iron, platinum, and a crystal of metallic arsenic produced only a red line of vascular dilatation. The pencil-marks, though all dark, had different shades, and some were produced with greater facility than the others. With silver, the skin could be drawn on with as great readiness as with a pencil on paper, and it was easy to write or sketch on the thighs, hips, and abdomen. With a wet sponge, the marks were easily effaced, leaving mere lines of vascular dilatation. On examining with a lens the dark lines drawn with a piece of pure magnesium, it was possible to detect a fine dark powder; and, on rubbing him with a clean linen handkerchief, a distinct dark stain was communicated to it. To insure absolute brightness of the magnesium, I cut and scraped it; and, on proceeding to burnish it with a piece of wash-leather, I was struck by the fact that the leather became blacker the more I rubbed. Here was the key to the puzzle. Placing the wash-leather on my leg, I tried in succession the various metals which had produced pencil-marks on the skin, and found that all those which had been effectual also produced marks of exactly the same character on the leather, while iron and platinum produced none. The explanation was thus simple, that the skin possessed the same property as the wash-leather in rubbing down the metal in the form of a fine dark powder. That this property of the skin was not peculiar in the case under investigation, was proved by Mr. Wood writing with a silver probe on the

legs of another patient paraplegic from fractured spine lying in the next bed, while on the arms and chest of the same patient only red marks could be produced.

On testing the healthy parts in these cases, as well as the skin of healthy persons and patients free from paralysis, it was found that, though with considerable pressure some indications of pencil-marks might be made on most, yet the readiness with which the paralysed limbs could be written upon was very striking. I could detect no difference between the two sides in a case of hemiplegia, nor was there any difference between the two sides of the face in a case of peripheral facial paralysis of some standing. Thinking that the physical condition of the skin which caused it, like wash-leather, to take on metallic pencil-marks so readily was probably due to a state of oedema, I tried the various metals on the legs of a patient suffering from cardiac dropsy, and with marked success. With silver, copper, gold, zinc, magnesium, aluminium, etc., sketches could be drawn on the legs in bold dark lines. As before, iron and platinum were entirely negative—a fact easily explicable by the hardness of the metal. I found also that on the lumbar region and buttocks of a patient confined to bed in the recumbent posture, similar metallic lines could readily be traced. Here also oedematous softness of the skin, caused by the long maintenance of the recumbent posture, would readily account for the phenomena. But neither here nor in the paraplegic patients was there any evidence of oedema by pitting on pressure when tested in the usual way.

Hence it would appear that, though the property of taking on metallic markings belongs to the skin to a greater or less extent in the healthy state, yet in certain conditions, especially of oedema, which may not be otherwise evident, this property is greatly intensified, and may be of some diagnostic value.

THE ETIOLOGY OF ENTERIC FEVER, WITH AN ACCOUNT OF NINETEEN CASES WHICH OCCURRED IN THE HOMERTON FEVER HOSPITAL.

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THE object of the present paper is to show that enteric fever is contagious, and by this we mean communicable by direct personal intercourse. It is of secondary importance, for the purpose of the paper, to determine what, if any, particular excretion may contain the fever-producing material; but we think it has been asserted without sufficient evidence that this "material" resides in the stools alone. On the assumption that enteric fever is a specific enteritis, and nothing more, there would be reason for this opinion. It is, however, something more. The severity of the general symptoms is not only not always, or even in the majority of fatal cases, in proportion to the severity of the internal lesions, but they are sometimes entirely *unlike* the symptoms produced by acute local inflammations. We not infrequently see cases of enteric fever in which the symptoms during life point only to acute poisoning, and in which it would be impossible to say to what the acute poisoning was due: cases in which *post mortem* examination shows lesions in no degree proportionate to the severity of the general symptoms. If, then, we regard the fever as the result of a poison affecting the body generally, and the small intestine incidentally, we see no reason why the poison should be limited to the intestinal excreta, and why that of the kidneys, the lungs, and the skin should be held innocuous. That there is no such limitation derives support from the fact that the anatomical changes occurring in the early period of the fever are not limited to the small intestine. The early enlargement of the liver and of the spleen indicates early changes in those organs; and the early bleedings of the nose, mouth, and bowel point to early blood-change. Add to all this that enteric fever, apart from diarrhoea and soiled linen, has its "stink", as typhus and small-pox: a stink which, to persons with good noses, is an aid to diagnosis in doubtful cases; and who will dare say that this stinking matter may not produce the disease? As we have already said, it is of secondary importance for our purpose to establish what particular excretion produces enteric fever. This is a question to be determined by future observation, on the hypothesis that one or all of them may produce it. We believe that the cases which arose at Homerton, and the record of which forms the basis of this paper, arose from exposure to *fresh* enteric stools; but, whilst this is the proposition which will be maintained in reference to the origin of these cases, we do not mean to say that cases do not arise from decomposing or decomposed stools or from emanations from the lungs and skin.

Further, it will be our object to show that, whilst we do not deny that enteric poison is sometimes contained in filth and in drains, and

* Population of Bagdad—Shiah Mohammedans, 70,000; Jews, 30,000; Christians (chiefly Chaldeans) and Soonnee Mohammedans, 50,000; total, 150,000.