the voyage to Africa, from which it has been our good fortune to return, after much sickness, many adventures, and hairbreadth escapes. A few typographical errors have unfortunately crept in, which the indulgent reader will kindly overlook. As rough notes do not afford much scope for word-painting, those who have perused them must supply this great want in these, our jottings by the way.

ON A HANDY METHOD OF EXAMINING MORBID NERVOUS TISSUES MICROSCOPICALLY.

By J. BATTY TUKE, M.D., F.R.S.E., F.R.C.P.E.

THE great obstacle in the way of examining microscopically the tissues of subjects affected by disease of the nervous centres, has been the laborious nature of the work involved in preparing specimens, and in cutting, tinting, and setting up sections. The examination of fresh specimens of brain and cord has been urged by myself and others as an important part of a necropsy in such cases; but it must be confessed that the results obtained by squashing out small portions of nerve-tissue under a covering-glass have been in no small degree unsatisfactory, inasmuch as lesions of individual constituents have been extremely difficult of recognition; and further, in many cases, it has been found impossible to distinguish between morbid appearances and normal structures. This process has served to demonstrate fuscous degeneration of cells, and to suggest the presence of certain other abnormalities; yet an element of doubt must have often existed in the mind of the conscientious observer as to certain important points. But all doubt as to the actual nature of what one sees in fresh specimens can be obviated by adopting the following simple process.

Take a portion of nerve-tissue, about the size of a large pin's head, from a thoroughly defined locality, squash it out gently under a covering-glass on a slide, remove the covering-glass, and apply to the mass left on the slide a drop of "Judson's simple (aniline) magenta dye", diluted with eight drops of water; with a needle, mix the dye and the nerve-matter carefully, and cover the preparation with a clean covering-glass, again gently pressing it out to such an extent that light can pass through it. On submitting a specimen thus prepared to the microscope, it will be found that the cells, the nuclei of the neuroglia, and the blood-vessels, are beautifully tinted a deep crimson colour, leaving the other tissues almost unaffected. As far as my experience has gone, morbid products are also well brought into view, either by their ready absorption of the dye, as in the case of amyloid bodies, or by their refusal to take on the tint, as in the case of colloid bodies. Hematoidin accepts the colour all too readily, but the practised eye soon recognises its appearance. Pigmentary degeneration of cells is well shown, nucleus and nucleolus being thoroughly demonstrated; the poles can also be traced for long distances. A little practice will enable the observer to detect changes in the nuclei of the neuroglia, both as to their individual character and degree of proliferation. A specimen thus prepared presents many aspects more beautifully than can be obtained by the thinnest section I have been able to make; it can be viewed by the highest powers, and, moreover, an objection which has been raised by those who know little of the subject against prepared sections; viz., that the appearances presented by them may be the result of the "pickling" to which they have been subjected, is to a very great extent obviated.

Whilst this process affords a handy method of examining morbid nervous tissue, it can only be advanced as such; it does not supersede sections; for, of course, the nerve-elements are not shown *in situ*. In order to render a *post mortem* examination thoroughly satisfactory, the condition of the tissues must be studied in their relation one to the other; still, it is of no mean importance for the pathologist to be able to say definitely that the vesicular or nuclear elements of such and such a tract were demonstrated to be abnormal in kind or quantity. This can be done with considerable accuracy by the "handy process". In two hours, the pathologist can go over all the parts of a brain and cord, and, if he have any experience of the examination of nervous tissue by the section-process, and know his anatomy with an ordinary degree of accuracy, he can arrive at results of an important nature in a short time. But, if he desire to make assurance doubly sure, or to substantiate a theory as to the absolute nature of a case, he must prosecute his inquiries till he can view the lesions *in situ*, which, of course, entails microscopic sections. I may here remark *en parenthèse* that the most satisfactory results which I have been able to obtain in section-cutting have been by following Betz's method (*vide Journal of Mental Science*, October 1873, p. 465). I have not yet made any experiments as to the best method of permanently preserving fresh specimens prepared by this

handy method; but I believe that careful manipulation will enable them to be set up in glycerine. It is more than probable that this process will be found useful in the examination of other morbid tissues.

THERAPEUTIC MEMORANDA.

THE TREATMENT OF ACUTE AND CHRONIC BRONCHITIS AND ASTHMA.

PERHAPS the following few words upon the treatment of the above distressing maladies, especially of the two latter, may prove interesting.

I have tried iodide of potassium in over a hundred cases, with almost invariable success; in fact, with such success, that patients have expressed themselves by saying, "It has acted like a charm"; others have said that no medicine ever had any real effect upon their complaint before. Iodide of potassium has a marked effect upon the breathing, reducing the frequency of the respirations, perhaps (as I think) overcoming spasms. Almost after the first dose, patients have stated they have felt the medicine touch their complaint.

I usually prescribe it with carbonate of ammonia, and, when the cough is very troublesome, add tincture of belladonna and ipecacuanha wine. In the above complaints I rarely give anything else but the above.

In one case of very severe broncho-pneumonia I tried iodide of potassium, with tincture of hyoscyamus and ammonia, and the respirations were quickly and astonishingly reduced from forty in a minute to less than half that number.

In conclusion, I should add that I have purposely given a mixture containing ammonia, belladonna, ipecacuanha wine, spirit of sulphuric ether, etc., without iodide of potassium, and have not found much benefit; after which I have added iodide of potassium, and found the patient relieved almost at once.

I have given this remedy about one year's trial, and can confidently recommend iodide of potassium as the remedy in these troublesome complaints.

WM. HY. SPURGIN, M.R.C.S. Ed., L.S.A.,
Resident Medical Officer to York Dispensary.

HYPODERMIC INJECTION OF ERGOTIN IN PURPURA HÆMORRHAGICA.

THE following are the brief notes of a new and successful method of treating purpura hæmorrhagica. This case was, however, a complication of typhoid fever, consequently a case of even graver prognosis than an uncomplicated one of purpura hæmorrhagica. Miss M., aged 16, was attacked with typhoid fever, under which she was progressing favourably, when, on February 15th, three weeks from the commencement of the fever, the patient had a severe attack of epistaxis, which recurred each successive time with greater severity. Forty-eight hours from the first attack of bleeding from the nose, several purpuric spots appeared all over the body simultaneously, and hæmoptysis, hæmatemesis, and hæmaturia set in. The patient took every kind of styptic, notwithstanding the hæmorrhages increased most alarmingly, so much so that she had several attacks of syncope. Seeing her case now quite hopeless, and finding that I had ineffectually used every kind of astringent recommended by various authorities for purpura hæmorrhagica, such as turpentine, gallic acid, aromatic sulphuric acid, etc., I resolved, as a last resource, to give hypodermic injection of ergotin a trial. I had previously found it very useful in hæmoptysis and hæmatemesis. Having also considered purpura hæmorrhagica a disease of the capillaries, and not a malady the result of a deficient amount of fibrine in the blood, for the blood of purpuric patients coagulates as firmly as that of healthy individuals, and knowing that ergot always causes contraction of involuntary muscular fibres, I hoped that in this case, by its contracting the involuntary muscular fibres of the minute arteries, I should prevent any more hæmorrhage by lessening the flow of blood to the capillaries. I injected hypodermically one grain of the liquid extract of ergot at a time. After the first injection, the hæmorrhage from the nose, the stomach, the bowels, and the bladder diminished greatly, while fewer new purpuric spots appeared on the body. The second injection completely arrested the hæmorrhage. The patient being nourished and stimulated freely, her strength rallied, the fever came to a crisis a few days afterwards, and she made a perfect recovery.

This case is of interest in this respect, that it is the first time, as far as I am aware, that ergot has been used hypodermically for purpura hæmorrhagica, and its employment has been followed by success.

WM. L. LANE, M.B., Dunfermline.