

learnt in relation to civil life. Dr. Curran warns his readers against a too ready acceptance of the cliché that all crime is disease, and points out the use and the limitations of psychotherapy in the treatment of delinquency. Mrs. Edkins's chapter on psychiatric social work shows how useful an auxiliary the well-trained psychiatric social worker can be. Dr. Griffith pleads for greater knowledge of sex problems by the family doctor, who ought to be the adviser of his patients on these matters, but who often fails lamentably. This is too big a subject to be dealt with in a small space, but indications are given of where fuller information may be obtained. Finally Dr. Tattersall gives a detailed summary of how to get a patient into and out of a mental hospital, which should be of great service to the practitioner.

This little book deserves a wide public, and whoever acquires it will not find that much professional time passes before he has found a use for it.

Notes on Books

An interesting book, *Annals of the University of Otago Medical School, 1875-1939*, by Professor D. W. CARMALT JONES, has reached us from A. H. and A. W. Reed, 182, Wakefield Street, Wellington, New Zealand. The inception of this school in the South Island was in 1870, when the New Zealand University Act, by which degrees in medicine could be granted, became law. Tedious birth pains set

in, and it was only in 1875 that the Faculty of Medicine was opened. The first doctor to practise in Otago Province was Dr. Joseph Crocane, who arrived in 1836. Gradually other wandering doctors arrived, but it was not till 1861 that Alfred Eccles, F.R.C.S., of St. Bartholomew's Hospital, went out from Britain and made himself the moving spirit in a series of undertakings which contained the germ of the Otago Medical School. At that time there was a big increase in immigration, following the discovery of gold in Otago, which attracted 200,000 diggers to Dunedin. The book opens with an account of the nature and history of the New Zealand country, its zoological and botanical peculiarities. Succeeding chapters are devoted to the establishment, development, and present status of the Medical School. The settlement was made on a considered plan, which placed Otago far ahead of all other New Zealand cities in the matter of higher education. Great pains were taken in the choice of professors, and men of "quite exceptional quality" were secured. Otago was the first British University to grant degrees to women. Biographical notices are given of the medical leaders associated with the fortunes of the College. Prof. Carmalt-Jones in compiling his history has given us a model for the establishment of Colonial colleges on a sound basis. He takes his readers through all the stages of development of a fully constituted university.

Mechanical Dentistry, by EDWARD SAMSON (The Technical Press, Ltd., Gloucester Road, Kingston Hill, Surrey; 15s.) is an excellent textbook for dental mechanics, and describes in detail the basic principles of their craft. So much advance, however, has been made recently in the use of plastics in dentistry that a new chapter must be added to bring the volume up to date.

Preparations and Appliances

A SIMPLE APPARATUS FOR CONTINUOUS PENTOTHAL

Dr. H. MARCUS BIRD, D.A., honorary anaesthetist, West Suffolk General Hospital, writes:

During the past few years a large number of devices for administering continuous pentothal have been described. The great majority of them share the faults of being cumbersome and difficult to sterilize except in a fully equipped theatre.

The ingenious bicycle-valve apparatus described by Cochrane in the *Journal* of Aug. 26, 1944, has neither of these disadvantages, but, in its original form, detaches the anaesthetist from the patient's head. This can be overcome by increasing the length of the rubber tube to about 2 feet, when the syringe can be clamped to the head of the table and controlled with one hand, leaving the other hand free for the patient or the anaesthetic trolley, as can be seen in the photograph. This set-up is not ideal, for the longer tube not only spoils the excellent vein-seeking properties of the apparatus, but in addition any accidental compression of the tube or constriction of the arm causes back-flow of blood into the needle with blockage from clot. This can be prevented by using two bicycle valves, one close to the needle and the other attached to the syringe, but this arrangement offers so much resistance to injection of the solution that it is difficult to give the very small amounts required during the more prolonged administrations.

The most satisfactory combination is a glass needle mount attached to a female syringe fitting by a 2-foot length of rubber tubing with an ordinary bicycle valve interposed 2 inches from the glass viewer. This gives a considerable amount of backlash in the syringe, but by compressing the plunger

sharply by 1/2 c.cm. and releasing it immediately about 1/10 c.cm. of solution will pass the valve and needle, quite sufficient to keep the needle clear.

The internal bore of the rubber tubing is very critical. It must fit the valve snugly enough to prevent backflow, but not so tightly as to necessitate the use of any force in the syringe, or the adapter may be blown off it. (A bayonet catch here might be an advantage.) If different strengths of solution are used, it

is wise to use them always in different patterns of syringe to avoid any possible confusion—for example, an all-glass syringe containing 5% solution for induction and a Record containing 2½% for maintenance. The syringe can be clamped to any convenient object in a carrier constructed from two spring tool-clips screwed to a strip of wood. A third, very small, clip holds the mount while the syringe is changed or refilled.

In use it is advisable to inject a few drops of solution at least once every ten minutes (though the needle will often remain clear for

very much longer than this), and for this reason the 2½% solution is preferable for maintenance, especially as surprisingly small amounts of pentothal are required when supplementary nitrous-oxide-oxygen or cyclopropane is employed.

The capacity of the apparatus is about 4 c.cm., and this must be allowed for if changing from one strength of solution to another, as the first 4 c.cm. injected will be of the strength formerly in use.

Sterilization is simplicity itself, as the whole apparatus can be either boiled or carried in a spirit-proof container ready for immediate use. This, together with its portability and ease of construction from local sources, should commend its use under active service conditions.

