

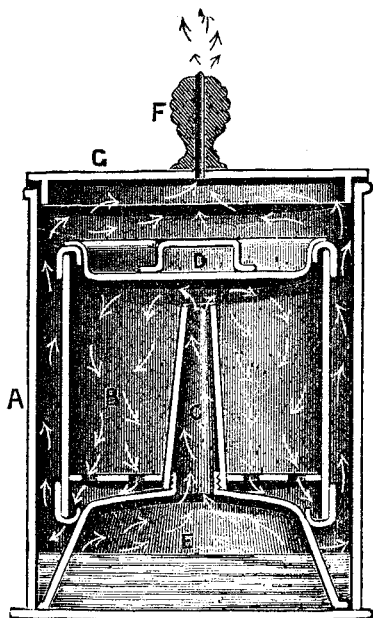
the general consideration and classification of drugs; the second part to the subject matter proper of the lectures; and the third part, or appendix, treats of poisons and their antidotes, emetics, mineral waters, weights and measures, and gives a dose-list and glossary. The doses of all drugs are given in both apothecaries' and metric weights. The book is a sound one, the subject matter is well arranged, and the information given is such as is well suited to be helpful to nurses in carrying out their duties.

Laws of Health. McDougall's Educational Company, Limited. 1904. Pp. 80. Price 6d. net.—The first 22 pages of this little book are devoted to a description of the structure and functions of the body. The second chapter deals with the composition and chief impurities of air and water. Subsequent sections treat in turn of food, the proper care of the body, ventilation, heating and lighting, drainage (including the removal of refuse), the spread of diseases, and first aid. The whole tone of the book is judicious. It is very simply written and it contains a mass of information that will be useful to all classes of the community. The wide spread of such knowledge will add health and happiness to all homes where it is rightly appreciated. There is a useful index, so that the subject matter may be quickly referred to and the illustrations are clear.

New Inventions.

A NEW STERILISER FOR SURGICAL DRESSINGS.

THE apparatus shown in section in the accompanying illustration is not intended to compete with large hospital sterilisers but only to be used by surgeons performing operations in private houses where it is difficult to obtain really sterile dressings and towels. It consists of an outside can, slightly over nine inches high and seven inches in diameter, into which there fits tightly (only removeable for cleaning) an inverted funnel (E). The cover (G) closes the can. The outside can (A) contains the dressing can (B), which has an air-tight lid (D), provided with a handle and also has an opening in the bottom, with a tube rising therefrom fitted with a screw by means of which it can be attached to the funnel (E) as shown in the illustration. The bottom of the dressing can is per-



forated and its sides are prolonged past the bottom so as to receive an extra lid which, when placed in position, closes the bottom of the can completely. The whole is strongly made of copper, tinned on the inner surfaces and when empty weighs six and a half pounds. The necessary amount of water for three quarters of an hour's boiling is one and a half pints and any small Bunsen's burner or oil or

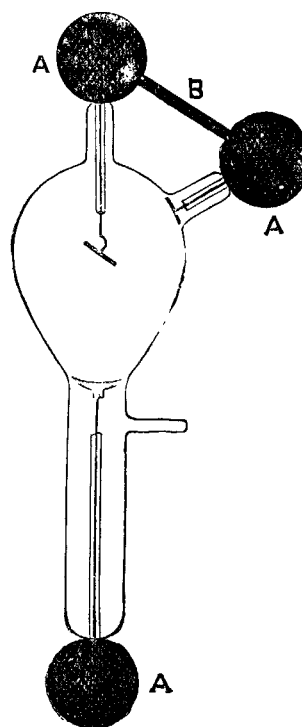
spirit lamp, or even an ordinary kitchen range will boil it readily. When the dressings and (if thought desirable) instruments have been packed in the dressing can the upper lid (D) is closed and the can is screwed into its position within the outer can (A), as shown. The extra lid is put in on the top (where room for it is provided, not shown in the figure) and the outer cover is closed. The water should previously have been made hot and when it boils the steam follows the course shown in the figure and thoroughly permeates the whole of the contents of the dressing can and finally comes out through F. I think it is wise to take as the commencement of the time of sterilising the moment when there is a column of transparent steam at least six or eight inches high issuing from F. When a sufficient time has elapsed the outer cover is removed, the extra lid is carefully lifted by its edges and placed with its tinned side upwards upon a flat surface; the dressing can is then unscrewed, lifted out and pressed down upon it. The dressings or other articles are then inclosed in an air-tight box and can be carried in an ordinary surgical bag to the bedside and need not be opened until actually required. The size which Messrs. Allen and Hanburys, Limited, of 48, Wigmore-street, London, W., have made for me I find to be the most convenient. It is large enough for small operations and for larger ones it is really more convenient to have two dressing cans, the first with towels and preparatory material, and the second with the dressings and bandages, and on their top the sutures, &c., for closing the wound. A larger size could also be made if required. I usually prepare my dressings the day before. It will be seen from the above description that the dressings remain untouched within the case until they are opened by the surgeon or nurse at the time of using. The price of the steriliser, complete, is £2 2s.

Burton-on-Trent.

EDWARD C. STACK, F.R.C.S. Irel.

AN IMPROVEMENT IN X-RAY TUBES FOR USE WITH STATIC MACHINES.

It is common knowledge that powerful static machines are capable of exciting an x-ray tube in such manner as to give off absolutely steady rays of great brilliancy as regards screen work and of good penetrative power. But the difficulty has always been that the rays are apt to decline suddenly in power and the current to find any other path rather than that through the tube. To obviate this difficulty I



have contrived the simple device here shown. It consists of a brass ball of fair size A (an inch and five-eighths in diameter on my own tube) fitted over each terminal of the ordinary bianodal tube, the anode and anti-cathode being connected by a piece of stout round brass rod B (three-eighths of an inch in diameter), thus supplying terminals of very perceptible electrical capacity and at the same time doing away with all edges, salient angles, and points of metal from which leakage formerly took place. The tube is connected to the machine by means of thickly insulated wire fitted with a fair-sized brass ball at each end, and these need not quite touch either the terminal knobs of the machine or those of the tube. By this means I obtain from my machine (a 12 plate, 30 inch Wimshurst) rays as steady as the light of an incandescent lamp, of great brilliancy and penetrative power, much less trying to the eyes than the flickering light shown by those from a coil with any but the most rapid break, and quite constant and reliable. Moreover, the tube never works hot, and I understand that dermatitis from rays generated by a static machine has not yet been seen.

W. SALISBURY SHARPE, M.D. Durh., M.R.C.S. Eng.,
L.R.C.P. Lond., D.P.H.

Cleveland-terrace, W.