January 16, 1915

get infected, and infect clean cases. Fresh rubber gloves for each case are unnecessarily time-consuming and costly. To use sterilised gauze for mops in these infected cases is unnecessary.

The prolonged hot iodine bath for limbs is very useful; three or four hours at a time alternating with the fomentations. Whilst in the bath the patients are encouraged in the use of muscles and joints.

I am accustomed to say in speaking of limb injuries, "Do not think of the wound, think of the limb below it. Endeavour to minimise the crop of cripples which this war will bring forth." Everything possible must be done to prevent stiff joints, atrophied, paralysed, gluedtogether muscles, lengthened tendons, loss of grasp, dropped hands, and dropped feet. Later we shall have war hospitals which by electricity, by massage, by hot-air baths, and by mechanical and surgical methods are endeavouring to cure what might have been in many instances prevented by carrying on side by side with the wound treatment, treatment calculated to restore the usefulness of the limb.

The patients must be stood over at the time of their dressings and carefully and methodically put through different movements and exercises. With the arm, for example, the patient is told to use every endeavour to make this or that movement, to make finger meet thumb, to flex and extend the wrist, to pronate and supinate, to grasp, to separate and close together the fingers. It is explained to the patient that all this painful exertion is for his own good, and to give him a useful limb later.

Splints should be designed to keep a limb in its most useful position and to prevent tendons lengthening. In wrist drop, for example, arm splints are prolonged by a piece attached at an angle which dorsiflexes the palm, leaving the fingers free. The arm extension splints of Borchgrewink, for my knowledge of which I am indebted to Mr. E. W. Hey Groves, of Bristol, are occasionally useful, but it is difficult to apply the extension strapping in the presence of a septic wound. The humerus splint is shown in our illustration, for which we are indebted to the courtesy of the editor of *The Lancet*.

Trained nurses in Switzerland, who may need advice, are reminded that the Hon. Vice-President of the International Council of Nurses for Switzerland is Sister Emmy Oser, whose address is Zurich 7, Plattenstrasse 33. Sister Emmy will, we are sure, be glad to advise any members of the National Council of Trained Nurses of Great Britain who may wish to consult her.

OUR PRIZE COMPETITION.

FOR WHAT CONDITIONS IS TRACHEOTOMY DONE AND WHAT INSTRUMENTS ARE REQUIRED FOR THE OPERATION. DESCRIBE THE AFTER-CARE OF THE PATIENT.

We have pleasure in awarding the prize this week to Miss M. H. Griffith, Eastern Hospital, Homerton, London, N.E.

PRIZE PAPER.

Tracheotomy, which consists in making an opening into the trachea, may be required for various conditions characterised by difficult breathing, usually arising from laryngeal obstruction, but in rare cases may be tracheal. It is also sometimes performed as a preliminary step in some serious operations in and about the mouth.

The laryngeal obstruction may be due to any of the following causes:—(1) Diphtheria; (2) membranous laryngitis; (3) laryngitis accompanying all infectious diseases, more especially that of measles; (4) severe "simple "laryngitis and "child-crowing"; (5) any injury, such as a foreign body or scalded throat; (6) simple ulceration of the larynx; (7) ulceration due to tuberculosis or syphilis; (8) cedema of the glottis, more especially in injuries of the mouth which become inflammatory; (9) some swelling external to the larynx, e.g., *post-pharyngeal abscess* (which is often mistaken for membranous laryngitis), or other large inflammatory swellings in the mouth, or any growth in the neck pressing on the larynx, or a laryngeal growth; (10) any local condition of the larynx, such as paralysis or spasm of the vocal cords.

The instruments required for the operation are scalpel, scissors, dissecting forceps, artery forceps, probe, director, sharp hook, retractors, dilators, pilot, tracheotomy tubes (threaded with tapes, and properly fitted with inner tubes), needles, sutures, ligatures, and feathers.

The after-care of the patient is of the greatest importance. The patient must not be left, but the secret of success lies in disturbing him as little as possible.

Before taking charge of the case the nurse should always obtain clear instructions from the doctor as to her course of action in the event of sudden and severe dyspnœa coming on, which is not relieved by the removal and cleaning of the inner tube.

The temperature of the room must be kept at 65° F. A steam tent may or may not be ordered, and unless the room is imperfectly warmed, the patient does better without it, but in cases where the mucus is sticky and scanty and the cough hard and dry, a steam tent is often beneficial; the nurse must strive to keep



