Dr. Graham deprecates the desultory training sometimes given to nurses in this important branch, though he adds that "in justice to many intelligent nurses it should be said that even after they have had some lessons in massage at a hospital they will decline to try to use it, saying that they do not know enough about it." He believes that "those who do massage should be tender and gentle, yet strong and enduring."

We reproduce here two illustrations as showing the scope of the book. The first shows the position of the hands for manipulation of the back of the forearm, the other showing flat foot from sprain and fracture of the external malleolus.

(To be continued.)

## OUR PRIZE COMPETITION.

WHAT ARE SOME OF THE CONDITIONS UNDER WHICH TRACHEOTOMY IS PERFORMED? HOW WOULD YOU PREPARE FOR THE OPERATION?

We have pleasure in awarding the prize this week to Miss Catherine I. Dean, Cumberland Infirmary, Carlisle.

PRIZE PAPER. "Tracheotomy" comes from two Greek words, meaning "I cut the windpipe." Speaking surgically, it is the operation in which the windpipe, or trachea, is opened from the front of the neck, so that outside air may enter directly into the lower air-passages. This operation is "high" or "low" tracheotomy, according as the trachea is opened above or below the isthmus of the thyroid, which crosses the trachea just over the second and third cartilaginous rings, and a true tracheotomy is performed when the incision is made through two, three, or more of these rings.

High tracheotomy is the easier of the two operations, because the trachea recedes from the surface as it passes downwards; and in the lower part of the neck it is placed near large blood-vessels, which become a source of difficulty to the surgeon. Still, it is frequently necessary to open the windpipe as low down as possible.

The reasons for performing "tracheotomy " are numerous, the chief being :-

1. Inflammatory conditions of the throat and pharynx, which cause narrowing of the opening into the larynx and prevent the entrance of air; e.g., diphtheria, croup, &c.

2. Wounds of the larynx, followed by inflammation, as in cut-throat.

- 4. Tubercular disease of the vocal cords.
- 5. Ulceration or papilloma of the larynx.

6. Spasm from aneurism, or other tumour, pressing on the recurrent laryngeal nerve.

7. As a preliminary step in serious operations in and about the mouth, nose, &c.

If the operation is to be performed at a moment's notice little preparation can be carried out-instances being on record when tracheotomy has had to be done on the doorstep of the hospital, the only instruments being a scalpel for the incision, and the handle of another knife acting as dilator for the time being ! In an emergency operation it would only be possible to shave where necessary, and prepare the skin by rubbing it with ether and painting it with tincture of iodine. When the case is less urgent, and when preparations can be made, they should be as thorough and as aseptic as possible.

When tracheotomy is merely a preliminary to another operation, such as excision of tongue, the patient should practise drinking out of a feeding-cup, to the spout of which is attached a piece of rubber tubing, as this will be his method of drinking in the early stages after his operation.

The diet should be light for a day or two, as this tends to reduce the tendency to after-sickness-a serious complication. The day previous to the operation the patient must be given the usual aperient, followed, about 12 hours later, by an enema.

The skin of the patient is prepared 12 to 24 hours before the operation. A good area is shaved, and well cleansed with fluid soap. The grease is removed by means of rectified turpentine, and this cleared away and the skin dried with methylated spirit. The cleansed area is then covered with a sterile dressing, which is kept in place with a bandage.

In the diphtheria wards of some hospitals each bed has permanent arrangements for converting it into a tent. Where this is not available the nurse must fix up a tent by means of screens and blankets, and maintain the tem-perature at about 66° F.\* A bronchitis-kettle acts beneficially by keeping the air moist, and this may contain a drachm of Friar's Balsam.

In a private house a light room must be chosen, and emptied of everything superfluous, then thoroughly cleaned, and prepared as aseptically as possible. Any article lacking must have a substitute. The table should be long and narrow; the supply of hot and cold sterile water plentiful; and the lotions chosen sub-servient to the surgeon's wishes. The ordinary

<sup>3.</sup> Foreign body, or growth in the larynx.

<sup>\*</sup> N.B.-The surgeon's wishes should be ascertained, as some operators discard the tent.-ED.



