

An operating table must satisfy the following conditions:—To warm the patient directly; to change rapidly the position of the whole or of special parts of the body; to prevent the constriction of any part of the body, especially of the lower extremities; and lastly to give comfort to the patient.

The position of the patient after operation will be considered in the chapter on after-treatment.

(e) Asepsis of the Patient and Operators. The Final Cleansing

The following recommendations apply only to those who enter the operating room as scrupulously clean as if they were entering a drawing-room. The patient is prepared the day before the operation as we have described. The surgeon and his assistants have already bathed and washed and guarded themselves from all possible sources of infection. Everything necessary for disinfection must be carried out previous to the operation. The operator and his assistants must disinfect their hands immediately after contact with infective matter, such as faeces, mucous secretions, saliva, etc., which should be effected before the hands become dry by immersing them in an antiseptic, and afterwards washing them thoroughly with soap and water.

This is the explanation of our dictum that gloves should be worn in the intervals between operations and should be removed before an operation, by which means contact with infective matter will be prevented. But when such matter has touched the skin, it must be removed immediately and thoroughly.

With these precautions, the final cleansing is initiated by washing all parts of the body that are left exposed, especially the face, eyebrows, beard, and hair. The teeth must be brushed with soap and water, and the mouth, pharynx, and nose syringed with sterile water or a weak antiseptic ($\frac{1}{4}$ per cent carbolic). The hands and arms are again washed with soap and water, and then scrubbed under a somewhat warmer stream of water, without the soap.

The chief fault at this stage is that sufficient care is not ensured that the assistants, nurses, and the patient are as thoroughly purified as the surgeon himself. It is not sufficient to purify the patient's skin only in the area of the operation: every part that is not entirely covered must be as carefully cleansed. Further, it is remarkable how many people at the present day refuse to be convinced that dirt can be really and readily removed by means of simple running water.

In conclusion, the reprehensible practice of using nail-cleaners must be abandoned. The nails can only be thoroughly cleaned when they are cut so short that there is no recess between them and the pulp of the finger. It is then as easy to clean them with a nail-brush and soap as it is to wash the rest of the hand.

When the hands have been thoroughly scrubbed with a nail-brush and soap under a stream of warm water, they are afterwards washed and scrubbed in warm sterile saline solution, and finally cleansed with alcohol, which removes fat, and which, as K. Fett¹ has shown, has a more penetrating action than watery solutions. By the drawing of a swab soaked in ether over the skin, even after it has been thoroughly washed with soap and water, a stain will always be found on the gauze. It is more advisable, therefore, to cleanse the patient's skin with ether after it has been washed with soap and before alcohol has been applied. The surgeon's hands should be thoroughly scrubbed with a brush in 85 per cent alcohol (Ahlfeld uses 96 per cent, while Leedham Green recommends 70 per cent as the most useful strength), after which they should be dried with sterile gauze. The hands should not be washed in sterile water after the ether and alcohol have been used, as the process interferes with the action of the alcohol. Fig. 2 illustrates the stand we have used for many years, which enables us to do our necessary ablutions under a stream of alcohol and sterile water. We would direct attention to the small rubber caps attached to the upper jars, which are slipped over the stop-cocks when they are

¹ *Zeitschrift f. Geburtshilfe*, Bd. 47.