

APPLICATION OF THERAPEUTIC CURRENTS 10

normal saline solution. The dry skin, and also plain water, are both bad conductors of electricity. When more than a momentary application is being made, great care must be taken to see that the whole electrode is in good contact with the skin, otherwise concentration of current will take place at the points of good contact, and burning result. For the same reason any breach of the skin surface must be closed with collodion.

The lint or sponge covering the electrode must be of sufficient thickness to prevent the acid and alkaline bodies, formed by secondary chemical action at the electrodes and thence propelled (see Chapter), from reaching the skin surface. Twelve to sixteen layers of lint will suffice for a prolonged application. Any complaint of localized pain by the patient is an indication to immediately stop the application and examine the electrodes to make certain that they provide good even contact throughout the whole of their surfaces.

The electrodes should be maintained in position by an elastic bandage.

Another method of providing paths of ingress and egress for the current is to immerse the patient or his limbs in baths of water in which electrodes are placed. For the limbs suitable troughs are made of porcelain for the arms and legs (Schnee baths). All four limbs may be immersed for general applications, or two (*e.g.*, arm and leg, or both arms), or one limb only, forming the indifferent electrode, while the active consists of a smaller electrode placed on the spot desired. Baths are a very convenient method of applying current over a wide area, as they always provide perfect contact. If the patient complains of burning or irritation of the limb at the upper level of the water, this can be allayed by pouring a little glycerine on the fluid, or bandaging the limb