the whole thickness of the skin above it to get out, and in practice it generally cannot, and does not, do this unaided. Or, again, the germs may be carried along the lymphatic vessels (or drains of the body) to the nearest glands, and inflammation, going on to abscess formation, may take place there. Thus, in the case of the finger, we may get erysipelas of the finger and hand, or cellulitis of the hand and arm, so that the skin floats on a bed of pus; or very little may be seen in the finger or hand, but an abscess may form in the glands of the armpit.

However intense the local signs are, they are not of so much importance as the constitutional ones mentioned above, as these latter indicate that poison is loose in the blood stream, which is obviously much worse for the patient than having it locked up in his arm or hand. In the worst cases of septicæmia there is often very little to be seen at the site of injury, and the patient soon becomes delirious and prostrate, with a dry brown tongue, and dies unconscious of his surroundings. The height of the temperature bears very little relation to the amount of the circulating toxin, though a rough idea may often be obtained of the degree of resistance which the patient is making by counting the number of leucocytes in a drop of his blood under the microscope; if these are fewer than normal the outlook is usually bad.

The treatment of wound infection will be considered in the next article.

SODIUM HYDROXID (NaOH).

FOR STERILIZING INSTRUMENTS.

Dr. Isaac M. Heller, of New York, states in the *Journal of the American Medical Association* that for two years he has used sodium hydroxid (NaOH) in solution for sterilizing boilable instruments. He says that "instruments boiled in soda, or washing soda, or sodium carbonate, will, especially if plated, come out covered with a white scum, are slippery, and unless quickly dried are liable to turn black, often defying diligent scouring. This is particularly true if there happens to be some blood thereon. Sodium hydroxid, or hydrate, or caustic soda (NaOH), has none of these faults when used in 0.25 per cent. solution. It comes in pearly sticks the caliber of a pencil and four to six inches long. A piece ¾-inch long (about 38 grains) to one quart of water gives the approximate strength. Instruments standing in such a solution over night are neither black nor rusted in the morning. Fresh bloodstains disappear as if by magic when rinsed therein, and old dried spots are easily removed with a little rubbing."

Dr. Heller's custom is to have a basin of the solution handy while operating, and by rinsing the instruments therein for a few minutes they are kept clean. He is sure that those giving the hydroxid a fair trial will not care to return to the use of the carbonate or bicarbonate.

Owing to its high degree of deliquescence, sodium hydroxid must be kept in tightly stoppered glass bottles, preferably wide-mouthed. The chemically pure carbonate is more costly than the common grade.

OUR PRIZE COMPETITION.

We have pleasure in awarding the prize this week to Miss E. Helen Gibert, General Hospital, Birmingham, for her article on the question:

WHAT CARE SHOULD BE GIVEN TO INSTRUMENTS AFTER OPERATIONS?

All nurses should be taught the importance of scrupulous care as regards cleanliness, repair, &c., of surgical instruments, and both time—sometimes even of vital importance—and expense, may be saved by careful attention to this matter.

After an operation all instruments should be taken to pieces, when possible, such as tonsil guillotines, trephines, and be washed in cold or tepid water; no soft soap. Hot water to be avoided, in order to prevent coagulation of blood, pus or serum likely to be present. It is advisable to use a small brush kept for the purpose for instruments with grooves or teeth, such as artery forceps or saws.

They should next be washed in a lather of hot water and soft soap, and rinsed with plain hot water. Finally they should be put into boiling water to which soda (one drachm to pint) has been previously added, taking care to see that all instruments are turning the same way, and be allowed to boil for ten to twenty minutes. *N.B.*—Care should be taken that the water into which they are placed is actually boiling, in order to expel all the air from it, and this precaution, together with the addition of soda to the water, should do much to lessen the liability to rust.

If thoroughly dried and polished while hot with a soft dry cloth, instruments can be kept bright without the regular application of

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