

using, and this is the best method of sterilization, they should be wrapped in a sterilized towel, and placed in a potato steamer or any clean vessel, and boiled for twenty minutes. Knives, scissors and needles should be sterilized by placing in carbolic acid solution (1-20) for fifteen minutes. Boiling takes the edge off. Some use alcohol, but it is not a good antiseptic, unless it is absolute, and then it is not as good as carbolic acid. After sterilization in this solution for fifteen minutes, the solution should be poured off, and sterilized water put over them. The sponges should be counted, and a note made on paper of the number in use. Small pads of sterilized gauze must always be used to protect the hands in taking hold of anything not sterilized, such as basins, pitchers, etc. A good substitute for reef sponges is gauze sponges, made by covering absorbent cotton of the size required with gauze, and stitching the gauze. Eight small ones, and four large ones for the interior of the abdomen, will be sufficient. In fact, owing to the difficulty of sterilizing reef sponges, gauze sponges should always be used. We use boiling water for the sterilization of instruments, silk, drainage-tubes, towels, and utensils. An expensive apparatus is unnecessary. A large stewing-pan, enamelled, or a fish-kettle, will do just as well. Steam and boiling water are very efficient disinfectants. Most pathogenic germs perish after ten minutes' exposure to 64 degrees C. of moist heat. Therefore five minutes in boiling water should kill them. Fifteen minutes in boiling water is enough to kill such organisms as are likely to be met with. It is advantageous to add a teaspoonful of washing soda to each pint of water used for the disinfecting of the instruments. The soda helps the removal of the grease and fat, and prevents the instruments from rusting. Moreover, the addition of the soda renders the boiling point of the water a little higher, so that disinfection is more certain and rapid.

*Disinfection of Hands.*—Remove all rings. The finger nails should be trimmed as short as possible, with a knife or scissors. Afterwards the hands and forearms should be scrubbed with soap and water (temp. 105 degrees F.) for five minutes, having the water changed at least three times. The object of this soaping and scrubbing is not only to remove all visible dirt, but also to extract as much as possible of the grease from the skin, so that the disinfectants can penetrate. Ordinary soap will do, green soap is better, and probably the best soap is green soap dissolved in ether and alcohol. The next step is to disinfect the prepared hands. They should be soaked for between five and ten minutes in carbolic acid solution (1-40).

*Preparation of Patient.*—The day before operation the patient is given a purge, so that he will not be disturbed for a few days