

a. *Silk.* For all classes of abdominal work four sizes of silk, cut into appropriate lengths, will be found amply sufficient. One of heavy cable twist silk, 24 inches long; one of medium sized silk, 16 inches long; one of fine silk, where carriers are to be used, 16 inches long; and one of fine iron-dyed silk, 16 inches long, for intestinal work.

After the silk has been cut into the required lengths each size is bunched into fours and wound together on glass reels. The reels are placed in sterilized ignition tubes which have previously been padded at the bottom with sterilized non-absorbent cotton, four reels all of the same size being placed in each tube. The mouth of the tube is then plugged with sterilized non-absorbent cotton and sterilized by moist fractional sterilization. Previous to each operation the silks that may be required are resterilized.

b. *Silk-worm gut* is admirably adapted for suture material. In preparing it for use the twisted ends are cut off, and great care should be observed in the selection of each strand. They should be run through the fingers to detect unevenness or fraying, and tested as to their strength and pliability. They are first boiled for one hour in bichloride solution (1 to 1000) and slowly dried between sterile towels in a hot air oven at a temperature of 100° C. A dozen strands, folded once, are placed lengthwise in each of the glass tubes in which they are to be kept, the mouth closed with sterilized non-absorbent cotton, after which they are sterilized by fractional sterilization.

c. *Catgut.* The value of absorbable suture and ligature materials has been for years so apparent that much work has been done to secure one which would answer the conditions imposed by the requirements of aseptic surgery. Catgut is the cheapest and best of such materials. Its properties are well known, but the principal objection to its use as sutures or ligatures is the difficulty experienced in its sterilization. There are two conditions which must be fulfilled, and several which it is desirable to meet in the preparation of catgut for surgical purposes. The first essential condition is that the *sterilization* must be perfect. Not only must the pyogenic cocci be killed, but the spores of the most resistant bacteria, whether pathogenic or not, must likewise be destroyed.