

used in the eye. Pilcher dissolves the cocaine in a mixture of equal parts of sterilized water and saturated solution of salicylic acid. This amount of the acid is sufficiently protective without being objectionable. Carbolic acid, one in thirty, preserves the solution, increases the anesthetic action, and lessens the risk of intoxication.

Resorcin, too, enhances the anesthetic value of the cocaine, and lessens the risk of unpleasant symptoms. The resorcin combination is particularly valuable in using the stronger solutions for nasal work.

We sometimes hear the statement: "In all cases of plastic surgery where cocaine has been used, it has operated against immediate union, upon which the success of the operation so often depended." In the great majority of cases this difficulty may be overcome by using a thoroughly sterilized one or two per cent. solution, and by using a constrictor without the Esmarch bandage.

A one per cent. solution injected into tissue deprived of its blood and serum by means of the rubber bandage is equal in its local action to a three per cent. solution in tissues not rendered anemic in this way.

Another objection to the use of the Esmarch bandage, in addition to its interference with primary healing, is that after the removal of the constrictor we are apt to have a general oozing, the bleeding in some cases so free and continuous as to render the term "bloodless operation" quite *malapropos*.

The following is the technique of operations upon the extremities, where the circulation may be temporarily arrested, and as suggested by Wyeth: In operating upon a finger after injury or destructive osteitis, the hand is cleansed by immersion in a 1 in 2000 sublimate solution for half an hour. The anesthetic may be employed in two ways, viz., directly injected into the lines of incision, or indirectly injected above the nerve at the base of the finger.

Cocaine, directly injected, retards, to a slight degree, union and repair. It is, therefore, better to employ, when possible, the indirect method, although this requires a little longer time to secure the anesthesia, and usually more of the cocaine solution.

The syringe, including the needle, should be surgically clean, the latter of the smallest size, the quantity of cocaine measured accurately, and the screw, now adjusted to all the better syringes, screwed down to prevent the accidental injection of too large an amount.

For this method it is best not to Esmarch the finger, but to use constriction by means of a piece of rubber tubing around the digit, or its junction with the hand. Just before applying the rubber, every particle of air being forced out of the syringe, the point of the needle is thrust through the skin on the lateral aspect of the dorsum of the finger, about an inch from and on the distal side of the ligature.