

of the spinal anesthesia with a general anesthetic, it seems strange that respiration should cease so quickly. Recovery of respiration came rapidly following removal of the nitrous oxide. When the pentothal sodium was used as a supplementary anesthetic, recovery of voluntary respiration was longer. One wonders in what way, if

any, the patient's mental attitude influenced the course of events.

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### TECHNICAL SUGGESTIONS

The use of a topical anesthetic agent such as a 2 per cent pontocaine spray in the throat frequently facilitates the introduction of an endotracheal tube. Also, this procedure decreases the incidence of laryngeal irritation when it is necessary to employ an airway during light anesthesia, particularly when pentothal is used.

A. J. F.

For some time past we have been using the 20 per cent solution of novocaine in the preparation of our fractional spinal solution. The 5 cc. ampule of this solution contains 1,000 mg., and the cost is less than the crystalline novocaine. The tedium of dissolving the crystals is eliminated, and at the same time there is sufficient drug remaining for additional patients or for prolonged single cases. The technic we are using at present is that of diluting 2.5 cc. (500 mg.) of the 20 per cent solution with 7.5 cc. of cerebrospinal fluid, thus making a 5 per cent solution containing 50 mg. per cubic centimeter. Should additional quantities be required the remaining 2.5 cc. may be diluted with 7.5 cc. of physiologic saline to give an equivalent solution. We have not as yet encountered any undue reactions to the use of this solution.

C. S.

When a flexible endotracheal airway such as those made of latex and incorporating a fine coiled wire is employed, a stiff stylet is essential for convenient introduction by direct vision. An ordinary bone knitting needle, size 6 and 12 inches long, serves as an inexpensive and satisfactory stylet director. A cork of a larger bore than the airway is bored to fit the knitting needle snugly and placed at a distance from the pointed end sufficient to prevent the end of the stylet from pro-

truding beyond the end of the endotracheal tube. These knitting needles may be molded into a curved stylet if desired by bending them while immersed in hot water and then cooling. When such a stylet is used, it should be carefully lubricated with vaseline to facilitate easy removal.

E. R.

For those who attach the Horton intercoupler to the gas machine rather than to the operating table, the following arrangement of wires will be found advantageous. A piece of spiral rubber strapping, four feet long, sold at Five and Ten Cent Stores to stiffen telephone cords, is obtained. Starting at the resistance box, this is wound around three wires of the intercoupler, one of which is equipped with a clamp and the other two with bracelets. At the end of the rubber spiral one wire terminates at its clamp, which is attached to the operating table, and the other wires, which may have to be lengthened by a foot or two, continue to the wrists of the patient and of the anesthetist. (Horton intercouplers may be obtained from the manufacturer made up in this way without extra charge.) With this arrangement there is but one four-foot cable from the gas machine to the operating table, and no wires drag to the floor.

P. D. W.

Those who wish to obtain fairly prompt effect from epinephrine given before spinal anesthesia will find results more satisfactory if the drug is administered intramuscularly, for example, into the deltoid, than if it is mixed with a local anesthetic and injected into the skin of the back and into the interspinous ligament. Absorption from the latter structures probably is comparatively slow.

P. D. W.