AN IMPROVISED ETHYL CHLORIDE ATTACHMENT

BY

D. HUNTER SMITH

Cumberland Infirmary and City General Hospital, Carlisle

The sequence nitrous oxide–oxygen–ethyl chloride is one which has been successfully used by a number of anaesthetists for many years, especially when a pleasant induction followed by brief but deep anaesthesia and rapid recovery, is desired—e.g. for guillotine tonsillectomy in children.

The accompanying photograph illustrates an improvisation to a standard Boyle machine with a Magill attachment which facilitates this technique. A detailed discussion of the technique will be found elsewhere (Campbell and Smith, 1955).

The tap of the reservoir-bag is placed in the vertical position and unscrewed. Through the hole thus exposed some 12 to 15 inches of suitably fine rubber tubing are threaded, and so introduced into the adjacent part of the breathing-tube. Into the end of the tubing which now remains protruding from the hole is inserted the nozzle of an ethyl chloride spray. This is in turn fixed vertically above the hole by means of an arrangement of clamps of the type used with a laboratory burette-stand. The jaws of the clamp which holds the spray can be padded with adhesive sponge rubber to minimize the risk of breakage.

At first sight it might seem more obvious to introduce the ethyl chloride directly into the reservoir-bag, and indeed this was done for a number of years—until the introduction of antistatic rubber. The first few reservoir-bags of this material subjected to ethyl chloride perished and disintegrated after about five or six administrations; hence the reason for diverting the ethyl chloride into the breathing-tube, which is much thicker and does not deteriorate noticeably when so used. It is probable in any case that the ethyl chloride is more quickly and efficiently vaporized from the tube than from the bag.

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REFERENCE