causes active expiration at the onset of anaesthesia. Careful observation of abdominal movements makes it clear that completely 'passive' expiration does not as a rule take place until considerable relaxation has been produced. It is not difficult to imagine the force of expiration corresponding with any particular degree of visible expiratory effort. ... As a patient goes into a state of 'shock' changes take place which simulate in many ways the changes which occur with deepening anaesthesia. A sudden considerable haemorrhage will lower the plane of anaesthesia although no increased quantity of anaesthetic agent has been administered. In these circumstances expiratory force will become weaker and the E.P.T. may be used as a means of assessing the patient's debilitation. ... The inexperienced anaesthetist will find the E.P.T. of particular value in cases where the usual signs of anaesthesia are not readily discernible." 7 references.

J. C. M. C.


"The stimulating effect of ether on glycoenzolysis in muscle and liver is well established. Other anaesthetic agents, pentothal, cyclopropane and procaine are considered to have little effect on carbohydrate metabolism since a significant variation in the fasting blood sugar was not noted during or after their administration. An investigation of carbohydrate metabolism during acute alcoholism in man revealed a markedly reduced blood sugar tolerance. To determine whether this phenomenon resulted from the specific action of alcohol or was due to anesthesia, the blood sugar tolerance in the same individuals was determined during other circumstances. Each subject was studied in the resting state without anesthesia and during surgical anesthesia with an intravenous barbiturate (pentothal), during inhalation anesthesia (cyclopropane) and during spinal anesthesia (procaine). Four volunteer normal adult males, who had been admitted in an acute alcoholic episode, served as subjects. All had completely recovered, were clear mentally and had no evidence of nutritional deficiency or other physical illness. Each subject received all of the anaesthetic agents used but not in any particular order. The order of testing was carefully altered in each series and between every test there was an interval of at least seven days. No preanesthetic medication was given at any time. ... Blood sugar tolerance was decreased during cyclopropane, pentothal sodium and procaine (spinal) anesthesia in each test. In contrast to anesthesia with pentothal and procaine, cyclopropane produces a slight elevation in blood sugar. This together with a rise in blood pyruvate might indicate that this anesthetic has an effect analogous to ether in stimulating glycogenolysis in liver and muscle. It should be noted particularly that cortical or brain stem depression alone cannot account for the decreased blood sugar tolerance since it was observed with spinal anesthesia at a high level. The same phenomenon was observed with alcohol anesthesia indicating that a general depression of carbohydrate metabolism takes place during anesthesia." 3 references.

J. C. M. C.


"The main difficulty in anesthesia for tonsillectomy arises from the necessity for the anaesthetic agent to pass
through the field of operation. For this reason, the manipulations of the surgeon interfere with those of the anaesthetist, and a reasonable compromise must be reached. The nature of the operation makes haemorrhage unavoidable, and the prevention of aspiration of this blood is a necessity. The anaesthesia is required to be of considerable depth in order to prevent throat reflexes. In addition to anaesthetic, sufficient oxygen must also be passed through the field of operation.

"Anaesthesia is induced with ethyl chloride and ether. As soon as the jaws relax, a Magill tube is introduced into the larynx through the mouth by means of a laryngoscope. . . . The mouth gag is immediately dropped over the oral end of the tube. By means of rubber tubing, the Magill tube is connected with the ether can. The ether can is an ordinary one-pound can, with the tube attached to the central opening and with several other openings punched into the top of the can. . . . Further attention is necessary only to maintain a small amount of ether in the can, and to vary the concentration of ether vapour by covering or opening the holes in the top of the can, according to the requirements of the patient. Apart from this, the anaesthetist is free to render assistance to the surgeon. . . . It is necessary to instruct nurses watching these patients during postoperative recovery, that they must not remove the tube until pharyngeal reflexes have returned, or better still, the patient should be left to remove the tube himself."

J. C. M. C.


"The ideal sought for by every anaesthetist is to produce anaesthesia which is conducive to little shock and also makes for greater ease in the surgeon's operative efforts. One also wishes to leave the patient's memory of the anaesthetic a pleasant one, and not wrought with disagreeable impressions. Attempt is also made to minimize the postoperative complications which may be derived from the anaesthetic. . . . In combined anesthesia, the burden of the anaesthetic is carried by several anesthetics instead of one, the load being divided among the two or more we may use. . . . Use of a combination of anesthetics may be termed 'spot' anaesthesia. In other words, using an anesthetic at the time it can be utilized to greatest advantage. . . . It must be warned that one must be careful not to administer inadvertently too great doses of combined anesthetics, as it readily can be foreseen what deleterious results may follow." 7 references.

J. C. M. C.


"In spite of the need for increased production in the dental offices of America, many dentists are not using nitrous oxide and oxygen. . . . The proportions necessary for the average patient are 75% oxygen and 25% nitrous oxide with one pound pressure. This will enable cavity preparation to be carried on with ease in most cases, and without the suffocating feeling experienced when greater pressure is used. . . . Since much of the pain of bur excavation is caused by generated heat, a stream of water under pressure on the revolving bur will help greatly. . . . If, as sometimes happens, it is thought best to use a local anesthetic after analgesia has been started, the puncture of the needle and injection can be made painlessly at this time. . . . It must be remembered that at