sensorium, producing safer, better and quicker anesthesia, with a saving in total amount of agents required. By this is meant 'balanced anesthesia.' . . .

"Modern anesthesia demands specially trained personnel. It has come of age as a new specialty—anesthesiology, and it permits the performance of many new and difficult procedures heretofore impossible because of high mortality." 42 references.

J. C. M. C.

SADOVE, M. S., AND CASSELS, W. H.: *Endotracheal Anesthesia.* Arch. Surg. **55**: 493–497 (Oct.) 1947.

"Basically, an endotracheal technic is one in which a tube is passed through the mouth (constituting an orotracheal intubation), through the nose (constituting a nasotracheal intubation) or through a tracheostomy opening (constituting a tracheostial intubation). Intubation may be performed under direct vision by the use of a laryngoscope or by the so-called 'blind' technic, the tube being maneuvered through the glottis by skillful manipulations. . . . Endotracheal anesthesia has much to offer the patient, the surgeon and the anesthesiologist. This technic diminishes many of the dangers of surgical procedures, facilitates the ease with which the surgeon may operate and renders more easily accomplishable the mission of the anesthesiologist, which is the guarding of the safety of the patient while at the same time aiding and facilitating the surgeon's activity. This technic, good in the hands of the competent anesthesiologist, has hazards which increase tremendously in the hands of the incompetent."

J. C. M. C.

SAMSON, H. H.: *Laryngeal Spasm during Anaesthesia.* South African M. J. **21**: 447–448 (June 28) 1947.

"Laryngeal spasm does not usually occur during the plane of correct surgical anaesthesia, since it is during this stage that the cough reflex is abolished. On the other hand, there is no doubt that spasm may frequently be produced during the lighter plane of anaesthesia, especially during the stage of induction, when the reflex is always present. Spasm occurring during intravenous barbiturate anaesthesia is usually more severe, as a result of the respiratory centre, depressed by the barbiturate, unable to produce the necessary deep enough inspirations to counteract the oxygen loss caused by the expiratory coughings, and anoxaemia rapidly develops. . . . If severe laryngeal spasm is left untreated, anoxaemia may eventually cause acute myocardial failure, and it is the immediate duty of the anaesthetist to prevent this calamity. . . . The treatment of spasm is first and foremost: prevention. . . .

"There are two cardinal rules to be diligently applied: 1. Remove the irritant immediately. 2. Prevent anoxaemia by administering oxygen."

J. C. M. C.

SCHMAHMANN, O.: *Painless Childbirth.* South African M. J. **21**: 597–600 (Aug. 23) 1947.

"The use of procaine intravenously for the relief of pain and for surgical procedures as well as for childbirth has recently been reported. . . . It is essential that a sensitivity test be performed in all cases to exclude untoward reactions from extreme sensitivity to the drugs used. . . . Lundy claims that the systemic reaction is the only real contraindication. This occurs within ten minutes. Reactions to procaine, however, are rare. If the patient gives a history of previous procaine without ill-effects the skin test is unnecessary. . . . In obstetrical practice it is seldom necessary to proceed beyond the tranquil dream state which is reached, and often not even as far

as this. The usual limits set are dizziness or drowsiness. The rapid and flexible control of administration permits of this fine adjustment and its maintenance for long periods. . . .

"There is an absence of pain. This remains relieved in an effective, safe and prolonged manner. Screaming and crying are absent at any stage and the patients are comfortable throughout and recover completely soon after the cessation of the infusion. Nausea, headache and other sequelae are absent and the mother, apart from an occasional elevation of the blood pressure or pulse rate, shows no evidence immediately after the birth of having had an analgesic administered. . . . There is no effect on the child. . . . Consciousness is retained. . . . The absence of a desire or urge to bear down or exert voluntary expulsive effort has been repeatedly noted. . . . I am of the opinion that in cautious hands the risk of convulsions is a minor hazard which is easily combated by watchfulness, care and attention to technic. . . . The only disadvantage so far encountered with intravenous analgesia is the necessity of constant supervision." . . . 28 references.

J. C. M. C.

SEGAL, BLUMY: *The "Open" Endotracheal Method of Anaesthesia for Harelip and Cleft Palate Operations on Infants.* South African M. J. **21**: 484–485 (July 12) 1947.

"The 'open' endotracheal method of anaesthesia, also known as Ayer's technic, for the repair of harelip and cleft palate, has proved decidedly advantageous to the little patient, greatly contributed to the peace of mind of the anaesthetist, and in no small measure eased the task of the surgeon. . . . Before the patient is anaesthetised a tube should be roughly measured by placing it alongside the child's neck and ascertaining that its length, measured from the mouth in orotracheal and from the nares in nasotracheal intubation, will not extend beyond the level of the second costal cartilage. A mark is made on the tube with methylene blue. The average length is 3½ to 4 inches. The infant is now induced with a very small amount of ethyl chloride followed by 'open' ether. Induction is very slow and oxygen is administered all the time. By passing a small tube into the pharynx via the nose and delivering oxygen and ether vapour, the anaesthesia is easier maintained whilst the laryngoscope is used, for intubation. The small blade of this instrument is lubricated with sterile liquid paraffin. An attempt is first made with the largest of the endotracheal tubes; if that fails, the next size is used. . . .

"For harelip operations the tube is passed through the mouth and placed in the corner of the mouth opposite the cleft, for the cleft palate via the nose. . . . The small end of the metal angle piece is attached to the endotracheal tube and the wide distal end is connected by means of a 1 inch length of rubber tubing to one of the large open ends of the Ayre's T-piece. To the other open end of the Ayre's T-piece is attached a rubber tube 7 inches long and 11 to 13 mm. in diameter. The smaller the infant, the shorter the tube. . . . A small wisp of cotton-wool is attached to the end of this tube by adhesive tape. . . . The complete Ayre apparatus rests on a sandbag placed at the side of the head, preventing any side traction on the endotracheal tube. The inlet portion of the T-piece is attached to a Boyle's machine (the rebreathing bag and expiratory valve not being employed) or any apparatus delivering a continuous flow of oxygen and ether vapour. The flow of the oxygen is regulated at the rate of 1½ to 2 litres per minute. . . . Before the endotracheal