a few seconds at most, immediately begins to breathe again for himself. . . . The principle determining the efficiency of all methods of artificial respiration is . . . found to be essentially the same as the principle controlling the volume of natural breathing. It is the influence of the blood gases on the respiratory center that largely determines the tonus of the respiratory muscles; and this tonus is a principal factor in the volume of lung ventilation alike in natural breathing and in artificial respiration. Because of this principle, no manual method—neither prone pressure nor any other—can induce any larger volume of lung ventilation than the tonic elasticity of the body at the moment permits. . . .

"Mechanical respiration, unless so forcible as to be harmful, does not increase the volume of natural breathing. Inhalation of carbon dioxide and oxygen increases the efficiency of manual artificial respiration but increases the antagonism between mechanical respiration and natural breathing. In brief, the best method of resuscitation from drowning and electric shock is prone pressure artificial respiration supplemented by inhalation of carbon dioxide and oxygen. The best method of resuscitation from carbon monoxide asphyxia is inhalation of carbon dioxide and oxygen, initiated in cases of severe involvement by prone pressure artificial respiration." 22 references.

J. C. M. C.

WYNNE, R. L.: *Mechanism of Partial Rebreathing in Anaesthesia.* Brit. M. J. 1: 155–157 (Feb. 1) 1941.

"Partial rebreathing is justified in so far as it promotes lung expansion and oxygenation, and retains the warmth and moisture of the upper respiratory contents while permitting adequate ventilation below. Its extent is modified in the continuous-flow machine by adjustment of the gas flow, and in the intermittent-flow machine by adjustment of the bag capacity. The patient's effective alveolar ventilation is controlled, as always, by the alveolar CO_2 concentration. For continuous-flow machines there is a 'critical flow' in the neighbourhood of 5 litres per minute for each individual, which if diminished will lead to CO_2 accumulation, but which if exceeded allows equilibrium to be attained. Continuous flow is dangerous with a flow below the critical level; intermittent flow is dangerous with an unlimited bag capacity." 5 references.

J. C. M. C.

BATTEN, D. H.: *Spinal Anesthesia in Cesarean Section.* Anesth. & Analg. 20: 115–118 (Mar.-Apr.) 1941.

This is a report of the records of the Methodist Hospital, Brooklyn from 1928 to 1940 and shows 96 cases of cesarean section where spinal anesthesia was considered the method of choice.

"Reports of the surgical procedures written at the time of operation indicate that spinal anesthesia has these advantages: (1) No disturbance of previously existing pathology in the the respiratory, circulatory, or genitourinary systems of the mother, (2) relaxation of the abdominal muscles permitting easier and speedier work, (3) good tone of uterine contractions, (4) diminished blood loss, (5) decreased nausea and emesis, (6) no need of resuscitation of baby.

"Spinal anesthesia was found to be of particular value in those patients who had acquired an upper respiratory infection or whose previous existing pulmonary disease would render the use of ether unwise. Toxemia was considered a definite indication for spinal anesthesia when cesarean section was contemplated.

"The agents and dosages used in this