thetics tested. Evidence has been obtained in rabbits that those deflation-reflexes which produce acceleration of breathing are briefly stimulated but then paralyzed by ether, whereas they are stimulated throughout exposure to trichlorethylene. The increased rate of respiration during administration of trichlorethylene is therefore probably due to the cutting short of expiration as well as of inspiration. As the normal pattern of respiration is determined by the coordinated activity of both the stretch-reflexes and the deflation-reflexes, the sensitization of both is believed to account for the clinically familiar disturbances of respiration during anaesthesia, and in particular for the rapid and shallow breathing which is so conspicuous with trichlorethylene."

J. C. M. C.


"Trichlorethylene was introduced as a general anaesthetic in a somewhat unusual manner. In 1939, the secretary of the joint Anaesthetics Committee of the Medical Research Council and the Royal Society of Medicine was approached by a chemist, Mr. Chalmers, of Muswell Hill, who stated that trichlorethylene appeared to be an excellent general anaesthetic and suggested that it might be used by anaesthetists. This he did as the result of experiments with the drug which he had made upon himself. On looking into the matter, the Committee found that the only published work on the use of trichlorethylene in human anaesthesia was a paper by Stricker, Goldblatt, Warm and Jackson in America, describing a series of 300 short administrations for minor operations. The results were inconclusive as in the following year the Council on Pharmacy and Chemistry of the American Medical Association con-
sidered that ‘the case had not been completely made out’ for the usefulness of the drug.

"In these circumstances, it was considered worth while to investigate the effects of trichlorethylene fully with a view to finding out whether it had any place in anaesthesia, and the writer was asked to carry out this work. The investigation was done in the department of anaesthesia of St. Bartholomew’s Hospital, and the results were embodied in three papers. . . . Since then the use of the drug has spread rapidly, and it is now generally recognized to have a definite place in anaesthesia in spite of certain disadvantages. . . . Purified trichlorethylene has been shown to be an excellent inhalant drug for producing general analgesia. It is also useful for light general anaesthesia, preferably given with nitrous-oxide-and-oxygen especially if an ignition risk is present. Trichlorethylene should not be used to produce profound narcosis and should not be given in a closed-circuit apparatus with soda-lime." 9 references.

J. C. M. C.


"Controlled respiration involves the consideration of apnoea and artificial respiration by rhythmic pressure on the breathing bag. Actually it means that the anaesthetist deliberately takes the function of pulmonary respiration from the patient into his own hands.' In accordance with the fundamental concepts of the physiology of respiration, apnoea during anaesthesia will occur when the carbon-dioxide tension in the blood is insufficient to stimulate the centre. This results when the carbon-dioxide tension is lowered by artificial hyperventilation, or when the respiratory centre is sufficiently depressed by narcotics or anaesthetic drugs, e.g.

opiates, short-acting barbiturates, cy-