

ABSTRACTS

Editorial Comment: Material for this section is not abstracted in a uniform style. Many employ direct quotations only. Others are written in the more conventional form. At times there may be included a few opinions, personal to the abstractor, which, where they appear, will be bracketed or labeled "Comment." The Editorial Office continues in its desire to receive correspondence from readers relative to the management of this section.

MARSTON, A. D.: *A Short Survey of the Life and Work of Joseph Clover*. M. Press 216: 455-458 (Dec. 18) 1946.

Joseph Clover followed the steps of John Snow and became a specialist in anesthesia. He was appointed Lecturer in Anaesthetics to University Hospital, Chloroformist to Westminster Hospital, and Administrator of Anaesthetics to the London Dental Hospital. He made many improvements in the technic of administration of anesthetics. In 1862 he introduced his chloroform inhaler which was very successful in use. After numerous fatalities with chloroform were reported, Clover was made a member of the committee set up by the Royal Medical and Chirurgical Society of London to investigate the anesthesia problem. He influenced the committee's report which declared ether to be safer than chloroform. He worked on an apparatus for administering ether and in 1876 first described his ether inhaler. The device was a great success. Clover became a famous man and his services as an anesthetist were increasingly called for. At the height of his career he died at the age of 57 years. 5 references.

F. A. M.

GRAHAM, E. A.: *Ether and Humbug*. J.A.M.A. 133: 97-100 (Jan. 11) 1947.

The simplicity and brevity of Dr. Warren's remark, "Gentlemen, this is

no humbug," suggests a deep and awe-inspiring effect on his emotions. His reaction would indicate that he fully realized that the key had been found to open the door to future developments.

In 1846 there was no surgery in the modern sense. What was needed to advance surgery were three developments; abolition of pain, prevention and treatment of shock and control of infection. The discovery of the use of ether to abolish pain eliminated speed as an important factor in operations. Animals could be anesthetized and experimental operations performed which advanced the art of surgery.

For more than half a century after the demonstration of ether it was considered free from danger and no special training was necessary in order to administer an anesthetic. More and more doctors are now taking up the specialty of anesthesiology. "There are some prominent anesthesiologists who would eliminate completely the nurse anesthetist. They have even supported legislation in some states which would make it illegal for a surgeon to engage the services of a nurse anesthetist. This, it seems to me, is a most unrealistic attitude to take. There are seven thousand hospitals in this country but at most only a few hundred professional physician anesthetists. They can conduct only a small fraction of the anesthetics in the country. Who will handle the rest? Shall we return to the old custom of

having the inexperienced intern or the doctor who refers the patient to the surgeon administer the anesthesia? God forbid! The best solution to the problem then is to encourage the training of the nurse anesthetist until there are enough physician anesthesiologists to fill the demand. There has been no opposition, as far as I know, to the idea of the laboratory or x-ray technician. Why should there be opposition to the nurse anesthetist technician? In the larger hospitals she should be under the direction of an anesthesiologist who holds the M.D. degree and has spent several years in graduate training in his field. But in the smaller hospitals, or in those in which a physician anesthesiologist is not available, she will prove invaluable. There is no doubt that already she has saved the lives of thousands who would have died if they had been subjected to the kind of anesthesia which the unskilled physician gives. The possession of the M.D. degree by itself certainly does not qualify one in a professional sense to administer an anesthetic drug safely." 5 references.

F. A. M.

MCCARTHY, K. C.: *War Advances Anesthesia*. Ohio State M. J. **42**: 1150-1153 (Nov.) 1946.

Although war is the greatest calamity that befalls mankind, there has been an associated remarkable increase in medical knowledge during most wars. The professional status has been markedly advanced. The supply of qualified anesthetists was inadequate to supply the needs of the army alone. An active educational program was instituted. Courses of twelve weeks' duration were started in five civilian institutions. Later the training was taken over by the Army General Hospitals. A large number of medical officers was trained both in this country and overseas. It was possible to in-

clude only the fundamental methods but the training resulted in a group of anesthetists who made a brilliant record in combat areas. Many of the men who were trained in this program will form the backbone of the profession in the future. The older anesthetist has been broadened by his military experience.

Nitrous oxide was found to have a great field of usefulness, especially in combination with ether or pentothal. Sodium pentothal, because of its portability and convenience, seemed to be the ideal wartime anesthetic. At Pearl Harbor, however, the results were disastrous. The mortality was one in 450 (.22 per cent), when it was given for a wide variety of operations by men who were not familiar with the limitations and dangers. After study of the fatalities a list of restrictions on the use of pentothal sodium was made and following this guide the mortality was reduced to 1 in 5,500 (.018 per cent). No war was necessary to demonstrate the practicability and simplicity of open ether. When ample oxygen was supplied ether was found to be safe for those in shock. Local anesthetic agents were limited to those proved safest and the concentration of each agent was limited for various uses.

For non-transportable patients inhalation anesthesia proved to give the best results. Endotracheal methods were life-saving in major cranial, thoracic and abdominal cases. Over half of the transportable casualties were anesthetized with sodium pentothal. Local and regional methods were used in an additional 30 per cent; specific regional blocks proved more successful than field blocks. Nerve blocking for diagnostic and therapeutic purposes was given impetus during the war. The improved treatment of shock resulted from the use of plasma, whole blood, oxygen and other supportive treatment. Lessons learned in wartime anesthesia