

injection of anesthetic drugs into the spinal canal. Dönitz and Klapp each studied the use of vasoconstrictors intradurally.

In 1905, Hugo Sellheim of Leipzig first used paravertebral blocks. Kappis, in 1911 used the posterior approach to produce splanchnic block and in 1919, Braun advocated the anterior approach. In 1909 Lävén perfected a technic of injecting branches of the sacral nerves through the posterior sacral foramina.

Dresser, in 1899, introduced hedonal. Ludwig Burkhardt reported his experimentation with intravenous ether and chloroform in 1909. He also experimented with other drugs for intravenous anesthesia. The first barbiturate, veronal, was synthesized in 1902 by Fischer and von Mering. Bogen-dörfer reported the intravenous use of dial in 1924. Other barbiturates were reported. Weese and Scharpff, in 1932, introduced evipan which was immediately successful as an intravenous anesthetic. "Twilight Sleep" was introduced in Germany by von Steinbüchel in 1902. 57 references.

F. A. M.

LILJESTRAND, G.: *The Introduction of Surgical Anesthesia in Sweden*. J. Hist. Med. & Allied Sc. 1: 635-640 (Oct.) 1946.

Before the telegraph had revolutionized international communication the diffusion of knowledge was slow. It was not until February, 1847 that the first reports of the use of ether for surgical anesthesia were read to the members of the Swedish Medical Society. Doctor C. J. Ekströmer was asked by the Medical Society to make experiments with ether. His report was read in March. Doctor E. G. Polmgren devised an apparatus to be used for ether administration. Doctors O. A. Swalin, V. Lundberg and others used ether within the first weeks after

the reports of its use reached Sweden. Ether, and later, chloroform were used for obstetric practice soon after they were accepted for surgical anesthesia. 19 references.

F. A. M.

DEL REAL, E. G.: *Surgical Anesthesia in Spain*. J. Hist. Med. & Allied Sc. 1: 641-643 (Oct.) 1946.

After hearing of Morton's demonstration of the anesthetic qualities of ether, Spanish physicians interested themselves promptly in the discovery. Diego de Argumosa y Obregon used ether for various surgical anesthetics beginning in February, 1847. Benavente, Ruiz Gimenez, and Ulpiano Fernandez inhaled ether vapor in their studies. Basilio San Martin was the first to observe and to point out the importance of antecedent alcoholism for the disturbances supervening during general anesthesia. Ether was used by Antonio Saez who administered a drachm of ether and an ounce of distilled water by enema before the patient was given inhalation ether. Vincente Guarnerio used chloroform eighteen days after Simpson published his discovery. In 1888, Professor Morales Perez began to use warm ether for anesthesia. He reported 4917 operations using this method, without having observed any respiratory complications. In 1896, Suarez de Mendoza used and recommended the use of a mixture of chloroform and oxygen, which he called the "Spanish method." 3 references.

F. A. M.

CARVALHO, A. D.: *The Introduction of Sulphuric Ether and its Substitutes in Portugal*. J. Hist. Med. & Allied Sc. 1: 644-648 (Oct.) 1946.

In March, 1847, Adolphe de Mareille de Vitry, junior, a dentist in Lisbon advertised that he would use ether in