AN INAUGURAL DISSERTATION
ON

ANESTHETICS

SUBMITTED TO THE
PRESIDENT, BOARD OF TRUSTEES,
AND MEDICAL FACULTY
OF THE
UNIVERSITY OF NASHVILLE,
FOR THE DEGREE OF
Doctor of Medicine.

BY

J. Emanuel Josey

OF

Mississippi

1838

W. T. BERRY AND CO.
BOOKSELLERS AND STATIONERS, NASHVILLE.
Respectfully dedicated to
Paul B. Roe, Prof. of Surgery in
the University of Nashville.

By the Author.
Anaesthetics

At a single glance at the records of the past confines us that one class of agents known to the medical profession has elicited for a few years past more attention than the one under consideration. In what estimation anaesthetics have been held by the profession, there have not been wanting those who would degrade them from their proper position, as instruments of good to suffering humanity. Though its advocates are true to their convictions have gallantly and boldly defended them as a sacred gift from God. Medical Philosophers more than a half century ago dreamed of these or similar agents. Dr. Rush conceived that future discoveries would give to the world
Some agent endowed with all the properties that chloroform actually possesses, an agent that would assist nature in overcoming the agonizing pains attending surgical operations and childbearing. Bergelius also speculated on this subject. He attempted to demonstrate the manner in which this great agent could be obtained, however his theory was not entirely correct, but sufficiently conclusive to impress us with the belief that had his life been prolonged a few years, his mature thoughts would have furnished the world with the great discovery.
Notwithstanding the views of these gigantic minds more than half a century ago, no direct discovery was made until at comparatively a recent period.

A little more than ten years have elapsed since the introduction of anaesthetics into medicine and surgery, though a few months only were necessary to diffuse a knowledge of their powerful effects throughout the entire civilized world.

General effects of Anaesthetics. The first effect is stimulating; deafness, ringing in the ears, confusion, restlessness and numbness of the limbs ensue, then sleep more or less profound. Follows, consciousness is partially lost, and the sensibility limited.
Such follows muscular relaxation. The patient becomes entirely unconscious of everything around him and insensible to pain. His breathing becomes stertorous and finally his respiration is interrupted. His pulse weak and fluttering, and if this stage is not arrested respiration will cease, and death follows.

Modus Operandi of Anaesthetics. That they are absorbed is beyond doubt; they have been found in the blood in very many cases. Being then conveyed by the blood to the great nervous centres these in succession lose their force. First, the cerebral lobes lose their power and intellect is impaired; then the cerebellum is affected and the power of regulating locomotion...
is lost: afterwards the spinal marrow, and sensation and motion are gone; lastly, the medulla oblongata, the motive power of respiration, breathing ceases, and death is the result.

The above are the views of Flourens as given by Békésy.

Sulphuric Ether was the first used to any considerable extent. Its properties were discovered in October 1846 by Dr. Morton, Surgeon Dentist of Boston, who after successfully using it in extracting teeth and experimenting on himself, recommended it to the profession of that city. Several surgeons immediately took it into consideration and experimented upon themselves and surgical operations all of
whom met with the most satisfactory results. From this jeer-like it sprang as it were into full grown manhood in a day. For some time sulphuric ether took entire possession of the medical world and continues in favor with a few. It was supposed to possess advantages over any other anaesthetic. First its power of stimulating was supposed to produce the double effect of stimulating and bracing the system while anaesthesia was being produced. This last argument in its favor has degenerated into an objection. The second advantage urged in its favor is that it is slow in its action, making it a safe remedy. Few deaths have been traced directly to the inhalation
of ether. One serious objection to it is that it has a remarkably disagreeable odor, excites coughing, not infrequently severe headache. Although ether has been almost entirely abandoned, the following reported cases are conclusive evidence that it is an efficacious remedy.

A case of mania was related by the Boston Medical and Surgical Journal, that was treated with ether inhalation. The patient was immovable and had to be held by assistants. Ether was administered, natural sleep came on in twenty-five minutes, from which he awoke, from and a half hours afterwards, perfectly rational. A similar case is reported...
in the New York Annualist. The disease resisted for several days, all the usual remedies. At last, ether was given which quieted the patient in five minutes. After several successive applications, he was entirely cured. The London Lancet reports several cases of mania chronic and acute which were treated successfully with ether inhalation. The surgeon in a hospital at Tunis caused a patient laboring under traumatic tetanus to inhale the vapor of ether, the contractions were immediately overcome. The symptoms recurred, and were again subdued. The London Lancet also reports a case of traumatic tetanus by J.C. Linsdown successfully.
treated with ether inhalation. He could enumerate many other cases similar to the above, but we think it unnecessary.

We desire next to take up chloroform. This article was discovered in the year 1831, by Guttmie of New York, and about the same time, Liebig of Germany. Chloroform is by far the most powerful anaesthetic known and rapidly manifests its influence. Besides it seldom fails to produce unconsciousness and insensibility. That this article is daily gaining favor as a therapeutic remedy no one will doubt but the profession is not so blinded by its flattering exterior as not to observe its occasional
ill effects. By their accidings, these they think to abate. Like all other poisonous medicines, this has occasionally produced fatal effects. These however bear a very small proportion to the number of cases in which it has been administered with good results. There appear to be important differences in the mode of administering chloroform, as adopted by different surgeons. One or two limited reading coming to this the proper and more safe plan is the governed by the symptoms, regardless of the quantity given. It would be irrational to administer the same amount to every person, seeing the greater susceptibility of some persons than others.
to its influence, Chloroform should be given with a free admixture of air and continued until the breathing becomes stertorous. Plenty of air and plenty of Chloroform. (Nashville Journal).

It is of great importance that the tongue be closely observed during chloroformication. If respiration cease or become difficult, the tongue should be seized and pulled well forward. By thus doing the air is freely admitted to the lungs and respiration is resumed. The mode of administering Chloroform is quite simple: no other apparatus is necessary. Take a napkin fold it to form a hollow cone into which pour the Chloroform. Then apply over the mouth and nose
not near enough to touch. We presume the following reports will not be out of place. Surgeon Regal of Paris relieved a little boy of painful phymosis by the use of chloroform. It was administered with the view of an operation but endured its influence. The bladder was enabled to throw off its contents and thereby obviated the necessity of using the knife. Twenty-four hours afterwards the symptoms returned. When chloroform relieved him again, without the necessity of an operation. A policeman swallowed strong mixture from grains of strychnine, Dr. 13 by being near at hand administered too large emetics in quick succession which failed to produce


eosis. The patient was convulsed, his jaws were locked, and his body drawn in the form of an arch; the approach of anything toward the mouth caused a recurrence of the spasms. At this stage chloroform was administered which relieved the spasms in a few minutes. A third emetic was then given which together with the constant use of chloroform produced vomiting. The stomach was thus cleared of the poison and the patient finally recovered. We have before us the reports of various authors and from different grades of the globe showing the successful treatment of many of the diseases which the flesh is heir to, but we forbear to quote more of them.
save the statistic of one year.

The St. John's of London reported seventy-three cases of amputation of the thigh and leg under the influence of Chloroform; fourteen died giving a mortality of nineteen per cent. Of one hundred and thirty-four without anaesthetic fifty-five died, being a mortality of forty-one per cent. In the French Hospital two thousand eleven cases, show a diminished mortality. Dr. Bennett of Massachusetts used Chloroform in two hundred cases of labor without an unpleasant symptom. In the Massachusetts General Hospital, one hundred fifty-six, New York Hospital.
Thirty seven, Clinic of the University of Pennsylvania, thirteen, Clinic of the Jefferson College forty-five, Cincinnati hospital sixteen, operations where ether or chloroform was employed and without a single death.

Besides the anaesthetics already mentioned generally others are in use, though they are of minor importance and are less with a passing notice. Chloric ether has been used as an anaesthetics. It is simply the dilution of chloroform with alcohol. This agent is but little used at the present time.

Cold appears to be a more available remedy.
than the latter. Ice pounded up with equal proportions of salt constitutes a very good anal-
ethic for minor operations.
From the world of evidence around us we can but be
favorably impressed with Anaesthesia.
He has been taught by our worthy
Professor of Surgery to almost reverence them. His confidence in them
as a means of overcoming the severe pains attending operations are
unbounded. Though he has never failed to admonish his classes
that while they were useful and safe when not abused, they are
nevertheless fraught with evil
consequences, and should be used
with care and discrimination.