The outlet from the volatilizing chamber is situated on the front of the large tank, and either a flexible metal tube with rubber connections or a wide bore rubber tube is used to connect to the intra-tracheal catheter in the patient.

A Magill’s rebreathing bag can be fitted on this tube for ether and oxygen administration, but should be shut off when it is desired to give chloroform, etc., to the patient, and certainly when these are being administered by way of the “by-pass.”

It will be seen that the more rapid administration of oxygen, gas and oxygen, etc., is an advantage.

In constructing the apparatus, I endeavoured to reduce the amount of breakable glass parts and to lessen the amount of rubber tubing which deteriorates and requires replacement. The disadvantage of having to pump over ether from a bottle into the volatilizing chamber by means of a bellows has been removed, and, once started, more automatic working is permitted. The ease with which the “by-pass” allows the rapid administration of gas and oxygen is obvious. The large water tank ensures complete volatilization of the ether and the maintenance of a supply of warm ether for a longer period. The possibility of carrying the ether reservoir inside the large tank renders the instrument portable. The apparatus is mounted on a metal tray, and measures 11 by 6½ by 6 inches; the weight is 12 pounds. Messrs. Down Bros., London, are the makers, and I wish to express my grateful thanks to them for their valuable co-operation, and my appreciation of their faultless workmanship.

THE DEATH OF AN ENTAMOEBA.

By Captain M. F. N. Griffin.

Royal Army Medical Corps.

I was called from the wards to examine the stool of a man who had been admitted to hospital two days before with acute dysentery. I had seen a specimen of his stool on the previous morning, and it had been a typical bacillary exudate; large numbers of polymorphonuclear and mononuclear cells were seen, with no normal fecal matter, and nothing resembling an ameoba was present.

When I examined the specimen I found that it contained large numbers of motile amœbæ. It had been passed about an hour previously. One large entameba in the middle of the field was particularly active. It contained from fifteen to twenty red blood-cells, a small nucleus, and clear highly refractile ectoplasm. It varied from thirty to forty \( \mu \) in length, measured in its longest diameter. I observed this specimen for the next two and three-quarter hours at intervals of ten minutes or quarter of an hour. As
the specimen had been passed nearly an hour before I looked at it, the organism showed movement for three and a half hours outside the body. The active flowing movement first seen continued for two hours. The only noticeable change was that the whole organism became smaller and the red cells disappeared one by one until at the end none was left. The movement then became slower, and when it had nearly stopped altogether a new motion started; this was a rapid pulsating movement which only lasted for about five minutes. The organism then showed a little more sluggish movement and the cytoplasm became granular. The whole cell, now eighteen μ in diameter, was round in shape with one small protrusion of cytoplasm, and thus it remained, presumably dead.

The following points are of particular interest:

1. The length of time the organism lived outside the body—three and a half hours. This was presumably partially due to the number of red cells ingested, and also to the heat of the laboratory, about 90° F., on a damp sticky day. Other specimens in the same preparation showed no movement after two hours.

2. The sudden change from an amœbic to a pulsating movement, and the short duration of the latter stage.

3. The presence of Entamoeba histolytica in a bacillary exudate. Repeated efforts were made to isolate dysentery bacilli from this case, without success. But the possibility of a mixed infection must not be overlooked.

This is not the first time I have found E. histolytica with a bacillary exudate.

The history of the case from which the organism was obtained is briefly as follows:

Trooper W., aged 24, had three years' service in India. After he had been in the country a few months he was admitted to hospital with blood and mucus in his stools. He was given salts and was discharged fit in two days. He did not report sick again until his present admission. He states, however, that he never felt really fit, as he was always tired and in consequence he played no games, although he had been very keen on football when at home.

REPORT ON THE USE OF NEMBUTAL.

BY MAJOR J. W. LANE.
Royal Army Medical Corps.

I have given a fairly new drug, nembutal (a barbiturate), obtainable from E. H. Spicer, Ltd., Watford, Herts, to about twenty of my parturient patients with most pleasing results. I was giving three, but now give four capsules (easily swallowed by most patients) when the os is three-fifths dilated—or when the patient is obviously in the second stage. Within