

an organic disease, had brought his earthly career to a close on the operating table, his death would most unjustly have been put down to the anæsthetic.

But, apart from such cases as these, there are undoubtedly others in which death can fairly be attributed to the previous action of the drug upon the nerve centres of the medulla presiding over circulation and respiration, and in some cases upon the nervous ganglia in the heart itself, and, unfortunately, of these cases chloroform can claim the lion's share. The death rate at present is, I believe, 1 in 1600—good cause for anxiety to the man who has the responsible duty of administering it.

In spite of the advantages it possesses of rapidity of action and facility of administration, the lack of the qualification of safety is so great a drawback that it has been almost banished from American surgery, in the United States at least, where ether, in spite of the immense quantity of the drug required for an ordinary operation, in spite of its inflammability, in spite of its disagreeable odor both to the patient and to all the occupants of the operating room, and in spite of the unpleasant and long continuing after-effects,—to say nothing of the very great length of time it sometimes takes to get the patient under its influence, still holds almost undisputed sway in the opinion of most operators on this continent. It is true that some of the disadvantages are either gotten over or alleged to be removed by employing one or other of the inhalers, such as Snow's for chloroform and Clover's for ether. But Mr. Lister has shown that when chloroform is administered on a towel the air inhaled never contains more than 4.5 per cent of the anæsthetic; while in the case of ether inhalers, such as Clover's, there are valves which are liable to get out of order; and as the same air may thus be breathed over and over again, the patient is exposed to the risk of suffocation. The objection to ether that it is so inflammable is a trivial one comparatively, in surgical operations, where the surgeon can generally choose midday for operating; but it becomes a serious one in midwifery where the physician's services are required more often at night, and where the evaporating of a pound of such an inflammable substance in a closed room with a lighted lamp becomes a very temerarious proceeding.

The very fact that so many rivals to these three principal anæsthetics have sprung up and been

tried in the balance, and found wanting, and that, with all their faults, ether and chloroform alone survive, shows that so far we have not yet in general use either an anæsthetic or a combination of anæsthetics which can meet all our requirements. That the profession has such a substance within its reach I believe I can show, and it is to advance the claims of this combination that I have undertaken the task of preparing this very imperfect paper.

Some six or seven years ago I drew the attention of this society to a combination of anæsthetics which I had first seen mentioned in a work by Dr. Harley on the diseases of the urinary organs published about 1874.

A mixture which was composed of alcohol, chloroform and ether, in proportions of 1, 2 and 3 of each, respectively, was highly recommended by the author for use in cases of uræmia where it was necessary or desirable to keep the patient anæsthetized for a considerable length of time, sometimes for as much as two or three days. As it would be dangerous to keep a patient under the influence of chloroform for so long a period, and as it would require an enormous quantity of ether for such a purpose, Dr. Harley conceived the idea of combining these two anæsthetics, and adding sufficient alcohol to counteract the depressing effect of the chloroform.

Of late years since the much more frequent use of the forceps, and a more highly cultivated sense of humanity, have led to the more general use of pain-destroying agents in midwifery, and as such cases frequently require such agencies for a considerable length of time, I have thought that such a combination would find an especially suitable place in the now somewhat ample bag of the obstetrician. Since then I have had the experience of over 100 cases with this anæsthetic combination, both in obstetric and in general practice, and now feel quite justified in giving it the highest recommendation as the best anæsthetic we can use. The greatest claim it has upon our favor is, I think, its almost absolute safety, and as we are frequently called upon to perform minor operations which we are anxious to do without causing pain, and while the importance of the operation does not warrant us in calling in another doctor, it is of no slight importance that the anæsthetic, the administration of which we must thus intrust to a layman, should be comparatively devoid of danger.