Tell the patient that he is to take long breaths. Give the drug slowly at first, in order to prevent a choking sensation. Do not let the towel rest on the face, because it is apt to cause blistering. After a time the patient struggles involuntarily. Do not fight with him ; guide his movements ; and as the drug takes effect, they will soon subside.

How are you to know when the patient has had enough? There are three signs, all of which should be made use of.

1. By touching the conjunctiva. If the patient do not contract his orbicularis palpebrarum, then he is generally sufficiently under the influence. Sometimes, however, this is not a certain sign. The action on the nervous centers is progressive ; although sufficient for an operation in the region of the eye, the drug may not yet have affected the whole of the spinal cord and reflex action in the limbs may not be abolished.

2. Muscular relaxation, judged of by raising the arm and seeing if it fall heavily by the side.

3. Local sensibility at the seat of the operation. This is to be estimated by the surgeon pinching the part to be operated on with a pair of artery-forceps.

These three signs are all useful, and experience will enable the administrator to estimate their proper value in each case. Take away the towel the moment the patient is under the influence. A very common mistake is to suppose that, if the patient be breathing, then all is right. When the breathing stops then the patient is on the point of death.

No attention is to be paid to the pulse ; it is the last thing that stops. When the stoppage of the heart's action is due to the drug, then the patient is dead. Fortunately, the poison is a volatile one ; and if, from ignorance, too much has been given, interfering with the action of the heart, either directly by acting on the nervous centers which govern the heart's action, or indirectly by stoppage of the circulation, the heart may recover itself if the patient be kept alive by artificial respiration until the poison, in consequence of its volatility, is dissipated.

The administrator has to devote his attention to other things ; and, if he attend to the pulse, he can not pay sufficient attention to the more important signs—important because they occur earlier in the administration. Attention to the pulse by a second person is not necessary, because the signs which I have already given will be quite sufficient to prevent danger. There is a division of responsibility. Assistance is apt to make the administrator trust to his assistant, and not to be sufficiently watchful himself of the other signs which guide him in the administration. It is not necessary to use the stethoscope in order to test the propriety of giving chloroform. If there be heart disease, or weak action of the organ, then these are the very cases in which chloroform is most useful, because they are most liable to the occurrence of shock, which the drug prevents by abrogating sensibility.

The dangers which may accompany its use and their treatment. We must always be prepared for these. They may occur in any case, because the drug acts with much greater rapidity in some cases than in others, and we can never in any case foretell how rapidly the drug may act. The frontier-line between the abolition of sensation, voluntary motion, and reflex action, and stoppage of the circulation and heart's action, is often very indistinctly marked. In old people this is the case ; to them, the drug must be administered with the greatest caution.

[I have occasionally seen troublesome symptoms in young children ; and, while I say that in old people the drug must be given with the greatest caution, I do not wish it to be understood that children can take it without risk.]

We may reach the dangerous effects earlier in some than in others ; hence the great care necessary in every case. The order in which the effects take place is the same in all. This must be distinctly understood.

These dangers may be classed under four heads :

1. *The tongue falling back* and closing the glottis, in consequence of paralysis of the muscles which hold the tongue forward. The signs of this are lividity of the face and shallow breathing, as the air does not enter and leave the chest in sufficient quantity. The patient is in the same state as if a piece of meat had stuck in his pharynx, closing his glottis. The piece of meat is his tongue.

2. *The glottis closing*, due to paralysis of the intrinsic muscles of the larynx. The signs of this are lividity and a crowing sound, as heard in a case of croup, acute laryngitis, or laryngismus stridulus.

3. *Fainting.* This is due to an imperfect supply of blood to the brain, the result of either the sitting posture during administration, as the dentist's chair, or to a naturally weak heart in the aged or prematurely aged person. The sign of this is unnatural pallor of the face, judged of more especially by the paleness of the lips. The faintness may be due also (at the commencement of the administration) to fear on the part of the patient. It may also be due to any cause which may give rise to faintness in general. In this case, the chloroform has nothing whatever to do with the faintness ; it may be associated with, but in no way due to, the chloroform. The faintness may also be due to want of confidence on the part of the administrator. He fears the drug, from ignorance of its physiological action. He commences the operation before the patient is sufficiently under the influence. The patient is then in a condition which renders him most liable to shock. He is unable to brace himself up to bear the pain ; his nervous centers are in a semi-paralyzed condition. The unfortunate result may follow, namely, imperfection or stoppage of the heart's action, followed by syncope.