ART. VI.—Description and Illustration of an Ether Inhaler for the Inhalation of Ether as an Anaesthetic, with a few Observations upon a Mixture of Chloroform and Spirit of Wine for producing Anaesthesia. By B. Wills Richardson, Fellow and Examiner, Royal College of Surgeons; and Surgeon to the Adelaide Hospital.

The relative safety of chloroform and ether as anaesthetics having been recently brought before the profession in Dublin by my friend, Mr. John Morgan, at the first meeting of the Surgical Society of Ireland for the present Session, it appeared to me that it would be advisable to have constructed a simple and moderate-priced inhaler for etherization in hospital practice (Plate XII.). This inhaler has been designed as a substitute for the towel and sponge, in the use of which there is much waste of ether, a matter, in hospital economy, that may be of some importance.

Although I have not myself adopted ether to the exclusion of chloroform, having had most satisfactory anaesthetic results from the use of a mixture of chloroform and spirit of wine, still I think it is our bounden duty, the relative danger of chloroform over ether having been so prominently raised, to test the point, that we may aid in the attempt to solve this deeply important question.

It is almost needless to write, that a question requiring such accurate and unprejudiced observation for its solution as that of the relative anaesthetic safety of chloroform and ether cannot be settled in a day.

To satisfy the logical mind it would be necessary to administer the two agents to an equally large number of persons, and to the same class of persons, having either injuries or diseases similar in their nature. As this, however, would be impossible, we can only arrive at an approximative estimate of the relative safety of these anaesthetics.

Whether or not ether is destined to recover its long-lost prestige in the United Kingdom remains, therefore, to be proved. At all events, Mr. Morgan deserves credit for the talent and energy he has applied to the solution of this important, and if I might venture to call it such, biological question.

According to Snow, about a fluid ounce of ether is usually inhaled by an adult patient in becoming insensible; but in order that the administrator may not, if possible, have to refill the box, it is made of a size sufficient that an ounce and a half of ether when
A.—Air opening. The amount of air to be admitted to the face-piece is regulated by a sliding cap, having an opening of the same size as that in the tube on which it turns. At the beginning of the inhalation the inner opening may be fully exposed and gradually covered, by rotating the cap according as the air passages of the patient become accustomed to the vapour. E.—Ether-box, to hold a little more than an ounce and a half of ether. This box communicates with the face-piece by means of a tube an inch in length and one inch and a half in diameter, the ether-box opening of the tube being two-thirds closed by a fixed diaphragm. This prevents the fluid ether from passing into the tube when the patient is in the horizontal position. The face-piece opening of the tube has a diameter of one inch. The tube itself, in order to increase the evaporating surface, should be nearly filled with soft cotton candlewick, having, when in use, one end submerged in the fluid ether. The inhaler may be made of silvered copper or of block-tin; but the face-piece margin should be formed of flexible metal and covered with morocco leather.

**Mr. Richardson's Ether Inhaler.**