bulbed tube by an air-tight india-rubber connection, and carries at its exit another piece of tubing for a purpose to be mentioned presently. The upper part of the apparatus is supported by the clamp *m*, and by the bent rod *f*, which clamps firmly on to the lower part of the bulbed tube. The flask is supported in the water-bath *g* by the clamp *h*, attached to the retort-stand *k*, which in its turn is lashed to the blow-pipe table.

When the apparatus is to be used, a sufficient quantity of boiled distilled water is introduced into the bulb, and the cork *d* pushed over the opening *c*. The sea-water to be examined is run directly into the flask from the deep-sea water-bottle by means of a tube with a narrow opening reaching to the bottom of the flask, the tube being gradually withdrawn until the flask is overflowing. The opening *c* in the tube is then brought just below the lower surface of the cork, which is pressed tightly into the neck of the flask. A certain amount of water displaced by the cork rises into the bulb, and the tube is carefully drawn upward till the opening is well within the cork, and therefore closed. A small vacuum is thus produced, causing the immediate appearance of air-bells in the water. The receiver *b* is now attached, and the water brought to boiling by a hand spirit-lamp, and kept so until the whole of the air has been expelled, which takes from six to eight minutes. While the water is still boiling, the india-rubber tube on the exit tube of the receiver is closed with a glass stopper so tapered that at the point it slips easily into the tube, and, being pressed in, closes it tightly. The receiver is now hermetically sealed at the upper contraction, and connection made between the bulb and the flask by pushing down the tube until the hole *c* is below the cork. A lively disengagement of gas commences, which is kept up by heating the water in the water-bath, the water being brought slowly to the boiling-point, at which temperature it is retained for some time. When it is judged that the gas has