

administration of the anæsthetic (Fig. III). The air outlet is controlled

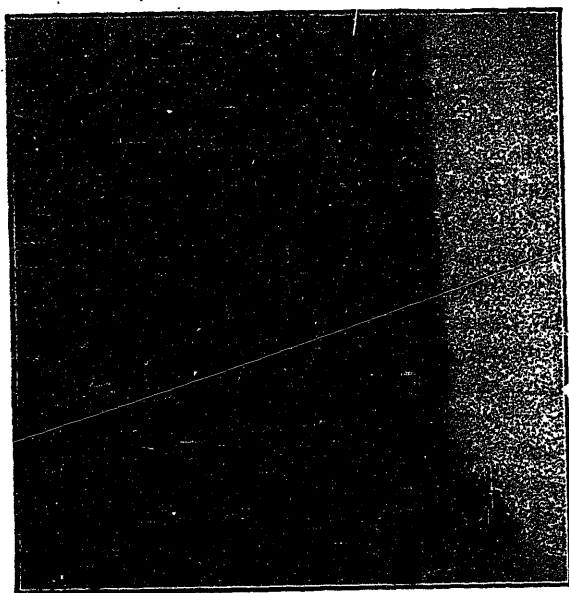


FIG. 3.—Apparatus for controlling air pressure and anæsthesia. (a) Connection with fan. (b) Valve to ether segment. (c) Manometer. (d) Face mask. (e) Ether lock for replenishing ether supply without stopping fan. (f) Water jacket and thermometer.

by a set-screw, the original resistance water bottle having been discarded as unsatisfactory. The air pressure within the mask is registered by a mercurial manometer. By a simple arrangement of valves the degree of anæsthesia may be regulated to a nicety, and in experimental work at least no assistant is necessary for the administration of the anæsthetic. The original etherizing segment has been advantageously modified by adding a water jacket to the Wolff bottle containing the ether. By this means too great a reduction in the temperature of the ether from rapid evaporation is avoided. This not only ensures a more even narcosis, but also prevents too great a depression of the body temperature.

This form of apparatus meets three important requirements: cheapness, simplicity, and portability; and for experimental purposes, at least, is entirely efficient. The pump is capable of supplying approximately 400 cubic feet of air an hour. The primary requisite in any apparatus of this kind is the capability of the pump to supply a large amount of air to the mask so that the escape may be free. This provides for the necessary air exchange. The construction of a mask for the