

and active form of snuffles. Twenty-one of them developed pulmonary infections and died from the 3d to the 15th day after treatment, the average length of life after treatment being 8 days. The others gradually improved after a prolonged siege of snuffles.

The more acutely fatal cases had typical lobar pneumonia, one or more lobes being in the state of complete red hepatization. The other lobes had either a normal appearance or showed some injection, edema or emphysema. Those living longer usually had a general fibrino-purulent pleurisy and pericarditis, and less extensive solidification of the lungs but more pronounced edema and emphysema.

Six rabbits having negative cultures, *i. e.*, negative for *B. lepi-septicum*, were given nasal inoculations. Five days later 4 of them had a light form of snuffles with serous discharges and 2 had rather profuse mucous discharges. All gave positive lepi-septicum cultures. Brilliant green (0.1 per cent) was dropped into the nostrils of each rabbit. All of them developed severe snuffles and 2 died of pneumonia, 1 on the 3d day and 1 on the 13th day.

In another experiment a litter of 6 rabbits was used. They were free of *B. lepi-septicum*. Brilliant green (0.1 per cent) was dropped into the nostrils of 4 of them. On the following day there was no effect of the brilliant green to be seen. All 6 of the rabbits were now inoculated intranasally with *B. lepi-septicum*. The 4 having had the brilliant green developed severe snuffles and 3 died of pneumonia, on the 4th, 8th, and 9th days respectively. The 2 not having had brilliant green had a light form of snuffles and had "clean noses" at the end of 2 weeks but were still carrying the organisms.

3287

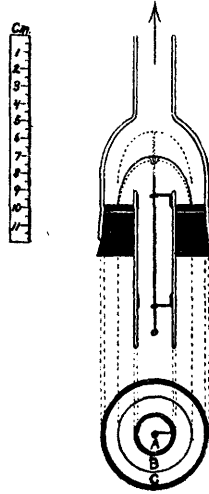
### A Low Resistance Air Valve.

CAMERON V. BAILEY.

*From the Respiration Laboratory, The New York Post-Graduate Medical School and Hospital, New York City.*

The valve is particularly adapted for respiratory work. It consists of a vertical 9 cm. length of 22 mm. glass tubing; the tube projects 1.5 cm. through the center of an inverted No. 13 rubber stopper. The upper surface of the stopper has a layer of canton flannel. A light celluloid cup, in cross section a parabola, and 4.5 cm.

in diameter, covers the open tube and rests on the flannel. Projecting downward from the center of the cup is a light rod of pyrex glass, which passes through 2 gold bearings. A check on the end



of the rod permits it to move 1.5 cm. vertically. The stopper fits into an inverted glass bell 7 cm. high. At the top, the bell is continuous with a 5 cm. length of 22 mm. glass tubing. A layer of mercury 0.5 cm. deep is placed on the flannel surface. The celluloid cup floats on the mercury. When suction is applied at the upper tube, the cup rises vertically from the mercury and permits the incoming air to pass; when pressure is applied the cup is forced down to the flannel surface and the mercury seals the joint. When used as an expiratory valve, the condensed water is drained off by a small wick which extends through the stopper at the periphery.