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N. L. DOOTSON
BREATHING APPARATUS
Filed May 2, 1930

1,831,292

Fig. 1.

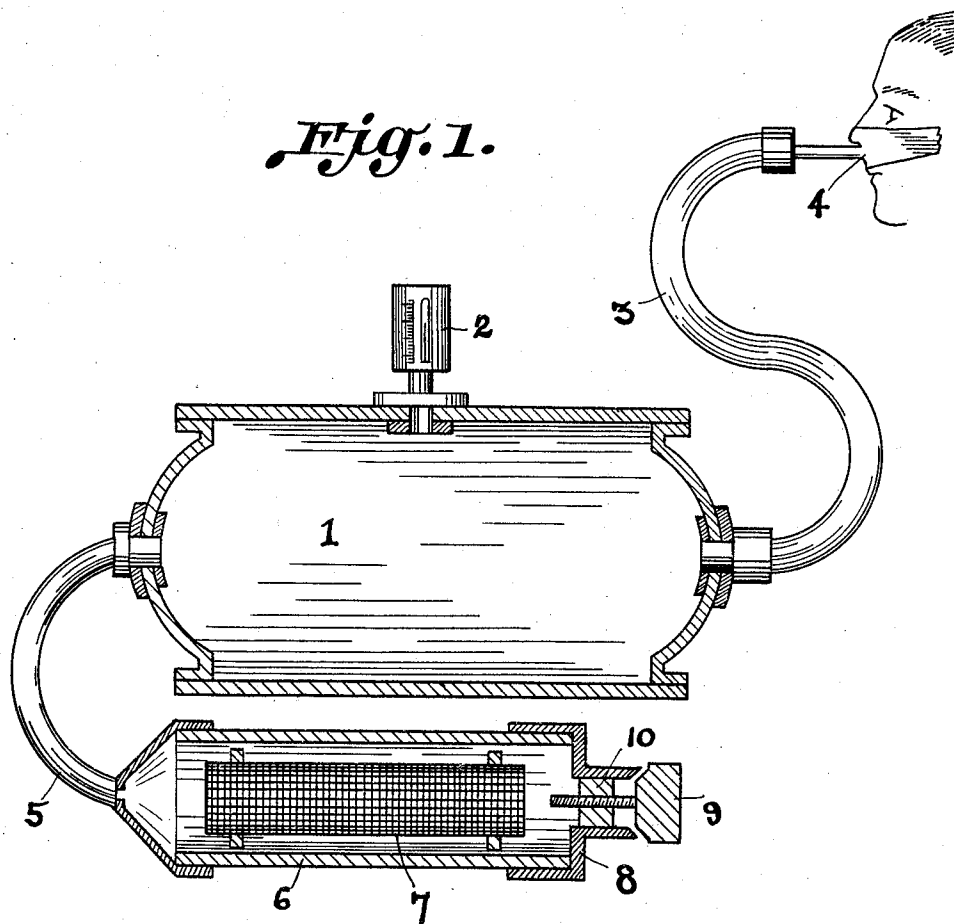
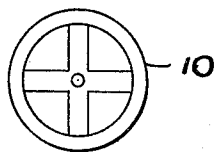


Fig. 2.



INVENTOR

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BREATHING APPARATUS

Application filed May 2, 1930. Serial No. 449,320.

My invention relates to improvements in therapeutical devices and the object of my improvement is to provide means for drying and rarefying air to be breathed, especially by patients under medical treatment.

In the drawings, Figure 1 is a vertical section of the device, and Figure 2 is a detail of the valve.

To the air tank 1 is attached a pressure gauge 2 for indicating the degree of rarefaction of the air in the tank. Tube 3 connects tank 1 with the mask 4, preferably of rubber, worn by the patient. The mask 4 fits closely over the nose so as to exclude all air except that inhaled from the tank 1.

A metal cylinder 6, connected to tank 1 by a tube 5, contains a cylindrical screen 7 filled with calcium chloride.

Cap 8 fitted upon the end of cylinder 6 may be removed for recharging container 7. The cap 8 is provided with a valve 9 threaded to the plug 10. It permits the entrance of air in any desired amount.

The operation of the apparatus is as follows: With valve 9 closed, air is inhaled through the nose from tank 1 and exhaled through the mouth until the pressure gage registers the desired degree of rarefaction of the air in the tank. Valve 9 is then opened and regulated to maintain this pressure as breathing continues. The air is chemically dried as it passes the calcium chloride and so reaches the patient dry and rarefied as though breathed in an elevated, desert region.

I claim:

1. A therapeutical device having in combination a mask, a tube leading from said mask to a tank, a pressure gauge attached to said tank, a second tank, means of communication between said tanks, a perforated container within said second tank, said container containing hygroscopic chemicals, a removable cap for said second tank, and an adjustable intake valve in said cap.

2. A therapeutical device having in combination a mask, a tube leading from said mask, a tank at the end of said tube, a pressure gauge attached to said tank, a cylindrical tank communicating with said first tank, a screen container within said cylindri-

cal tank, said screen container containing calcium chloride, and an intake valve for said cylindrical tank.

In testimony whereof I hereby affix my signature.

NORMAN L. DOOTSON.

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