

No. 870,733.

PATENTED NOV. 12, 1907.

J. C. LAUTH,
ANTISIPHON TRAP.
APPLICATION FILED AUG. 16, 1904.

FIG.1.

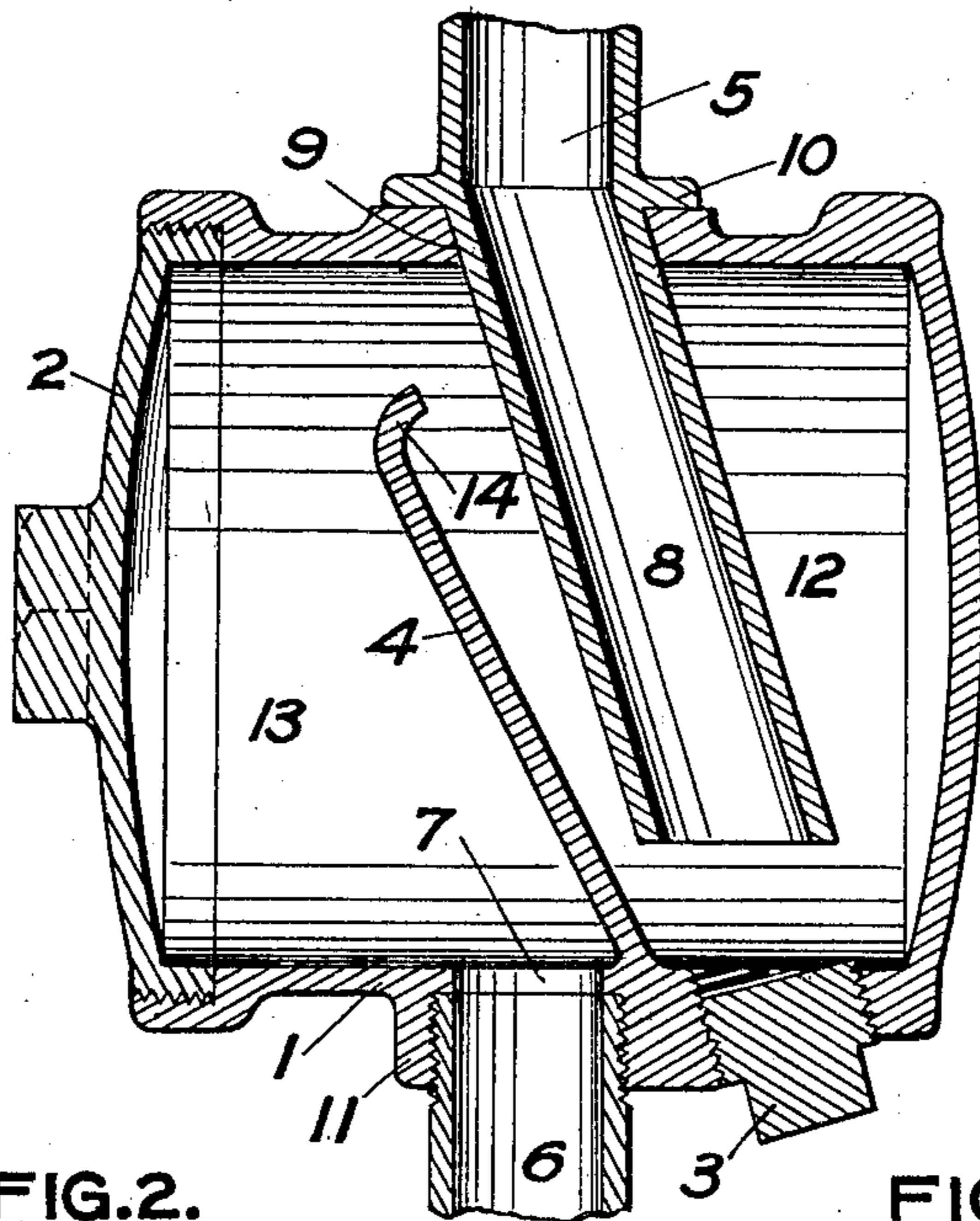


FIG.2.

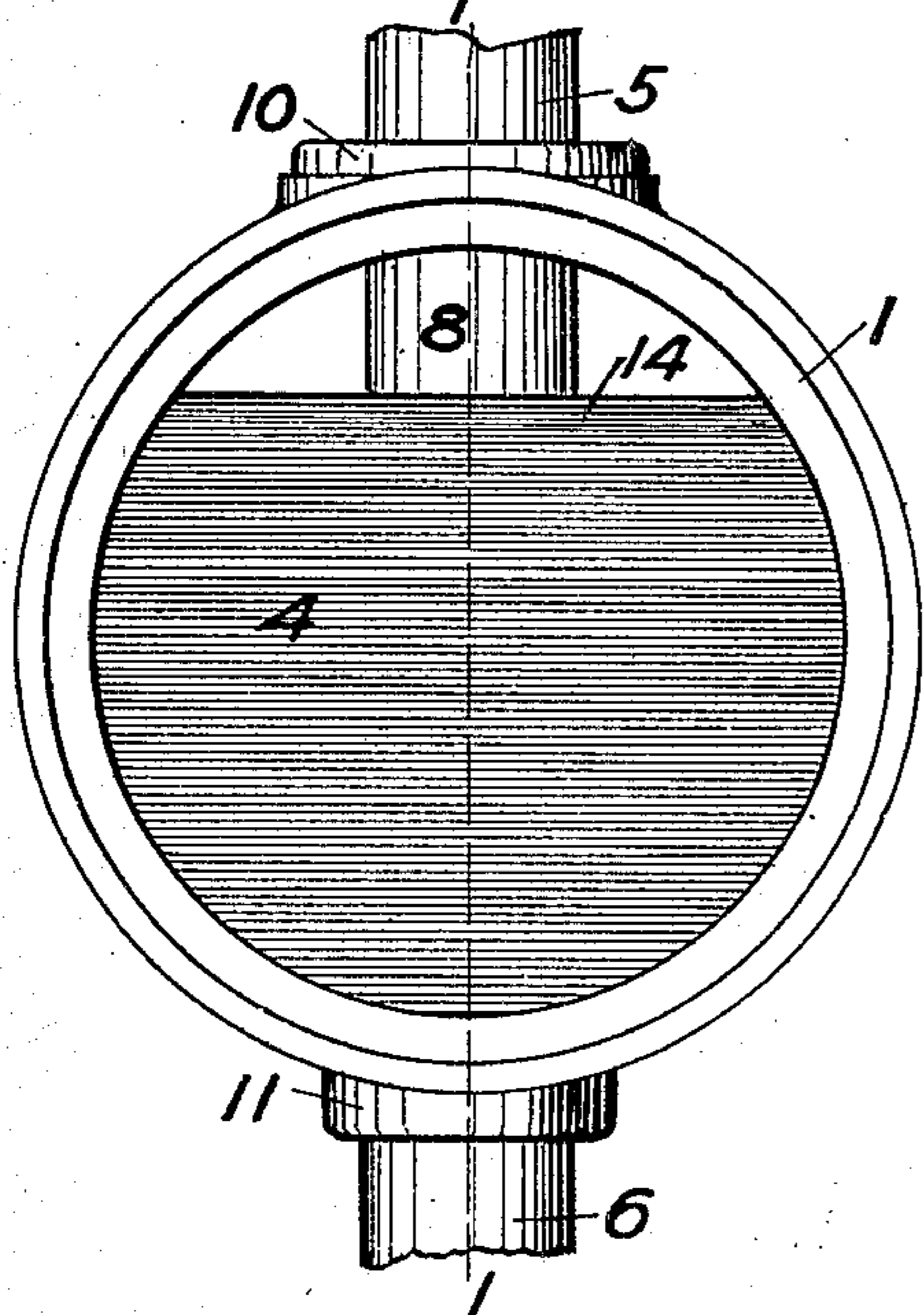
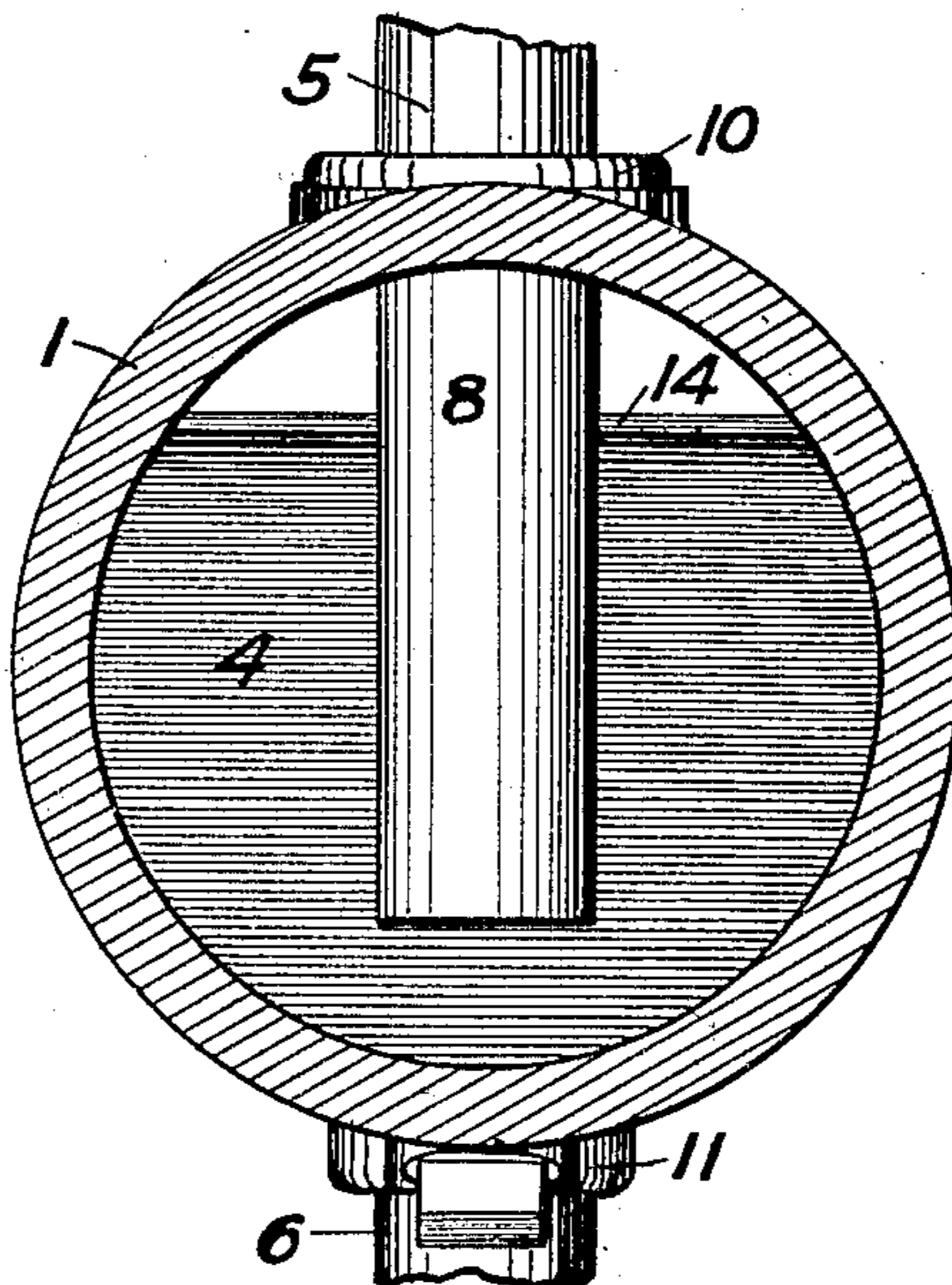


FIG.3.



Witnesses:

L^d Thon

Clarence W. Carroll

Inventor:

John C. Lauth
to Ogden & Davis
his attys

UNITED STATES PATENT OFFICE.

JOHN C. LAUTH, OF ROCHESTER, NEW YORK, ASSIGNOR TO A. Y. McDONALD & MORRISON
MFG. COMPANY, OF DUBUQUE, IOWA, A CORPORATION OF IOWA.

ANTISIPHON-TRAP.

No. 870,733.

Specification of Letters Patent.

Patented Nov. 12, 1907.

Application filed August 16, 1904. Serial No. 220,981.

To all whom it may concern:

Be it known that I, JOHN C. LAUTH, a citizen of the United States, and resident of Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Antisiphon-Traps, of which the following is a specification.

This invention relates to anti-siphon traps, and consists in the improvements and arrangement of parts hereinafter set forth and claimed.

10 In the drawings:—Figure 1 is a vertical section on the line 1—1 of Fig. 2; Fig. 2 is an elevation of a device embodying this invention, having one end cap removed; and Fig. 3 is an elevation of the same device, having the other end cap removed.

15 This device has a barrel or main casing 1, which is preferably provided with a screw cap 2 at one end and the screw plug 3. Preferably, the barrel 1 is cylindrical, and the screw cap 2 is of the same internal diameter as the internal diameter of the case 1, so that when the cap is removed the parts can be the more readily cleaned. The case 1 has a diaphragm or partition 4 extending completely across it, except that its top edge does not extend to the top of the casing, as shown clearly in Figs. 2 and 3. On one 25 side of the partition 4, the inlet pipe 5 extends into the casing 1, and from the bottom of the space on the other side of the partition 4 the outlet pipe 6 is connected with an opening 7 in the bottom of the casing.

When it is desired that the inlet pipe 5 and outlet 30 pipe 6 shall be in the same line, it is preferable to make the partition 4 inclined and with uncurved surfaces, and the inlet pipe 5 with a diagonally bent end 8 extending from the bore or hole 9 in the upper side of the casing 1. The inlet pipe 5 may have a 35 flange 10 which is soldered, or otherwise suitably fastened, to the casing 1. The outlet pipe 6 may be screwed into a boss 11 on the lower side of the casing 1.

When waste fluid is let into the inlet pipe 5 it rushes into the compartment 12 on the inlet side of the diaphragm 4 and fills it up to the level of the top of said diaphragm, and then flows over into the compartment 13 on the outlet side of said diaphragm, and thus flows out through the outlet pipe 6. In case large quantities of air pass in with the waste water, the fact 45 that the end of the inlet pipe 5 extends to near the bottom of the casing 1 necessitates a considerable body of fluid on the inlet side of the diaphragm 4, at all times sufficient to cover the extremity of the inlet pipe 5 to a sufficient depth to make a perfect seal;

and so, too, suction through the pipe 6 may draw air 50 in quantities through the inlet pipe 5, but can never displace sufficient water from the compartment on the inlet side of the diaphragm 4 to break the seal of the inlet pipe.

The screw plug 3 is in line with the pipe 8 so that 55 a wiper can be introduced from outside to clean said pipe.

The upper edge 14 of the diaphragm 4 is turned backward so as to stop the current of water flowing over said edge, when there is a tendency to siphon. 60

This device, by reason of its construction, and the presence of the diaphragm 4 that is fastened to the casing around its edges (except at the top), constitutes a strong device capable of withstanding heavy pressures even though made of soft metal; the outlet 65 portion or compartment is accessible for cleaning in all parts, including the pipe running therefrom; the device is so arranged that the inlet pipe also may be thoroughly cleaned by insertion of an instrument for that purpose through the hole normally filled by the 70 plug; the employment of the diaphragm makes it unnecessary to fill the whole body of the trap with water in order to seal the inlet pipe, but only the compartment on the inlet side needs to be filled, so that the amount of water required to be used to make 75 a seal is less than if the whole body of the trap were to be filled; the trap is of such form that the body may be cast in one piece and, if desired, with the diaphragm; and the whole device is easy to manufacture, and therefore economical. 80

What I claim is.—

1. A casing having an integral, internal transverse diaphragm divided into two compartments except at the top, an inlet pipe leading into one of said compartments and down to near the bottom thereof, an outlet opening in the 85 bottom of the other compartment, and a pipe leading from said opening.

2. A cylindrical casing having an integral, internal, transverse diaphragm extending entirely across it except at the top and thereby dividing the casing into two 90 compartments, an inlet pipe extending through the casing and to near the bottom of one of the compartments, a screw plug in the casing in line with said inlet pipe, an outlet pipe leading from the bottom of the casing on the other side of said diaphragm, and a screw cap on the 95 end of said casing.

JOHN C. LAUTH.

Witnesses:

C. S. DAVIS,
D. GURNEE.