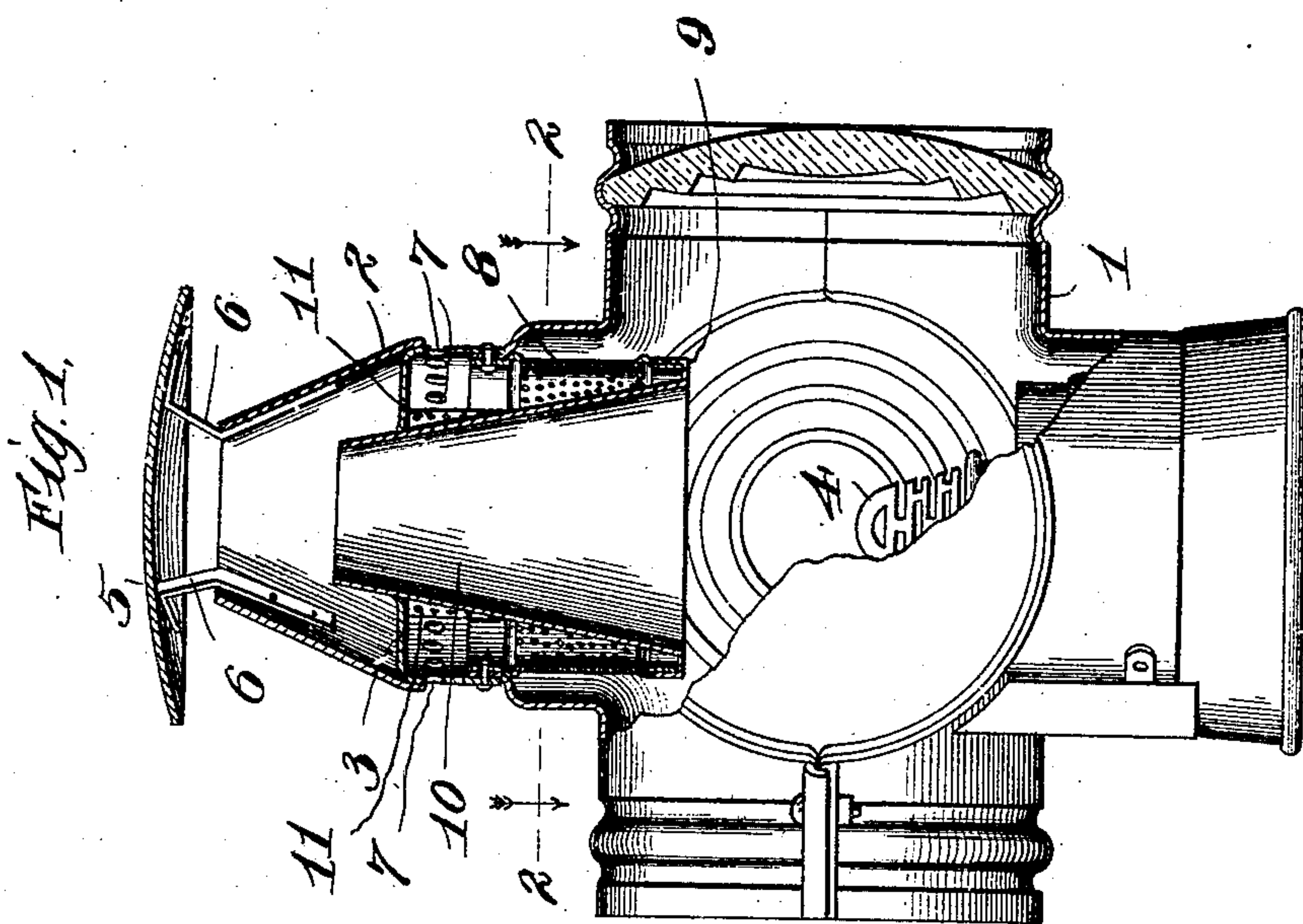
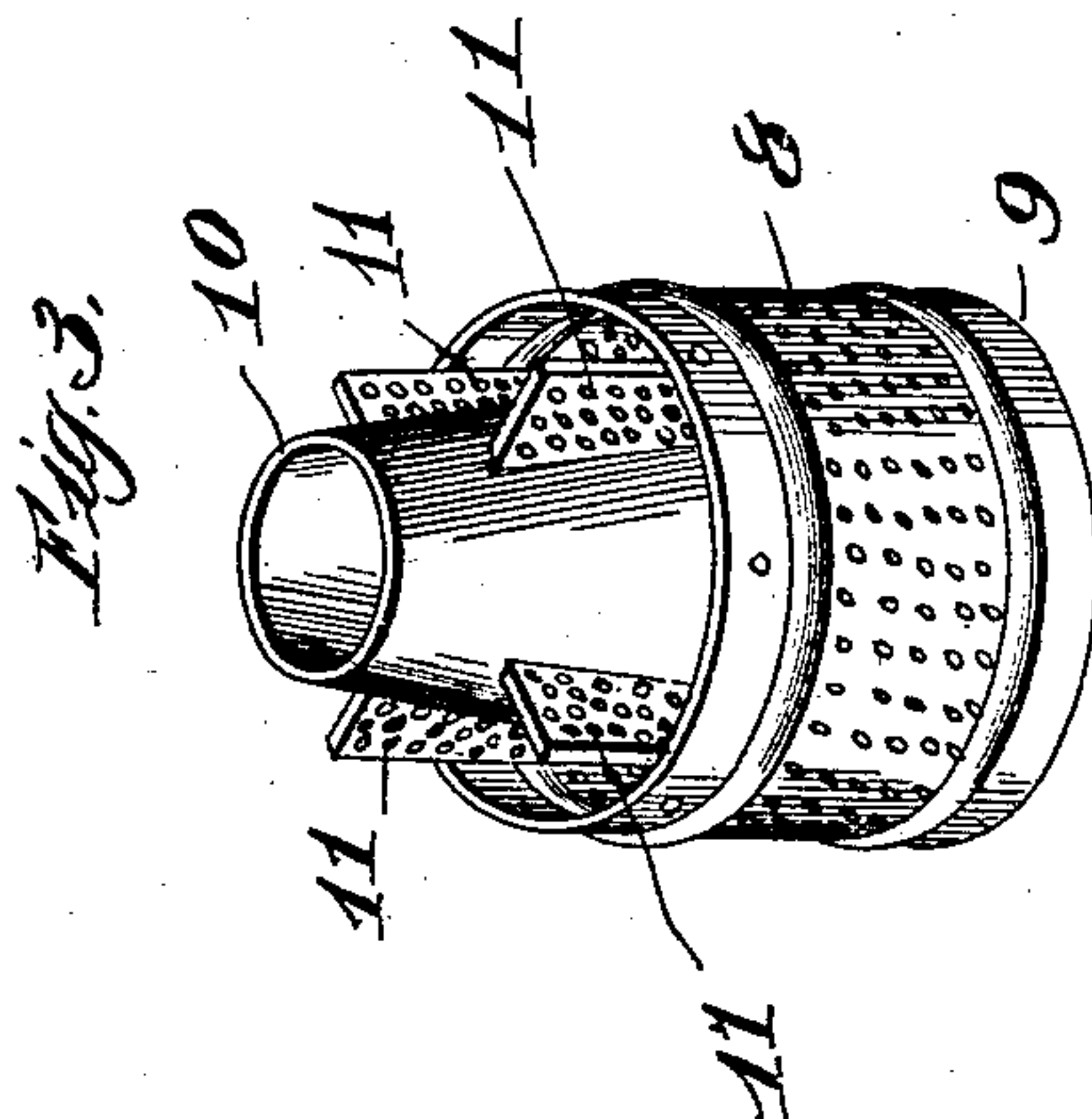
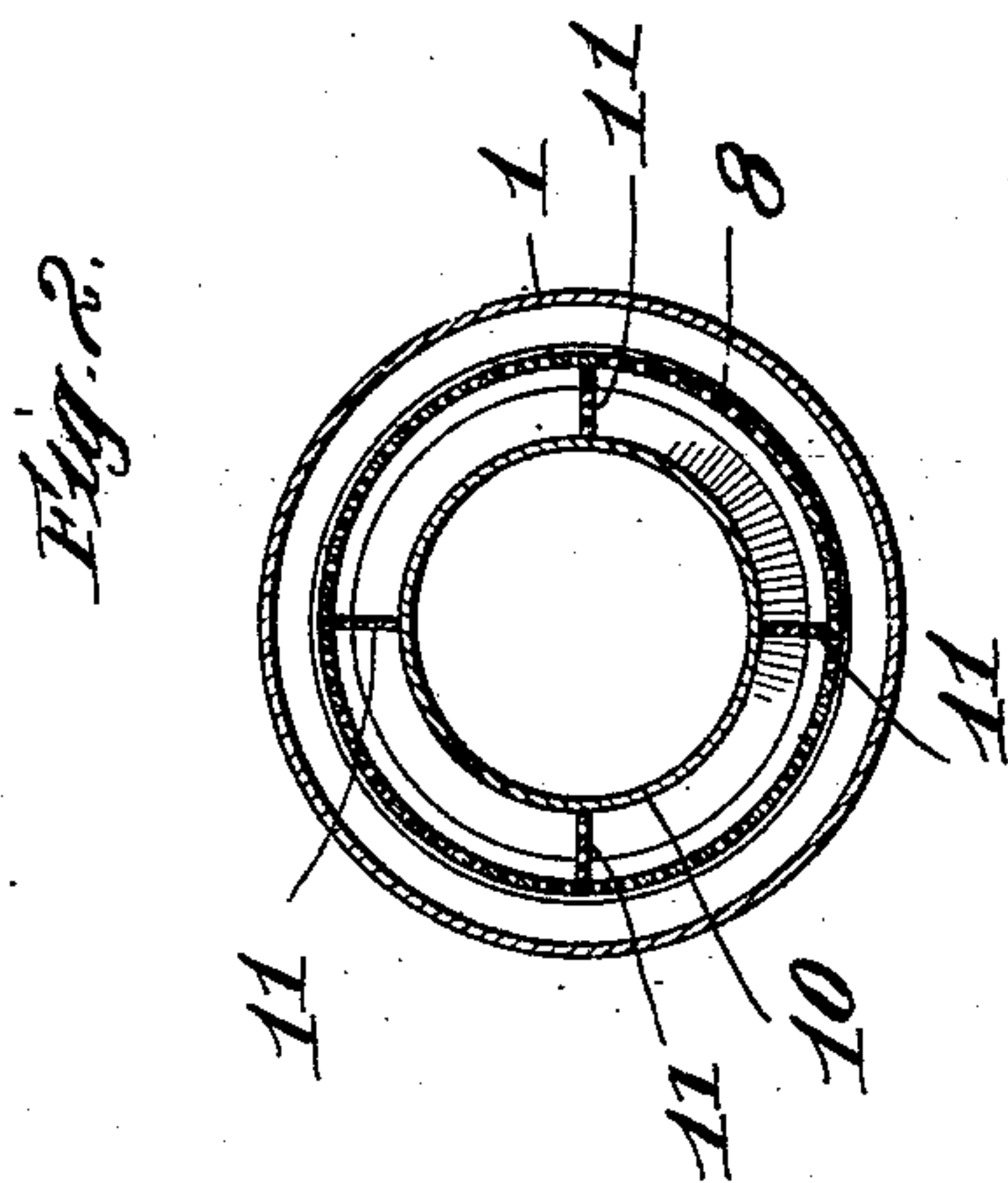


No. 863,388.

PATENTED AUG. 13, 1907.

W. S. HAMM.
LAMP.

APPLICATION FILED MAY 12, 1905.



Witnesses.

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WILLIAM S. HAMM, OF LAKESIDE, ILLINOIS, ASSIGNOR TO THE ADAMS & WESTLAKE COMPANY, A CORPORATION OF ILLINOIS.

LAMP.

No. 863,388.

Specification of Letters Patent.

Patented Aug. 13, 1907.

Application filed May 12, 1905. Serial No. 260,191.

To all whom it may concern:

Be it known that I, WILLIAM S. HAMM, a citizen of the United States, and a resident of Lakeside, county of Cook, and State of Illinois, have invented certain
5 new and useful Improvements in Lamps, of which the following is a specification, and which are illustrated in the accompanying drawings, forming a part thereof.

The invention relates particularly to that style of lamps used for signaling purposes in connection with
10 railway switches and railway trains, and known as the "top draft" lamp, in which the air for supporting combustion enters the combustion chamber through the top of the lamp.

The purpose of the invention is to increase the efficiency of lamps of this type, and it consists in certain
15 details of construction as hereinafter described; the invention being illustrated in the accompanying drawings, in which—

Figure 1 is a vertical central section of the improved
20 lamp, partly in elevation; Fig. 2 is a sectional detail on the line 2—2 of Fig. 1; and Fig. 3 is a perspective of certain internal parts of the lamp.

This invention is an improvement upon the lamp which forms the subject of Letters Patent No. 651,782,
25 issued to me January 12, 1900, and the lamp illustrated in the drawings is in the main of the same construction as that therein shown.

The body of the lamp is represented at 1. Its dome
2 has an open top for the discharge of the vapors of combustion, which is protected from the weather and from
30 drafts by a cap-piece 5, carried by bracket-arms 6. An annular plate or diaphragm 3 projects inwardly from the walls of the dome 2, and a hollow truncated cone 10 sets through and projects above this diaphragm, its
35 lower end projecting into the body of the lamp and being located directly above the burner 4 in order that it may receive the vapors of combustion.

An annular series of induction ports 7 is formed in the dome immediately below the diaphragm 3 for providing the air to support combustion at the burner.
40 A screen 8, preferably of freely perforated sheet metal, extends from the walls of the dome, below the ports 7 to the outer wall of the cone 10, and for the purpose of providing ample area for the admission of air, while
45 permitting the employment of small perforations in this screen, I prefer to give the screen the form of a cylinder, its upper end being in contact with a contracted portion of the dome neck and its lower end engaging the base of the cone 10, as shown at 9.

As thus far described the lamp is substantially identical in construction with the lamp of my hereinbefore mentioned patent. It is found in practice that when subjected to a high wind, as, for example, a wind having a velocity of fifty miles to sixty miles per hour, a common experience when the lamp is carried by a
55 moving train, the air currents entering the ports 7 at one side may pass directly through and be discharged from the ports at the opposite side and siphon out with them the air from the combustion chamber. In order to avoid this difficulty I now introduce perforated
60 plates 11 into the air chamber bounded by the diaphragm 3, the screen 8 and the walls of the cone 10, these plates being vertical, and of any desired number, and preferably being perforated. When there is comparatively little movement of wind air will enter
65 through the ports 7 from all sides, and the action of the lamp is substantially the same as if the plates 11 were not present. With a high wind the inflow of air is mostly at the windward side of the lamp, and the plates 11 prevent the wind from blowing directly through and
70 passing out, while the perforations of these plates nevertheless allow the air to find its way into all of the several compartments of the air chamber and thus feed the flame by means of a sheet of air following along substantially the entire area of the inner walls of the lamp
75 body.

I claim as my invention—

1. In a lamp of the kind described, in combination, a chambered body provided with an upper annular air chamber, such annular chamber having annularly arranged
80 induction ports and being in communication with the body chamber; and annularly arranged radially disposed perforate partitions in the air chamber.

2. In a lamp of the kind described, in combination, a chambered body; a dome mounted on the body and having
85 lateral annularly arranged induction ports and eduction ports above the induction ports; an annular diaphragm interposed between the two sets of ports; a hollow truncated cone extending through the diaphragm; a perforate
90 partition below the induction ports and joining the walls of the body and the cone; and radial perforate plates between the diaphragm and the partition, and between the cone and the walls of the dome and being disposed in planes transverse to the plane of the diaphragm.

3. In a lamp of the kind described, in combination, a
95 chambered body; a dome mounted on the body and having lateral annularly arranged induction ports and eduction ports above the induction ports; an annular diaphragm interposed between the two sets of ports; a hollow truncated cone extending through the diaphragm; a perforate
100 partition below the induction ports and joining the walls of the body and the cone; and radial plates between the

diaphragm and the partition, and between the cone and the walls of the dome, and being disposed in planes transverse to the plane of the diaphragm.

4. In a lamp of the kind described, in combination, a
5 chambered body; a dome mounted on the body and having lateral annularly arranged induction ports and eduction ports above the induction ports; an annular diaphragm interposed between the two sets of ports; a hollow truncated cone extending downwardly from the diaphragm; a

perforate partition below the induction ports and joining 10 the walls of the body and the cone; and radial perforate plates between the diaphragm and the partition, and between the cone and the walls of the dome, and being disposed in planes transverse to the plane of the diaphragm.

WILLIAM S. HAMM.

Witnesses:

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