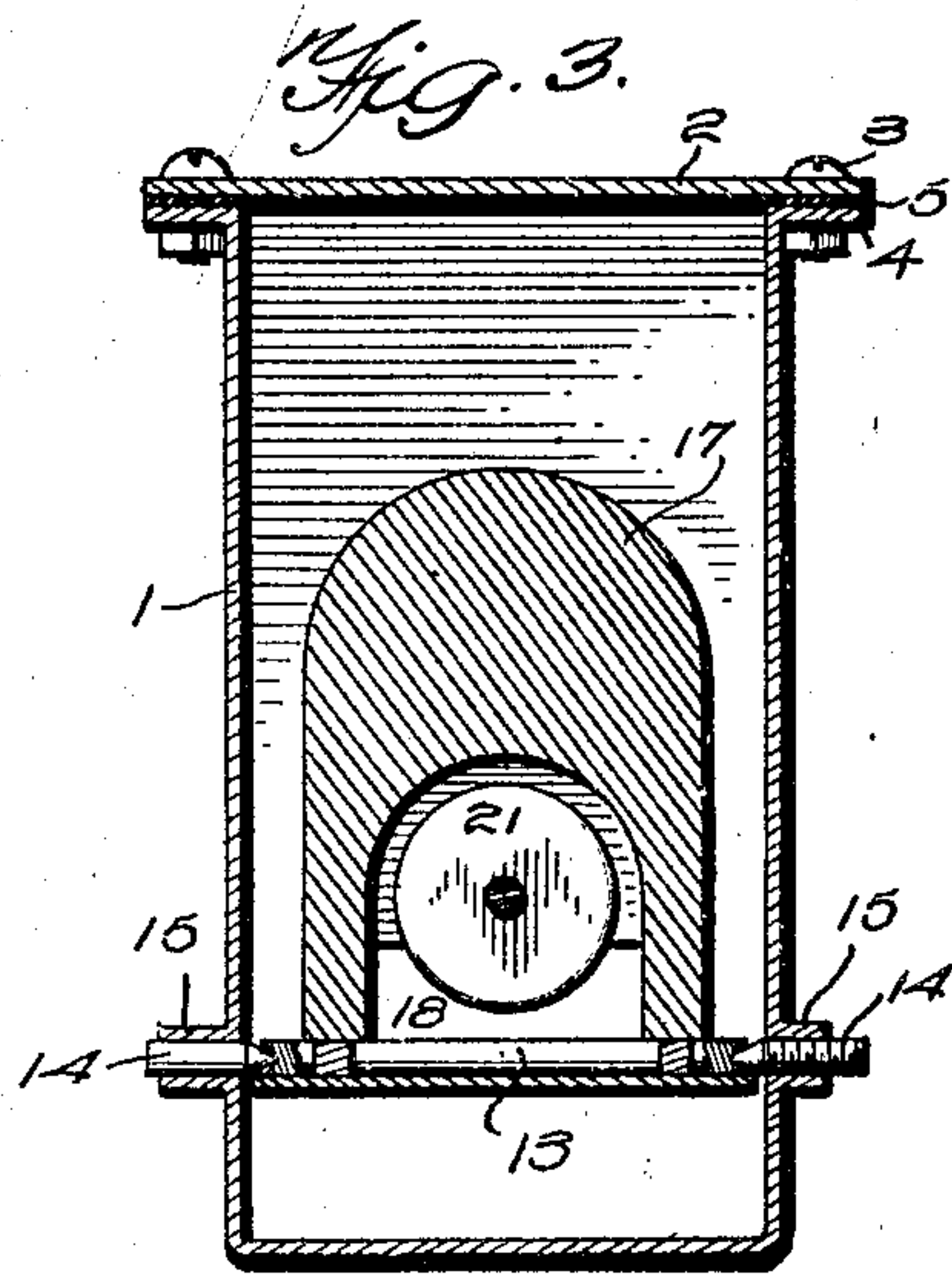
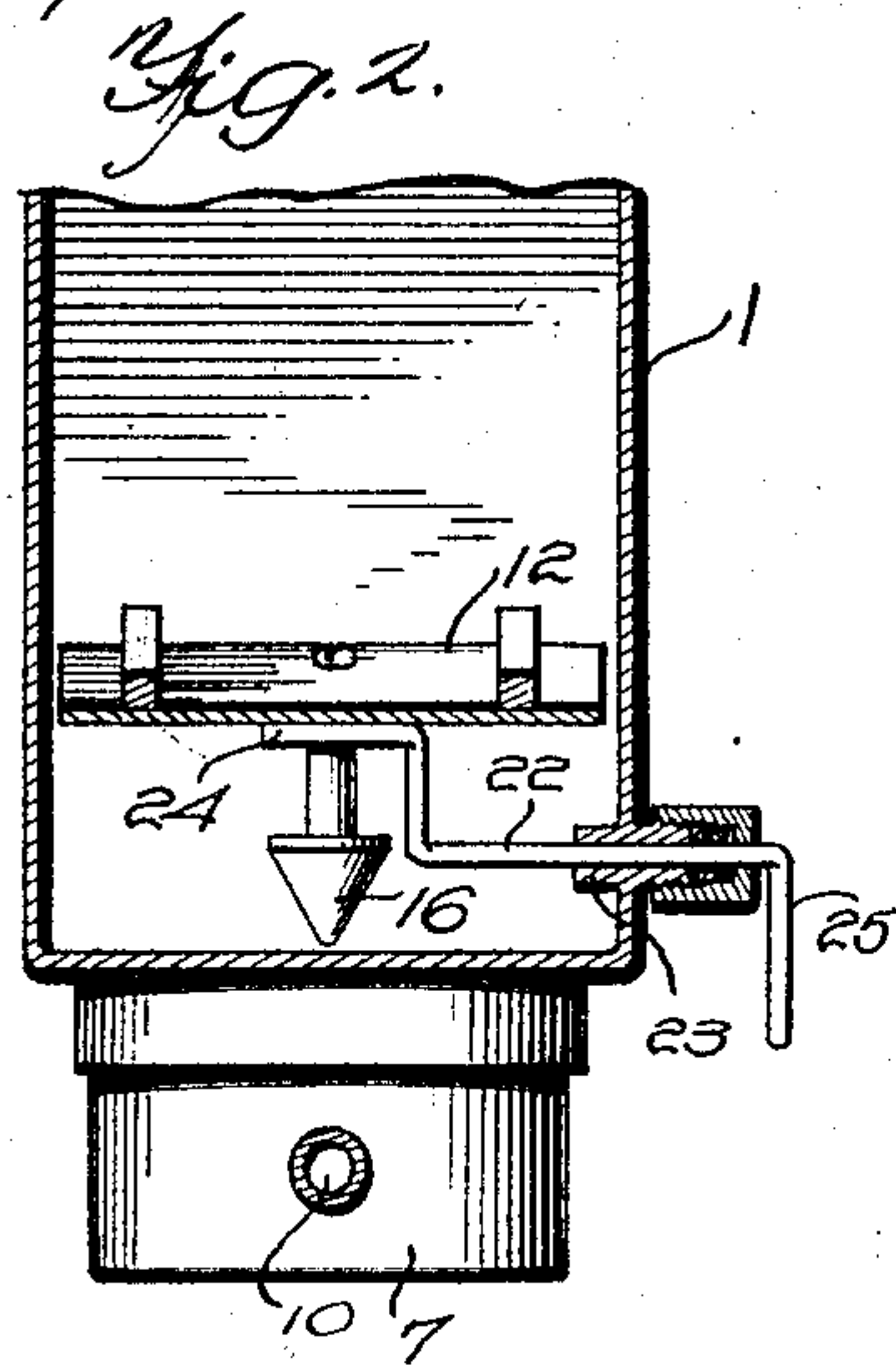
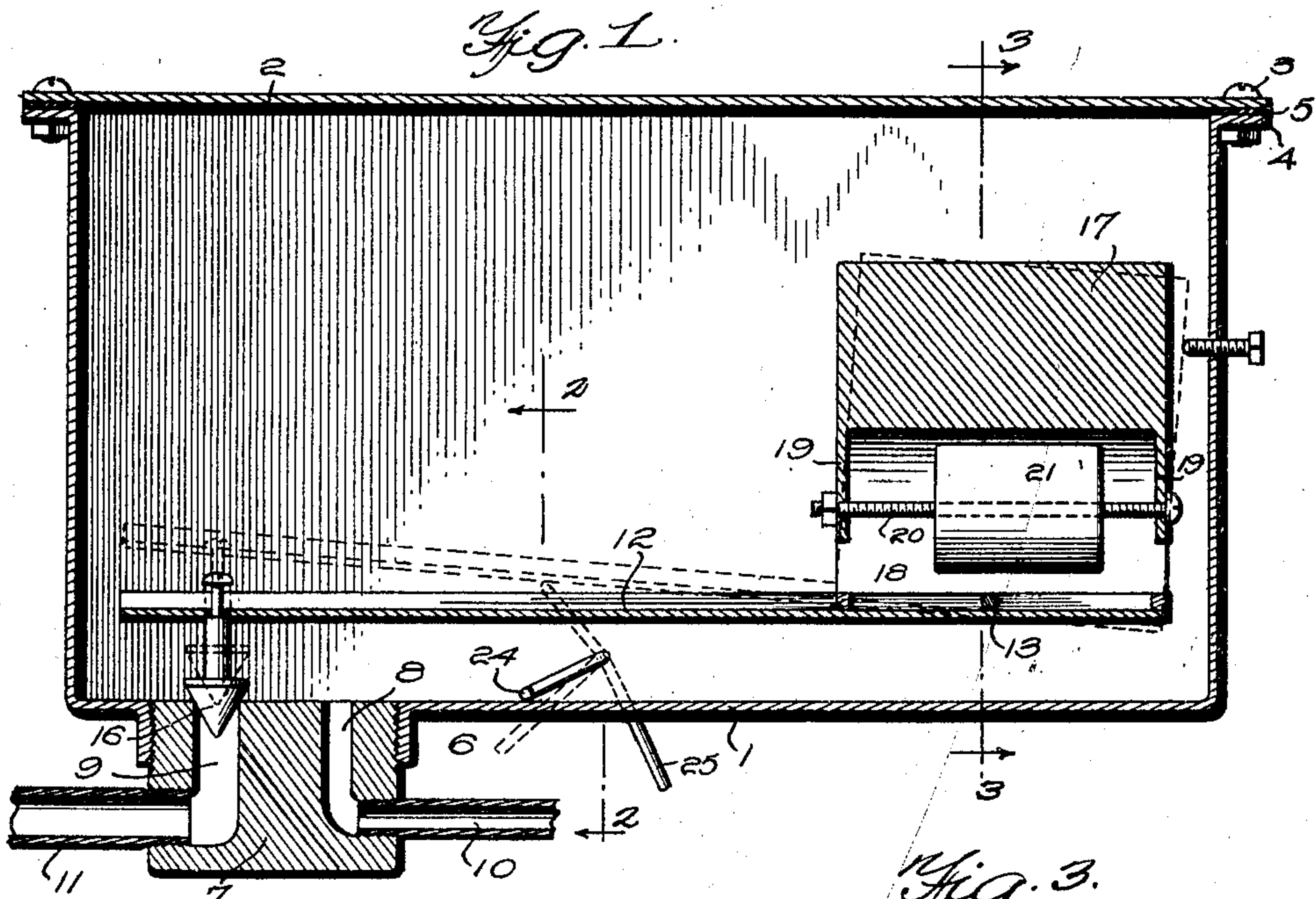


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1,440,558

E. W. SCRIBNER ET AL.
VALVE.
FILED NOV. 2, 1921.



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UNITED STATES PATENT OFFICE.

EDWARD W. SCRIBNER, OF DOUTHAT, AND OLAF BAKER, OF MIAMI, OKLAHOMA.

VALVE.

Application filed November 2, 1921. Serial No. 512,360.

To all whom it may concern:

Be it known that we, EDWARD W. SCRIBNER and OLAF BAKER, citizens of the United States, residing at Douthat, in the county of Ottawa, and Miami, in the county of Ottawa, and State of Oklahoma, respectively, have invented certain new and useful Improvements in Valves, of which the following is a specification.

10 This invention relates to automatic control valves, and more particularly to valves adapted to be arranged in gas lines and maintained in open position by the pressure of the gas when it exceeds a predetermined amount, but adapted to automatically close 15 when the pressure falls below a predetermined point.

In the present invention, we have provided an automatic valve of this type wherein a 20 pivoted lever is employed, the lever carrying a valve which is adapted to close the gas line when the lever is in lowered position. The pivot is so arranged that the valve will assume a closed position under 25 normal conditions, and a flow of gas of a predetermined amount is necessary to maintain the valve end of the lever in raised position. Adjacent the pivot, a block is secured to the lever and this block is provided with a threaded shaft adapted to 30 carry a weight, whereby the weight may be adjusted longitudinally and the proportional weights of the ends of the lever may be varied.

35 It is an object of the present invention to provide a valve of this type which may be adjusted to close automatically at different pressures.

40 It is a further object to provide a valve wherein adjustment is obtained through a regulating weight mounted adjacent the pivot.

In the accompanying drawings, we have shown one embodiment of the invention. In 45 this showing:

Figure 1 is a vertical longitudinal sectional view,

Figure 2 is a transverse vertical sectional view on line 2—2 of Figure 1,

50 Figure 3 is a similar view on line 3—3 of Figure 1, and,

Figure 4 is a detail view of a crank member.

Referring to the drawings, the reference 55 numeral 1 designates a box or casing in which the valve is mounted. This casing is

provided with a removable cover 2, to permit access to the interior. The cover is maintained in position by means of bolts 3, passing through it and through openings in 60 a flange 4, formed on the casing. Suitable packing 5 may be provided to prevent leakage. The bottom of the casing is provided with an opening surrounded by an internally threaded flange 6. This flange is adapted to 65 receive a plug 7 having an inlet port 8 and an outlet port 9. Inlet and outlet pipes 10 and 11 are connected to the ports 8 and 9 respectively.

A pivoted plate or lever 12 is mounted in 70 the casing above the ports 8 and 9. As shown, this member is relatively broad, extending to points adjacent each side of the casing, so that the gas passing through the port 8 will come in contact with its under 75 side and normally retain it in the dotted line position shown in Figure 1 of the drawings. The lever is provided with a shaft 13 adjacent its other end, having conical recesses in each end. These recesses are 80 adapted to receive the points of bearing pins 14 which are mounted in suitable enlargements 15 in the side walls of the casing. One of the pins is threaded, as shown, to permit adjustment. 85

A valve 16 is carried by the forward end of the lever and is adapted to close the outlet port 9 when the lever is in lowered position. A block 17 is secured to the rear end of the lever and extends in each direction 90 beyond the pivot. This block is provided with a recess or cut-out portion 18. The ends of the recess are partially closed by walls 19 and a threaded rod or shaft 20 is mounted therein. A weight 21 is arranged on this 95 rod, the weight being provided with an internally threaded opening for the reception of the rod.

When the flow of gas has been cut off, and the valve is to be reopened, a shaft 22, 100 mounted in a bearing 23 formed in the wall of the casing, is turned to cause crank portion 24, formed on the end thereof, to engage the under side of the lever. The outer end of shaft 22 is provided with a handle 25. 105 The operation of the device is as follows:

The weight of the portion of the lever arranged in front of the pivot is greater than the weight of the portion arranged in the rear so that the lever will normally maintain 110 the position shown in full lines in Figure 1 of the drawings when there is no flow of

gas. The valve 16 is then in closed position. When the device is to be used, the shaft 22 is turned to raise the lever to the dotted line position, and the flow of gas from the pipe 10 maintains the lever in raised position. When the pressure in the gas line falls below a predetermined amount, the plate lowers and the valve assumes a closed position.

The weight 21 may be adjusted longitudinally of the shaft 20 to vary the proportion of the weight on each side of the pivot and thus vary the pressure at which the valve will automatically close.

It is to be understood that the form of our invention herewith shown and described is to be taken as a preferred example of the same, and that various changes in the shape, size, and arrangement of parts may be resorted to without departing from the spirit of the invention or the scope of the subjoined claims.

We claim:

1. An automatic gas valve comprising a casing having an opening therein, a plug arranged in said opening, said plug being provided with a pair of passages forming an inlet and an outlet, pipes connected to the outer ends of said passages, a plate pivotally mounted in said casing and disposed over said passages, whereby the flow of gas will normally retain said plate in a raised position, a valve carried by said plate and adapted to close said inlet when in lowered position, and a weight adjustably mounted on said plate to permit regulation of the force

necessary to retain said plate in raised position.

2. An automatic gas valve comprising a casing having an inlet and an outlet, a lever pivotally mounted therein, said lever being adapted to assume a lowered position, but being normally maintained in raised position by the flow of gas, a valve carried by said lever and adapted to close said outlet when the lever is lowered, a block secured to said lever adjacent said pivot, said block being provided with a recess, and a weight mounted in said recess and adjustable longitudinally of said block.

3. An automatic gas valve comprising a casing having an inlet and an outlet, a lever pivotally mounted therein, said lever being adapted to assume a lowered position, but being normally maintained in raised position by the flow of gas, a valve carried by said lever and adapted to close said outlet when the lever is lowered, a block secured to said lever adjacent said pivot, said block being provided with a recess, a threaded shaft mounted in said recess, and a weight mounted on said shaft, said weight being adapted to be adjusted by rotation of said shaft.

In testimony whereof we affix our signatures in presence of two witnesses.

EDWARD W. SCRIBNER.
OLAF BAKER.

Witnesses:

NOEL W. WYATT,
ROY DEPRE.