

No. 896,652.

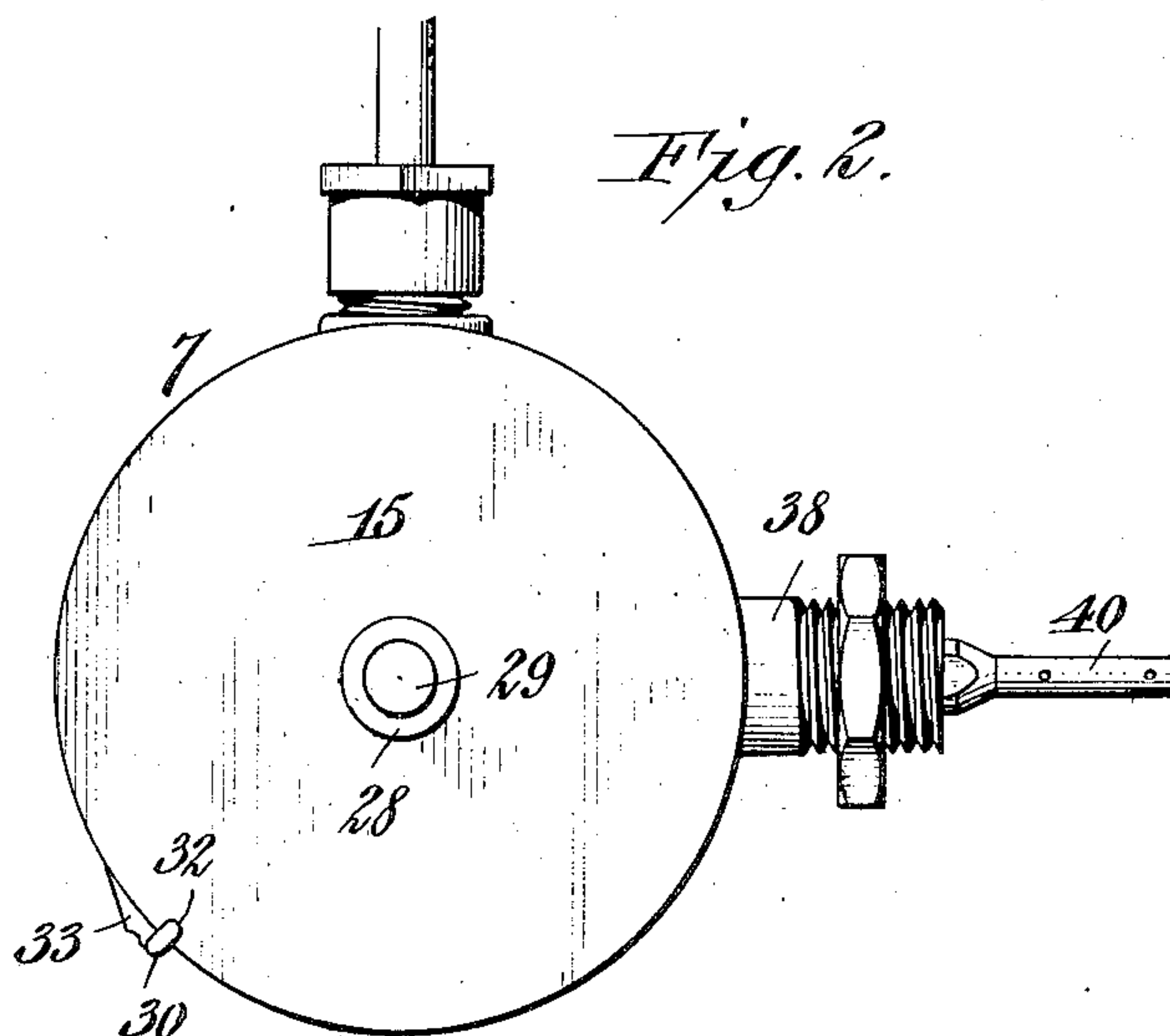
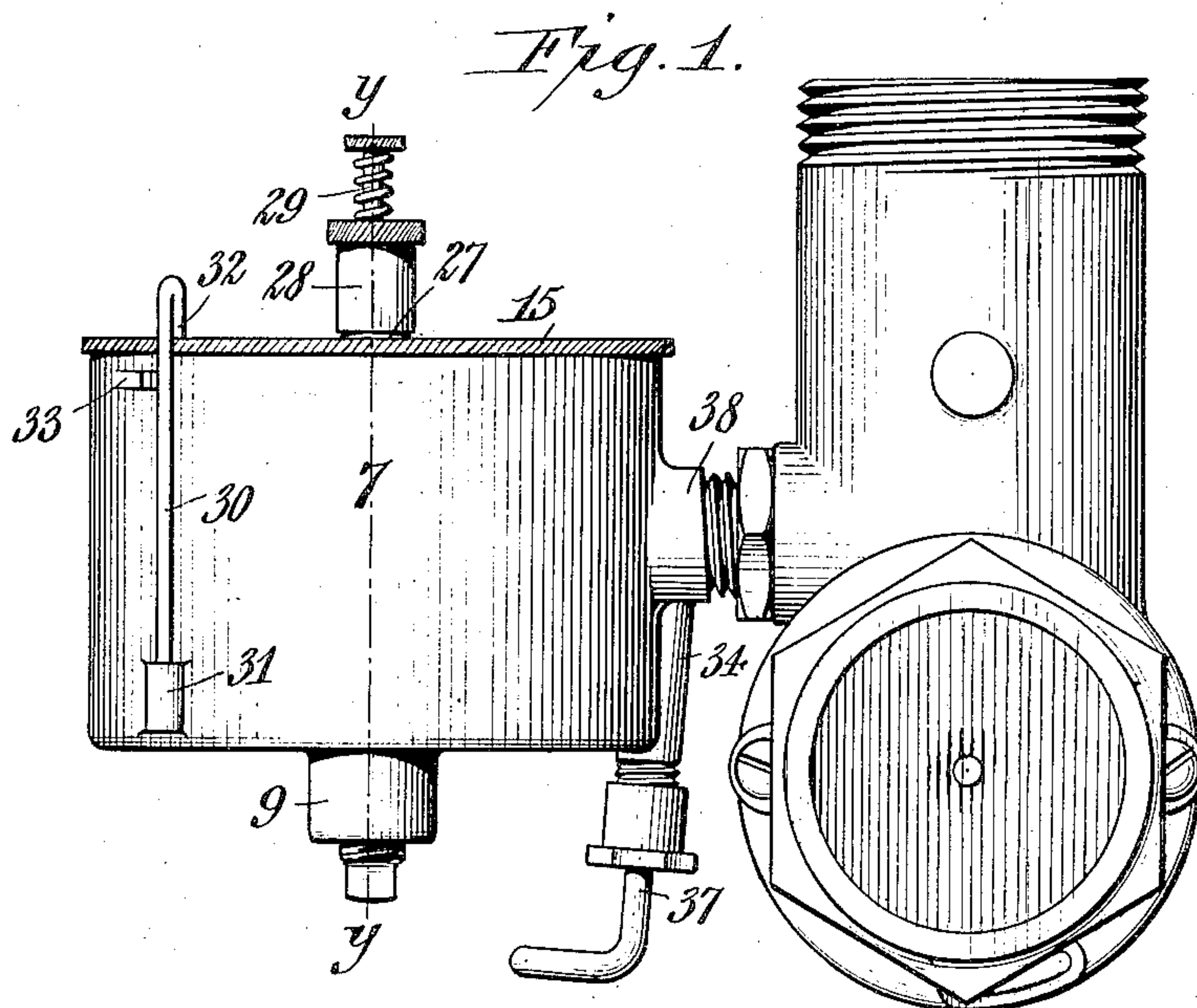
PATENTED AUG. 18, 1908.

G. J. MAYER.

GASOLENE FEED CHAMBER FOR CARBURETERS.

APPLICATION FILED MAY 23, 1907.

2 SHEETS—SHEET 1.



Witnesses:

Harry D. Rapp

Christ Feinle.

Godfried J. Mayer, Inventor.

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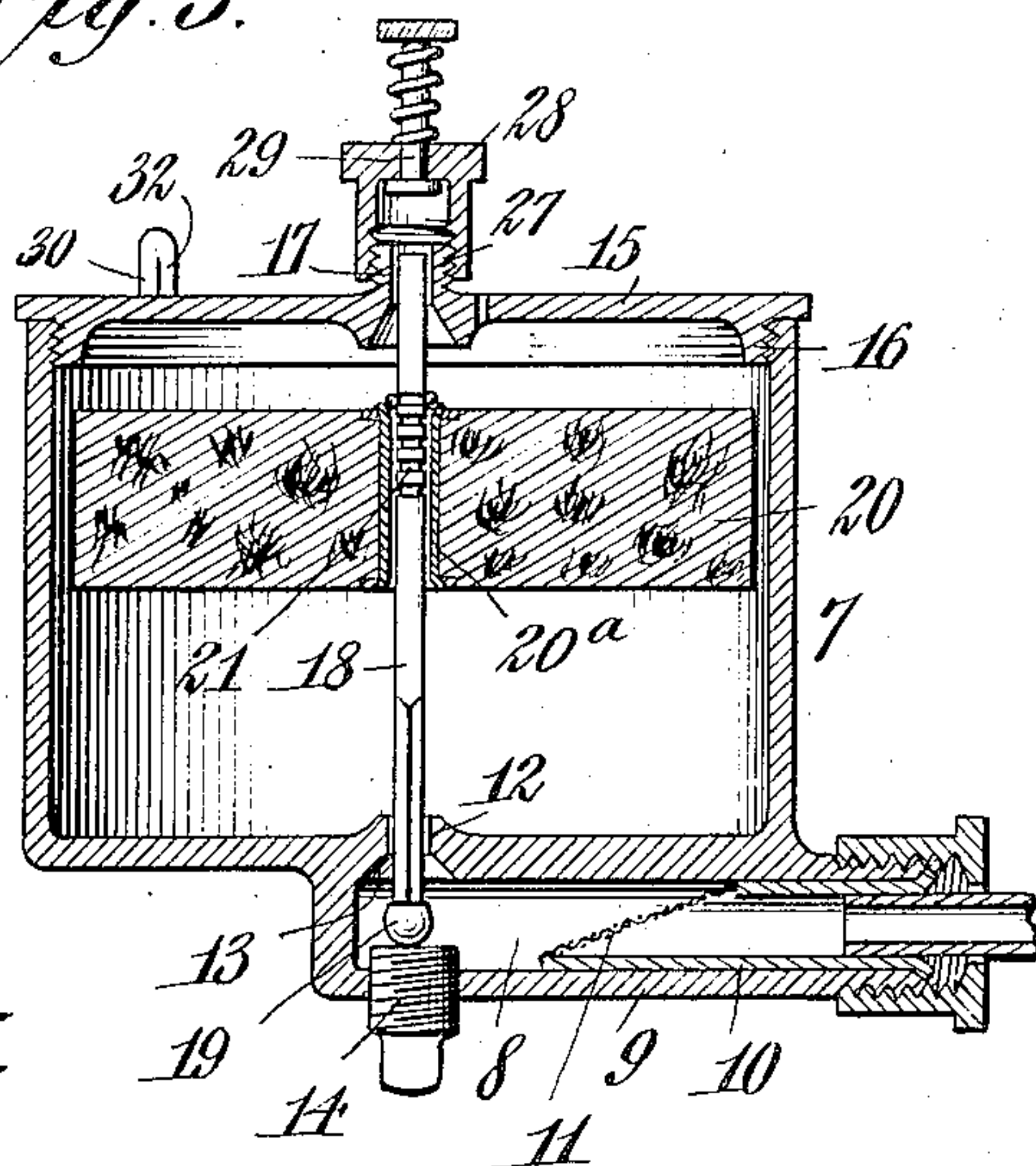
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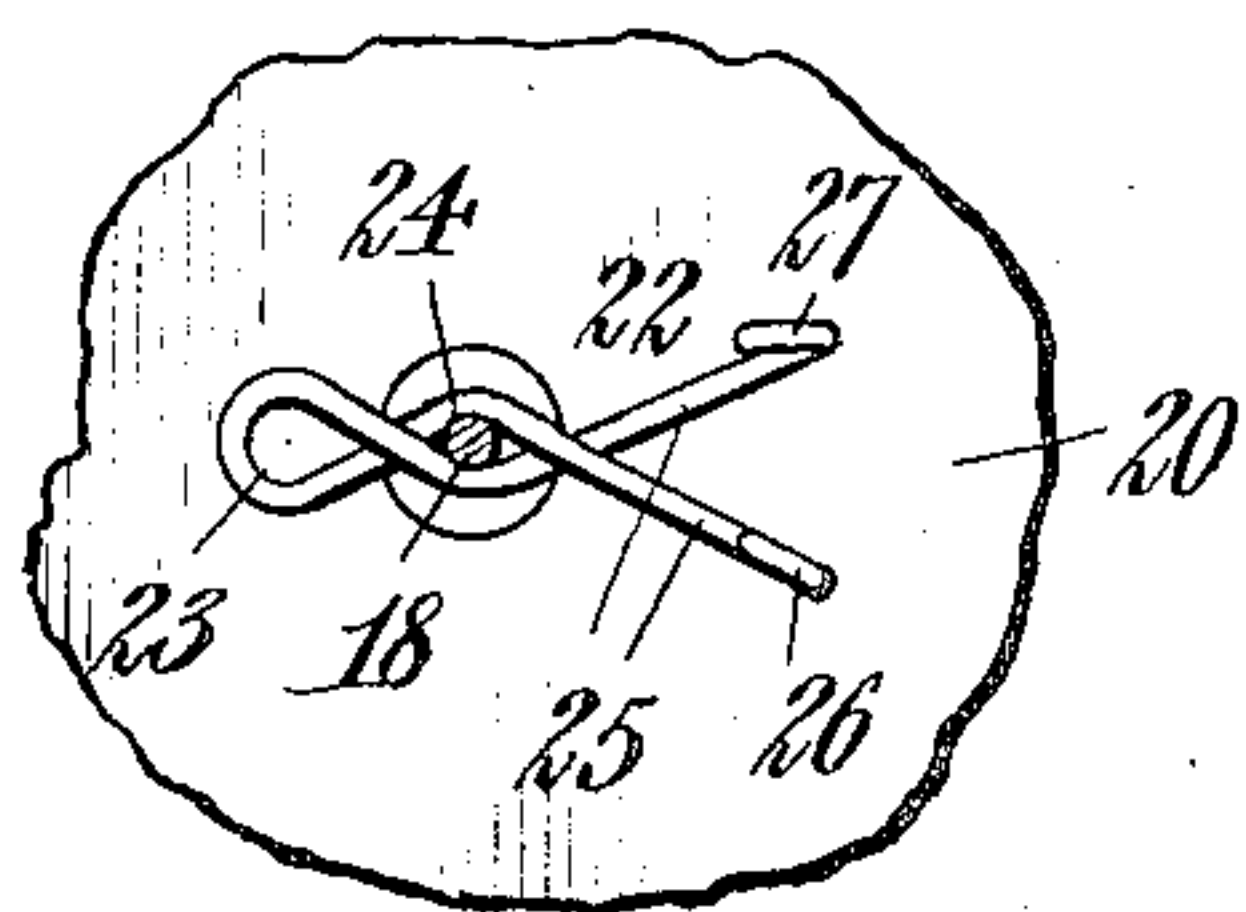
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2 SHEETS—SHEET 2.

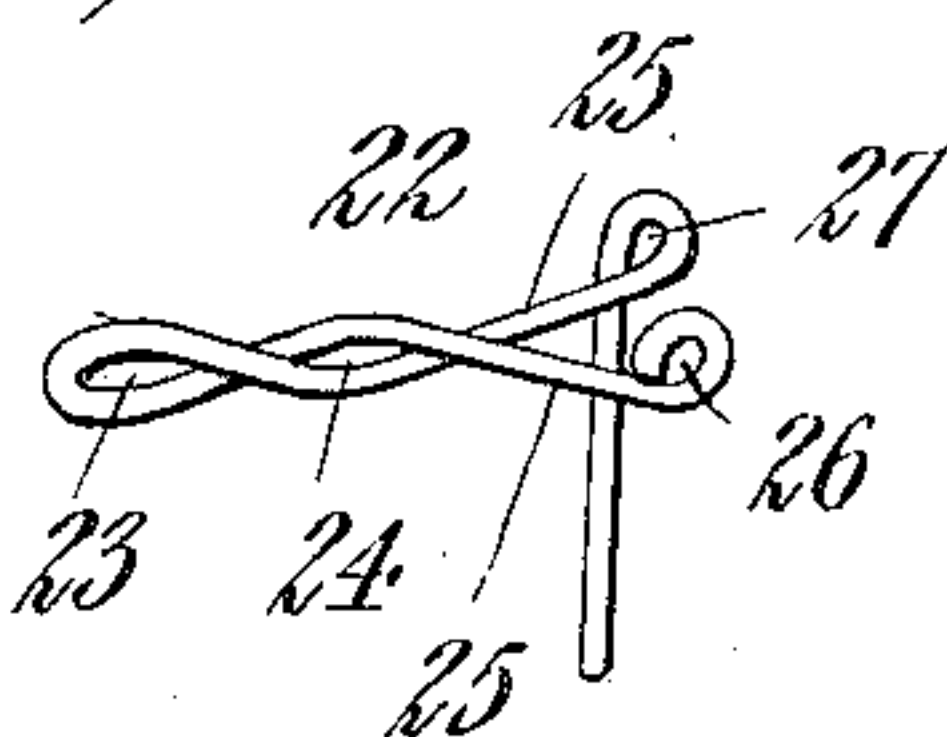
*Fig. 3.*



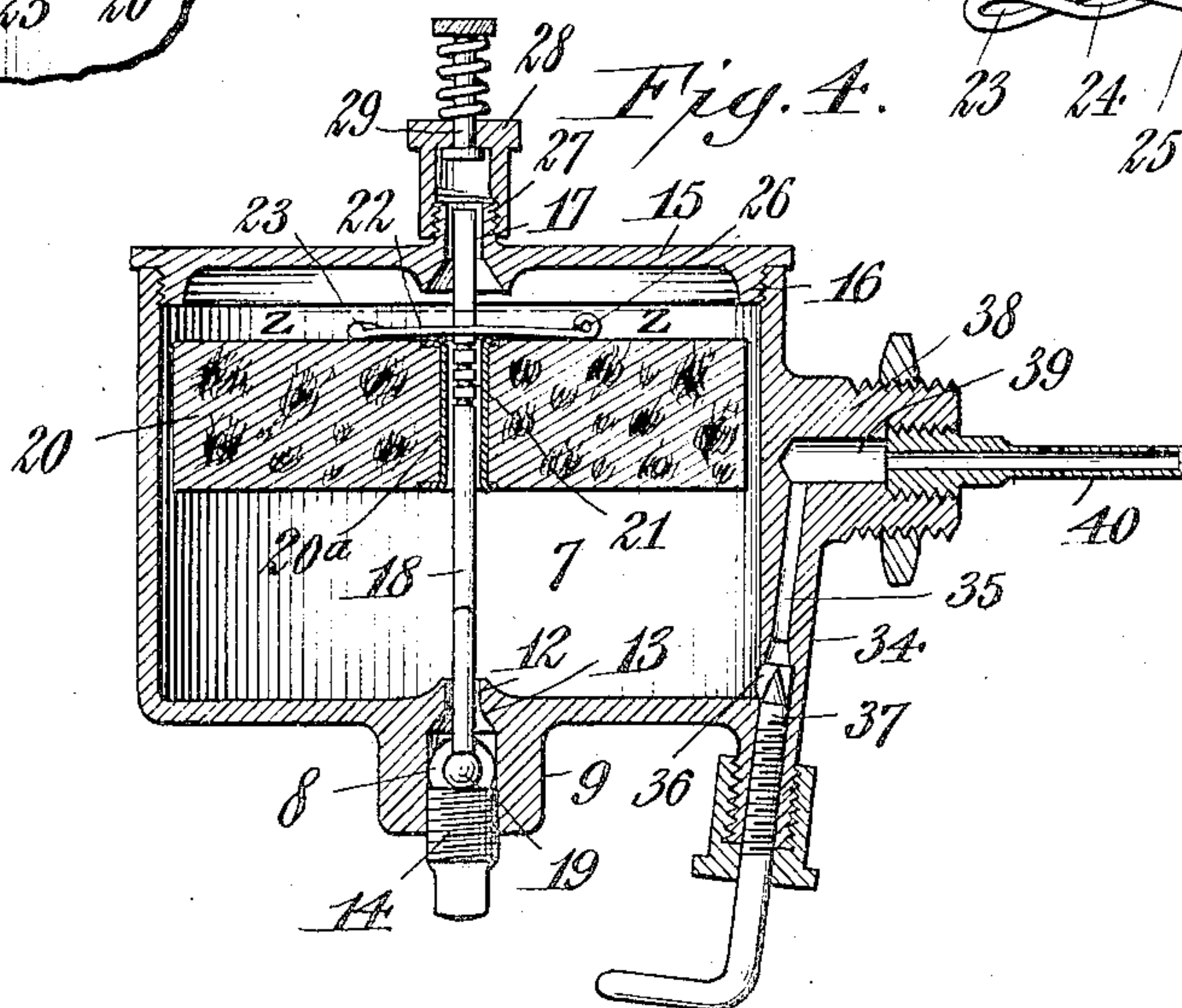
*Fig. 5.*



*Fig. 6.*



*Fig. 4.*



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# UNITED STATES PATENT OFFICE.

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## GASOLENE-FEED CHAMBER FOR CARBURETERS.

No. 896,652.

Specification of Letters Patent.

Patented Aug. 18, 1908.

Application filed May 23, 1907. Serial No. 375,307.

*To all whom it may concern:*

Be it known that I, GODFRIED J. MAYER, a citizen of the United States, and resident of Buffalo, in the county of Erie and State of New York, have invented certain new and useful Improvements in Gasolene - Feed Chambers for Carbureters, of which the following is a specification.

This application is a division in part of my application, Serial No. 353,713, filed January 23, 1907.

My invention relates to gasolene-feed-chambers for carbureters; and its objects are, the production of simple and effective means for regulating the supply of gasolene to the carbureter; to provide an improved gasolene strainer which by reason of its arrangement affords an extended surface considerably larger in area than the cross-sectional area of the passage in which it is situated; to provide improved means for retaining the cover on said chamber, and to otherwise improve on feed chambers of this type now in use.

To these ends my invention consists in the construction, arrangement and combination of parts to be hereinafter described and particularly pointed out in the subjoined claims.

In the drawings,—Figure 1 is a side elevation of my improved gasolene feed-chamber attached to a carbureter. Fig. 2 is a plan view of the feed-chamber. Fig. 3 is a central vertical section taken on line *y—y*, Fig. 1. Fig. 4 is a central vertical section taken at right-angle to that shown in Fig. 3. Fig. 5 is a horizontal section taken on line *z—z*, Fig. 4. Fig. 6 is a detached perspective view of the float retainer-clip.

Referring now to the drawings in detail, like numerals of reference refer to like parts in the several figures.

The reference numeral 7 designates the chamber having an inlet passage 8 for gasolene or other like fluid cored through a boss 9 on the bottom of the chamber. Within said passage I place a sleeve 10 beveled off at its inner end to provide space for a larger strainer 11 than could be used if the sleeve were cut off square. Opening centrally into the chamber through the bottom thereof is an inlet opening 12; the bottom being slightly elevated around this opening to prevent any sediment accumulating therein so that this opening is always unobstructed, and

surrounding said opening on the underside of the bottom is a valve seat 13. Beneath said inlet opening, the boss 9 is tapped for a screw plug 14, the purpose of which will presently appear.

The top of the chamber is closed by a cover 15 which has an annular externally threaded flange 16 for engagement with the internally threaded upper end of the cylindrical wall of the chamber. Said cover also has an opening 17 alined with the inlet opening 12, and a stem 18 is introduced through the tapped opening of the boss 9 closed by the screw-plug 14 and is guided in said alined openings which are located axially in the bottom and cover of the chamber respectively. The lower portion of said stem is angular in cross-section so that the gasolene may pass upward into the chamber through the inlet opening, and at its lower extremity it is provided with a spherical enlargement 19 which acts as a valve to close said inlet opening. The closing of said opening is controlled by a float which may well be made of cork and it preferably has a tube 20 axially through its body through which the stem 18 is passed; said tube being preferably of metal so that the float or buoyant body may be easily adjusted thereon. The stem is provided with a series of notches 21 preferably in the form of annular grooves with which a retaining-device 22 is adapted to engage. Said retaining-device is constructed of spring wire bent to clasp the stem, said wire being bent at a point between its ends into a spring loop 23 which provides the necessary spring for a second or clasp-loop 24 formed by recurving the wire, which is then directed outward in diverging lines to form two diverging arms 25, one end of the wire terminating in a loop 26 at the outer end of one of said arms, and at the outer end of the other arm the wire is curved into a loop 27 and the end of the wire inserted into the body of the float. The loops 26 and 27 afford convenient means for actuating the retainer-clip, it being merely necessary to draw the free arm of the clip toward the fixed arm, when the loop 24 will become enlarged and disengage itself from the valve stem. The float can then be raised or lowered to the desired position on the stem and upon releasing the free arm of the retainer, the loop 24 engages the stem and retains the float in its adjusted position. Sur-



rounding the hole in the cover is an externally threaded boss 27 onto which is threaded a cap 28, and through the top of the latter passes a spring-controlled pin 29 by which  
 5 the valve stem can be agitated in case the valve at the lower end thereof should stick in the seat 13 or when it is desired to flush the carbureter.

The cover is held against unscrewing by a  
 10 spring arm 30 arranged vertically on the outside of the chamber; it being formed of spring wire having one end secured in a boss 31 on the cylindrical wall of the chamber and its other end extending above the cover and re-  
 15 curved to form a stop 32 which has its end in contact with the cover. A lug 33 is formed on the chamber at the upper end thereof adjacent said spring arm, and when it is desired to remove the cover from the chamber,  
 20 said spring-arm is sprung outward and laterally to bear against said lug; by so doing, the stop 32 is moved clear of the cover, which can then be unscrewed. After the cover is again screwed into position, it is only neces-  
 25 sary to force the spring arm over the end of the said lug when it springs in place and locks the cover against unscrewing.

The chamber is provided with another boss  
 30 34 having a passage 35 in connection with the exit-port 36 at the bottom of the chamber, said exit-port being controlled by a needle-valve 37; and the chamber is also provided with a radial boss 38 having a passage 39  
 35 nearly at right-angles to that numbered 35 and communicating with the port 36. Boss 38 is internally threaded to receive the vaporizing nozzle 40 of the carbureter and ex-  
 40 teriorly threaded for connection with the carbureter. Thus it will be seen that the three passages and port 36 can all be drilled in a cast-metal chamber or reservoir body, while the position of the opening for the screw-plug 14 permits the formation of the inlet hole in the bottom of the chamber and the proper  
 45 grinding and regrinding of the valve-seat 13. I consider the oblique position of the needle-valve of advantage because it permits the use of a large knob or handle without interference with the carbureter-casing, as seen in  
 50 Fig. 1.

In operation the float will be adjusted on the stem so that the gasolene in the chamber will be on a level with the nozzle, and as it is vaporized, the float-controlled valve will au-  
 55 tomatically admit more gasolene in a manner clear to those skilled in the art to which this invention appertains.

Having thus described my invention, what I claim is,

1. A chamber having a cover removably  
 60 threaded thereon and a lug on its outer face adjacent said cover, a spring bar secured at one end near the bottom of said chamber and having its other end extended above the cover and provided with an offset portion  
 65 bearing against said cover, said bar being adapted to be sprung onto said lug to disengage said offset portion from the cover and hold it out of engagement.

2. A chamber having a cover removably  
 70 threaded thereon and a lug on its outer face adjacent said cover, a spring bar secured at one end near the bottom of said chamber and having its other end extended above the cover, said bar being made of spring wire  
 75 bent upon itself at a point above the cover and terminating in a depending stop bearing against the cover and being adapted to be sprung onto the lug on the chamber to dis-  
 80 engage said depending stop from the cover and hold it out of engagement.

3. A chamber having an inlet and an out-  
 let, a stem having a valve adapted to close said inlet and having also a series of notches  
 85 thereon, a float through which said stem passes and a retainer-clip formed of wire curved between its ends into a spring loop and recurved into a second loop adapted to  
 90 embrace the stem and engage one of said notches, thence directed outward to form two diverging arms terminating in loops, one of said arms being secured to the float and the other being free.

In testimony whereof, I have affixed my  
 95 signature in the presence of two subscribing witnesses.

GODFRIED J. MAYER.

Witnesses:

ELLA C. PLUECKHAHN,  
 CHRIST FEINLE.