

No. 885,840.

PATENTED APR. 28, 1908.

J. W. CUSHMAN.

OIL CAN.

APPLICATION FILED OCT. 30, 1906.

Fig. 1.

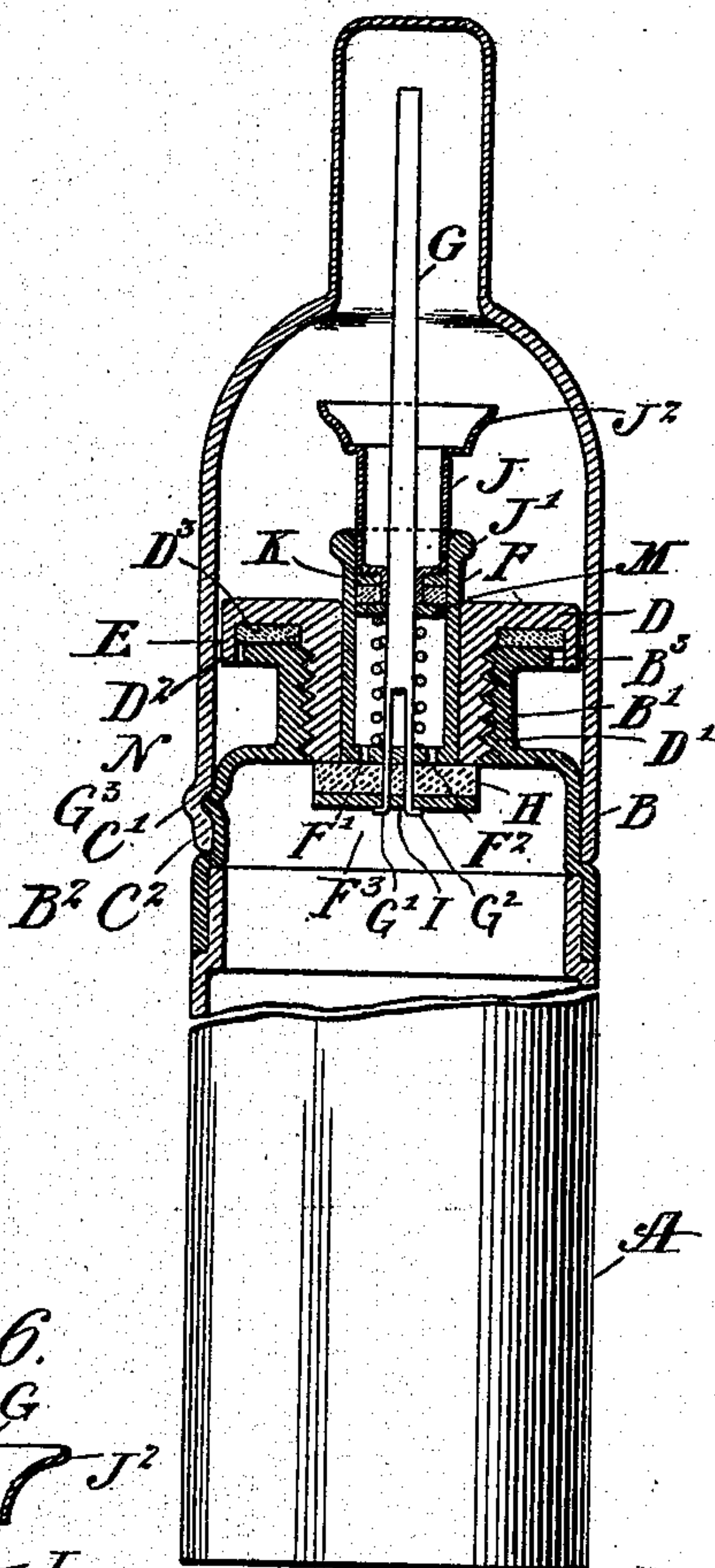


Fig. 3.

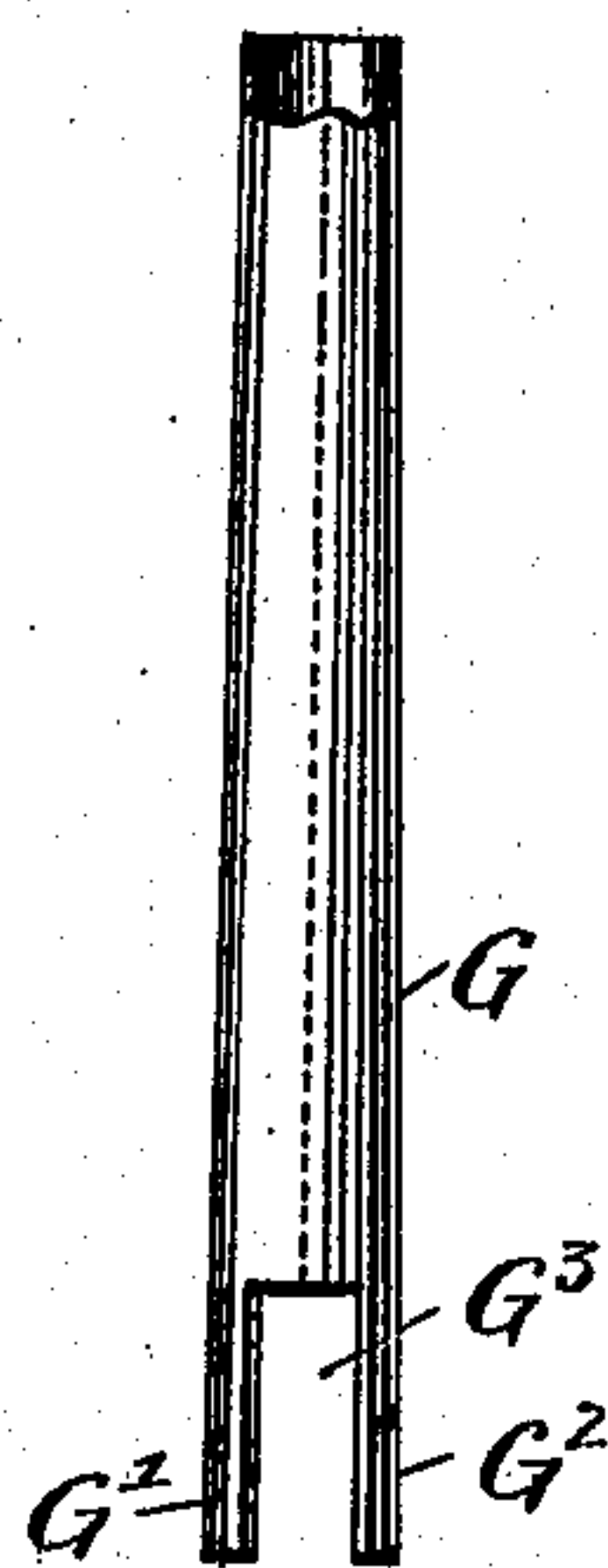


Fig. 4.

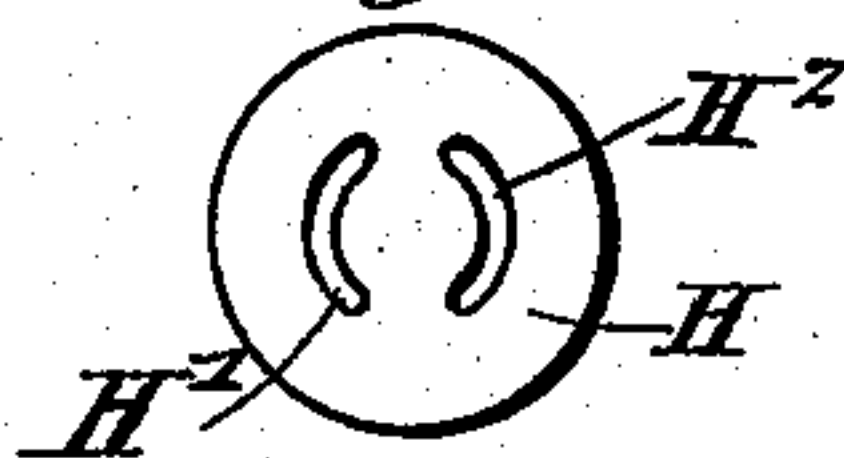


Fig. 2.

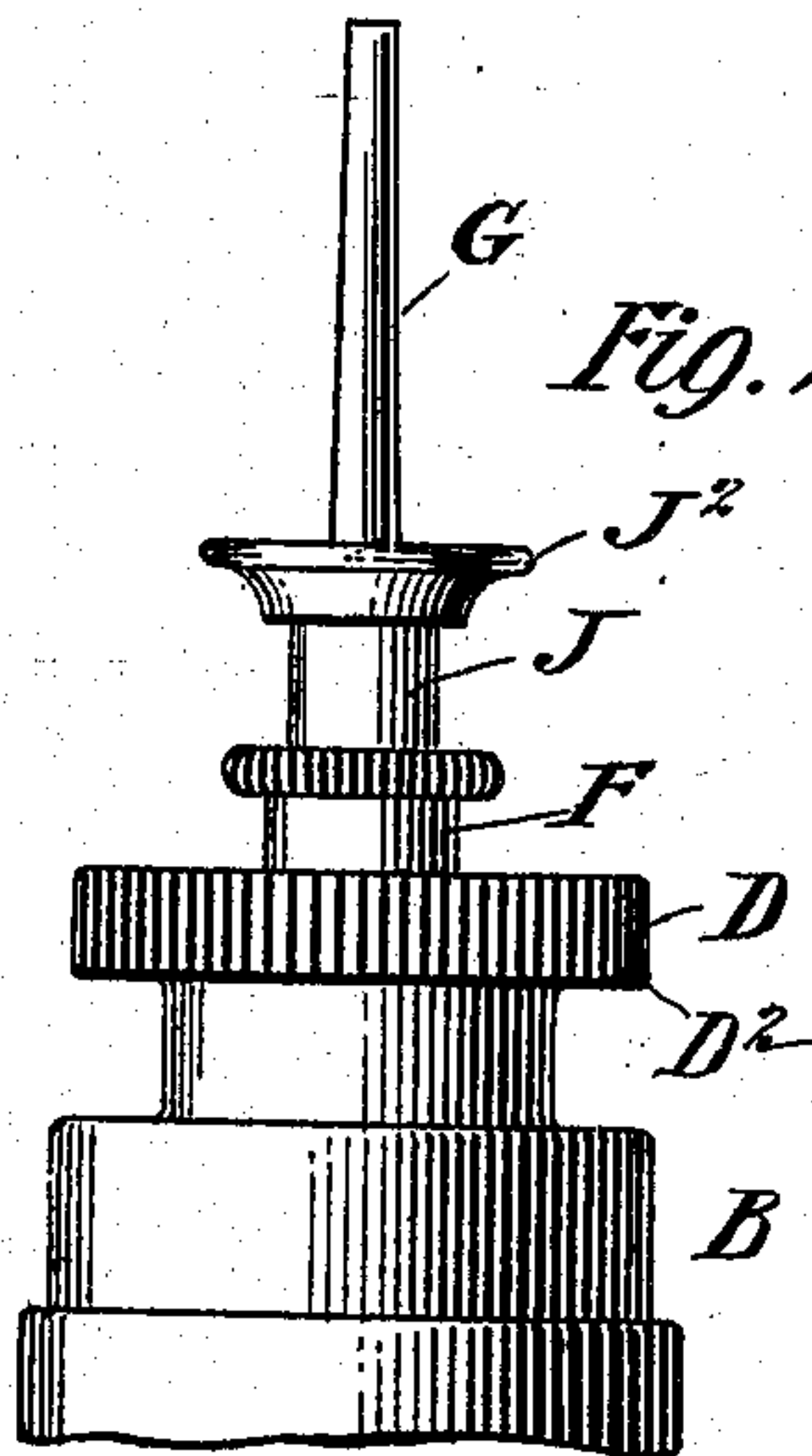


Fig. 5.

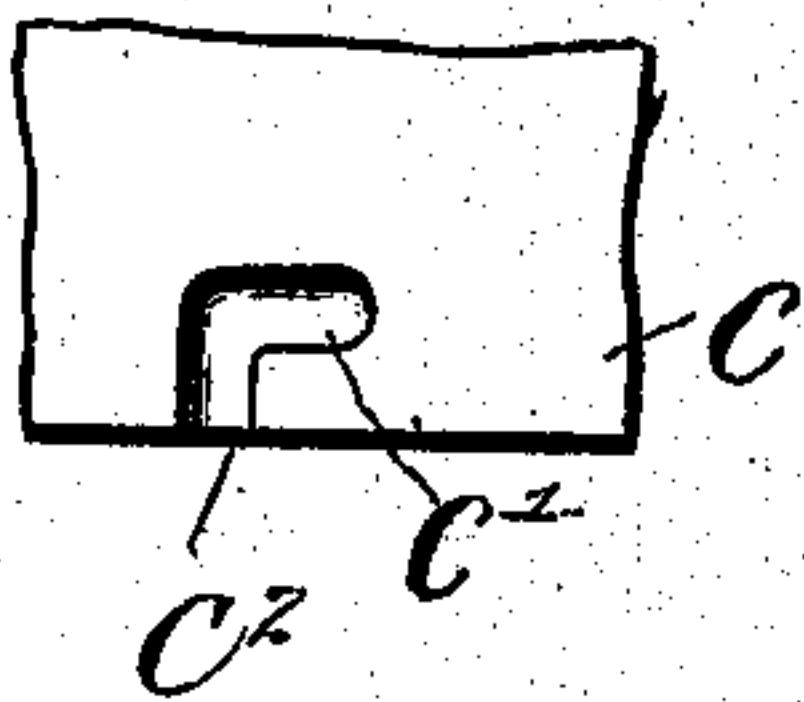
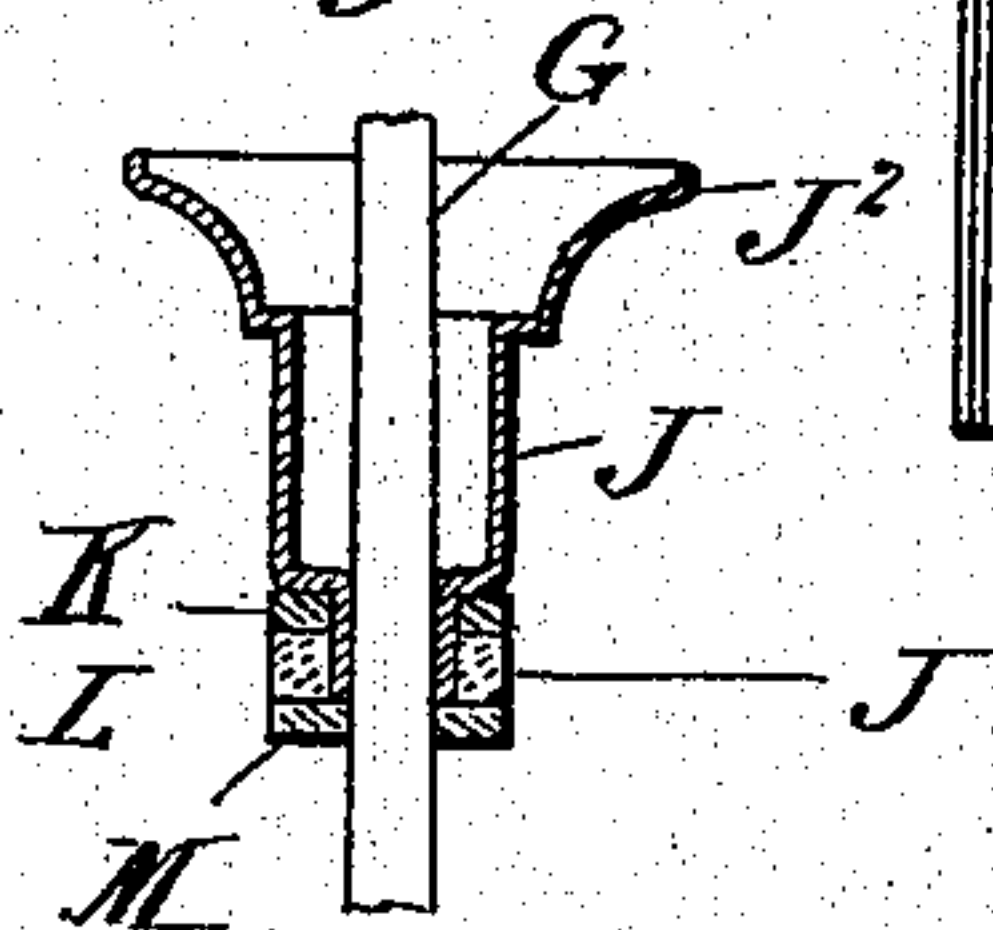


Fig. 6.



Witnesses  
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# UNITED STATES PATENT OFFICE.

JOSEPH W. CUSHMAN, OF NEW YORK, N. Y.

## OIL-CAN.

No. 885,840.

Specification of Letters Patent.

Patented April 28, 1908.

Application filed October 30, 1905. Serial No. 285,219.

*To all whom it may concern:*

Be it known that I, JOSEPH W. CUSHMAN, citizen of the United States, and resident of New York city, in the county of New York and State of New York, have invented certain new and useful Improvements in Oil-Cans, of which the following is a specification.

My invention relates to oil cans and particularly to that class in which a valve is used which is automatically closed by a spring.

The object of my invention is to provide an oil can of this character, all the parts of which may be made from sheet metal by stamping or drawing in order to manufacture at a low cost, and to produce a can of this type from which all the oil may be ejected, and also to provide a valve of large diameter to prevent leakage. This last feature is particularly desirable in cans of very small diameters, used for oiling bicycles, sewing machines, etc., in which the parts are made as small as possible so that the can as a whole can be conveniently carried in the pocket if desired.

The drawings which form part of this application are about three times as large as the smallest cans I desire to make so it will be seen that the parts must be accurately made and assembled. The cans may be made as large or much larger than the present drawings without changing the construction or method of making.

Referring to the drawings, Figure 1 is a central sectional view of the working parts of my improved can, with the cover or cap thereon. Fig. 2 is an exterior view of the upper end of my can, illustrating its general appearance. Fig. 3 is an enlarged view of the spout. Fig. 4 is an enlarged view of the valve washer and valve disk, which are alike in form. Fig. 5 is sectional illustrational view of a part of a bayonet joint. Fig. 6 is an enlarged view of the shell J and washers.

A indicates the casing of the reservoir which is drawn from thin sheet metal and B indicates the top thereof which is provided with a thread B' which is rolled or pressed or otherwise formed therein. C indicates the cap which is attached to the top B by a bayonet joint B<sup>2</sup> which is formed by pressing the metal outward in the top to form a small cylindrical projection as illustrated. This projection is engaged by the horizontal depression formed in the interior of the cap C as illustrated at C' (see Fig. 5) after it has

entered said horizontal portion by passing through the expanded vertical part C<sup>2</sup>. The extreme upper end of the top B is provided with flange B<sup>3</sup> which forms a seating for the gasket E and makes a tight joint between said flange and the stopper D.

The stopper D is provided with a thread D' which engages with the thread B' in the top B, and its outer edge is turned downward at D<sup>2</sup> thus forming an annular groove D<sup>3</sup> thereby covering the gasket E from view and providing at the same time, a surface for the fingers when removing the stopper and this surface may be corrugated to insure against the fingers slipping in case the stopper is tight in the top.

Fitted in the stopper D is a cylinder F, having its bottom end closed when drawn. This bottom is perforated by two holes, F' and F<sup>2</sup> respectively and by a central perforation F<sup>3</sup> through which the spout G may pass freely and act as a guide for said spout. The spout G is formed of sheet metal by first stamping it out in a blank, cutting out a portion of the metal at the bottom to form the projections G' and G<sup>2</sup> and then forming the sheet into the form illustrated. The valve disk H (see Fig. 4) is stamped from leather or other suitable material and is provided with two crescent shaped openings H' and H<sup>2</sup> and the washer I is formed exactly the same but is made of brass or other suitable metal. These crescent shaped openings H' and H<sup>2</sup> in the valve and washer engage with the projections G' and G<sup>2</sup> of the spout G which are projected through them and their ends turned outwardly from the center, thereby holding said valve and valve washer firmly on the end of the spout as shown.

The upper end of the cylinder F is turned over to provide a smooth flange and strengthens the construction.

Fastened to the spout G by a soldered joint J' is a cylindrical shell J which is closed in at the bottom end and the shell extended to form a bearing surface so that the solder will make a firm joint. The diameter of the shell J is such that it will slide freely within the cylinder F and its top end is expanded to form a flange J<sup>2</sup> against which the fingers may rest in operating the can and also acts as a drip cup for overflow of oil.

Surrounding the joint J' is a metal washer K which is used to insure the edge of a companion leather washer making a bearing



against the wall of the cylinder F to prevent oil from escaping between the cylinder F and shell J, and M is a metal washer against which the spring N presses and thereby holds  
5 the said washers closely together.

The spring N abuts against the bottom of the cylinder F as shown and thereby holds the valve H tightly to its seat.

The operation is as follows:—To fill, re-  
10 move the stopper D and pour in the oil. Replace the stopper tightly in position. Insert the can and press on the flanged top J<sup>2</sup> with the fingers, thus compressing the spring N and opening the valve H. The oil will flow  
15 out through the opening G<sup>3</sup>, and due to the shell J descending and thereby contracting the space below said shell, the air pressure within the can will be correspondingly increased and the oil in consequence thereof  
20 will be forcibly ejected from the can. By releasing the pressure on the flange J<sup>2</sup>, the spring N will react, and the valve close.

By the arrangement of the valve on the lower end of the cylinder F, and arranging  
25 the end of the stopper D to come flush with the end of said cylinder F, I am able to utilize the ends of both for the valve to seat against and thereby use a much larger diameter of valve, which in the small size of cans  
30 is a decided advantage.

It will be observed by the foregoing description, that I am able to make all the parts by stamping or drawing sheet metal and at the same time produce a much better and  
35 stronger article than heretofore, and that all of the objects set forth are attained in this improved construction.

Having thus described my invention what I claim as new and desire to secure by Letters  
40 Patent is,

1. An improved article of manufacture comprising an oil casing, a stopper having a portion removably engaged with said casing, a cylinder also engaged by said portion and  
45 bearing in the stopper and having its lower end flush with the lower end of said stopper, a valve seated against said ends of the stopper and cylinder, and means for operating said valve, the construction being such that  
50 there are no internal surfaces in the upper

part of the oil casing proper, occupying a higher plane than the valve seating.

2. An improved article of manufacture comprising an oil casing, a stopper having a portion removably engaged with said casing, 55 a cylinder also engaged by said portion and bearing in the stopper and having its lower end flush with the lower end of said stopper, a valve seated against said cylinder end, and means for operating said valve, all of the 60 parts of sheet metal and the construction being such that there are no internal surfaces in the upper part of the oil casing proper, occupying a higher plane than the valve seating.

3. An oil can comprising an oil casing, a 65 stopper having a portion removably engaged with said casing, a cylinder also engaged by said portion and bearing in the stopper and having its lower end flush with the lower end of the stopper, a valve seated against the 70 lower end of said cylinder, and vertically movable valve operating means extending within the cylinder.

4. An improved article of manufacture comprising an oil casing, a stopper remov- 75 ably secured to said casing, a cylinder bearing in said stopper and having its lower end flush with the lower end of the stopper, a valve seated against the lower end of the cylinder, a sheet metal spout, and a shell having 80 a lower contracted end in bearing engagement with the spout to insure a firm joint therewith.

5. In an oil can, a sheet metal spout, a shell, having an upper oil-holding end, the 85 lower end of the shell being contracted and extended in bearing engagement with the spout, a cylinder forming with said shell an annular recess, packing material in said recess, said shell being vertically movable with 90 respect to the cylinder, and means for holding said packing material in position.

Signed at New York in the county of New York and State of New York this 30th day of September A. D. 1905.

JOSEPH W. CUSHMAN.

Witnesses:

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C. FRANK DOEBLER.