

928,813.

R. B. SPIKES.  
BEER TAPPER.  
APPLICATION FILED MAR. 20, 1908.

Patented July 20, 1909.  
2 SHEETS—SHEET 1.

Fig. 1.

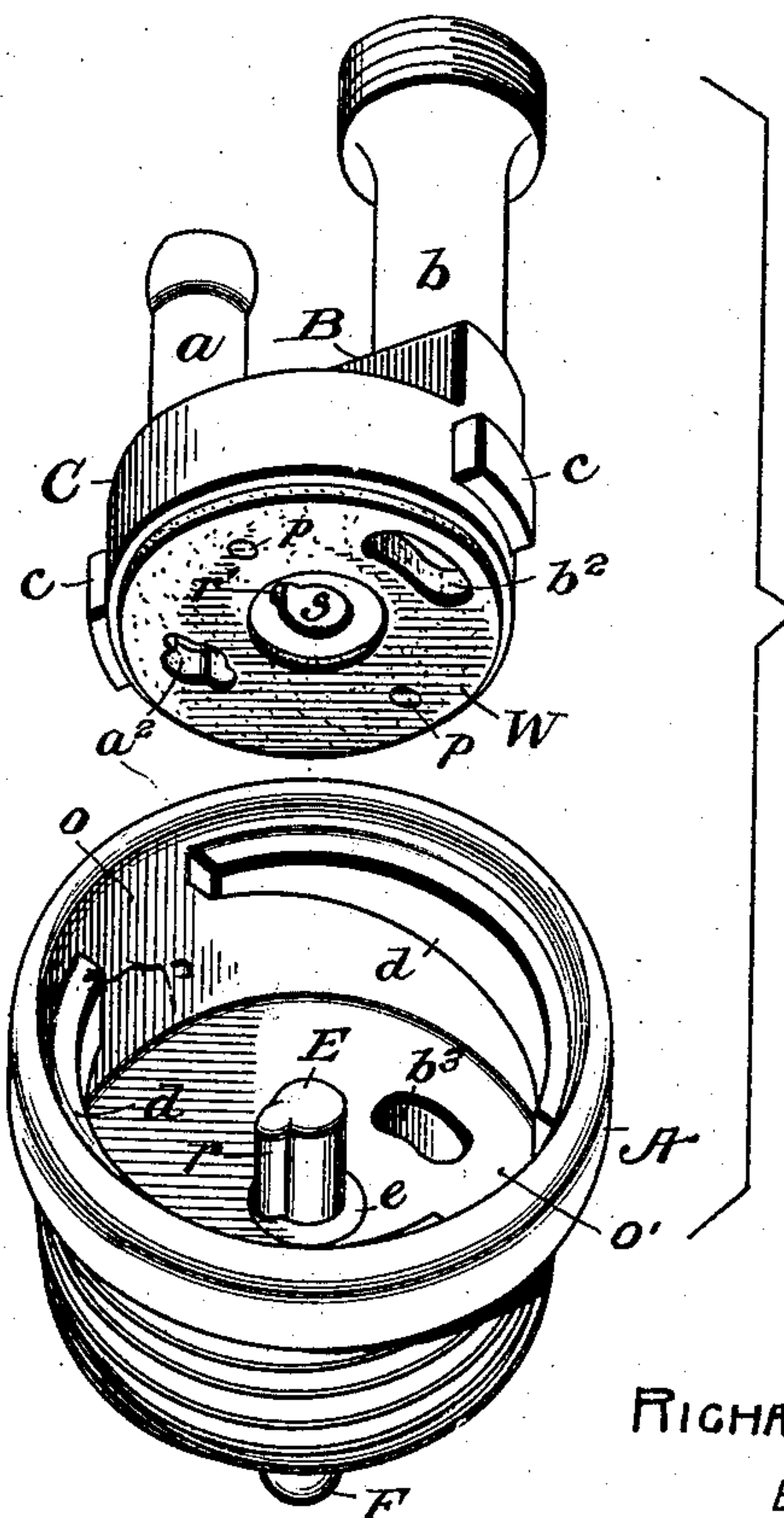
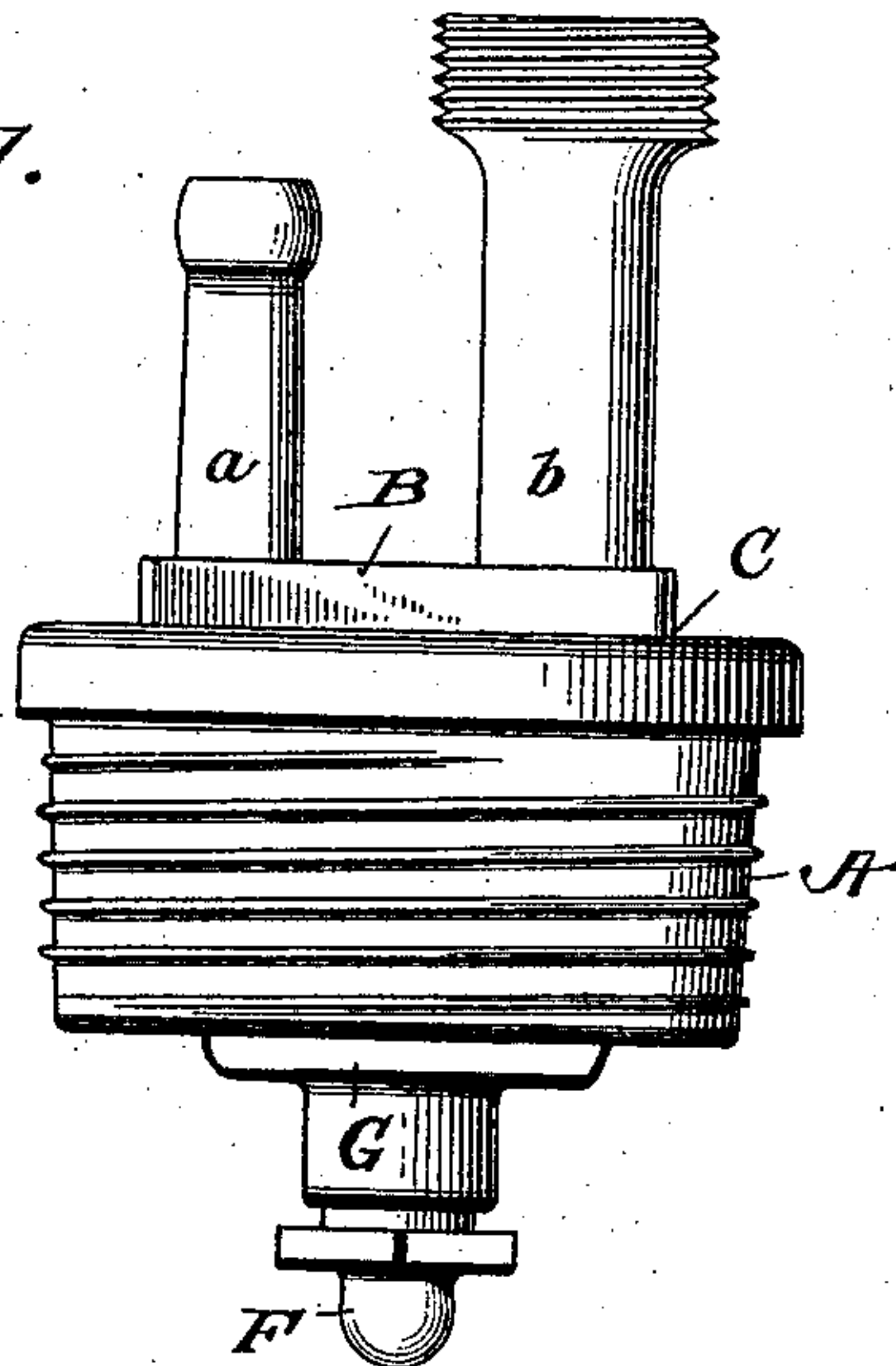


Fig. 2.

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2 SHEETS—SHEET 2.

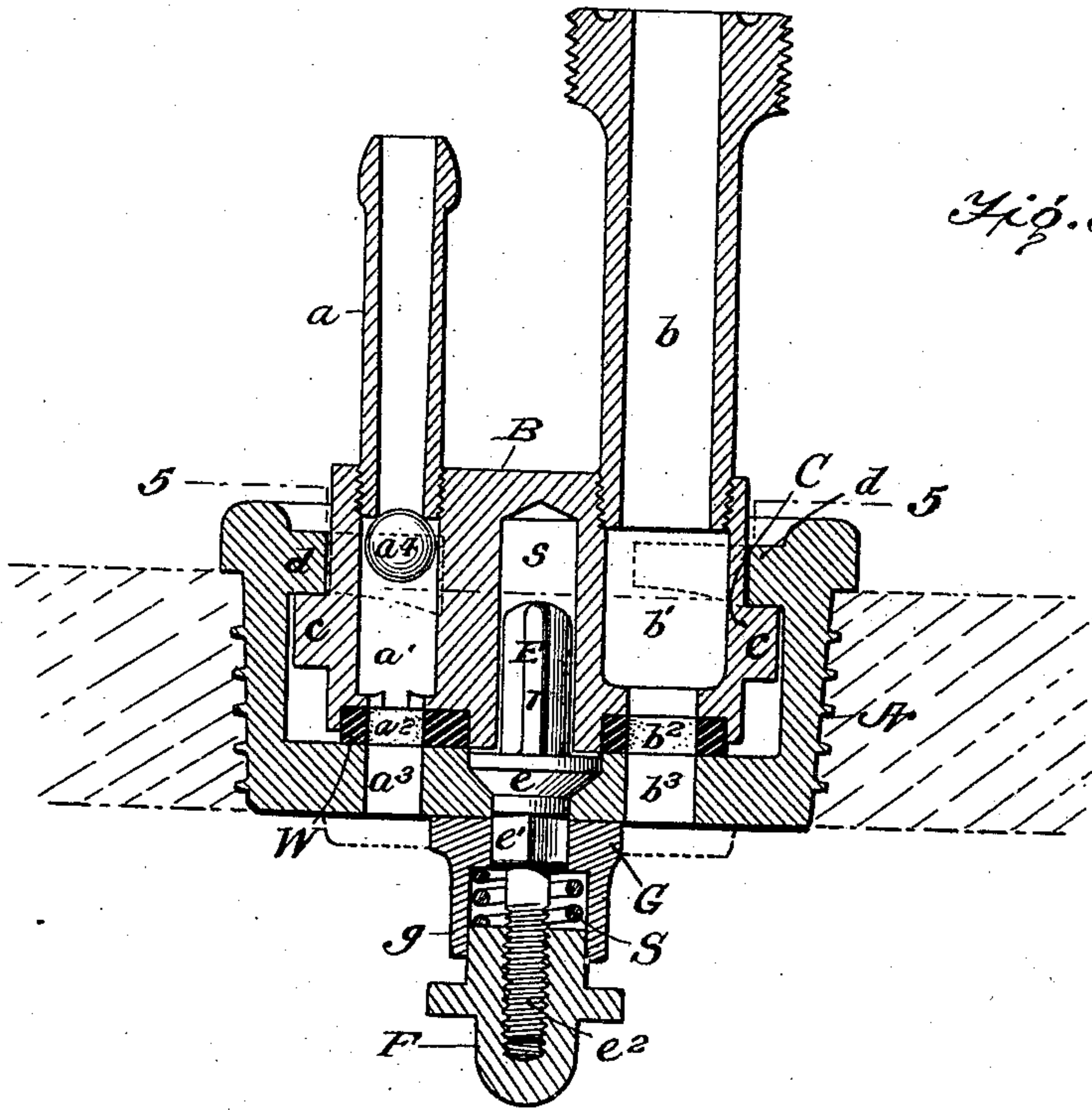


Fig. 3.

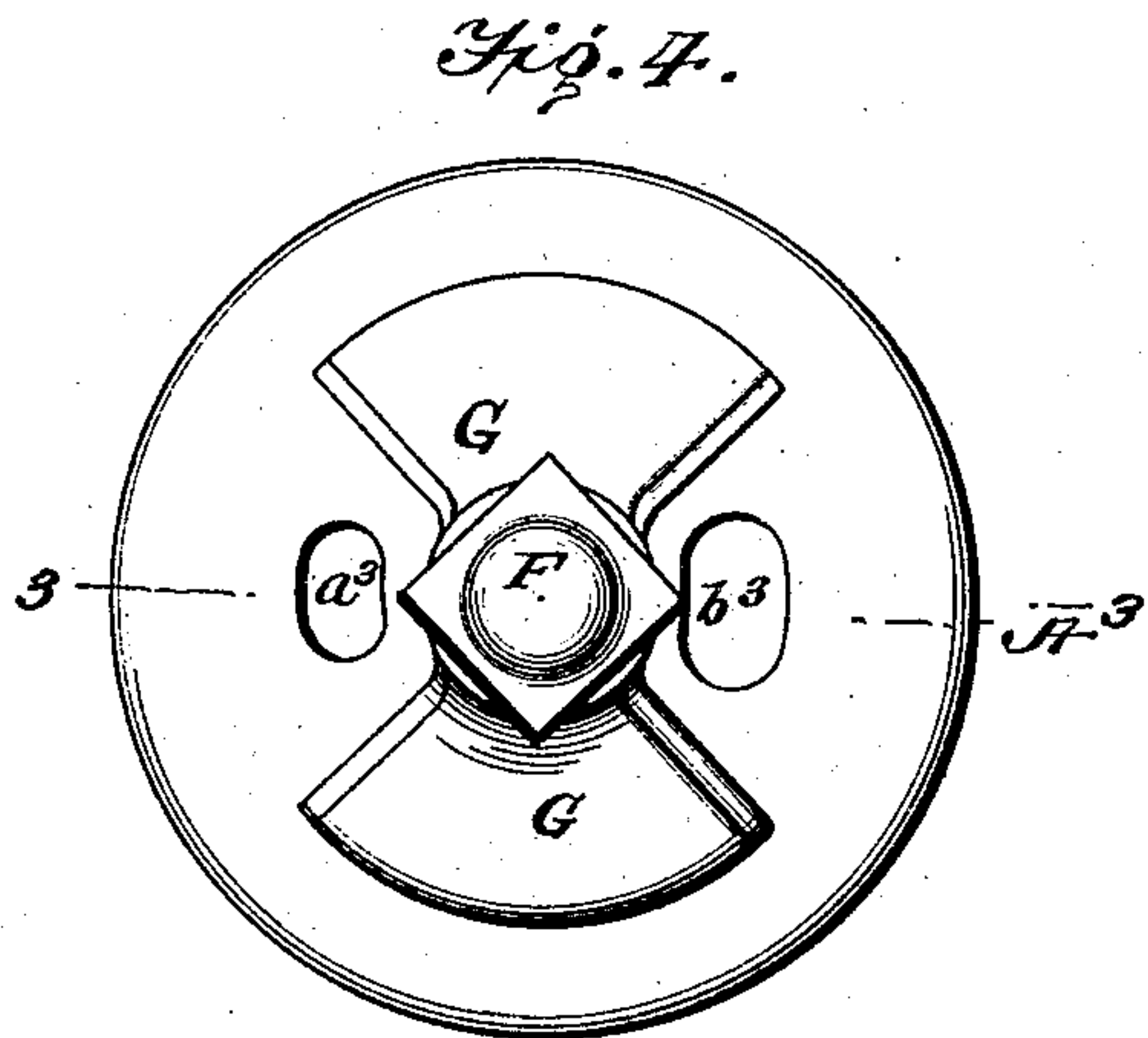


Fig. 4.

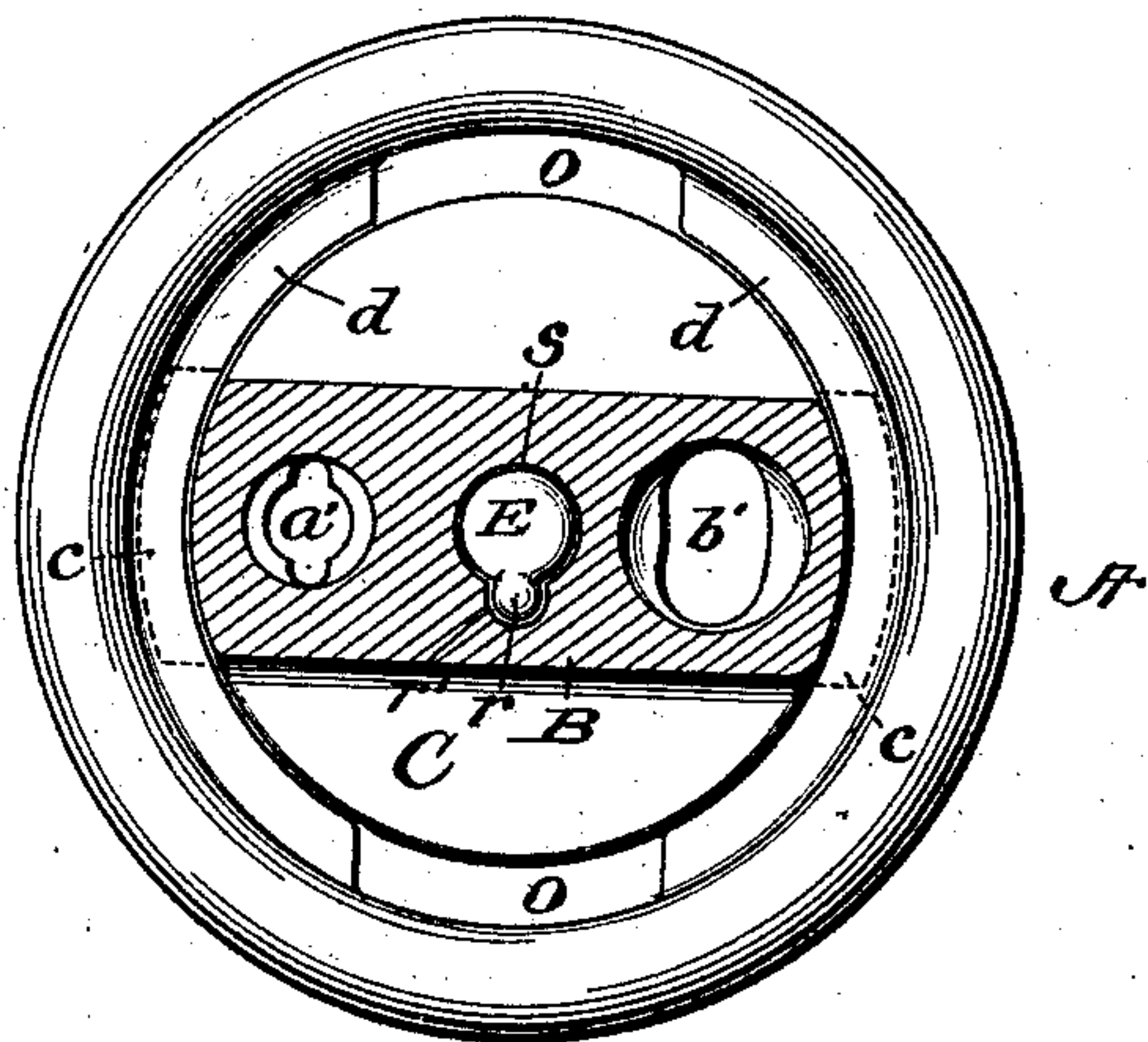


Fig. 5.

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# UNITED STATES PATENT OFFICE.

RICHARD B. SPIKES, OF WASHINGTON, DISTRICT OF COLUMBIA, ASSIGNOR TO BREWERY AND DISTILLERY EQUIPMENT CORPORATION, OF WASHINGTON, DISTRICT OF COLUMBIA, A CORPORATION OF VIRGINIA.

## BEER-TAPPER.

No. 928,813.

Specification of Letters Patent.

Patented July 20, 1909.

Application filed March 20, 1908. Serial No. 422,259.

*To all whom it may concern:*

Be it known that I, RICHARD B. SPIKES, a citizen of the United States, residing at Washington city, in the District of Columbia, have invented a new and useful Improvement in Beer-Tappers, of which the following is a specification.

My invention is in the nature of an improved beer tapper of that form in which a bung casing is screwed into the head of the barrel and is provided with separate ports, through one of which compressed air is admitted to the barrel, while beer is drawn out through the other. With this form of bung casing a detachable coupling bearing separate tube connections, for the air and beer, is arranged to be turned into the bung casing and is made in its turning movement to operate a valve which simultaneously opens or closes the air and beer ports.

My invention consists in the novel construction and arrangement of these parts as will be hereinafter fully described with reference to the drawings and then pointed out in the claims.

In the drawing—Figure 1 is a side elevation. Fig. 2 is a perspective view of the two main parts of the tapper, detached from each other. Fig. 3 is a vertical central section on line 3—3 of Fig. 4. Fig. 4 is an inside end view and Fig. 5 is a section through line 5—5 of Fig. 1.

In the drawing, A represents the bung casing made of cast metal and formed with a tapering external screw thread which is screwed into a bung hole in the barrel. This bung casing and the parts mounted on the inner end thereof are permanently attached to the barrel and remain with it in its travel back and forth from the brewery.

C is a detachable coupling which remains at the saloon or place of retailing and is adapted to be fitted to and removed from the bung casing and in connecting and disconnecting the same it serves to open or close the air and beer ports by operating a valve as hereinafter described.

The bottom of the bung casing is formed with two ports one on each side of the center of which  $a^3$  is for the entrance of air and  $b^3$  for the issue of the beer.

The detachable coupling C is formed on its circular edges with diametrically opposite lugs  $c c$  which are adapted to enter gate open-

ings  $o o'$  and be turned underneath cam flanges  $d d$  whose under sides are inclined so as to force the coupling downward as the coupling lugs are turned beneath the cam flanges  $d$ . The coupling C is formed with an air pipe connection  $a$  and coinciding port  $a'$  on one side of the center and on the opposite side of the center has a beer pipe connection  $b$  and coinciding port  $b'$ . On the underneath side the coupling C is formed with a central circular recess to receive an elastic washer W which is also formed on opposite sides with holes  $a^2$  and  $b^2$ , the hole  $a^2$  coinciding with the air ports  $a' a^3$  and the hole  $b^2$  coinciding with the beer ports  $b' b^3$ , said air ports forming straight through passageways and said beer ports also forming straight through passageways, which allow the air and the beer to pass in a straight path parallel to the axis of rotation of the coupling from the inside to the outside of the barrel, and vice versa, without turn and without opportunity for the lodgment of obstruction, so that these ports permit a straight stick or tool to be passed through the same to clean them out when necessary. The elastic washer W, which is made preferably of leather, when seated in the recess on the underside of the coupling C is prevented from turning from rotary friction by means of two pins  $p p$  on the underside of the coupling C so that the holes  $a^2 b^2$  through the washer cannot ever be accidentally turned across the air and beer ports  $a' a^3$  and  $b' b^3$ , to blank the same.

In the middle of the bottom of the bung casing is formed a central hole through which passes a pin E having a flange  $e$  that fits in an annular recess on the upper edges of said hole. The upper end of this pin extends up into a socket  $s$  formed in the middle of the detachable coupling C and this end of the pin is locked to the said coupling for a turning movement with the coupling by any approved connection. As shown, a rib  $r$  on the side of the pin enters a corresponding groove  $r'$  in the socket  $s$ , but, if desired, the end of the pin and the socket may have a square formation in cross section for the same purpose as is well known. The pin E protrudes through the bottom of the bung casing and has a square shoulder  $e'$  which fits in a square hole of a double winged valve G, and has also a screw threaded lower end  $e^2$  to receive a



screw threaded cap nut F. On the bottom of the valve G there is formed a central sleeve *g* within which is wound about the pin a spiral spring S. When the cap nut F is 5 screwed up against this spring the flange *e* of the pin E holds the pin from being pulled out and the reactionary strain of the spring acting upwardly against the valve G forces it into tight superficial engagement with the 10 face of the inner end of the bung casing, so as to enable the two wings of the valve to tightly close over the ports *a*<sup>3</sup> *b*<sup>3</sup> by a rotary movement of the pin E. With reference to the spring S it will be seen that it is contained 15 within a complete housing formed by the inwardly projecting sleeve *g* of the valve and the end of the cap nut, which enters telescopically within said sleeve when turned up to compress the spring.

20 The operation of my beer tapper is as follows: When the barrel of beer is filled at the brewery, the pin E is turned so that the two wings of the valve G are closed over the ports *a*<sup>3</sup> *b*<sup>3</sup>, as shown in dotted lines in Fig. 3, 25 the valve being held to a tight fit over these ports both by the tension of the spring S and by the pressure of the beer within the barrel. When the barrel is to be tapped, the bartender takes his coupling C and entering the 30 lugs *c c* into the gate openings *o o'*, causes the socket *s* to lock over the upper end of the pin E. Then by giving a quarter turn to the coupling C the lugs *c* are locked under the flanges *d* to force the coupling downward 35 and by this same rotary movement the following operations take place; The air inlets *a'* *a*<sup>2</sup> are turned into registration with port *a*<sup>3</sup>, the beer outlets *b'* *b*<sup>2</sup> are turned into registration with the port *b*<sup>3</sup>, and at the same time 40 the two wings of the valve G are turned to fully open the ports *a*<sup>3</sup> *b*<sup>3</sup>, as seen in Fig. 4, and the proper connections for the compressed air and beer dispensing faucet having been made, the beer may be drawn at will and its 45 place in the barrel supplied with compressed air to maintain the pressure and vitality of the beer.

In constructing the coupling C, a diametrical enlargement B is formed on the upper 50 side of the same which gives room for the air and beer ports *a'* and *b'* and the central socket *s* and on each side of this diametrical enlargement the metal of the coupling is reduced for economy's sake and to render the 55 coupling lighter. The port *a'* for air is also made in the form of a valve chamber, and in the same is placed a ball valve *a*<sup>4</sup> which, by closing upwardly, prevents the escape of pressure in the barrel when the air pipe connecting with tube *a* is removed. This ball is 60 held by lugs or other means above the washer so that it cannot close on the washer and act as a valve closing downward (which would

preclude the entrance of air) but acts only as a valve closing outwardly to prevent escape of 65 pressure from the barrel.

I claim—

1. A beer tapper, comprising a bung casing with air and beer ports in its bottom, a detachable rotary adjustable coupling with 70 air and beer ports and a central socket, a central pin turning in a central hole in the bottom of the bung casing and restrained against movement inwardly in relation to the barrel and having a screw threaded lower end, a 75 valve lying flat against the inner face of the bung casing and controlling its air and beer ports, said valve being detachably connected to the central pin to turn with it but be removable therefrom, a spiral spring wound 80 about the lower end of the pin and a screw nut turning on the end of the screw stem and pressing the valve against the inner end of the bung casing.

2. A beer tapper, comprising a bung casing 85 with air and beer ports in its bottom, a detachable rotary adjustable coupling with air and beer ports and a central socket, a central pin having a flange turning in a recessed central hole in the bottom of the bung 90 casing and having a screw threaded lower end, a valve lying flat against the inner face of the bung casing and controlling its air and beer ports, said valve being detachably connected to the central pin to turn with it and 95 having a projecting sleeve, a spiral spring located in said sleeve and a cap nut inclosing the lower end of the screw threaded pin and entering the valve sleeve to compress the spring. 100

3. In a beer tapper, the combination of a bung casing having air and beer ports, and a detachable and rotary adjustable coupling provided with corresponding ports, of a rotatable valve, a central valve-turning pin 105 arranged to extend through said valve and the bottom of said casing, said pin having a squared portion adapted to enter a socket in said valve, and being provided at its upper end with a key arranged to enter a socket in 110 said coupling and to be turned thereby.

4. In a beer tapper, a bung casing provided with beer and air ports and a central opening, a coupling having corresponding beer and 115 air ports and provided with a socket arranged to register with the opening in said bung casing, a rotary valve arranged to close said ports, and a spring-actuated pin constituting a key connection for said coupling and valve, and having means at its lower end for turning 120 said valve.

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Witnesses:

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