

No. 617,954.

Patented Jan. 17, 1899.

F. S. CHASE.  
BICYCLE PUMP.

(Application filed Sept. 12, 1898.)

(No Model.)

Fig. 1

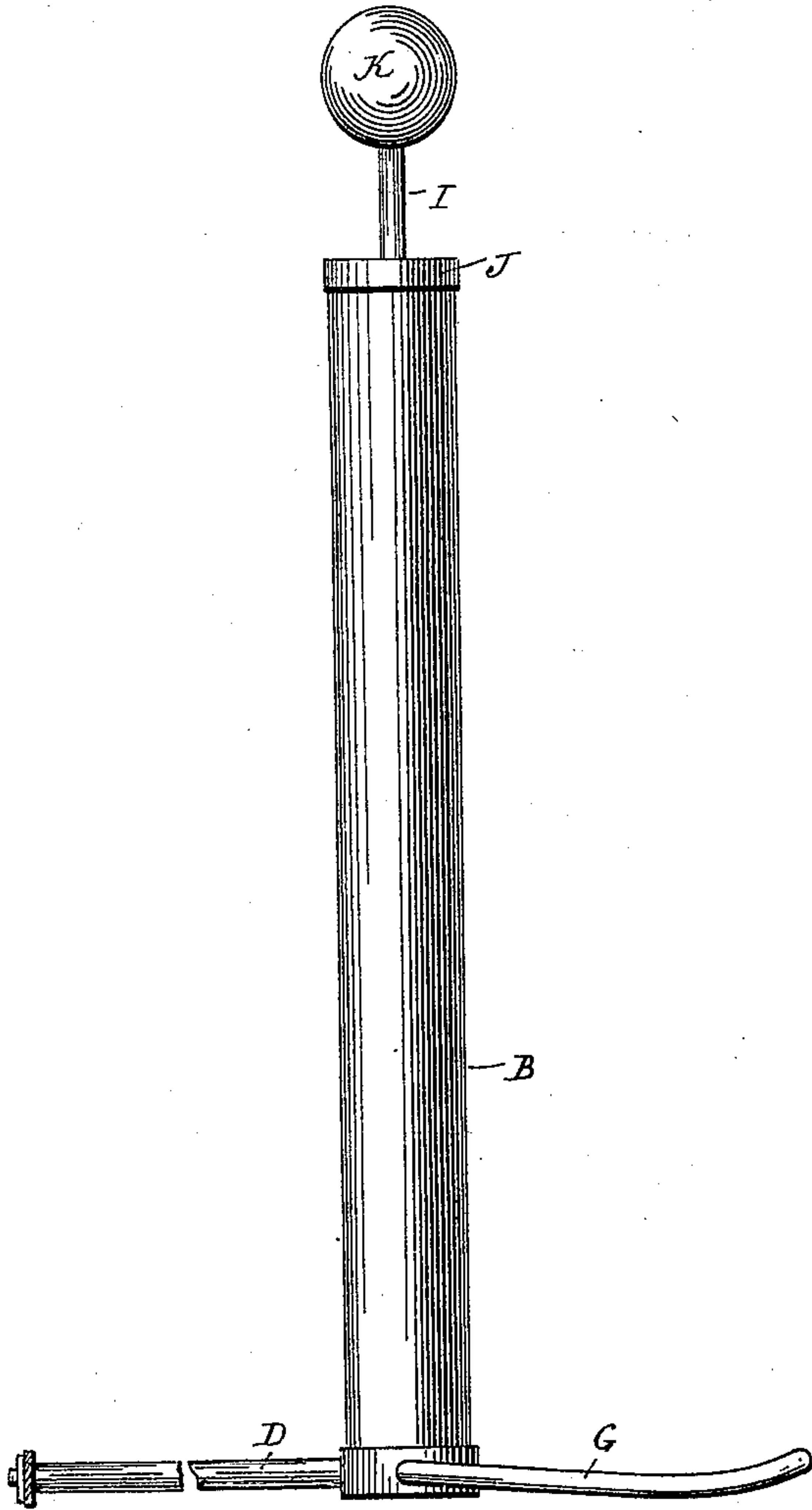


Fig. 2

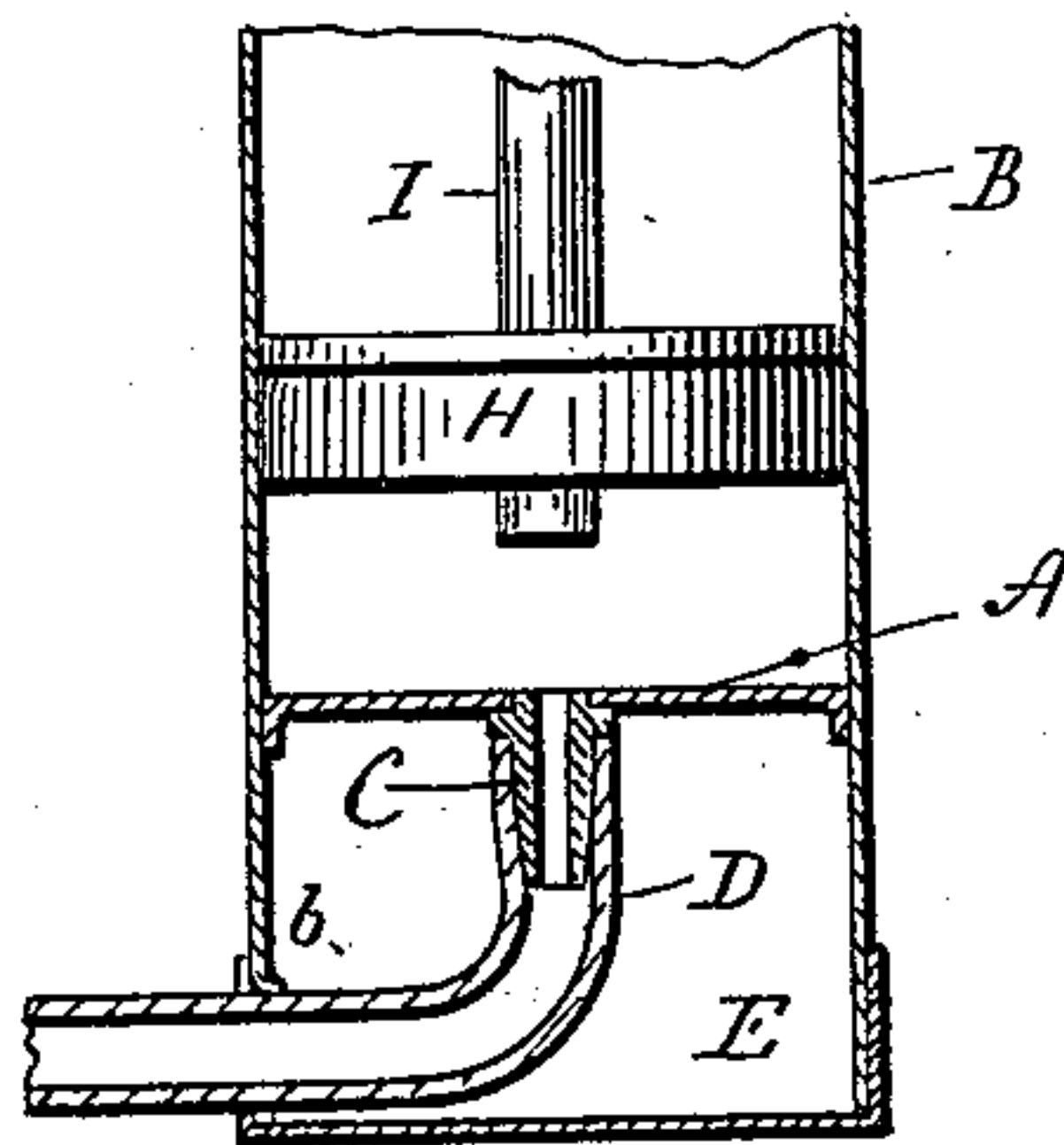


Fig. 4

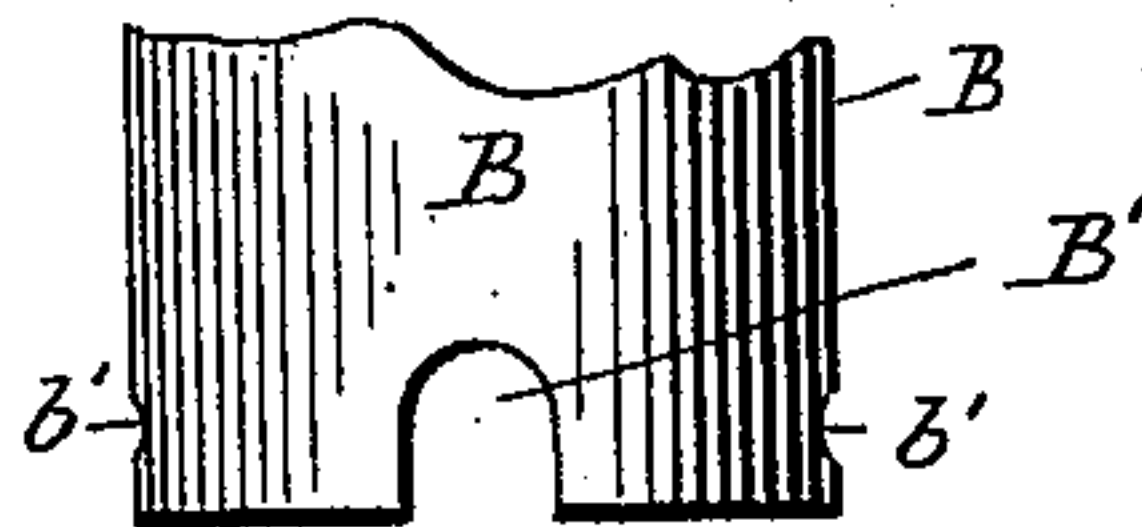


Fig. 5

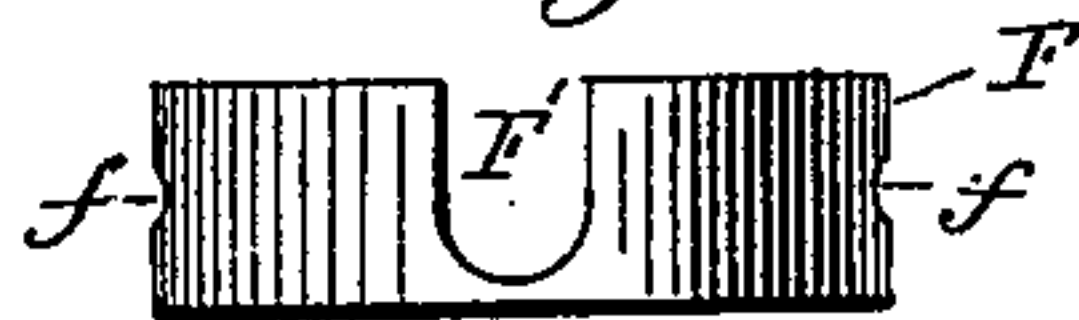
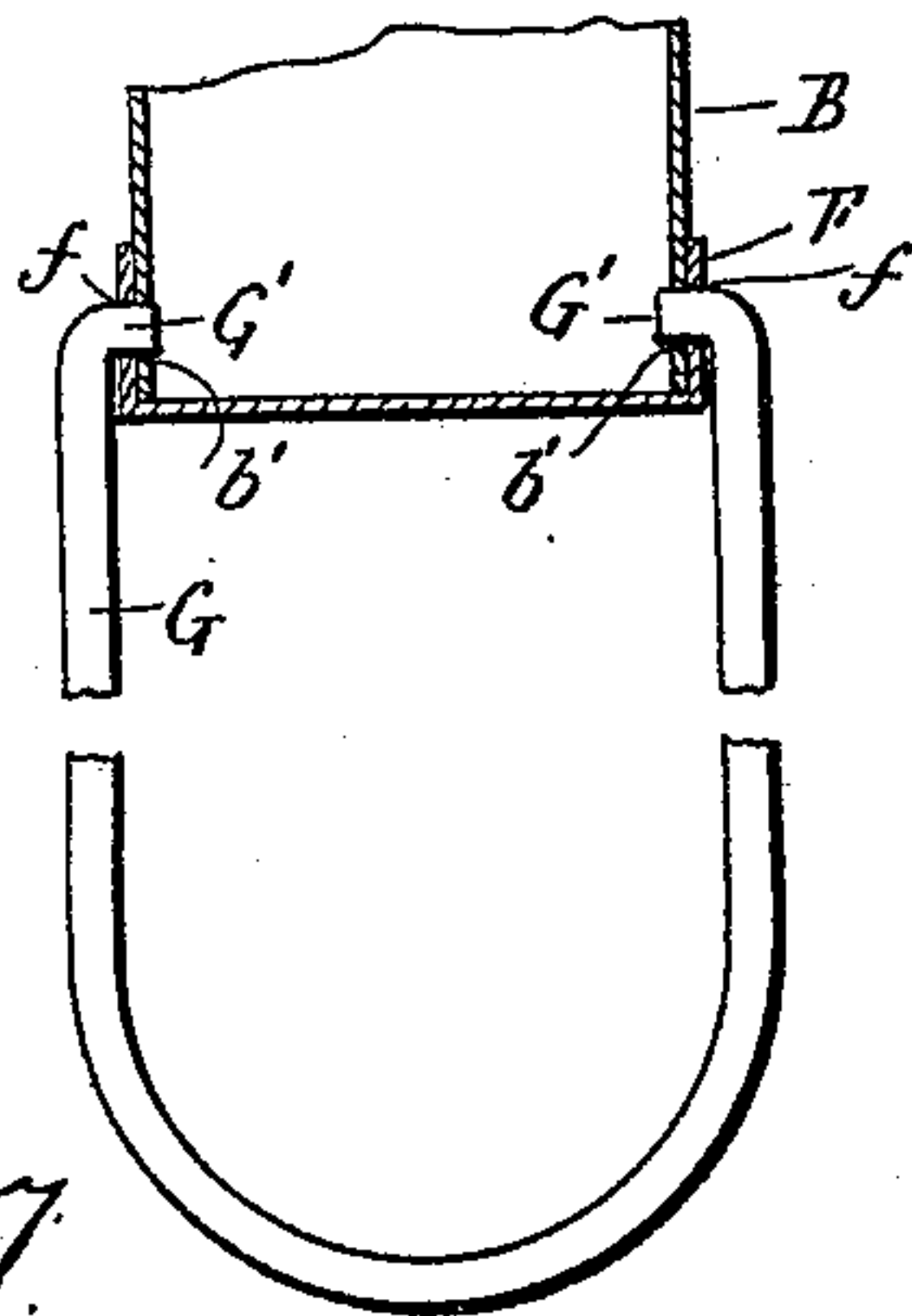


Fig. 3



Witnesses.

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# UNITED STATES PATENT OFFICE.

FREDERICK S. CHASE, OF WATERBURY, CONNECTICUT.

## BICYCLE-PUMP.

SPECIFICATION forming part of Letters Patent No. 617,954, dated January 17, 1899.

Application filed September 12, 1898. Serial No. 690,731. (No model.)

*To all whom it may concern:*

Be it known that I, FREDERICK S. CHASE, of Waterbury, in the county of New Haven and State of Connecticut, have invented a new Improvement in Bicycle-Pumps; and I do hereby declare the following, when taken in connection with the accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a view in side elevation of a pump constructed in accordance with my invention; Fig. 2, a broken view of the lower end thereof in vertical central section; Fig. 3, a vertical sectional view of the lower end of the cylinder and cap transverse to that shown in Fig. 2, showing them interlocked by the foot-rest; Fig. 4, a detached broken view of the lower end of the cylinder; Fig. 5, a corresponding view of the cap.

My invention relates to an improvement in portable bicycle-pumps, the object being to produce a simple, compact, and effective pump.

With these ends in view my invention consists in certain details of construction and combinations of parts, as will be hereinafter described, and pointed out in the claim.

In carrying out my invention I employ a disk-like false bottom A, which I locate and secure firmly within the cylinder B, at a point near the lower end thereof. The said false bottom may be produced and secured in place in any desired manner. As shown, its edge is turned to form a flange, which is preferably soldered to the inner walls of the cylinder. The said false bottom A is furnished with a nipple C, adapted to have the flexible air-tube D applied to it in the usual manner. By employing the said false bottom and locating it, as described, in the cylinder B, I form a small chamber E, which for convenience I shall term the "tube-chamber," for the reason that it permits an easy bend to be formed in the tube at a point between the nipple C and the deep notch B', formed in the extreme lower edge of the cylinder for the entrance of the inner end of the tube into the tube-chamber E. Preferably the edge of the notch B' will be turned inward, forming a flange b, so that the sharp edge of the metal will not cut the tube. The outer end of this tube-chamber is closed by means of a cap F, which is formed with a deep notch F', which registers with

the notch B' aforesaid and closes the tube at the point where the same passes through the notch B' aforesaid. When the cap is in place, the bend of the tube is protected and prevented from being disturbed or squeezed, as it were, so as to cut off the free passage of air through it. The said cap is secured in place by means of the wire foot-rest G; the ends of which are turned inward at a right angle, so as to form trunnions G' G', which pass through holes f f formed in the cap and through corresponding holes b' b' formed in the extreme lower end of the cylinder. Under this construction the foot-rest is made to perform the additional function of securing the cap in place.

The piston H, piston-rod I, upper cap J, and handle K may be of any approved construction, and I do not limit myself to making them in any particular way, though I prefer to employ a spherical handle K on account of the convenience which it secures in strapping the pump onto the frame of a bicycle, inasmuch as it is little, if any, larger in diameter than the diameter of the cylinder. I would therefore have it understood that I do not limit myself to the exact construction herein shown and described, but hold myself at liberty to make such changes and alterations as fairly fall within the spirit and scope of my invention.

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

In a pump, the combination with the cylinder thereof, of a false bottom secured within the lower end thereof so as to form a tube-chamber, a nipple secured to the said bottom, and projecting into the said chamber, a cap applied to the extreme lower end of the cylinder for closing the outer or open end of the said tube-chamber, and a foot-rest having its ends turned inward to form trunnions which pass through holes formed in the cap and into the lower end of the cylinder, whereby the cap is secured in place and the foot-rest pivotally connected with the cylinder.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

FREDERICK S. CHASE.

Witnesses:

R. S. WALKER,  
WM. LEGGETT.