(No Model.)

T. DOUGHERTY.

BEER PUMPING OR AIR PRESSURE APPARATUS.

No. 360,422. Patented Apr. 5, 1887.

Fig. 1.

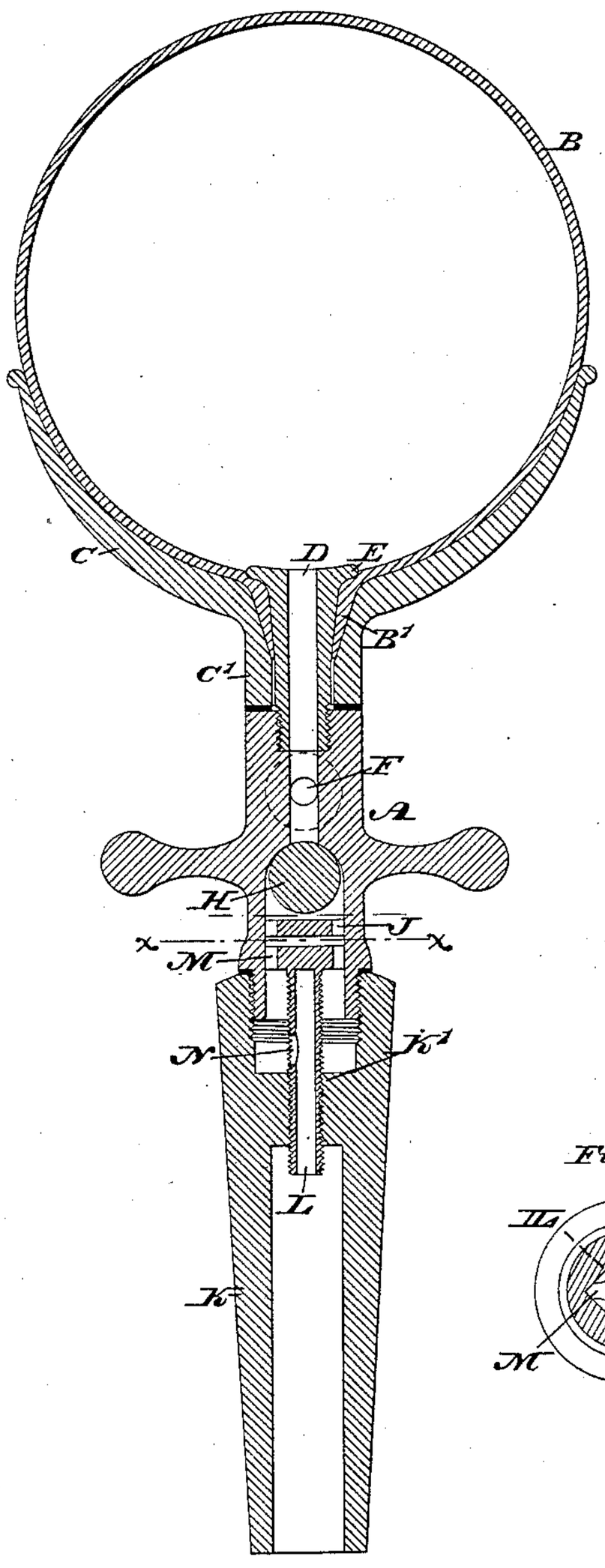


Fig. 2.

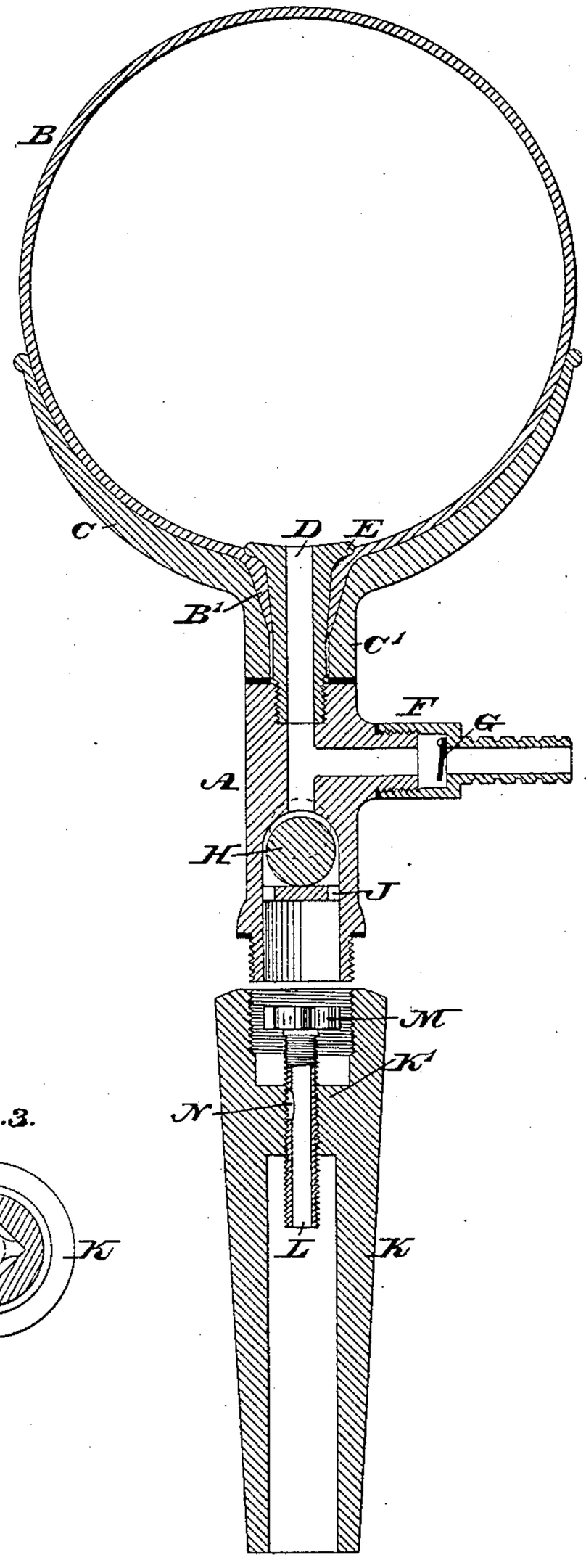
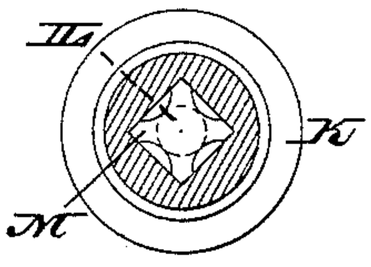


Fig. 3.



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UNITED STATES PATENT OFFICE.

TIBERIAS DOUGHERTY, OF PHILADELPHIA, PENNSYLVANIA.

BEER-PUMPING OR AIR-PRESSURE APPARATUS.

SPECIFICATION forming part of Letters Patent No. 360,422, dated April 5, 1887.

Application filed March 29, 1886. Serial No. 197,003. (No model.)

To all whom it may concern:

Be it known that I, TIBERIAS DOUGHERTY, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Beer-Pumping or Air-Pressure Apparatus, which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figures 1 and 2 represent longitudinal sections of an air-pressure apparatus embodying my invention. Fig. 3 represents a section in line *x x*, Fig. 1.

Similar letters of reference indicate corresponding parts in the several figures.

My invention consists of an air-pressure apparatus for a keg, &c., embodying an elastic ball, a barrel, and air-inlet and valve and an air-outlet and valve, whereby air may be readily forced into the barrel.

It also consists of means for tightly securing the ball to its socket or support.

It further consists of the construction of the apparatus, whereby the barrel-vent may be opened by the act of securing said apparatus to said vent.

Referring to the drawings, A represents a barrel or tube, and B represents a rubber or elastic ball which is connected with the barrel and communicates therewith, said ball resting in a cup or socket, C, which is secured to the barrel and held thereon by a tubular conical plug, D, the end of which within the ball being formed with a flange, E, the plug passing through the neck B′ of the ball and the neck C′ of the socket and entering the bore of the barrel, to which latter it is screwed, the flange E compressing the neck of the ball against the neck of the socket, so that the ball is firmly connected with the barrel and a tight joint produced, it being noticed that the plug D forms a passage between the ball and barrel.

The barrel has a branch, F, for the inlet of air, the same having an inwardly-closing valve, G, and the end of the barrel opposite to the ball is open, forming the outlet of the barrel, a valve, H, being located within the barrel near said end and opening inwardly, and retained therein by arms or shoulders J in the bore of the barrel.

K represents a vent, which is driven into a keg, barrel, &c., and having within the same a tubular plug, L, acting as a valve, which is screwed to a contracted portion, K′, of the bore of said vent, the threads of said plug and portion being left-handed.

The outlet end of the barrel A is exteriorly threaded, so as to be screwed to the head end of the vent, the threads of said barrel and vent being right-handed.

The plug L has a head, M, of angular form with grooved sides, and is adapted to enter the bore of the barrel at the outlet end thereof, the inner wall of said bore being angular, as seen in Fig. 3, and adapted to freely embrace the head M and engage therewith, as will be hereinafter stated. The plug L has in its side an opening, N, which, when the said plug is in its normal position, (shown in Fig. 2,) is within the portion K′ of the bore, and is thereby closed, thus closing the vents. In this position of parts the vent is driven into the keg, &c., the head M being below or within the head end of the vent, so as not to be struck. When it is desired to force the air into the keg, &c., the barrel A is screwed to the vent, and as the discharge end of the barrel engages with the head M the rotation of the barrel rotates or unscrews the plug L, the latter entering the barrel and moving the opening N from the portion K′, thus uncovering said opening and placing the barrel in communication with the vent, and consequently with the keg, &c. The ball is now compressed and then allowed to expand as many times as desired, and air enters the ball and is forcibly expelled therefrom through the barrel into the head end of the vent and enters the opening N of the plug L, by which it is directed through said plug and the vent into the keg, &c. When sufficient pressure is obtained in the latter, the barrel A remains connected with the vent for further use of the device, or may be unscrewed, the effect of which latter is to rotate the plug L and return it to its normal position, thus covering the opening N and closing the vent, whereby the escape of air into the keg, &c., is prevented.

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

1. An elastic ball, B, in combination with

cup C, tubular plug D, the barrel A, with branch F, the valve G, and valve H, retained in the barrel-bore by shoulders J, all substantially as and for the purpose set forth.

2. The barrel A, having an exteriorly-threaded portion, the latter portion having an angular interior, in combination with the vent K, having a threaded contracted portion, K′, and an interiorly-threaded head portion, the screw-plug L, having angular head M, and opening N, all of said parts being arranged and operated substantially as and for the purpose set forth.

TIBERIAS DOUGHERTY.

Witnesses:
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