(No Model.) 2 Sheets—Sheet 1.

J. McKENZIE.

BARREL FILLER.

No. 334,268. Patented Jan. 12, 1886.

Fig. 1

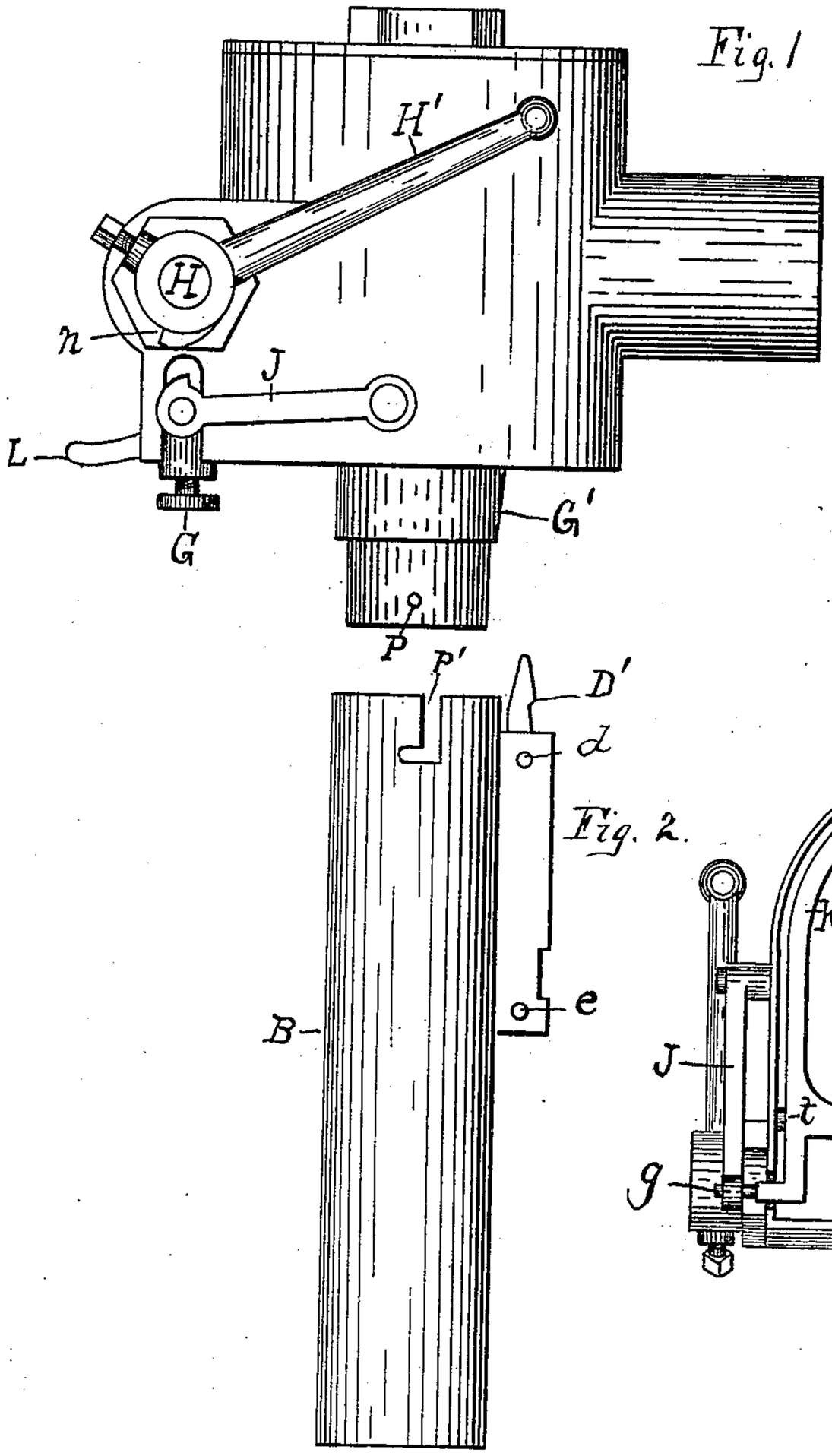
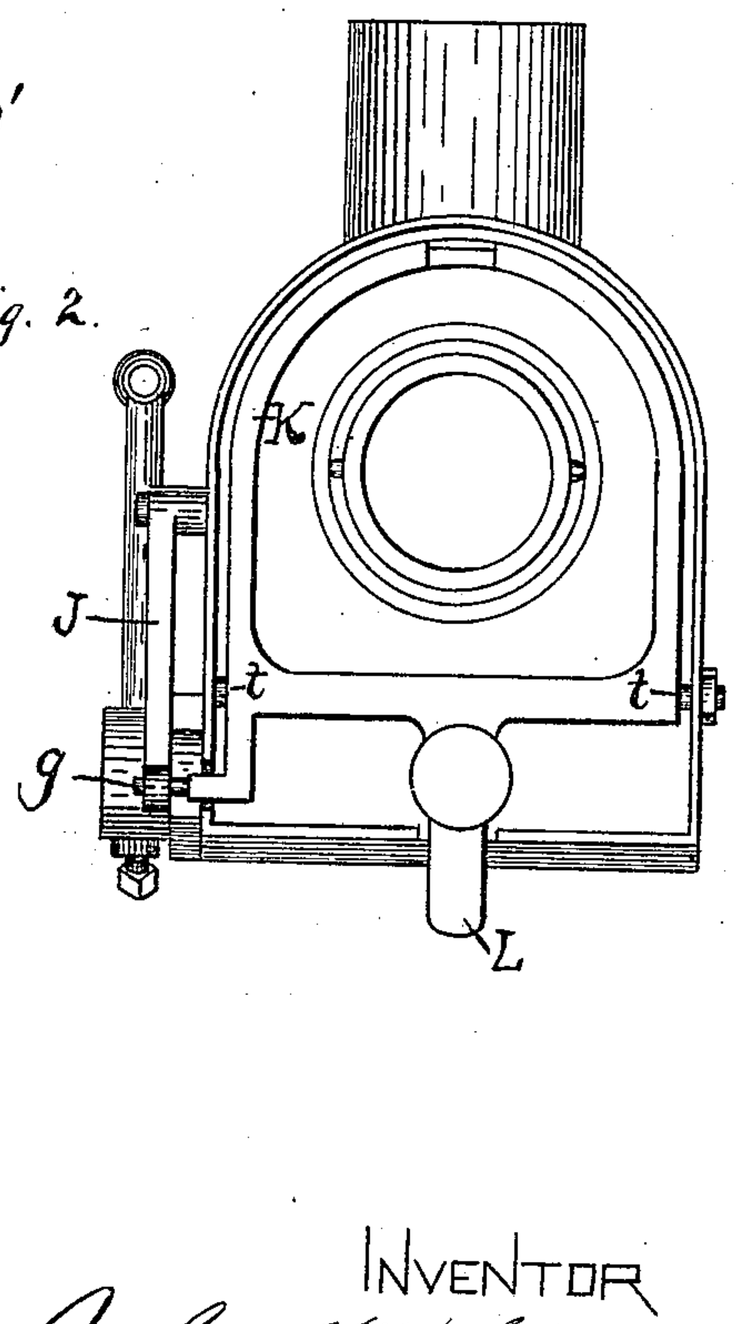


Fig. 2.

Fig. 3



WITNESSES

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(No Model.) 2 Sheets—Sheet 2.

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Fig. 4

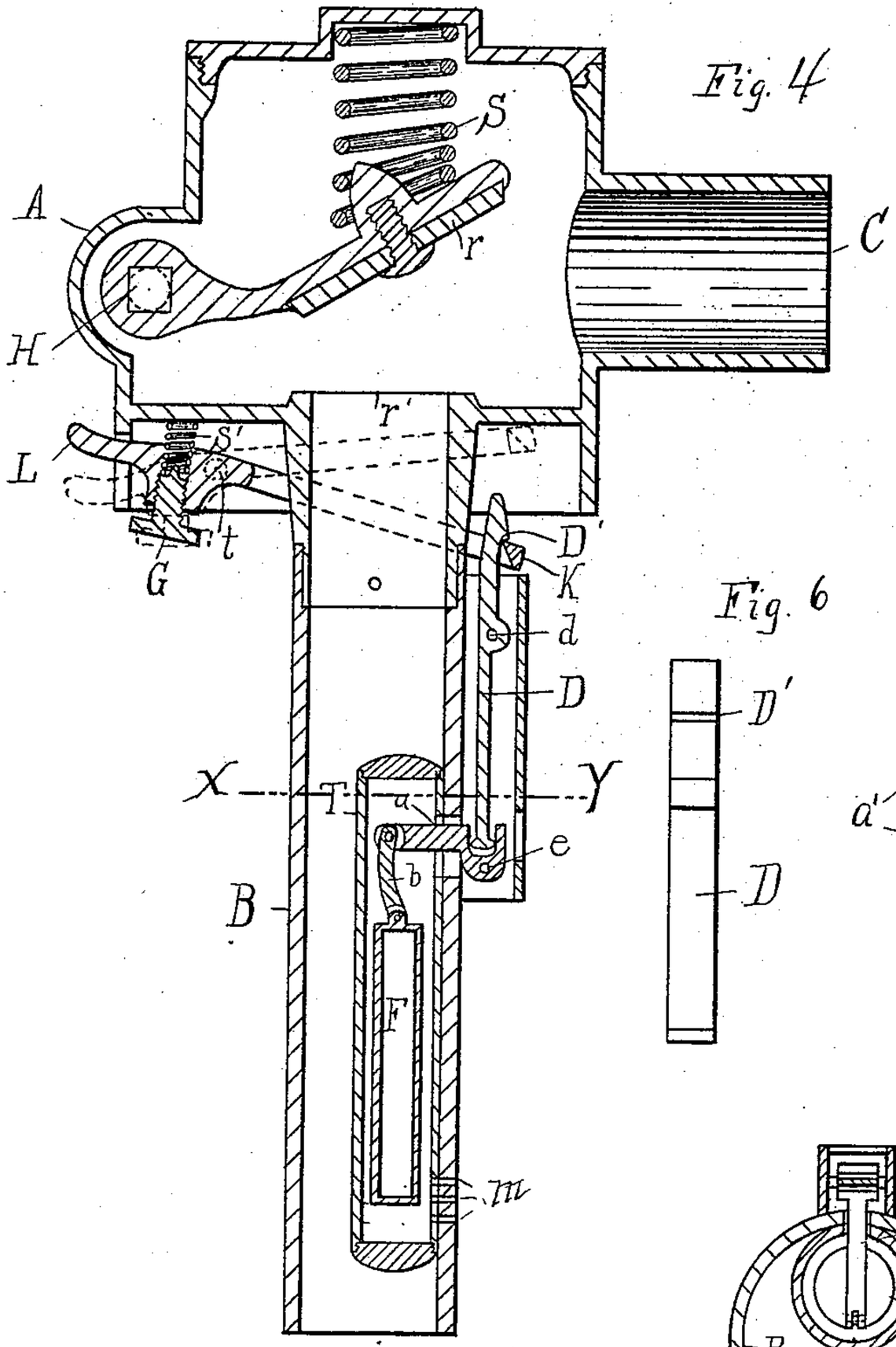


Fig. 6

Fig. 7

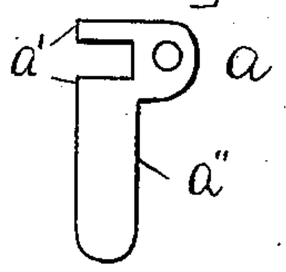
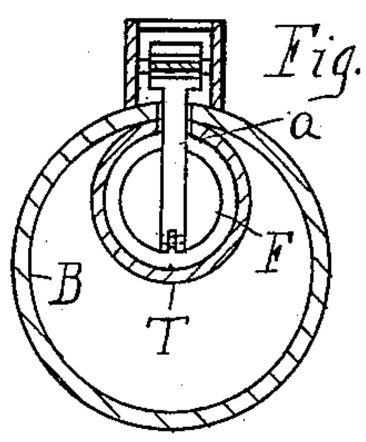


Fig. 5



WITNESSES

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UNITED STATES PATENT OFFICE.

JOHN McKENZIE, OF WEST TROY, NEW YORK.

BARREL-FILLER.

SPECIFICATION forming part of Letters Patent No. 334,268, dated January 12, 1886.

Application filed October 19, 1885. Serial No. 180,257. (No model.)

To all whom it may concern:

Be it known that I, JOHN MCKENZIE, a resident of West Troy, in the county of Albany and State of New York, have invented certain new and useful Improvements in Barrel-Fillers; and I do hereby declare that the following is a full, clear, and exact description of the invention, that will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

Similar letters refer to similar parts in the several figures therein.

My invention relates to improvements in barrel-fillers.

The object of my invention is to provide an improved combination of float-controlled trips and levers for releasing and closing a spring-actuated valve, and in providing a convenient means for adjusting the resistance of the parts to the action of the float.

My invention embodies certain improvements upon the device shown in United States Letters Patent No. 323,708, issued to me August 4, 1885, for improvements in barrel-fillers, which will be described in connection with the drawings, and pointed out in the claim.

Figure 1 of the drawings is a side elevation of the supply-cock. Fig. 2 is a side elevation of float containing tube detached. Fig. 3 is a bottom plan view of the part shown in Fig. 1. Fig. 4 is a vertical central section of cock and tube attached. Fig. 5 is a horizontal section taken at broken line *x y* in Fig. 4. Fig. 6 is a front elevation of lever D detached. Fig. 7 is a top plan view of lever *a* detached.

A is the supply-cock, provided with inlet C and drop-valve V, hinged upon spindle H, to close the outlet V′ when actuated by spring S. The spindle H passes through a stuffing-box and projects from one side of the cock, the projecting end being provided with handle H′ and notch *n*, adapted to receive the latch J. When the valve is lifted by handle H′ to the position shown in Fig. 4, the handle takes the position shown by dotted lines in Fig. 1, and the hook of the latch enters notch *n* and holds the valve open. The spigot G′, projecting from the cock, is provided with pins P, adapted to enter correspondingly-situated slots P′ in tube B, by which the tube is held in position when the slotted end is slipped upon the spigot, as shown in Fig. 4. The tube contains a smaller tube, T, adapted to receive the float F, which is suspended by link *b* from one end of lever *a*, pivoted at *e*. The other end of lever *a* is provided with the bifurcated arms *a′*, projecting upward in a direction about right-angular to arms *a″*, and adapted to inclose the lower end of lever D, pivoted at *d* upon tube B. The upper end of lever D is provided with a beveled notch, D′, adapted to engage with and trip the longer arm of lever K, pivoted at *t* upon the cock. The shorter arm of lever K is provided with a projecting handle, L, and actuating-spring S′, also with the projecting finger *g*, adapted to engage the tripping-latch J and force its hook into and out of engagement with notch *n*, to trip the spindle H when the valve is opened.

In operating the device the lower end of tube B is inserted within the barrel, the upper end being attached, previously or afterward, as most convenient, to the spigot G′. The valve V is then opened by means of handle H′, and latch J forced into engagement with notch *n* by an upward pressure upon the handle L, which latter movement also forces the longer arm of lever K down into engagement with notch D′ on lever D, where it is held by the weight of the float acting through levers *a* and D. The liquid then flows through the tube into the barrel until it rises to the level of the bottom of the float, when, entering apertures *m*, it buoys up the float until its weight is sufficiently reduced to permit spring S′ to overcome the detaining force of notch D′ upon the engaging lever K, and withdraw latch J from notch *n*, whereupon spring S immediately closes the valve, and the flow of the liquid is stopped. The upper end of spring S′ bears against a solid wall of the cock, while the lower end rests in a threaded socket in the short arm of lever K, and bears upon the threaded adjusting-screw G, adapted to fit and be screwed into and out of the socket. I am able, therefore, to increase or diminish the tensional force of spring S′ upon lever K by turning the adjusting-screw in or out, respectively. I can increase its force to such a degree that the whole weight of the float will be required to detain levers

K in contact with notch D′, or I can diminish it so that the weight of a very small part of the float will be sufficient to maintain the contact. Such an adjustment becomes of the greatest value in the practical operation of barrel-fillers, as the filler can be easily and quickly adjusted for changing barrels to different degrees of fullness and with different kinds of liquids, some of which act more quickly upon the float than others.

By employing the bifurcated arms *a′*, I am able to introduce another lever D between the float and actuating-spring S′, which renders the operation of the device more sensitive to adjustment and control, the lower end of lever D sliding freely upon the arms when moved to or from the straight line passing through the pivots *e* and *d*.

What I claim as new, and desire to secure by Letters Patent, is—

In a barrel-filler, the combination, with the pipe B, having apertures *m*, the interior tube, T, and the float F, of the lever *a*, connected with said float by a pivoted link, and provided with arms *a′ a″*, the lever D, notched at D′, the notched spindle H, the trip-latch J, and the handled spring-actuated lever K, having the finger *g*, as and for the purpose set forth.

In testimony whereof I have hereunto set my hand this 17th day of October, 1885.

JOHN McKENZIE.

Witnesses:
GEO. A. MOSHER,
CHAS. L. ALDEN.