

(No Model.)

J. KELLY.

STOP AND WASTE COCK.

No. 306,020.

Patented Sept. 30, 1884.

Fig. 1.

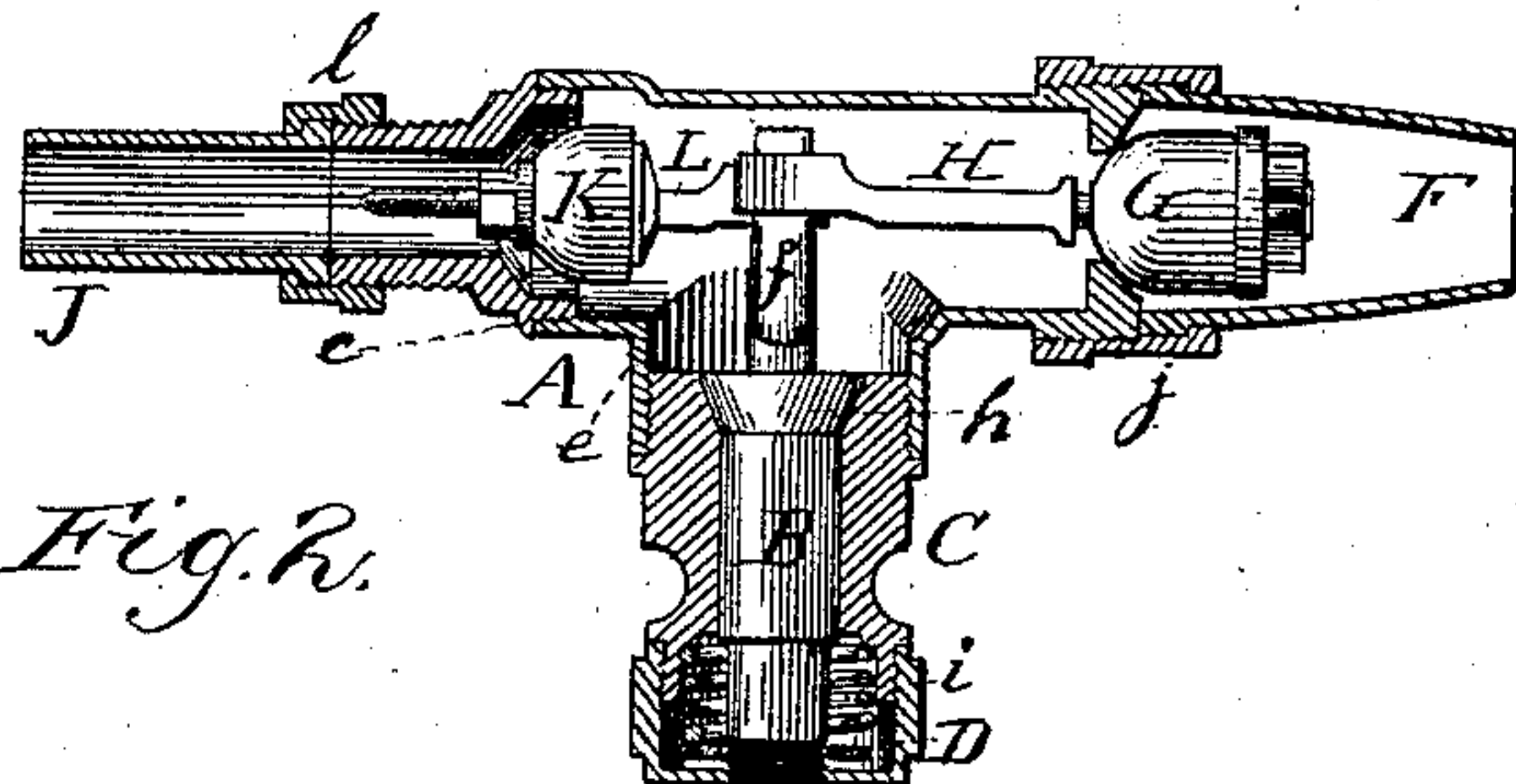
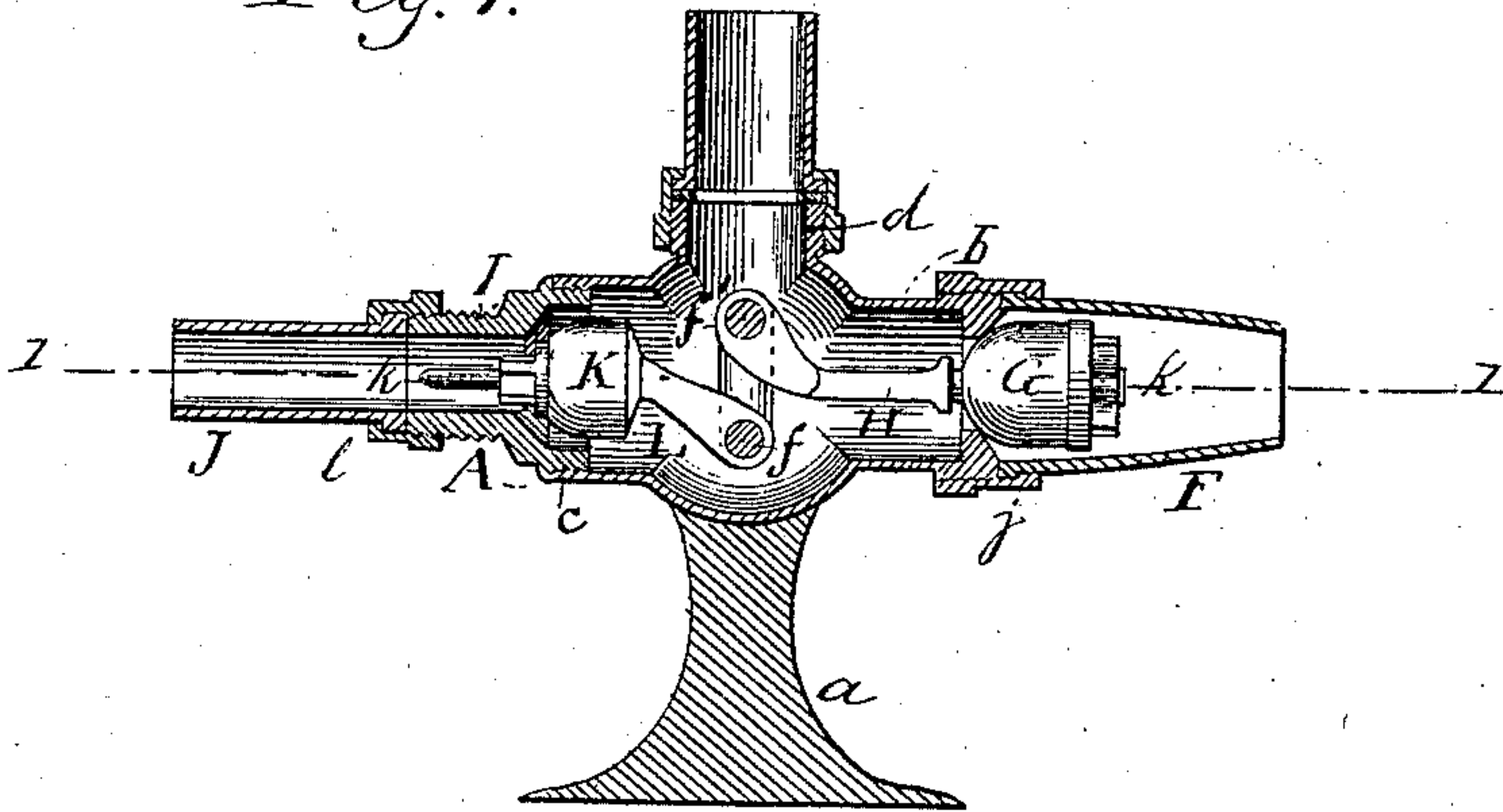


Fig. 2.

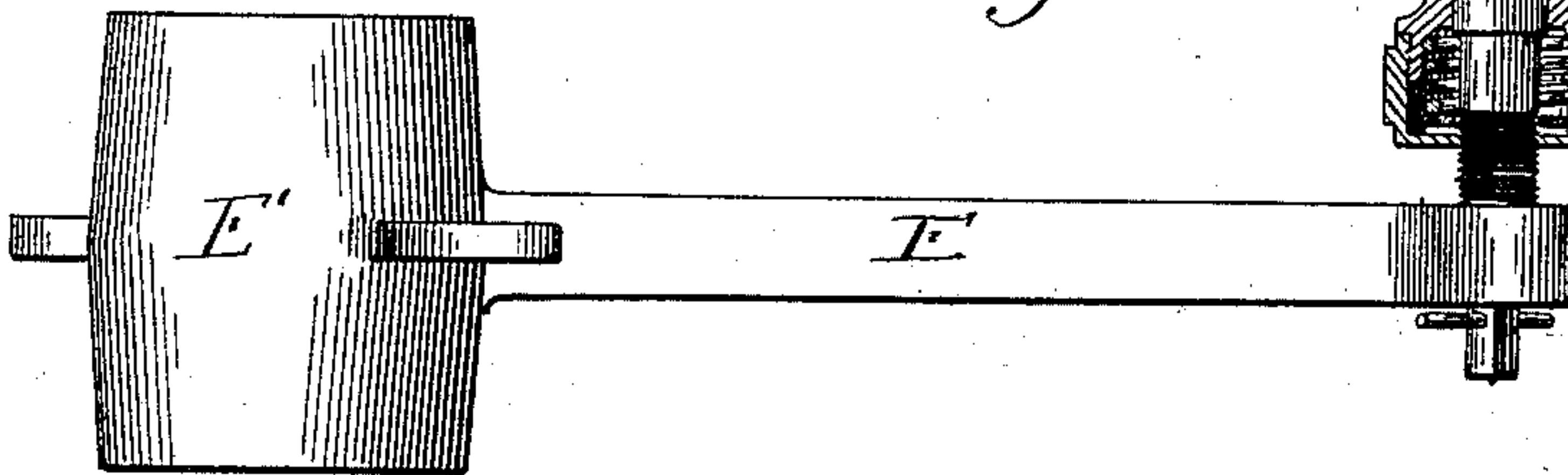
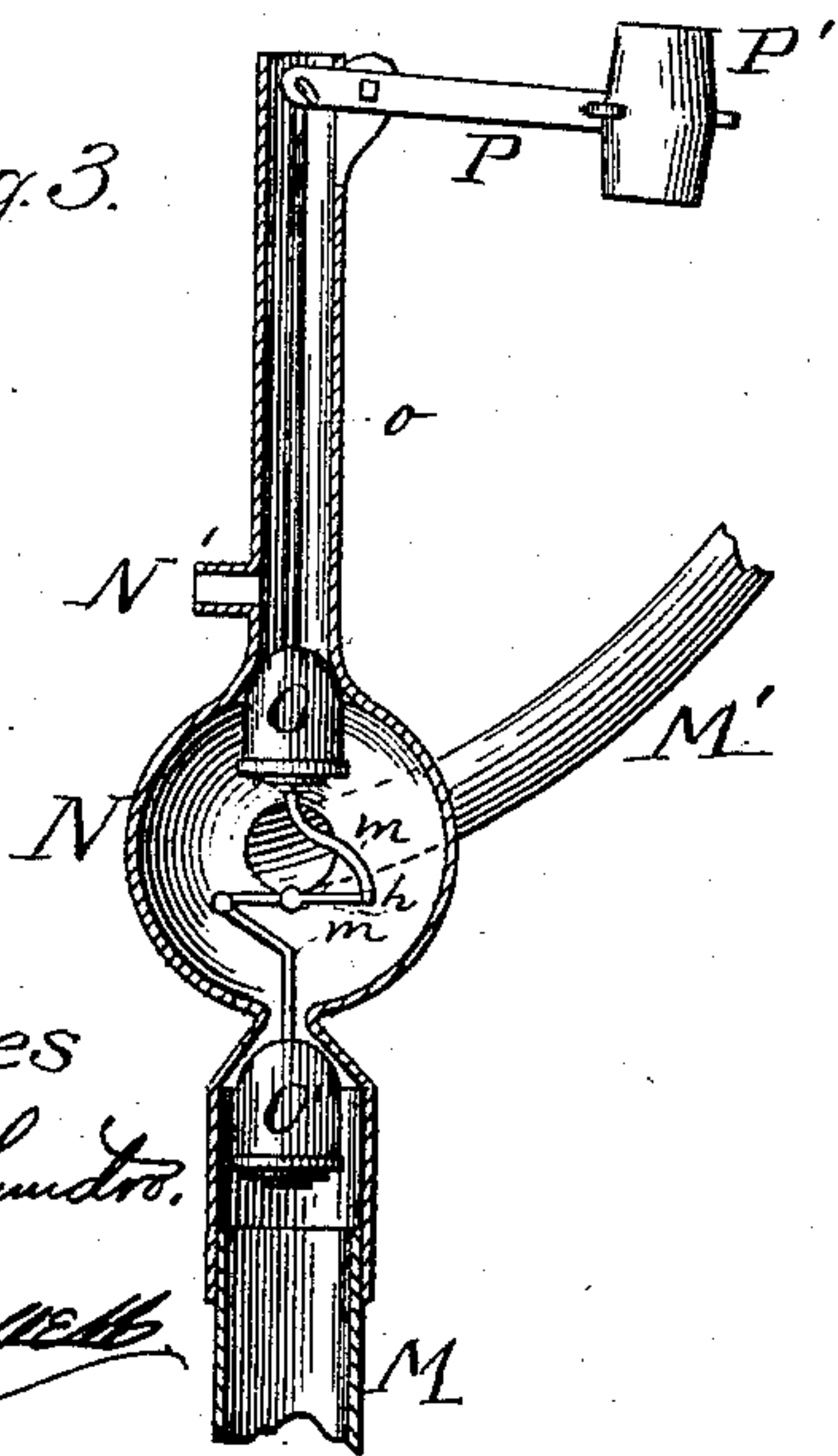


Fig. 3.



Witnesses
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UNITED STATES PATENT OFFICE.

JOHN KELLY, OF CHICAGO, ILLINOIS.

STOP AND WASTE COCK.

SPECIFICATION forming part of Letters Patent No. 306,020, dated September 30, 1884.

Application filed December 19, 1883. (No model.)

To all whom it may concern:

Be it known that I, JOHN KELLY, a citizen of the United States of America, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Stop and Waste Cocks, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to improvements in stop-cocks, and the object it has in view is to obtain a stop-cock which will prove effective and useful; and to the accomplishment of the above the invention consists of the novel devices and combination of devices, as will be described and claimed.

Reference will be made to the accompanying drawings, in which Figure 1 is a longitudinal vertical section of the device; Fig. 2, a section on line 1 1 of Fig. 1, and Fig. 3 a view of a modified arrangement.

Like letters refer to like parts in each view.

A denotes the globular casing, provided with base *a*, for securing it by wood-screws, and screw-nozzles *b*, *c*, and *d*, which form the water-passages, and an internally-screw-threaded neck, *e*. Through neck *e* is inserted into the globular casing a spindle, B, provided on its inner end with two curved cranks, *f* *f'*, situated on diametrically-opposite sides of said spindle, and forming pivotal connection with two valve-rods, H L. A thimble, C, is passed over spindle B, and is screwed into the neck *e* of casing A, the inner end of said thimble being countersunk to form a bearing for a collar, *h*, of spindle B. Upon the outer end of thimble C is secured a cap-nut, D, in which is placed a spring, *i*. This spring encircles spindle B and has suitable bearings, and serves to keep collar *h* of spindle B firmly to its seat. The outer end of spindle B is adapted to receive and retain a crank, E, provided with weight E'. To the nozzle *b* is connected, by means of a coupling-nut, *j*, a water-supply pipe, F. In the exterior face of said nozzle *b* is formed the seat for a rubber valve, G, which, through the medium of rod H, is pivotally connected with crank *f'* of spindle B. To nozzle *c* of casing A is coupled a thimble, I, which forms the seat for a rubber valve, K, pivotally connected by rod L to crank *f'*. By this arrangement it will be seen that valve G opens by being forced outwardly, while valve K is opened by being drawn inwardly, whereby when valve G is

opened the valve K is forced to its seat by the action of the inflowing water, in addition to the other mechanism described, and when valve G is closed to shut off the water-supply it will be held firmly to its seat by the water-pressure. Each valve G K is cylindrical, with a conical end which fits the seat, and each is passed over the screw-threaded end of rod H or L, and is adjustably secured thereon by a nut, *k*. To the end of thimble I, hereinbefore referred to, is connected by a coupling-nut, *l*, a waste-pipe, J.

The operation is as follows: By raising the weighted lever or crank E the supply-valve is opened and the water admitted to casing A, and through opening *d* to parts to be supplied, the pressure of said water serving to force and hold the exhaust-valve to its seat. By lowering the crank E the position of the valves is changed and the water allowed to escape, the outer pressure serving to keep the supply-valve to its seat.

It will be understood that the device described is applicable as a stop-cock or as a supply and waste valve for water-closets, &c.

In Fig. 3 I have shown a modified arrangement of the parts. In this case the globular casing N is placed under ground, and has an inlet and outlet pipe, M M', and also a waste-pipe, N'. The valves O O' are connected by suitable crank-arms, *m*, of a lever, *n*, pivoted in the casing, and to the valve O is connected a rod, *o*, which at its upper end is connected with the crank P, which is situated above ground, and to the outer end of which is secured a weight, P'. The operation is the same.

What I claim is—

1. The combination, with casing A, of spindle B, provided with cranks *f f'*, rods H L, and valves G K, secured to said rods, as and for the purpose set forth.

2. The combination, with casing A, of spindle B, provided with cranks *f f'*, rods H L, valves G K, secured to said rods, and weighted crank E, as described and shown.

3. The spindle B, provided with crank *f f'* and collar *h*, in combination with spring *i*, weighted crank E, rods H L, and valves G K, as described and shown.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN KELLY.

Witnesses:

M. J. CLAGETT,
LOUIS NOLTING.