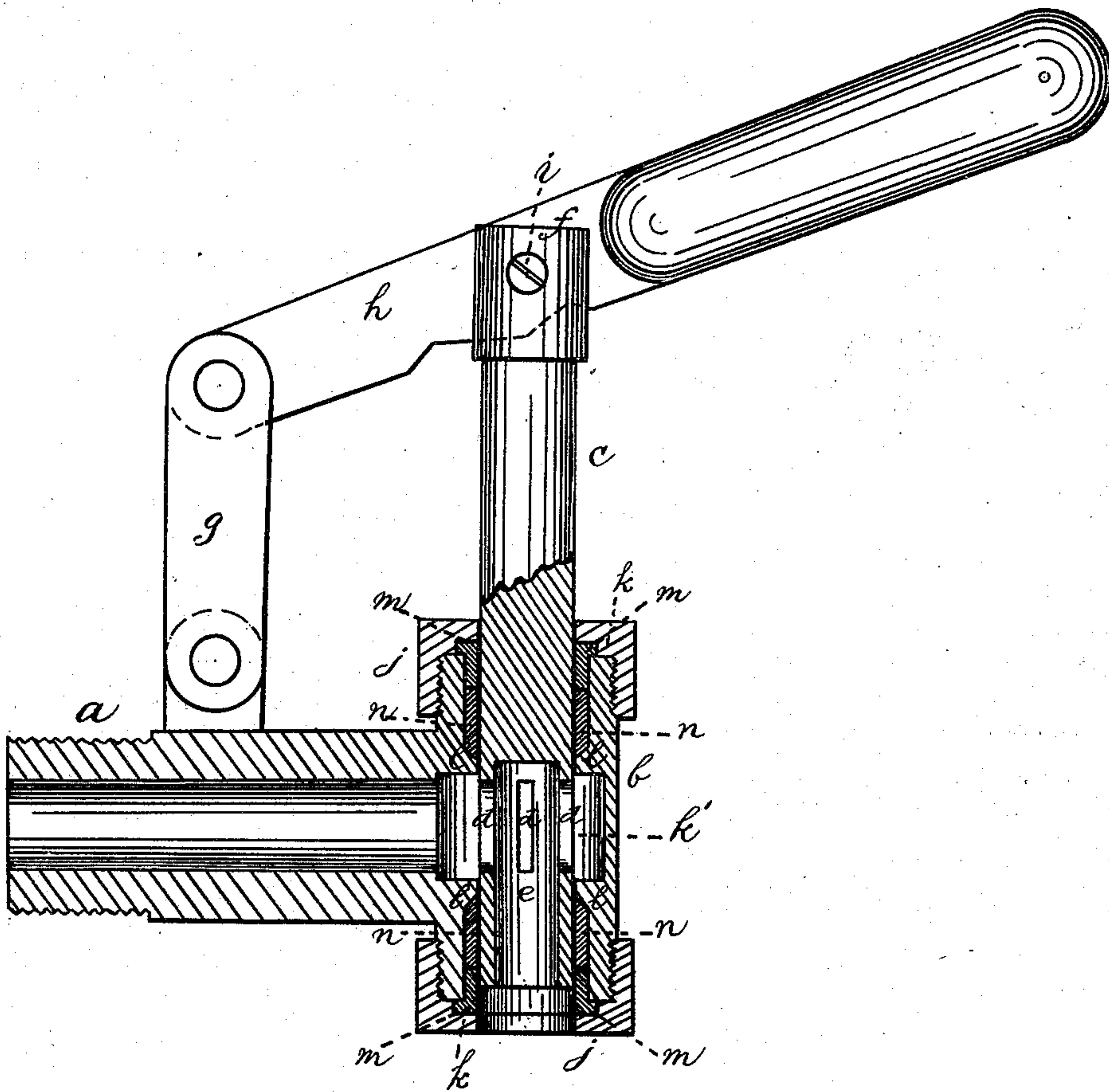


W. ANDREWS.
GAGE-COCK.

No. 174,344.

Patented March 7, 1876.



Witnesses:
Frank H. Jordan.
Wm. S. Moore

Inventor:
William Andrews
per Wm. Henry Clifford,
att'y.

UNITED STATES PATENT OFFICE.

WILLIAM ANDREWS, OF LISBON, MAINE.

IMPROVEMENT IN GAGE-COCKS.

Specification forming part of Letters Patent No. 174,344, dated March 7, 1876; application filed January 17, 1876.

To all whom it may concern:

Be it known that I, WILLIAM ANDREWS, of Lisbon, in the county of Androscoggin and State of Maine, have invented certain new and useful Improvements in Water-Gages or Stop-Valves; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it pertains 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.

The drawing shows a vertical section of my invention.

Same letters show like parts.

The purpose of my invention is to provide a stop-valve for a water-cock and in a water-cock, which will be perfectly tight, easily operated, and not subject to be opened by the pressure of the water.

a shows the part of my invention which is inserted into or connected with that from which the water is drawn. This is horizontal, perforated, of course, and connected with the vertical part *b*, which part has a hole through it, communicating with a hole in the part *a*. Into the hole through the vertical part *b* is placed the vertically-moving piston *c*. This piston is provided with the apertures *d*, which lead into the tubular part *e* of the piston, which tubular part is the delivery or discharging portion of the valve. The vertical piston is provided with a head or shoulder, *f*, and when the piston is dropped down as far as permitted by the head the apertures are no longer in conjunction with the forward end of the hole in the part *a*, and the flow of the water is consequently stopped. When the piston is raised so as to bring the apertures in it at the forward end of the hole in the part *a*, then the water is permitted to flow out through the hollow or tubular portion of the piston.

The piston is operated by two levers, *g* and *h*. The lever *g* is pivoted to an ear or projection on the top of the part *a*, and again to the inner end of the lever *h*. The lever *h* is connected with the head of the vertical piston at *i* by a bolt, and fits into a slot in said head, as shown in the drawing. By lifting upon the lever *h* the valve is opened, and by pressing down upon the same lever it is closed. There

is made in the hole through the part *b*, at the point where the hole in the part *a* opens into it, an enlargement or chamber, *k'*, so that when the apertures in the piston are placed in conjunction with the mouth of the hole in the part *a* the water is permitted to flow all around the piston, and so enter the tubular or hollow part thereof through all of the apertures at once. *j* are screw-caps on the ends of the vertical part *b*, and have interior shoulders *k*. *l* are shoulders on the interior of the hole of the vertical part *b*. Resting upon these shoulders *l* are placed leather or other proper packings *n*. *m* are metal followers, which, when the screw caps are screwed down, are pressed down upon the leather or other packing, thus causing it to form a tight joint around the piston.

It will be perceived that the packing at or near both ends of the hole of the vertical part *b* effectually prevents the passage of the water beyond them, and when the apertures in the vertical piston are moved below the lower packing the cock is effectually closed and the exit of water prevented.

It will also be perceived that the pressure of the water is equal on all sides of the piston. This prevents any pressure which would tend to destroy the packing.

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

1. The stop-water valve constructed as described, and consisting of the parts *a* and *b*, the vertically-moving piston *c*, having the apertures *d* and the tubular part *e*, the screw-caps *j*, packings *n*, and followers *m*, and the levers *g* *h*, in combination, as described.

2. The combination of the parts *a* and *b*, the part *b* having the chamber *k'*, the vertically-moving piston *c*, having the apertures *d* and the tubular part *e*, the screw-caps *j*, packings *n*, and followers *m*, and the levers *g* *h*, substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

WM. ANDREWS.

Witnesses:

FRANK H. JORDAN,

WM. HENRY CLIFFORD.