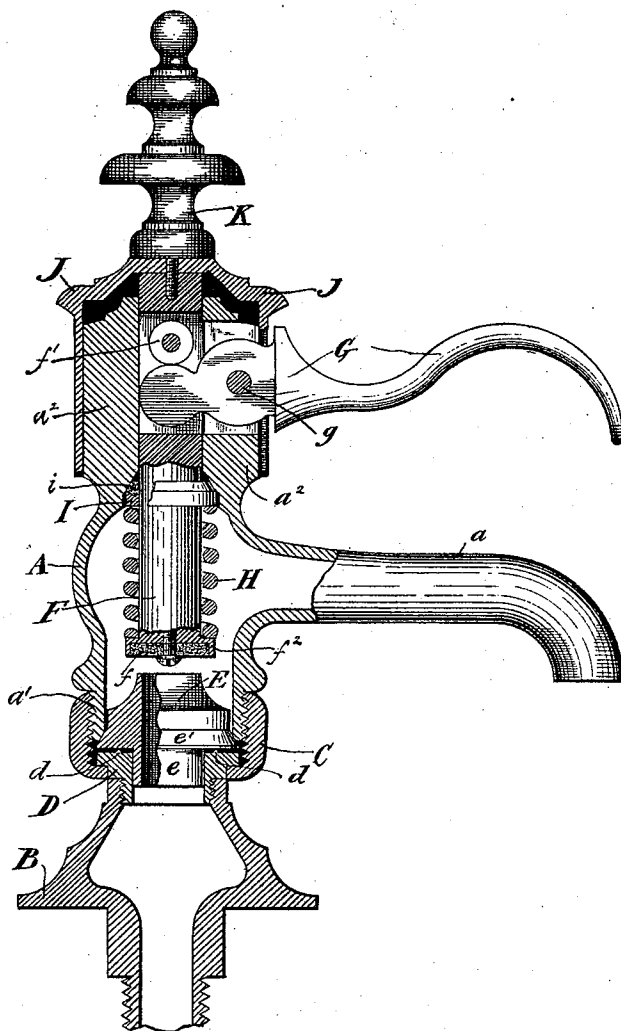


(No Model.)

J. PORTEOUS.
COMPRESSION COCK.

No. 574,572.

Patented Jan. 5, 1897.



Witnesses

Frank Davis
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Inventor

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UNITED STATES PATENT OFFICE.

JOHN PORTEOUS, OF CINCINNATI, OHIO.

COMPRESSION-COCK.

SPECIFICATION forming part of Letters Patent No. 574,572, dated January 5, 1897.

Application filed January 29, 1894. Serial No. 498,365. (No model.)

To all whom it may concern:

Be it known that I, JOHN PORTEOUS, a citizen of the United States, and a resident of Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Compression-Cocks, of which the following is a specification.

My invention relates to an improvement in self-closing basin-cocks. Its objects are to produce a cheap, durable, self-closing basin-faucet which will operate with the least possible friction, and should the seat or any of the parts become worn they may be readily repaired or replaced at little expense. Its objects I attain by the means illustrated in the accompanying drawing, in connection with which the invention will be first fully described and then particularly referred to and pointed out in the claims.

The drawing is a view, partly in central vertical section and partly in side elevation, of a basin-cock embodying my invention.

Referring to the parts, A represents the valve case or shell, which is of ordinary construction, being provided with a discharge-spout *a* and the customary screw-threaded branch or lower extension *a'*, to which the customary base B is connected by the swivel union C and the coupling-thimble D. The thimble D has upon its upper face an annular projection *d*, turned off to nearly a sharp edge on the top, upon which the base or flange of the seat E rests. This seat E is one of the principal features of my invention. It is formed with a downwardly-extending neck *e*, which snugly fits the thimble D, and above this neck is a collar *e'*, which is inclined to furnish a seat for the flaring lower end of the screw-threaded portion *a'* of the case, so that by screwing the coupling C up tightly upon the part *a'* the flaring portion is forced upon the inclined seat *e'* and, forcing the lower portion of the part *e'* down upon the upwardly-extending ring *d*, furnishes a complete watertight joint without any packing.

The seat E tapers toward the central opening, forming nearly a sharp seat for the packing *f* of fiber or other suitable material, which is fitted into the recessed end of the valve-stem or plunger F. The upper portion of the plunger F is transversely slotted, and within the slot is fitted an antifriction wheel or roller

f', journaled upon a pin passing transversely through the slotted walls of the plunger.

The lever or handle G is journaled upon a pin *g*, which passes transversely across a slot in the head *a²* of the valve-case. The inner end of the lever G is circular to bear with the least possible friction against the antifriction-wheel.

The valve is held normally forced to its seat by a spring H, which is coiled around the lower end of the valve-stem or plunger F, and is compressed between the enlarged end *f²* of the valve-stem and loose ring or collar I, which fits over the valve-stem F. This ring is recessed upon its upper edge to receive a packing *i*, which is forced by the spring against the cone-shaped recess in the head of the plunger to prevent leakage.

Around the circular head *a²* is fitted to slide an ornamental finishing-cap J, which is held in position by a finial K, having a screw-threaded shank which passes through an opening in the top of the cap J and is tapped into the upper end of the valve-stem or plunger F, securely holding the cap J and plunger together.

In the drawing the valve is shown partially thrown from its seat, and this throwing the valve from its seat forces the packing *i* up against its seat in the lower end of the head *a²* and prevents leakage when the valve is open or partially open, as shown.

It will be seen that in case of leakage, which would be caused either by some defect in the seat E or the valve-packing *f*, it would only be necessary to unscrew the coupling C and remove the valve-seat E to be ground true; or to remove the worn packing *f* and replace it by a new one, and should the valve-seat become so much worn as to be worthless, it would be an easy matter to replace it by a new one, thus avoiding the expense of a new faucet whenever the valve becomes so far worn as to be useless, as is the case with those generally in use.

It is obvious that there may be many changes made in the mere mechanical details of construction without departing from the spirit or scope of my invention, and without limiting myself to the specific details shown

What I claim is—

1. In a compression-cock, the combination

of the valve-case, the loose removable seat within its lower end, the base and the couplings for holding the case to the base and the removable seat within the case, the valve, the
5 spring coiled around the stem of the valve to hold it normally to its seat, said stem having its upper end slotted to receive the end of the operating-lever, the antifriction-pulley journaled in the said slot to receive the thrust of
10 the lever, and the packing-rings I and i to prevent leakage through the upper end of the case, substantially as shown and described.

2. In a compression-cock, the combination of the base, the thimble, having an annular

projection on top thereof, the removable 15 valve-seat having a neck to fit said thimble, and an extended flange to rest upon the annular projection upon the face of the thimble, said projection having an inclined seat, the valve-case having a lower flaring end to rest 20 upon said seat, and the coupling C to force and hold the parts together, substantially as shown and described.

JOHN PORTEOUS.

Witnesses:

GEO. J. MURRAY,
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