

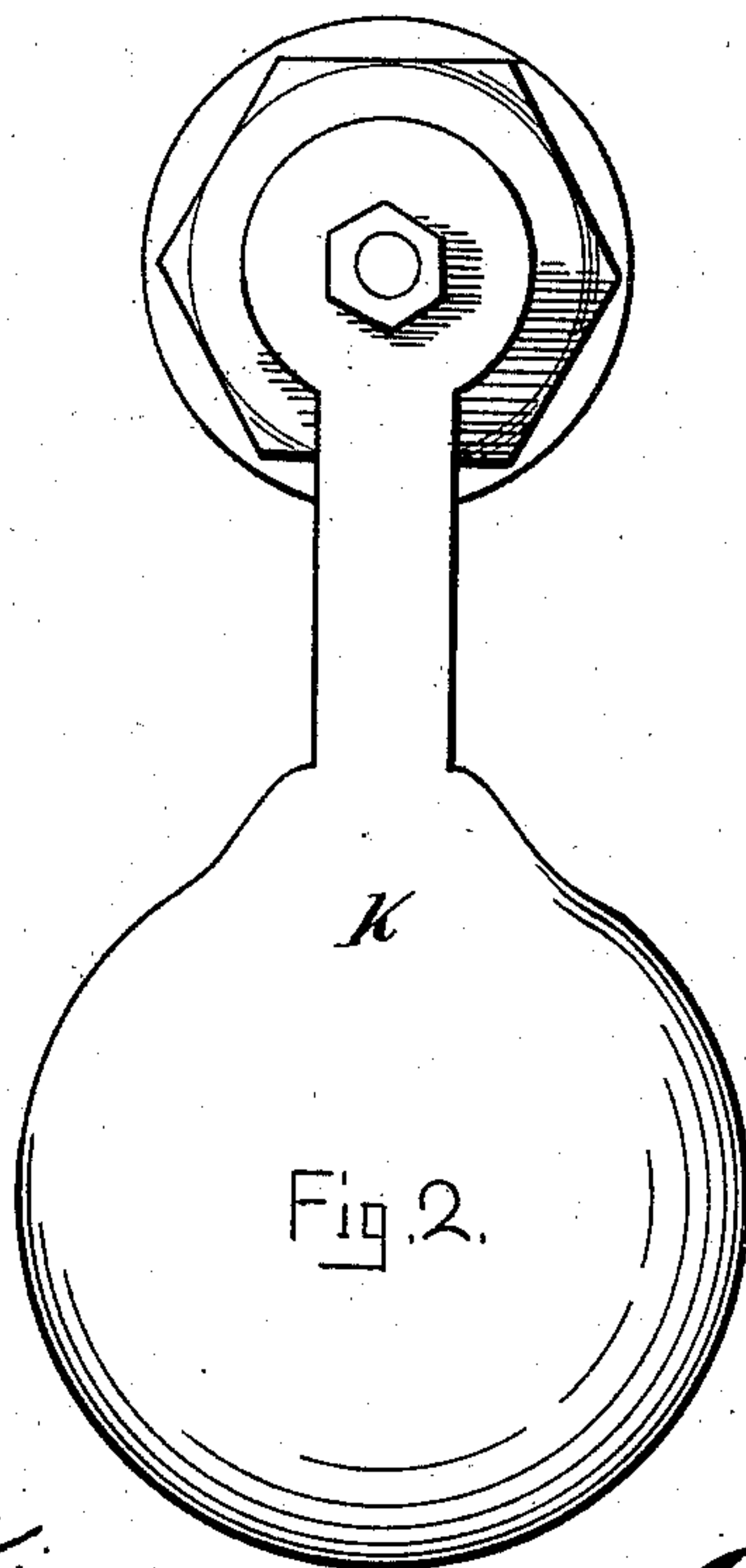
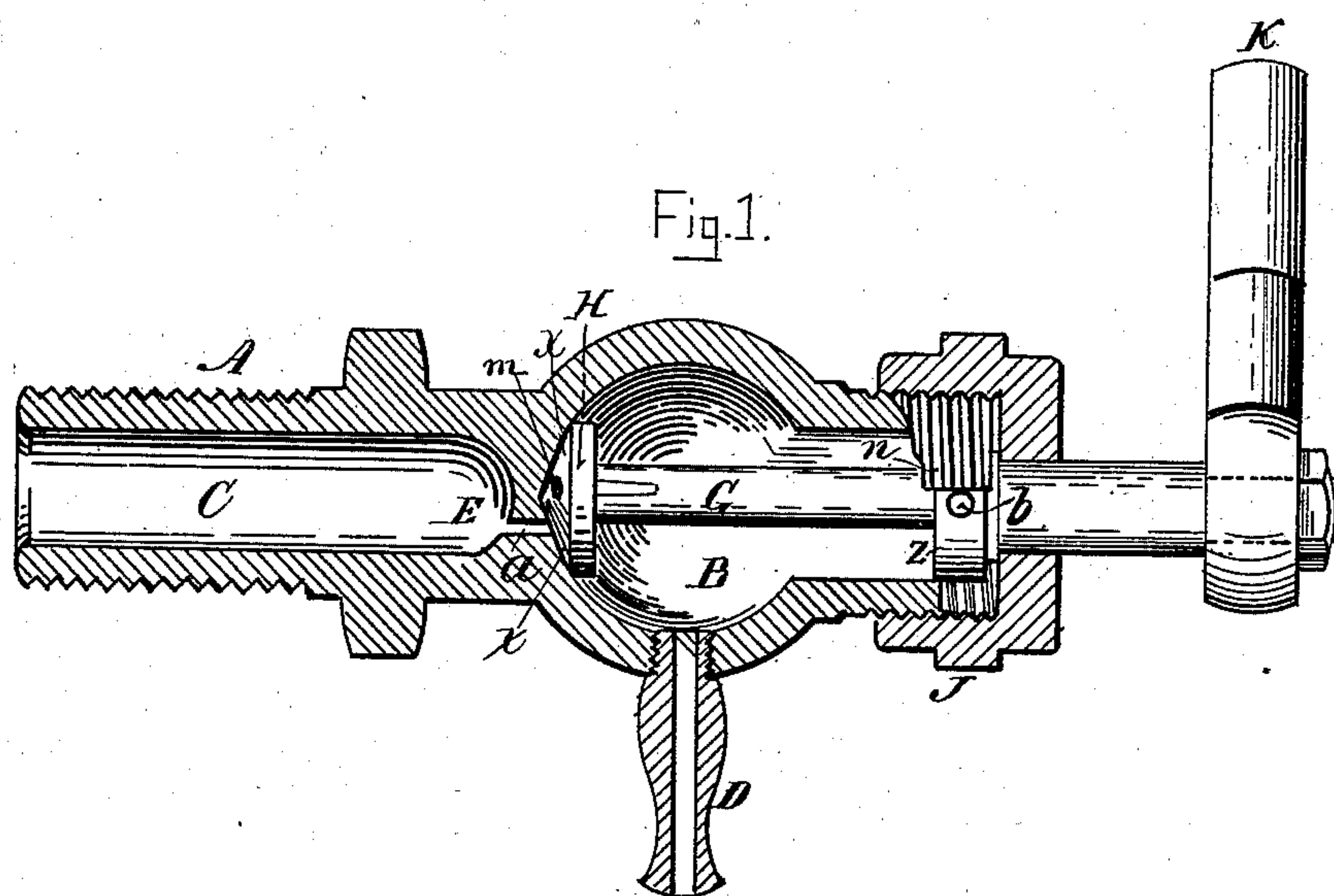
(No Model.)

J. M. BROWN.

GAGE COCK.

No. 263,018.

Patented Aug. 22, 1882.



Witnesses:  
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# UNITED STATES PATENT OFFICE.

JESSE M. BROWN, OF BOSTON, MASSACHUSETTS.

## GAGE-COCK.

SPECIFICATION forming part of Letters Patent No. 263,018, dated August 22, 1882.

Application filed May 22, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, JESSE M. BROWN, of Boston, in the county of Suffolk, State of Massachusetts, have invented a certain new and useful Improvement in Gage-Cocks, of which the following is a description sufficiently full, clear, and exact to enable any person skilled in the art or science to which said invention appertains to make and use the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a vertical longitudinal section, and Fig. 2 a view of the handle.

Like letters of reference indicate corresponding parts in the different figures of the drawings.

My invention relates to that class of gage-cocks which are used with steam-boilers; and it consists in a novel construction and arrangement of parts, as hereinafter more fully set forth and claimed, by which a simpler, cheaper, and more effective device of this character is produced than is now in ordinary use.

In the drawings, A represents the body of the cock, which is provided with the globular enlargement B, inlet C, and discharge-nozzle D.

Between the inlet chamber C and globular chamber B there is a diaphragm, E, through which there is a small opening, *a*, connecting the two chambers.

Mounted on the valve-stem G there is a conical valve, H, provided with an opening, *m*, corresponding with the opening *a*, and fitted nicely to the valve-seat *xx*, formed in the body A and diaphragm E.

The stem G is provided with an annular projection, *z*, which is fitted to work closely in the body A, the outer end of which has a section cut away, as seen at *n*, to form a stop for the pin *b*. The valve-stem and valve are held in position by the cap-nut J, through which the stem passes, and on the outer end of which there is a weighted handle, K.

In the use of my improvement, the discharge-nozzle D being downward, if it is desired to close the cock the handle K is turned into a horizontal position, or so that the hole *m* in the valve does not register with the hole *a* in the diaphragm E, as shown in Fig. 1, the weighted handle acting by gravitation to keep

the parts in this position and the valve closed. To open the valve the handle is raised to a vertical position, bringing the pin *b* against the opposite shoulder of the stop *n*, and causing the holes *a m* to register, thus permitting the steam or water to pass from the chamber C through the valve H into the chamber B, and thence out through the discharge-nozzle D, in a manner which will be readily understood by all conversant with such matters without a more explicit description.

In ordinary gage-cocks of this character there is no hole in the valve H, and the stem G is provided with a wheel, instead of the handle K, and with an exterior or male screw-thread near its outer end, the hole through which the stem passes in the nut J being correspondingly threaded, so that when the wheel is turned to the right or left the valve H will be raised or lowered and the valve opened or closed accordingly; but where the stem and cap are so connected the stem is liable to wear and work loose in the cap, rendering the cock liable to open accidentally or to leak—an objection which is entirely obviated by my improvement.

Having thus explained my invention, what I claim is—

A gage-cock consisting of a straight tubular body screw-threaded at both ends and comprising an inlet-chamber and a globular chamber, with a perforated diaphragm between said chambers, a discharge-nozzle connected to the globular chamber, a screw-threaded cap at the outer end of the body, a conical perforated valve adapted to fit the diaphragm, a horizontal valve-stem arranged centrally in the body of the cock and in line therewith, said valve-stem being provided with a collar adapted to fit the outer end of the body, said collar having a stop-pin which works in a slot in the outer end of the body, and a handle for operating said valve-stem and valve, all constructed, combined, and arranged to operate substantially as described.

JESSE M. BROWN.

Witnesses:

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