

(No Model.)

J. N. CHAMBERLIN.

CYLINDER COCK.

No. 283,566.

Patented Aug. 21, 1883.

Fig. 1.

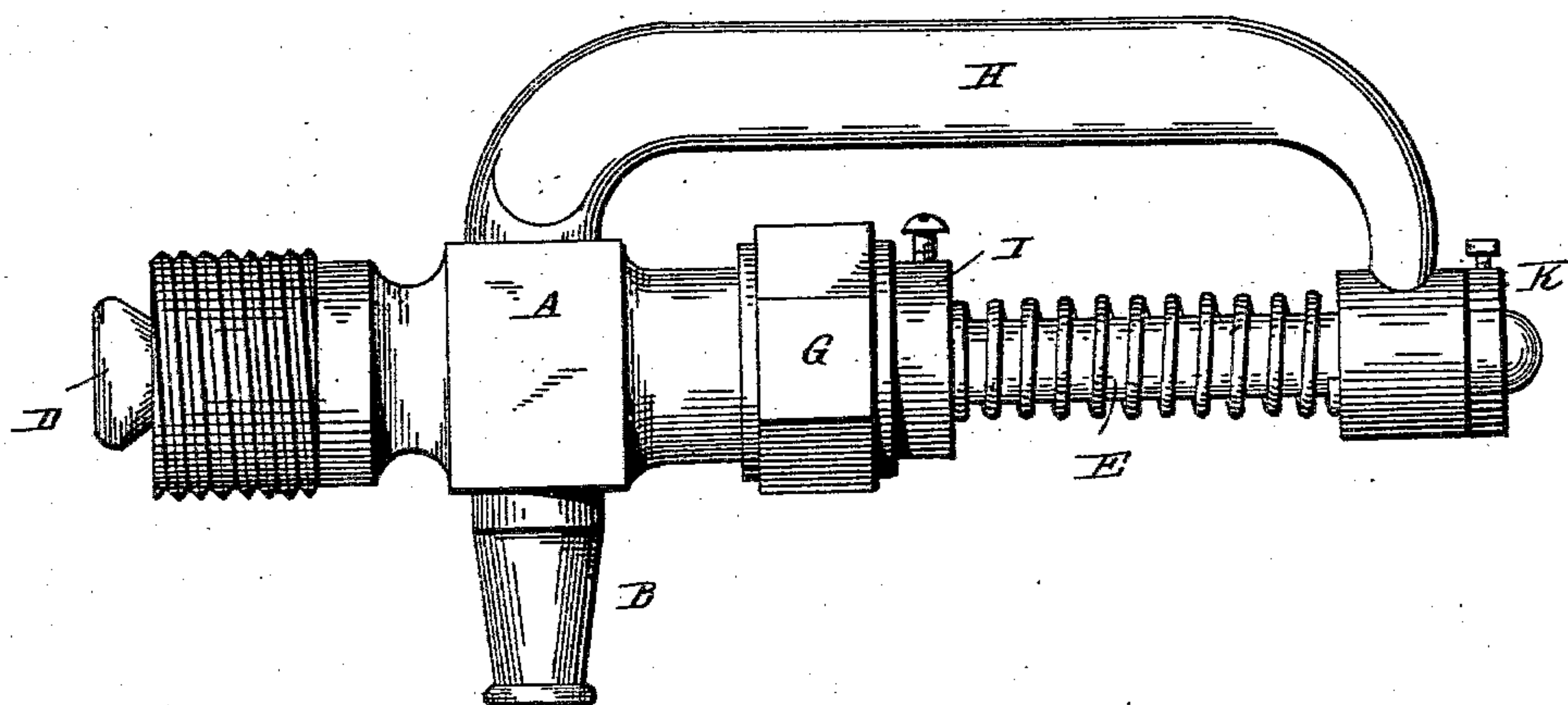
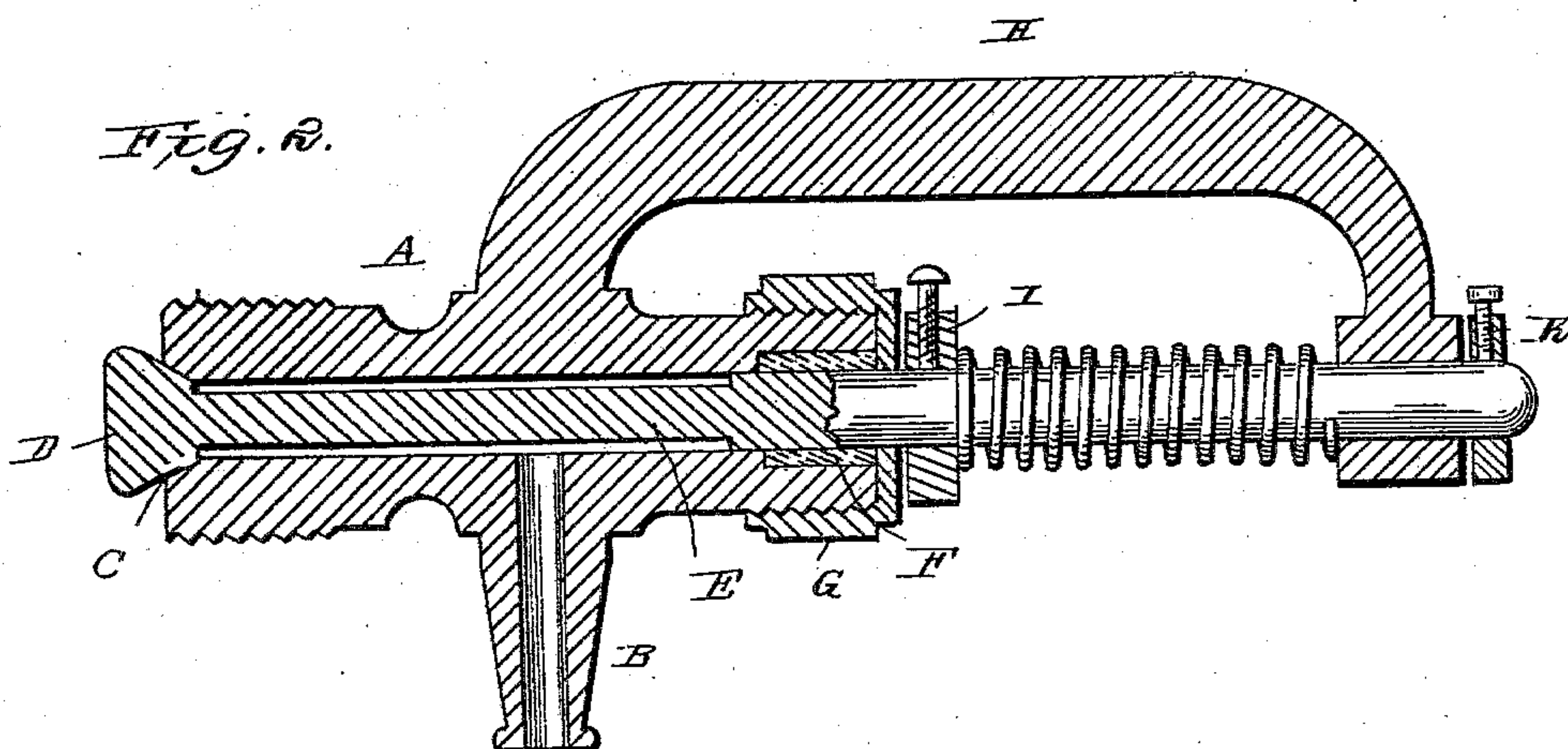


Fig. 2.



Witnesses.

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UNITED STATES PATENT OFFICE.

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CYLINDER-COCK.

SPECIFICATION forming part of Letters Patent No. 283,566, dated August 21, 1883.

Application filed May 31, 1883. (No model.)

To all whom it may concern:

Be it known that I, JAMES N. CHAMBERLIN, a citizen of the United States, residing at Marietta, in the county of Washington and State of Ohio, have invented certain new and useful Improvements in Cylinder-Cocks, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention relates to certain improvements in relief-cocks for steam-cylinders; and it has for its object to provide for automatically closing the valve by pressure of steam while it is entering the cylinder, and opening
15 the valve as the steam is exhausted and the pressure diminished, so as to permit the escape of water as more fully hereinafter specified. These objects I attain by the means illustrated in the accompanying drawings, in which—

20 Figure 1 represents a side elevation, and Fig. 2 a longitudinal sectional view, of my improved relief-cock.

The letter A indicates the shell of the cock, which is hollow from end to end, and is provided with a lateral communicating nozzle, B,
25 open at its outer end. One end of the said shell is screw-threaded externally in order that it may be screwed in the end of the cylinder. The said end of the shell is provided
30 with a conical seat, C, for the valve D, which is formed on or secured to the inner end of the valve-rod E, which passes through the shell and a stuffing-box and packing, F, which latter is held in place by a nut, G, through which
35 the rod also passes. The letter H indicates a bracket secured to or formed on the shell, and having its free end extending laterally, so as to sit in front of the outer end of the valve-casing. The end of the bracket is bored and

the valve-rod at its outer end passes through 40 it. To the valve-rod is secured an adjustable collar, I, and around the valve-rod, between the collar and the end of the bracket, is located a spiral spring, which surrounds the valve-rod. To the outer end of the valve-rod 45 is secured an adjustable collar, K, by means of which the throw of the rod may be adjusted.

The operation of my invention will be understood in connection with the above description, and is as follows: The steam, on being 50 introduced to that side of the cylinder with which the valve communicates, creates sufficient pressure to close the valve against its seat and keep it closed until the piston commences its return-stroke, when the pressure 55 is partially relieved, permitting the spring to act to open the valve and permit the escape of any water of condensation in the cylinder.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, 60 is—

In a relief-cock for steam-cylinders, the combination, with the hollow shell provided with an open branch pipe and a longitudinal valve-rod having a valve at its inner end, of the 65 bracket extending from said shell, through the forward end of which bracket the forward end of the valve-rod passes, the spiral spring surrounding the valve-rod, and the adjustable collars secured to the valve-rod, the whole arranged to operate substantially as and for the 70 purposes specified.

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

JAMES N. CHAMBERLIN.

Witnesses:

S. A. MILLER,

LORENZO D. HAGERTY.