(No Model.) 2 Sheets—Sheet 1.

J. BURNETT.

Steam Heated Water Cock.

No. 239,718 Patented April 5, 1881.

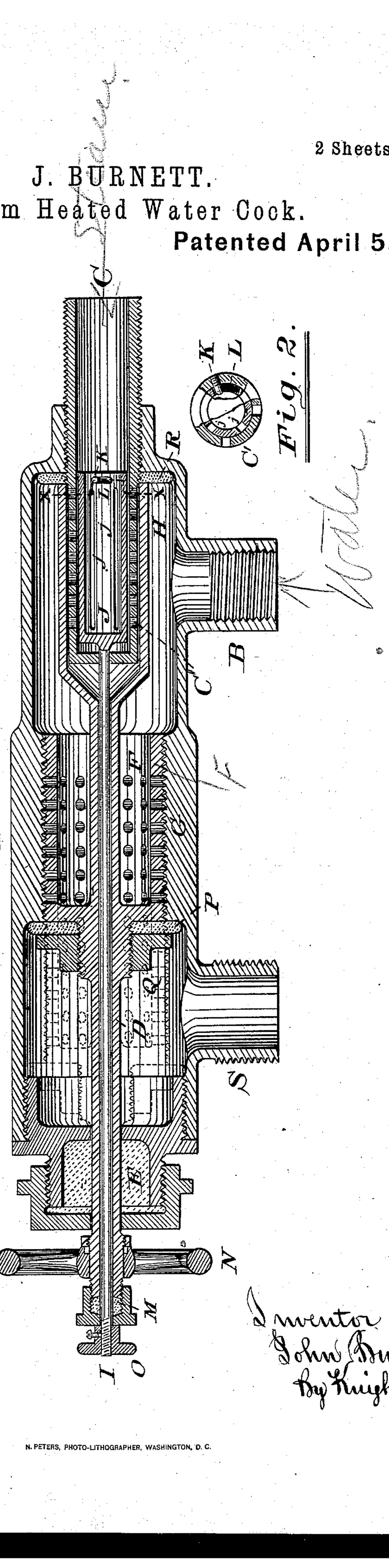

Fig. 1.

Fig. 2.

Attest
P. Knight
F. Eibler

Inventor
John Burnett.
By Knight Bros.
Attys

(No Model.)

2 Sheets—Sheet 2.

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Fig. 5.

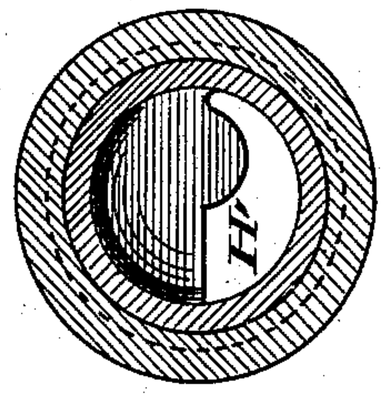


Fig. 3.

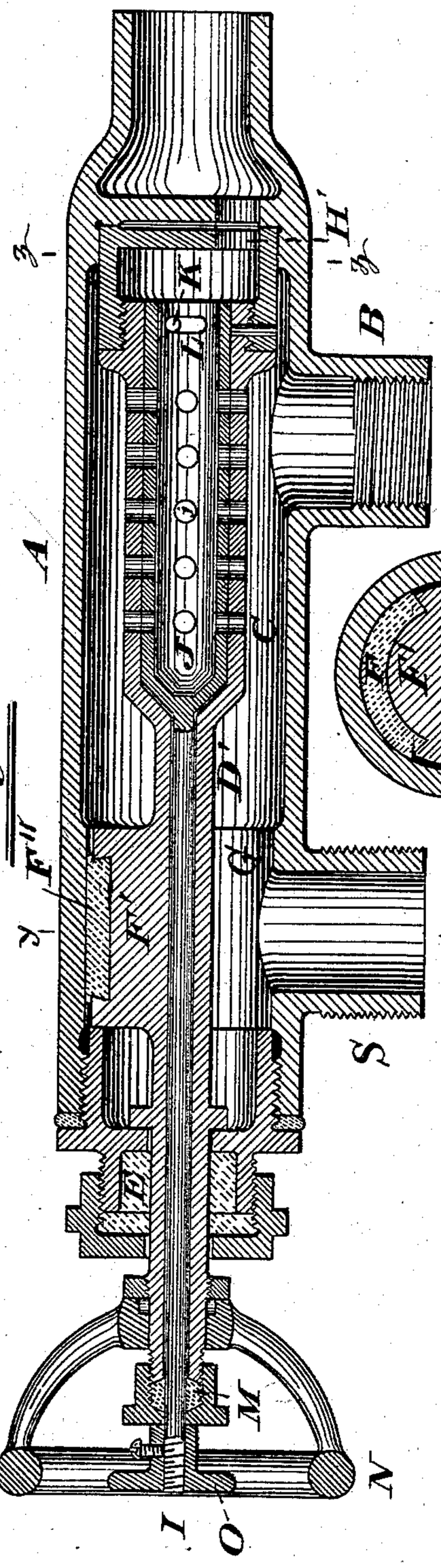
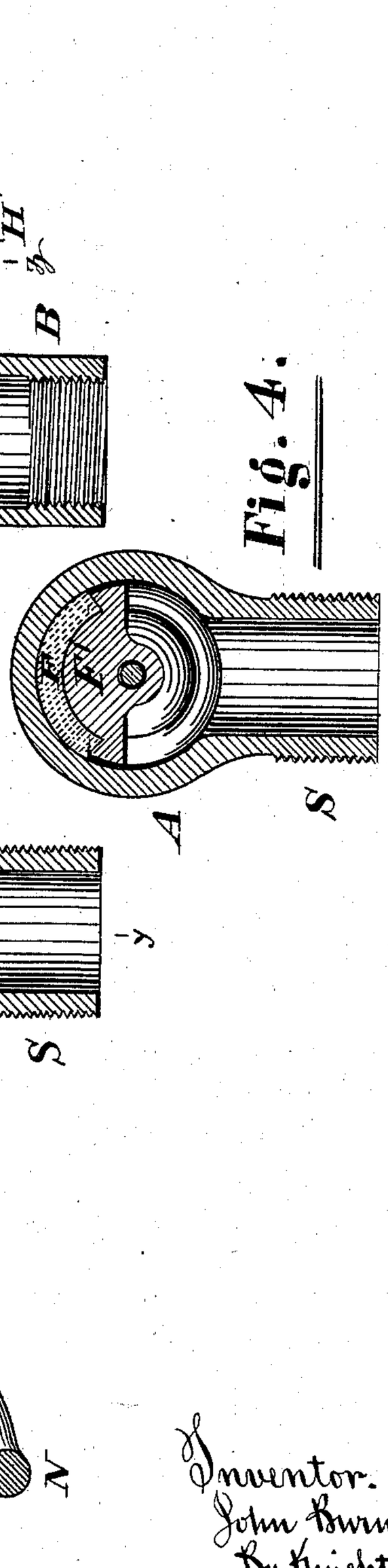


Fig. 4.



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UNITED STATES PATENT OFFICE.

JOHN BURNETT, OF CINCINNATI, OHIO.

STEAM-HEATED WATER-COCK.

SPECIFICATION forming part of Letters Patent No. 239,718, dated April 5, 1881.

Application filed December 31, 1880. (No model.)

To all whom it may concern:

Be it known that I, JOHN BURNETT, of Cincinnati, Hamilton county, Ohio, have invented a new and useful Improvement in Steam-Heated Water-Cocks, of which the following is a specification.

My invention relates to improvements in those water cocks or faucets in which the opening of the cock or faucet proper, so as to deliver water, is automatically accompanied by a discharge of steam, which, by mingling with the escaping water, operates to heat the same; and my improvement comprises a mechanical expedient whereby the attendant is enabled to regulate at will the amount of the said automatic steam-heating action, or to suspend its operation altogether.

The heating device is so constructed as (after its adjustment as above) to require no further attention, being brought into action automatically by the simple act of opening the water-discharge, and being reduced to inactivity by the act of closing said discharge, without any special attention on the part of the user.

In the accompanying drawings, Figure 1 is an axial section of my steam-heated water-faucet in its closed condition, the open condition of the water-valve proper being shown in dotted lines. Fig. 2 is a transverse section through the steam-inlet and its cut-off, on the line *x x*. Fig. 3 is an axial section, showing a modification of my invention. Figs. 4 and 5 are transverse sections on the lines *y y* and *z z*, respectively.

A may represent the barrel of a water cock or faucet embodying my invention; B, its water-inlet; C, its steam-inlet, formed with a perforated thimble, C′, screwed into the butt-end of the barrel.

The operative stem D extends through a stuffing-box, E, and has a perforated and screw-threaded thimble or water-valve proper, F, which is tapped within a corresponding seat, G, in the barrel-wall. The stem D terminates inwardly in another thimble, H, which, in the closed condition of the cock, covers the ports of the steam-inlet whenever the water-supply is shut off, and which (except when prevented by the hereinafter-described "optional" cut-off) exposes said ports, so as to permit the entrance of steam and its access to the escaping water at the instant of discharge of the water, and in exact proportion to its rapidity.

To enable the attendant to regulate the amount of steam or to shut it off altogether, the operative stem D is made tubular and is traversed by a central rod, I, whose inner extremity takes the form of a thimble-formed cut-off, J, which occupies and snugly fits the interior of the steam-thimble C′.

The cut-off J has ports *j*, which, in one position of the operative rod I, (see Figs. 1 and 2,) are opposite the blank spaces of the thimble-wall C′, and when the cut-off is in this position passage of steam is completely prevented, even although the automatic cut-off H be retracted. From this position a partial rotation of the rod I brings the optional cut-off ports into less or greater coincidence with those of the steam-thimble C′, so as, on the elevation of the automatic cut-off H, to admit steam to the water-flow in quantities proportional to said flow, but nevertheless modified by the optional cut-off, as aforesaid. It is manifest that the amount of steam-passage to a given opening of the automatic cut-off H may be made greater or less by the position given to the optional cut-off J. By these means steam heat is economized, being consumed only as wanted, and when wanted.

The oscillations of the cut-off J may be limited by any suitable device—such, for example, as a pin, K, in the walls of the steam-thimble C′, that occupies a slot, L, in the side of the optional cut-off thimble. Escape of steam around the rod I may be prevented by a stuffing-box, M, or other suitable means.

The external extremities of the stems D and I are provided with suitable handles, N and O.

Gaskets P and R secure complete closure of the water and steam inlets, respectively, when the faucet is shut. The gasket P is held between the thimble F and collar Q.

S represents the discharge-spout.

The above-described illustration of my invention is susceptible of various modifications. For example, the optional cut-off J may be associated with various forms of water-

cock proper. Thus the cock proper may consist of a plug, F′, having a rubber projection, F″, Figs. 3 and 4, and this may be associated with a rotary stem, D′, and a disk-valve, H′.

I claim as new and of my invention—

1. In a cock or faucet having automatically steam-heated water-discharge, the optional steam cut-off J, substantially as set forth.

2. The combination of the steam-inlet C, water-valve F, provided with cut-off H, and the handled cut-off O J, substantially as set forth.

In testimony of which invention I hereunto set my hand.

JOHN BURNETT.

Attest:

GEO. H. KNIGHT,

F. R. MCCORMICK.