

(No Model.)

M. T. ROGERS.
Attachment for Removing Sediment from Stand Boilers.

No. 239,672.

Patented April 5, 1881.

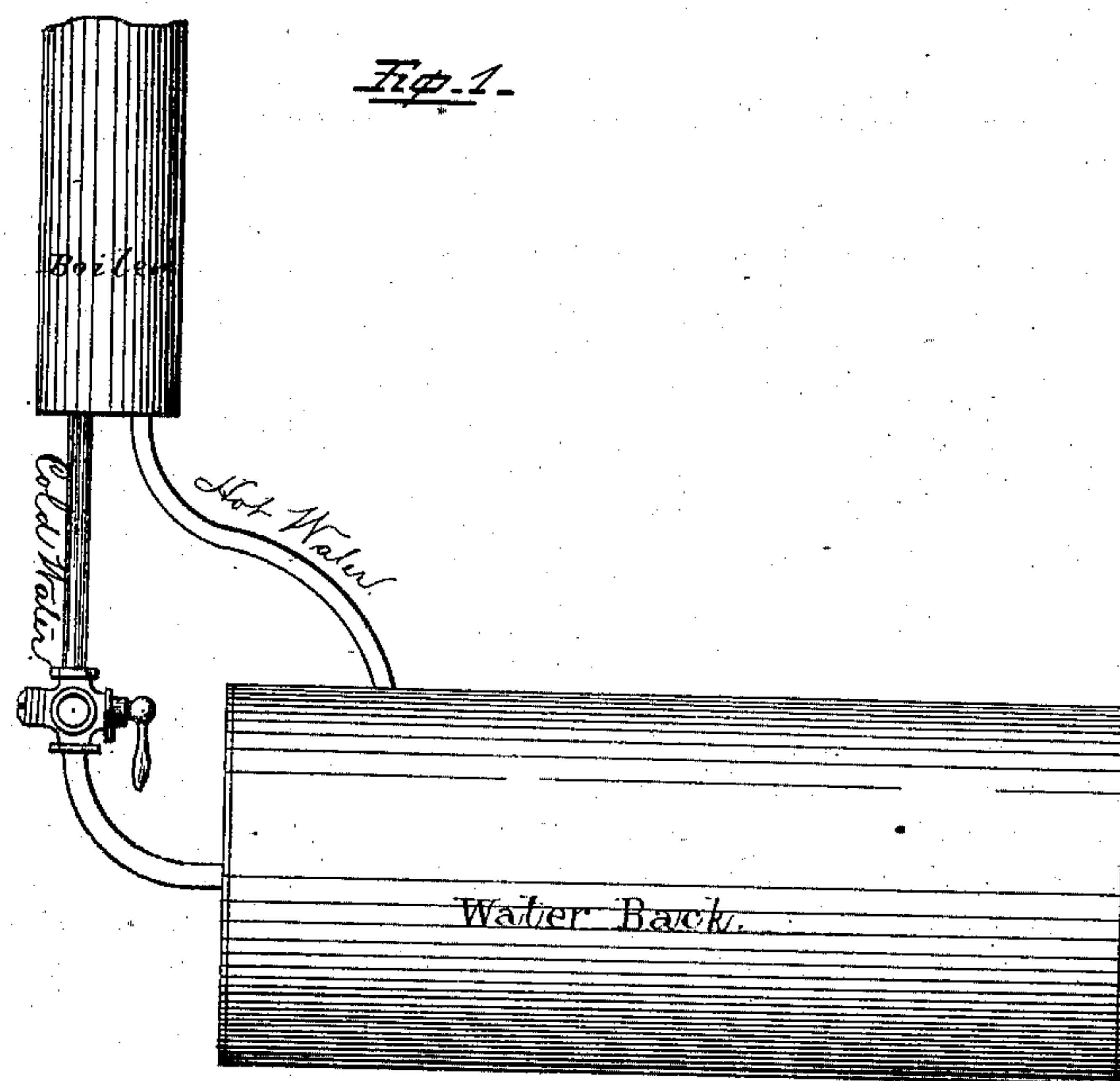
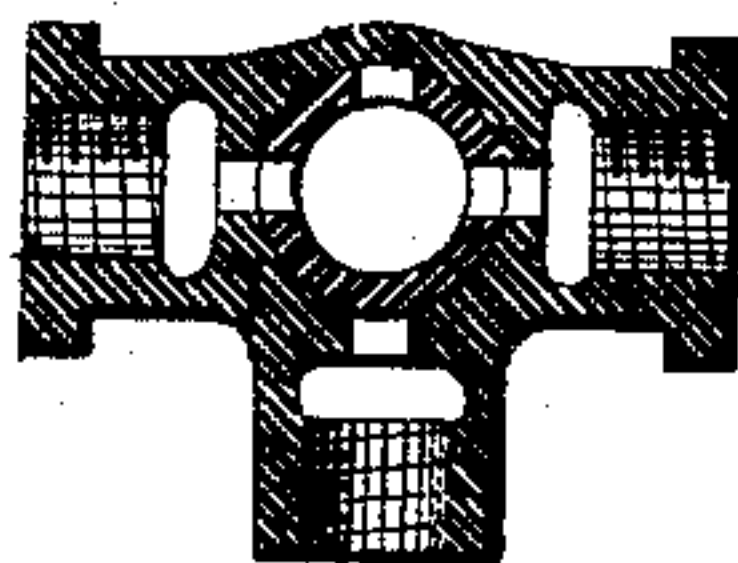


Fig. 2.



WITNESSES:

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UNITED STATES PATENT OFFICE.

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ATTACHMENT FOR REMOVING SEDIMENT FROM STAND-BOILERS.

SPECIFICATION forming part of Letters Patent No. 239,672, dated April 5, 1881.

Application filed August 7, 1880. (No model.)

To all whom it may concern:

Be it known that I, MICHAEL T. ROGERS, a citizen of the United States, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Attachments for Removing Sediment from Stand-Boilers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

My invention relates to an improvement in the means for removing from boilers and water-backs of cooking-ranges the deposits of the water and other obstructions that prevent the flow of water through them; and it consists in cutting the cold-water pipe, between the boiler and the water-back, and inserting its ends in the side openings of a three-way stop-cock, that may be adjusted to let the water flow from the boiler while the water-back is shut off, and also to let the water flow from the water-back while the cold-water pipe is closed, the discharges being through the front opening of the stop-cock, or to let the water pass through the stop-cock without a discharge in front, as will be fully described hereinafter.

Figure 1 is a side elevation of an apparatus embodying my invention. Fig. 2 is a horizontal section through the cock.

It is customary to connect the water-backs with the stand-boilers of cooking-ranges by two pipes, of which the one at the bottom of the boiler conveys the cold water into the water-back, where, when heated, it expands and returns through another pipe to the stand-boiler. The cold water, being admitted through a pipe connected with the water-supply through the top of the stand-boiler, deposits its sediment at the bottom of the boiler, and thence it is carried to the water-back, where it accumulates, and soon prevents the water from becoming heated and from passing through and returning to the boiler. In order to free the apparatus from this impediment the pipes by which the water-back is connected with the boiler have to be taken off to gain access, and this re-

quires skilled labor to do. To avoid this I place a three-way stop-cock in the cold-water pipe under the boiler, between the water-back and the bottom of the boiler.

If it is desired to clean out the boiler, the cock is turned to shut off the communication between the water-back and boiler, allowing the water to flow out at the front opening of the cock. The uninterrupted supply of water through the pipe on top of the boiler soon washes out any sediment that may be collected and which obstructs the outflow; but if the water-back is stopped up and requires cleaning out, the cock is turned to allow the water in the water-back to flow out through the cock, which it is compelled to do by the pressure of the water in the boiler. Thus the current is reversed, and all impediments that prevented a free current from the boiler through the water-back into the boiler again are washed out and discharged through the stop-cock.

It not unfrequently occurs that during the winter, when the fire in the range is extinguished, the water in the water-back and pipes freezes. There being no means of ascertaining whether the water be frozen or not, an explosion occurs when a fire is made, and, if no other damage be done, the range is blown to pieces.

My improvement offers a sure means of ascertaining the condition of the water in the water-back and pipes, since by turning the cock either way the outflow of the water will show that a fire may safely be made; but if no flow of water follows it indicates that the water is frozen.

The stop-cock I use has, as already stated, three openings, of which two are on opposite sides, and the third in front. The severed ends of the cold-water pipe, between the boiler and the water-back, are properly secured in the opposite side openings. The core of the cock has three openings so distributed that when the water flows through both sides the front opening is closed, but when turned to admit water from one side only the front is open also.

I am aware that common stop-cocks for draining the water from the boiler are in use; but they are in no manner connected with the water-back, nor do they remove the necessity of disconnecting the pipes from the water-back in order to clean it out.

Having thus described my invention, I claim—

In a cooking range, the combination of a water-back, a stand-boiler, a hot-water pipe, and
5 a cold-water pipe, the cold-water pipe being provided with a three-way cock, substantially in the manner and for the purpose described.

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

MICHAEL T. ROGERS.

Witnesses:

WM. FORTUM,
THOS. O'CONNOR.