

(No Model.)

J. A. HURLEY.
FLUE CLEANER.

No 418,722.

Patented Jan. 7, 1890.

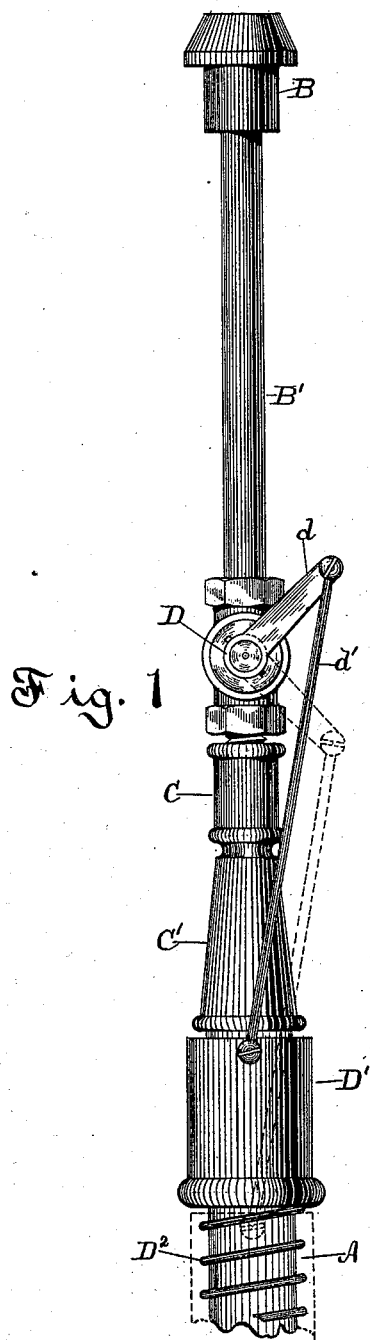


Fig. 1

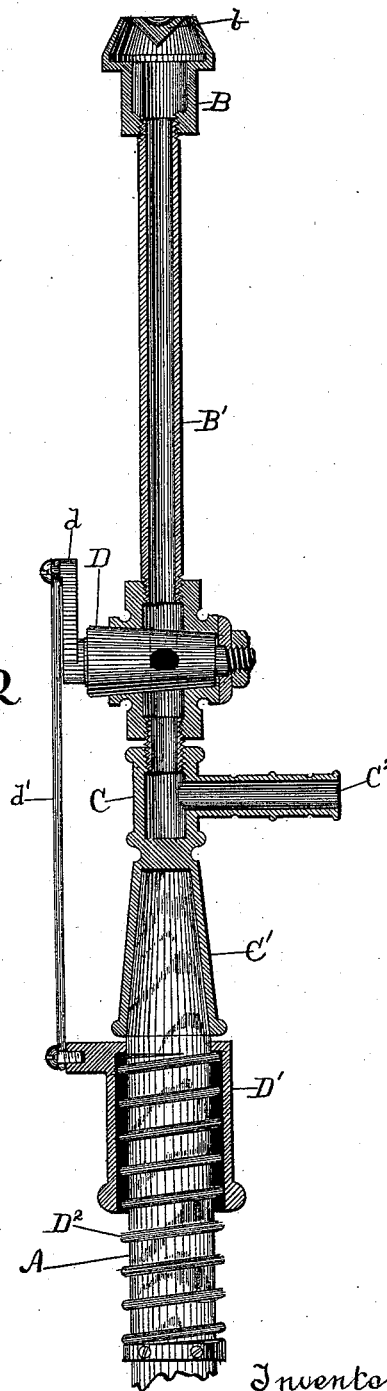


Fig. 2

Witnesses

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UNITED STATES PATENT OFFICE.

JOHN A. HURLEY, OF ERIE, PENNSYLVANIA.

FLUE-CLEANER.

SPECIFICATION forming part of Letters Patent No. 418,722, dated January 7, 1890.

Application filed March 11, 1889. Serial No. 302,847. (No model.)

To all whom it may concern:

Be it known that I, JOHN A. HURLEY, a citizen of the United States, residing at Erie, in the county of Erie and State of Pennsylvania, have invented certain new and useful Improvements in Flue-Cleaners; 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.

This invention relates to that class of boiler-flue cleaners which employs a jet of steam as the cleaning agent; and it consists in certain improvements in the construction thereof, as will be hereinafter fully set forth, and pointed out in the claim.

My invention is illustrated in the accompanying drawings, as follows:

Figure 1 is an elevation view of my device. Fig. 2 is a longitudinal sectional view.

Like letters indicate corresponding parts in all the figures.

The construction is as follows: The apparatus consists of a nozzle B, which is adapted to fit in a boiler-flue, as is common in this class of flue-cleaners. A stem or pipe leads to this nozzle from a shank C. The shank C has a socket C', in which is fixed a wooden handle A, of any desired length. From the chamber of the shank C there extends a nipple C², to which is attached a hose, which leads to a steam-supply, as commonly. In the stem B' there is a valve D, which may be of any desired construction. On the stem of the valve is a lever *d*. On the handle A there is a sliding sleeve D', and a rod *d'* connects the sleeve D' with the lever *d* of the valve. A spring D² may be used on the handle to keep the sleeve in its normal position.

The operator, when using the device, will grasp it by the handle and will take hold of the sleeve D' with one hand, and when he has

inserted the nozzle B in the flue he will draw back on the sleeve D', which will pull back the lever *d*, and this will open the valve, and the steam will pass from the chamber in the shank to the stem B' and through the nozzle B into the flue.

I am aware of the construction shown in Letters Patent No. 310,549, dated January 6, 1885. My construction is intended as an improvement upon that construction, and the advantages gained by my construction consist in the fact that the means for operating the valve are accessible to the operator without reaching over the valve. In my device the sliding sleeve D' and the spring D² are on the handle and not on the pipe which conducts steam to the nozzle. In my device the sleeve will not become heated and can always be handled, and it is much more accessible. A further advantage of my construction as compared with that just referred to is that the valve in my device is operated by mechanism independent of the tube, thus avoiding the necessity of a slip-joint in said tube.

What I claim as my invention is—

In a steam-jet flue-cleaner, the combination of a shank C, having a steam-inlet nipple and an induction-chamber, a handle secured to said shank, a valve attached to said shank and controlling the exit of steam from the said induction-chamber, a sliding sleeve on said handle, a spring for moving said sleeve toward said shank, a connecting-rod connecting said sleeve with the operating-lever of said valve, a pipe leading from said valve, and a nozzle on the end of said pipe which is capable of filling the open end of a boiler-flue.

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

JOHN A. HURLEY.

Witnesses:

JNO. K. HALLOCK,
CHAS. R. LECHNER.