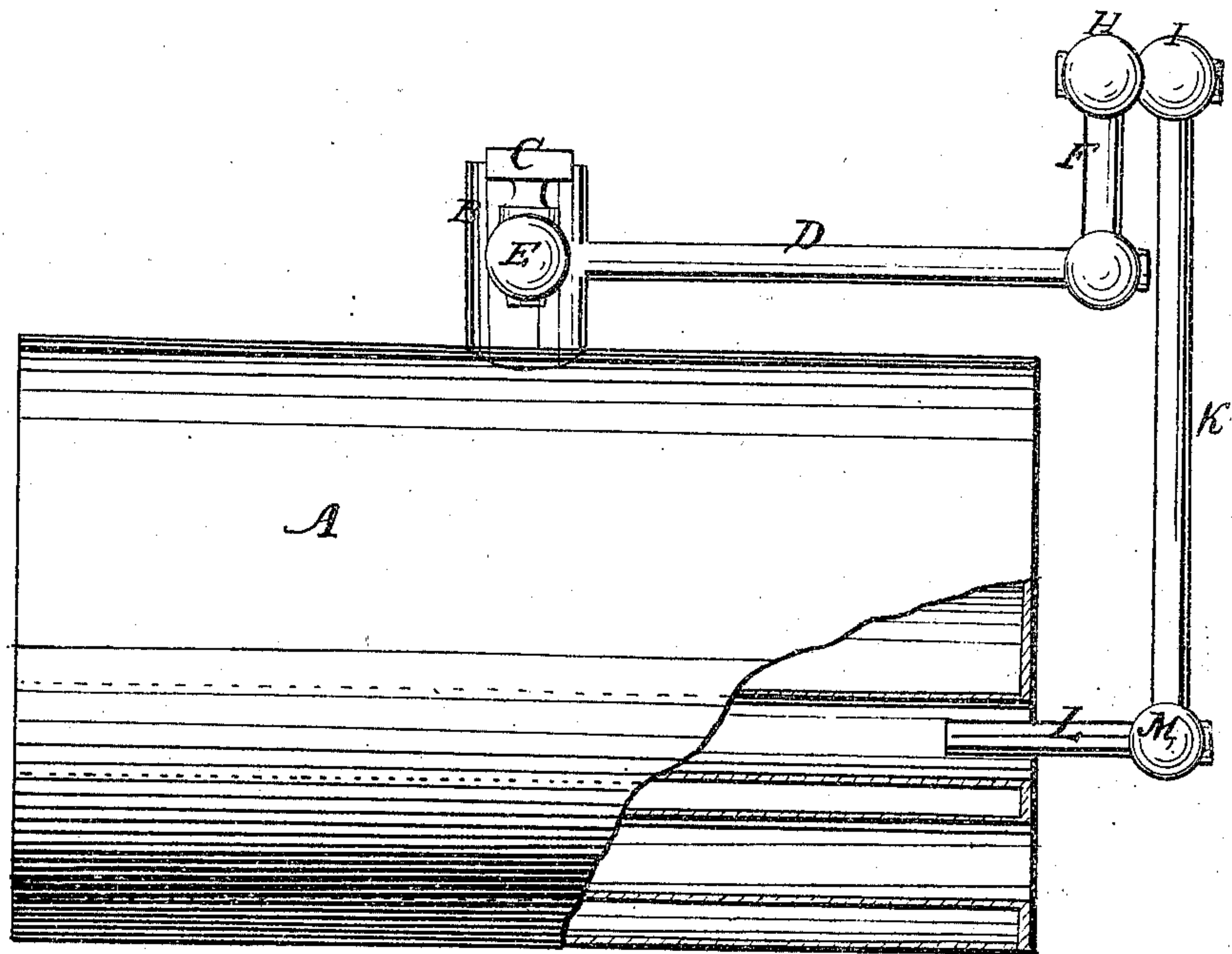


J. Fairclough.
Boiler Flue Cleaner.
N^o 97,372. Patented Nov. 30, 1869.



Witnesses:

Frank G. Miller
Alex. F. Roberts

Inventor:

J. Fairclough

PER *Wm. H. Co.*
Attorneys.

United States Patent Office.

JOHN FAIRCLOUGH, OF ST. JOSEPH, MISSOURI.

Letters Patent No. 97,372, dated November 30, 1869.

BOILER-FLUE CLEANER.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, JOHN FAIRCLOUGH, of St. Joseph, in the county of Buchanan, and State of Missouri, have invented a new and improved Flue-Cleaner; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

The object of my invention is to provide an improved device for cleaning boiler-flues by means of steam.

The device consists of a metallic pipe, so jointed to the dome of the boiler, and composed of sections, so jointed to each other that it may be folded back upon the boiler out of the way, and also so that the discharge-end or nozzle may be placed at any desired angle to the mouths or ends of the flues.

Heretofore the pipes connected with boilers for a similar purpose, have been rigidly attached to the same, so as to prevent their folding back, so as to be out of the way of the engineer, and their nozzles have been likewise so jointed, and the whole arrangement such as to preclude the possibility of the steam being discharged at all angles into the flues. Thus the ends or mouths of the upper and lower range of flues cannot be perfectly, if at all cleaned.

The drawing represents a side elevation of a boiler with a part of the shell broken away, showing the interior tubes, and provided with my improved arrangement of tubes.

A is the boiler.

B, the steam-dome, from which a rigid joint of tube projects toward the side of the boiler, provided with a stop-cock, C, and having a joint of tube, D, connected to it at E, so as to oscillate on it in a vertical plane.

This joint reaches beyond the end of the boiler, and has similarly jointed to it another joint, F, also oscillating in a vertical plane, but at right angles to the plane of oscillation of the tube D.

To this tube F is connected, by double joints H I, a long section, K, having a nozzle, L, jointed to it at M, and arranged to be held at the ends of the flues, for discharging the steam into them.

This arrangement admits of moving the said nozzle around in a circle, corresponding with the tubular forms of the said flues, so as to discharge the steam over the whole of the surface of the tubes in a way to clean off and scour the interior of the flues very effectively.

Having thus described my invention,

What I claim as new, and desire to secure by Letters Patent, is—

The metallic pipes D F K, and nozzle L, so jointed together, and to the dome B of the boiler, that they may be compactly folded back upon the latter, out of the way, and so that the steam may be discharged into the ends of the flues at any desired angle, as specified.

The above specification of my invention signed by me, this 12th day of August, 1869.

JOHN FAIRCLOUGH.

Witnesses:

J. W. V. WHITEHEAD.

JAMES FOLEY.