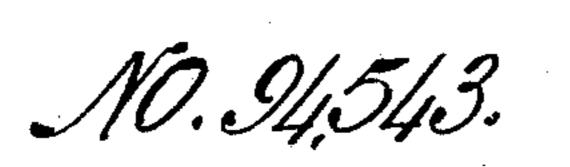
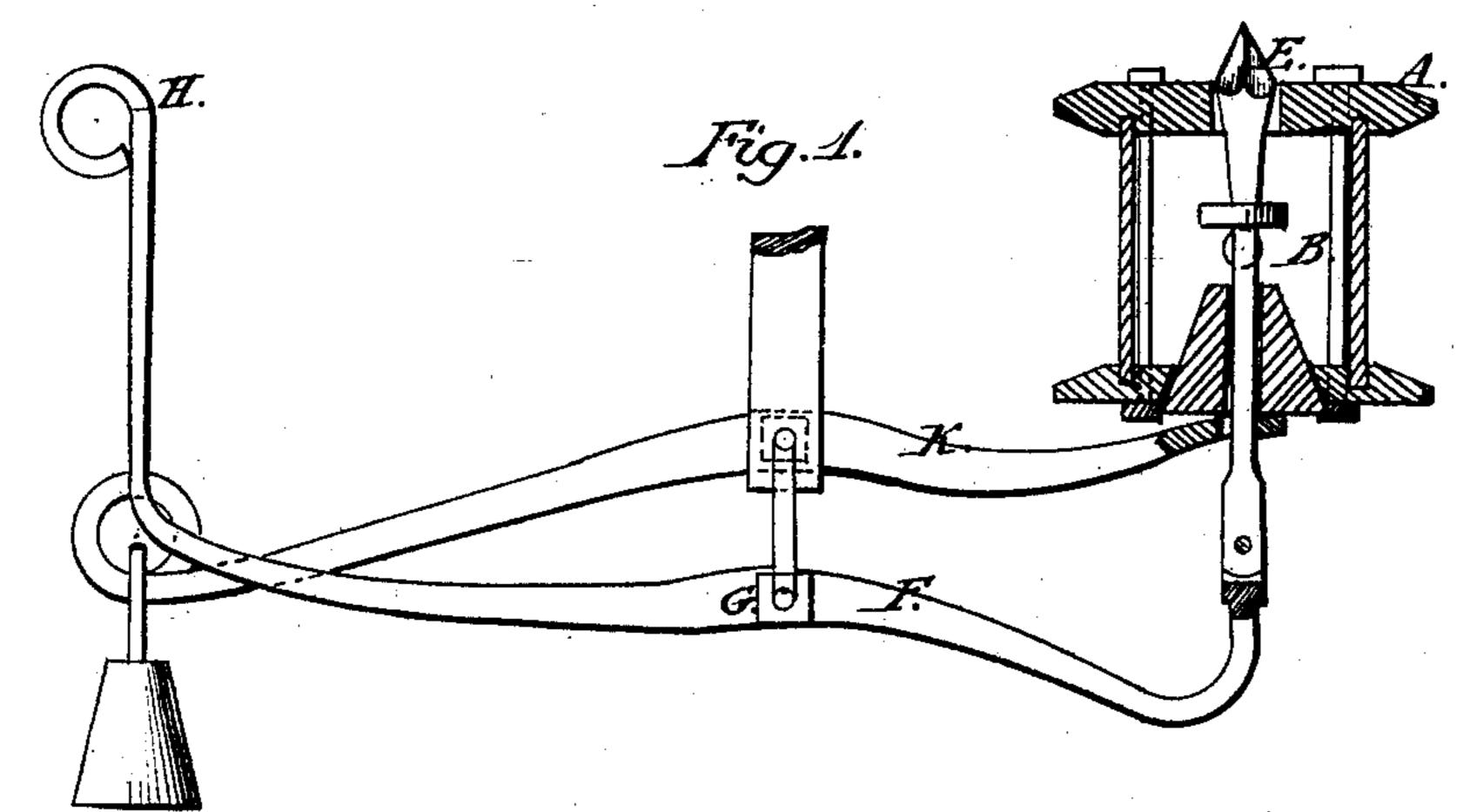
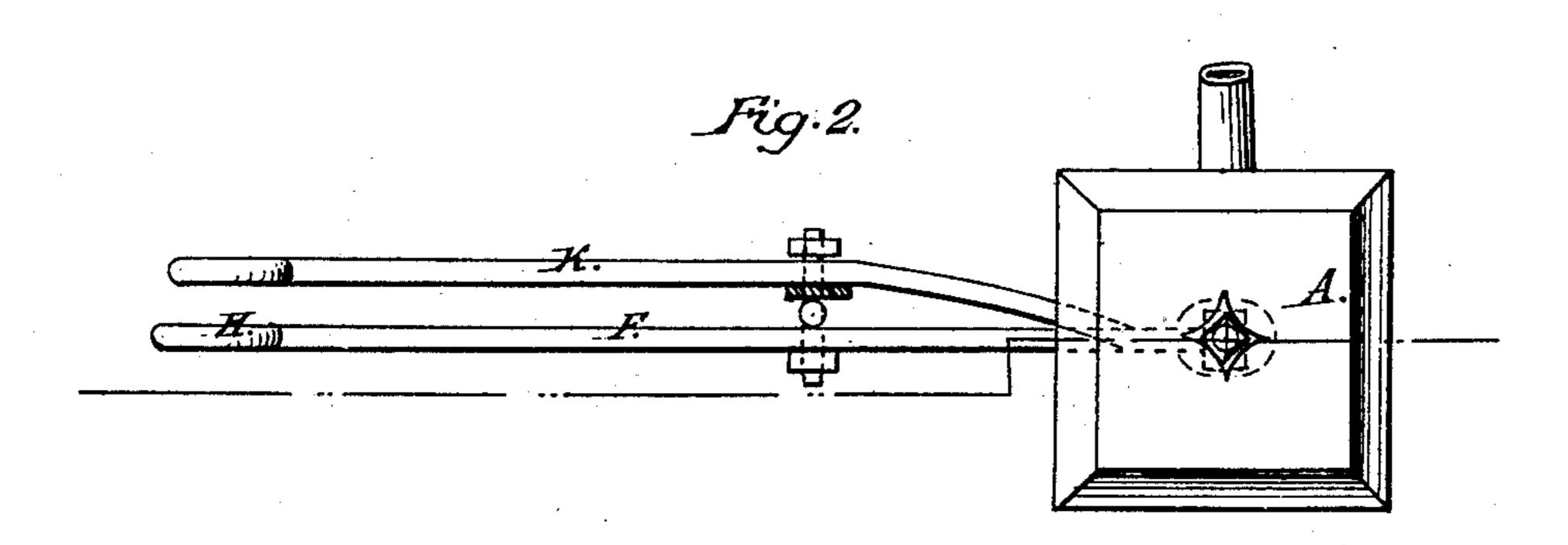
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## Anited States Patent Office.

#### J. W. BARRON, OF HILLSBOROUGH, ILLINOIS.

Letters Patent No. 94,543, dated September 7, 1869.

#### IMPROVED TUYERE.

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, J. W. Barron, of Hillsborough, in the county of Montgomery, and State of Illinois, have invented a new and improved Tuyere; 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 drawing, forming part of this specification.

This invention relates to improvements in tuyeres, and has for its object to provide an arrangement to simplify the labor of removing the slag and cinder from the fire, and for stirring the fire, to enliven it, as is required, and which is now commonly done with a hand-poker, at considerable labor.

The invention also comprises a weighted-valve arrangement, for opening in case of explosion of gas in the air-chamber, to prevent damage to the same.

Figure 1 represents a sectional elevation of my improved tuyere.

Figure 2 represents a plan view of the same.

Similar letters of reference indicate corresponding parts.

A represents the fire-plate; B, the air-chamber; and D, the bottom plate.

These I propose to make of cast-metal, fitting side plates in grooves in the top and bottom plates, and bolting the whole together.

E represents a poker, jointed to the bend end of a lever, F, pivoted at G, and provided with a handle, H. This poker is arranged so that it may, at any time, be forced up through the blast-hole, for stirring the fire and breaking up the cinder, and affords a means of accomplishing the same much more easily than can be done by the hand-poker.

I represents a conical valve, fitted to a corresponding hole in the bottom plate, and held up to place by a weighted lever. K.

The stem of the poker E passes through a central hole in the said plug, and is guided by it. The plug is also guided by the poker.

The ashes may be removed through the opening filled by the said plug. The latter will open and give vent to exploding gas in the air-chamber, relieving it of strain and danger of breaking.

Having thus described my invention,

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

The combination of the poker with the weighted valve I, each serving as a guide for the other, and coacting to relieve the fire and air-chamber of refusematter, in the manner set forth.

J. W. BARRON.

Witnesses:

T. W. MANCHESTER, AUGUST MEY, EDWARD LANE.