

A. G. Mann,

Tuyere.

No. 10,143.

Patented Mar. 22, 1870.

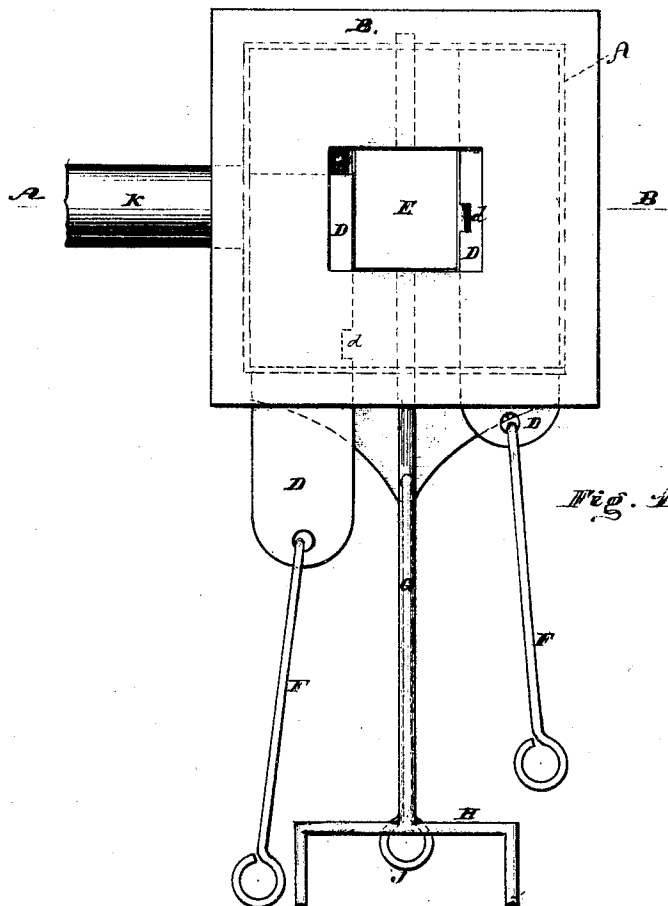


Fig. 1

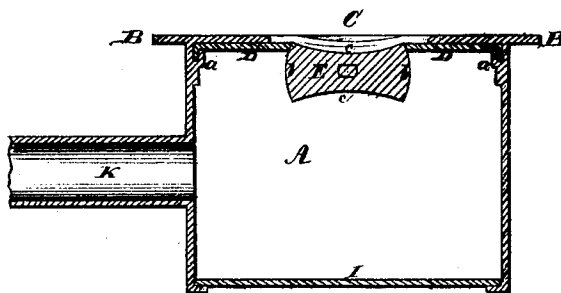


Fig. 2

Witnesses

Thos. H. Dodge  
Geo. H. Miller

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# United States Patent Office.

ALBERT G. MANN, OF WORCESTER, MASSACHUSETTS.

Letters Patent No. 101,143, dated March 22, 1870.

## IMPROVED TWEER.

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, ALBERT G. MANN, of the city and county of Worcester, and Commonwealth of Massachusetts, have invented certain new and useful Improvements in Tweer-Irons; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings forming part of this specification, and in which—

Figure 1 represents a top or plan view of my improved tweer-iron, one of the air-slides or valves being shown partly drawn out, and

Figure 2 represents a section of the same on line A B, fig. 1.

To enable those skilled in the art to which my invention belongs to make and use the same, I will proceed to describe it more in detail.

The nature of my invention consists—

First, in the combination with the wind-box of the rotating fire-support and two notched slides or air-valves, as and for the purposes hereafter explained.

Second, in the improved tweer-iron, having the parts of which it is composed constructed and combined together as hereinafter specified.

In the drawings—

The part marked A is the wind-box and ash-pit, having a flanged top, B, with a square or rectangular hole or opening, C, in the center, which is closed partly by two notched slides or air-valves, D D, which are fitted to slide in ways or guides *a a* under the flanged top B, and partly by the rotating fire-support E, the edges *b b* of which are made in the form of segments of circles, with a convex top and bottom, *c*, all of which is fully indicated in fig. 2 of the drawings.

The slides are provided with handles F F, by which they can be operated, while the fire-support E is attached to a spindle, G, which is fitted to turn in bearings in the box A.

One end of the spindle G extends out, and is provided with a forked handle, H, shown in fig. 1, by

means of which the fire-support E can be rocked upon its center or rotated as occasion may require, to lighten up the fire or to dump the cinders.

The bottom I of the box A is provided with a handle, J, by means of which it can be drawn out as occasion may require, to discharge the ashes and cinders.

By means of the notched slides or air-valves D D the current of air allowed to pass up through the fire can be regulated at pleasure, and also directed to any particular point upon the fire-support E. For instance, if it be desired to have a current of air at one end of the fire-support on one side, and in the middle on the other, the slides are drawn into the positions shown in fig. 1, and if it be desired to have the currents of air opposite each other and near the center of the fire-support E, the slides are moved to bring the notches *d d* opposite each other.

By the use of the double concave fire-support E the coal can be lightened up and freed from ashes in a very convenient manner, and that, too, without throwing the fire from a central position.

The double concave fire-support E could be applied to good advantage in the center of a fire-grate, for livening up the coal and freeing it from ashes and cinders.

The air is admitted to the box A through a pipe, K.

Having described my improvements in tweer-irons,

What I claim therein as new and of my invention, and desire to secure by Letters Patent, is—

1. The combination with the wind-box of the rotating fire-support E and the notched slides or air-valves D D, substantially as and for the purposes set forth.

2. The improved tweer-iron herein described, having the parts of which it is composed constructed and combined together in the manner set forth.

A. G. MANN.

Witnesses:

THOS. H. DODGE,  
GEO. H. MILLER.