(No Model.)

J. J. SPEARMAN.

VALVE FOR HOT BLAST OVENS.

No. 300,329. Patented June 10, 1884.

Fig. 1.

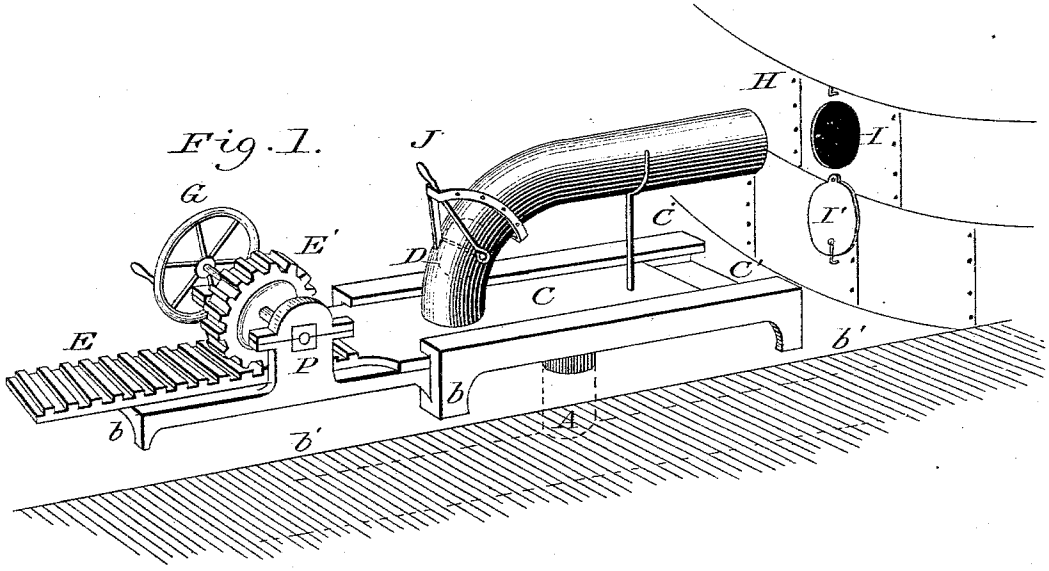


Fig. 4.

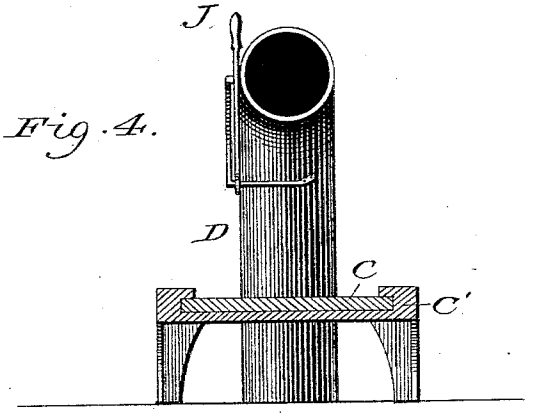


Fig. 2.

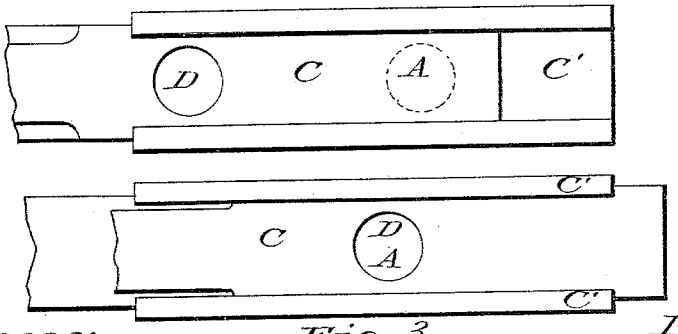


Fig. 3.

Witnesses:

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J. S. Fanson

Inventor:

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N. PETERS. Photo-Lithographer. Washington, D. C.

UNITED STATES PATENT OFFICE.

JOHN J. SPEARMAN, OF SHARON, PENNSYLVANIA.

VALVE FOR HOT-BLAST OVENS.

SPECIFICATION forming part of Letters Patent No. 300,329, dated June 10, 1884.

Application filed March 25, 1882. (No model.)

To all whom it may concern:

Be it known that I, JOHN J. SPEARMAN, of Sharon, county of Mercer, and State of Pennsylvania, have invented a new and Improved Valve for Hot-Blast Stoves; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being made to the accompanying drawings, and to letters of reference marked thereon.

The object of my invention is to construct a slide-valve for the supply-pipes of hot-blast ovens which shall be simple and little liable to get out of repair, and which, in its action, shall connect and disconnect the supply-pipe and the furnace.

My invention consists in the hereinafter-described means for attaining said object.

In the drawings, Figure 1 is an exterior perspective view, Fig. 2 a vertical section, and Figs. 3 and 4 plan views, of the sliding valve, showing the simple and efficient manner in which the same is opened and closed.

In Figs. 1 and 2, A is the gas-main, open at the top and fitted into the bed-plate at an opening in its bottom to correspond with the main. *b b* are supports upon which the entire apparatus rests above the surface of the ground *b'*. C is a sliding plate, or the valve proper, held and moving freely in ways *c' c'*. D is the injecting-pipe, attached to the plate C at a hole in its surface corresponding in size to the opening from the gas-main. E is a ratchet upon the extended portion of the plate, and fitting the cog-wheel E', which is operated by the hand-wheel or a crank at G. H is the hot-blast stove, and I is an opening into the same, having the door I' for the purpose of closing it.

In Figs. 3 and 4 the letters refer to the same parts as in the preceding drawings, the dotted line representing the opening from the gas-main, and showing how the movement of the plate or valve opens and closes it.

The operation of the device is very simple. When it is desired to direct the gas into the stove it is opened, as shown in the drawings, and the hand-wheel turned in the proper direction. This, it will readily be seen, moves the plate C forward, bringing the pipe D directly over the gas-main, which had previously been closed by the end of the plate C, and at the same time causing the pipe to enter the opening I and establish the flow of gas, which may be regulated by the wing-damper J.

It will be readily understood that a reversion of the movement of the hand-wheel will withdraw the pipe D and close the gas-main A, when the door I' can be closed at will.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination, with the hot-blast oven provided with opening I, the main A, and bed-plate provided with an opening connecting with said main, of the pipe D and slide-valve C, secured to said pipe, and means for actuating the same, as and for the purposes described.

2. The combination, with the hot-blast oven provided with opening I and door I', the pipe D and slide-valve C, secured to said pipe, and means for actuating the same, of the main A and the bed-plate provided with an opening connecting with said main, as described.

This specification signed and witnessed this 27th day of October, 1881.

JOHN J. SPEARMAN.

Witnesses:
GEO. C. TRACY,
WM. T. TAYLOR.