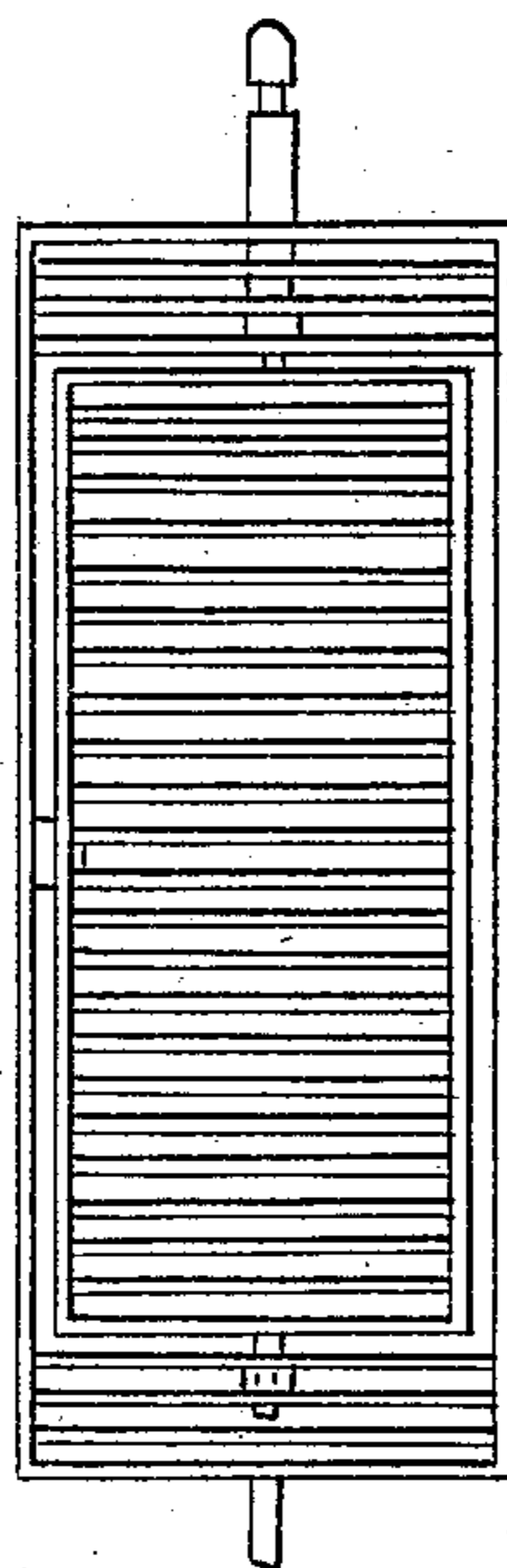
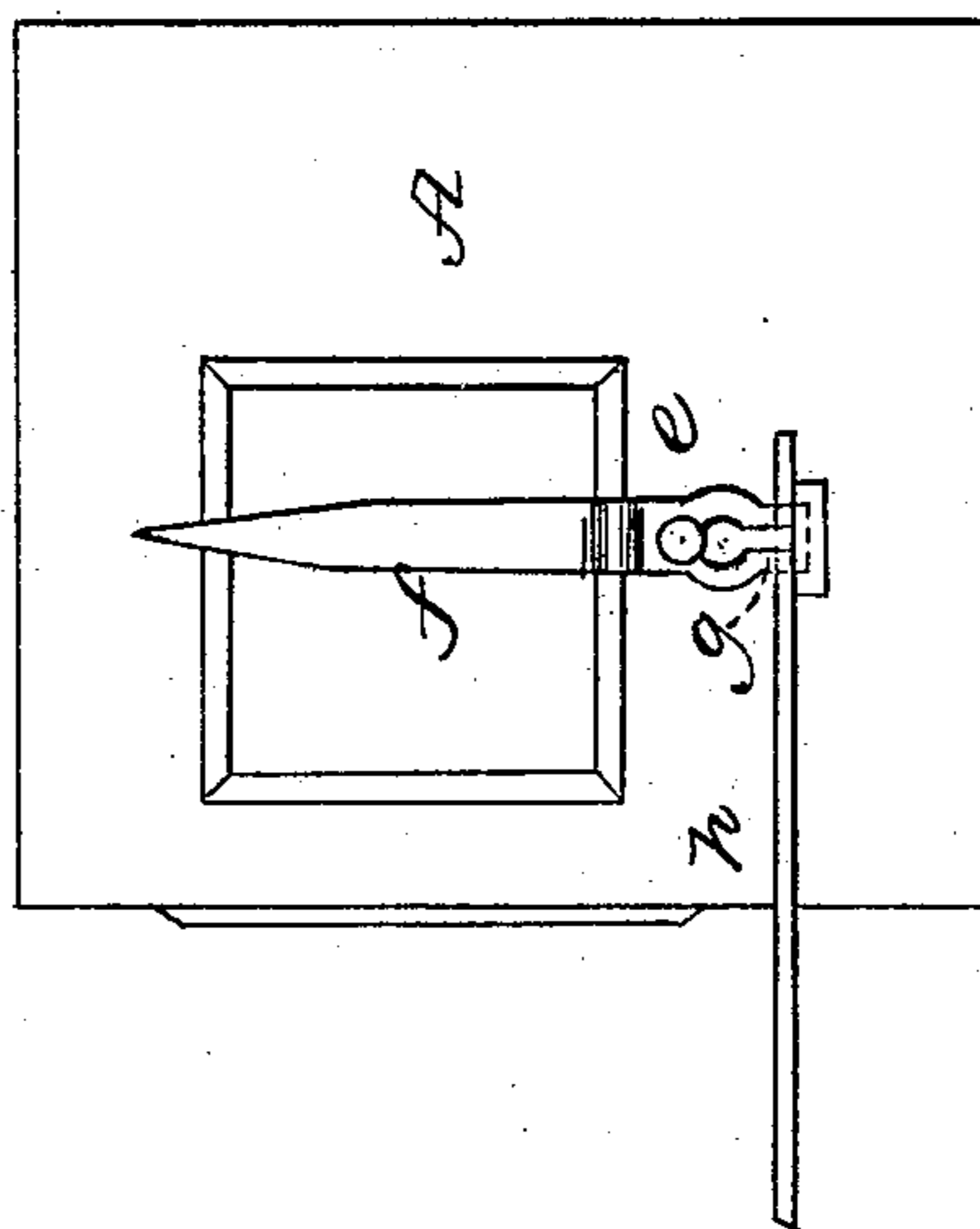


Stove Grate.

No. 33,919.

Patented Dec. 10, 1861.



Witnesses

L. R. Bampton
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JOHN MAGEE, OF BOSTON, ASSIGNOR TO NORTON FURNACE COMPANY, OF
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IMPROVEMENT IN STOVE-GRATES.

Specification forming part of Letters Patent No. 33,919, dated December 10, 1861.

To all whom it may concern:

Be it known that I, JOHN MAGEE, of Boston, county of Suffolk, and State of Massachusetts, have invented an Improved Grate for Stoves, &c.; and I do hereby declare the same to be fully described in the following specification, and represented in the accompanying drawings, of which—

Figure 1 denotes a horizontal section of a stove taken in a plane just above the grate; Fig. 2, an end view of the stove, showing the rocker-lever; Fig. 3, a top view of the grate as removed from the stove.

The nature of my invention consists in so constructing and applying the grate of a stove to the lower part or plate of the fire-chamber and connecting therewith certain mechanism, as hereinafter described, that when such grate is put in operation two separate mechanical movements may be obtained—viz., a rectilinear horizontal one and a rocking vertical one—the same allowing not only the coal in the fire-chamber to be screened without causing the ashes to escape into the room, but also permitting the coal to be dumped into a receiver placed in the ash-chamber whenever the same may be required.

In the drawings, A denotes the body of the stove, while B is the lower plate of the fire-chamber.

C is the grate, which is composed of a rectangular frame D and a series of transverse bars *a a a*.

D' D'' are two horizontal guards arranged at the two ends of the grate, as seen in Fig. 3. These guards are placed close against the ends of the grate-frame, so as to prevent any pieces of coal from falling between the grate-frame and the lower plate of the fire-chamber during the operation of sifting the ashes from such coal. The said guards are disposed on the under side of said plate and so as to slide longitudinally thereon, one of the said guards—viz., D'—being guided in its movements by flanges *b b*, as shown in Fig. 3, while the other guide is controlled in its movements by the pivot *c*, which passes through one end of the stove, as seen in Fig. 1. The two pivots *c c* are respectively attached to each end of the grate-frame, and turn in bearings formed in the side guards D, D''. Furthermore, the said grate is prevented from tipping in but one direction by means

of a projection or flange *d*, arranged as seen in Fig. 1. The pivot *c* is formed with a notched head *e*, the notched portion being formed rectangular in cross-section, the same being so as to receive a rocker-lever *f*, which serves, in connection with a slot *g*, formed in the hearth *h* of the stove, to impart the requisite motion to the grate while performing the operation of screening the coal, &c.

Although I have described the grate as made in one piece, I would remark that it may be formed in two pieces and have one part of the same capable of being turned in a vertical direction, so as to dump the coal, the said grate under such circumstances being formed somewhat longer than in the first case, so as to extend entirely underneath the lower part of the fire-chamber, the end bars of the grate serving as guard-bars. Fig. 4 represents this modified form of grate.

In the operation of my said grate, if we suppose the fire-box to be filled with coal and ashes and we desire to screen the coal, we have only to move such lever *f* back and forth in order to impart a longitudinal movement of the grate, which will readily cause the ashes to fall into the ash-chamber. Then, if we desire to remove the coal from the grate, we have simply to remove the rocker-lever from its step or slot and turn it toward the front of the stove, and we shall have accomplished our object.

A grate constructed in the above-described improved manner is not only very simple in its construction, but is very efficient in its operation.

I do not claim, broadly, arranging a grate below the fire-chamber of a stove so that such grate may have either a rotary movement or a vertical tilting one, as I am aware that such is not new; but

What I claim is—

Combining and arranging together the rectangular grate C with the guard-plates D' D'' and the ways *b*, so that the grate can not only be rocked on its pivots *c* but be moved in the direction of its length, substantially as above described.

JOHN MAGEE.

Witnesses:

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