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CORNELIUS O. FOLEY.

Improvement in Stove Grates.

No. 119,343.

Patented Sep. 26, 1871.

Fig. 1.

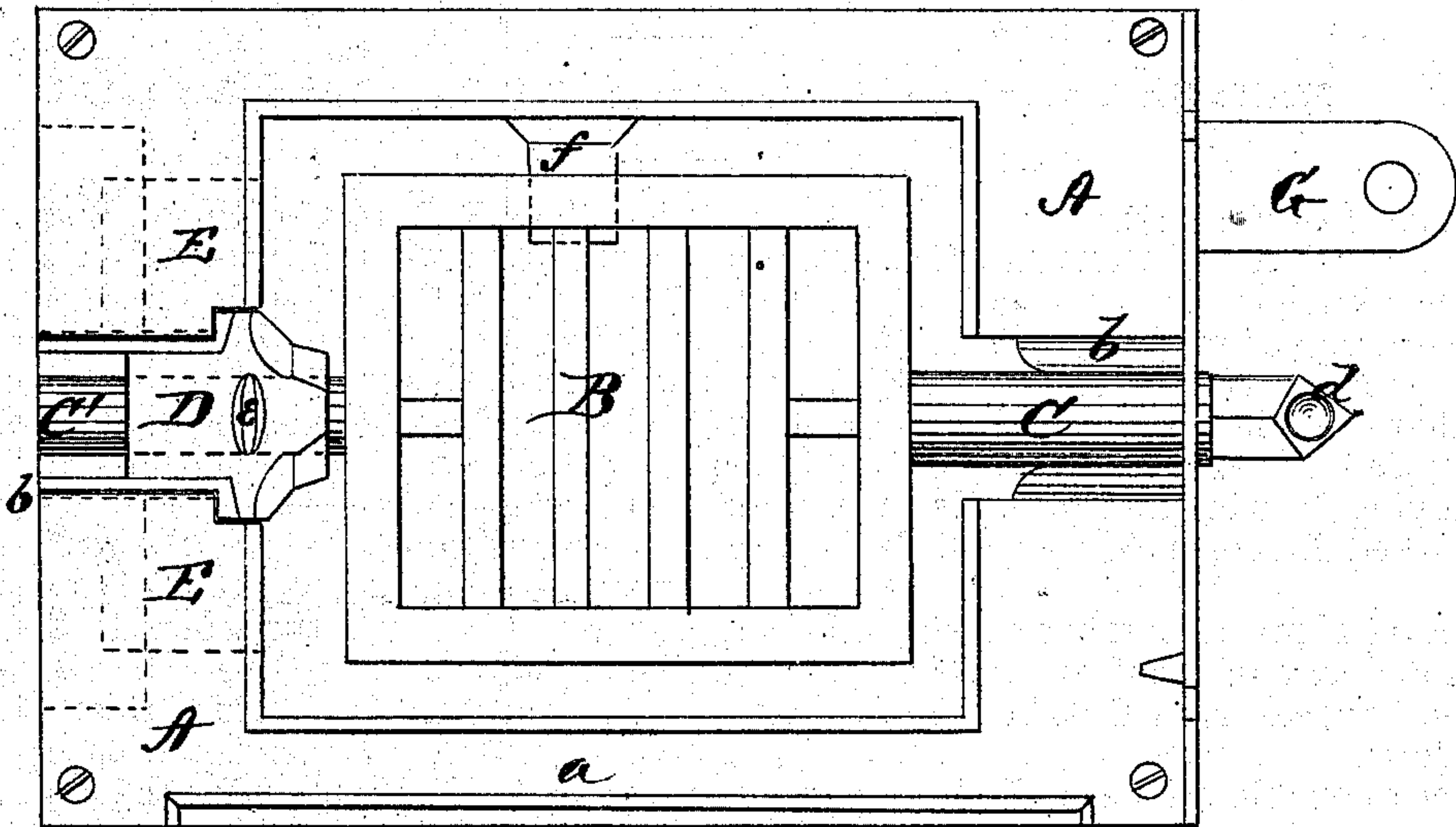


Fig. 2.

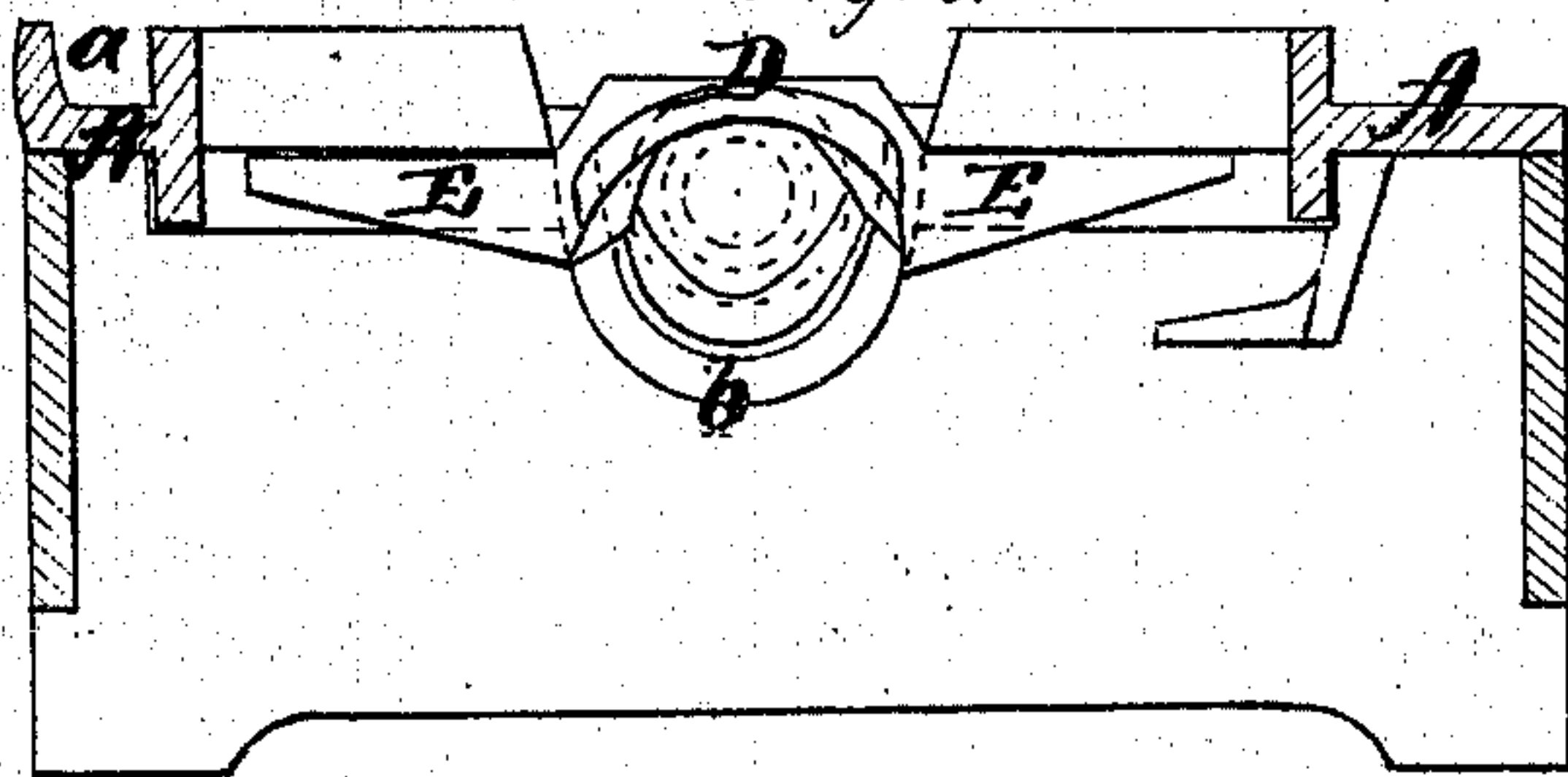
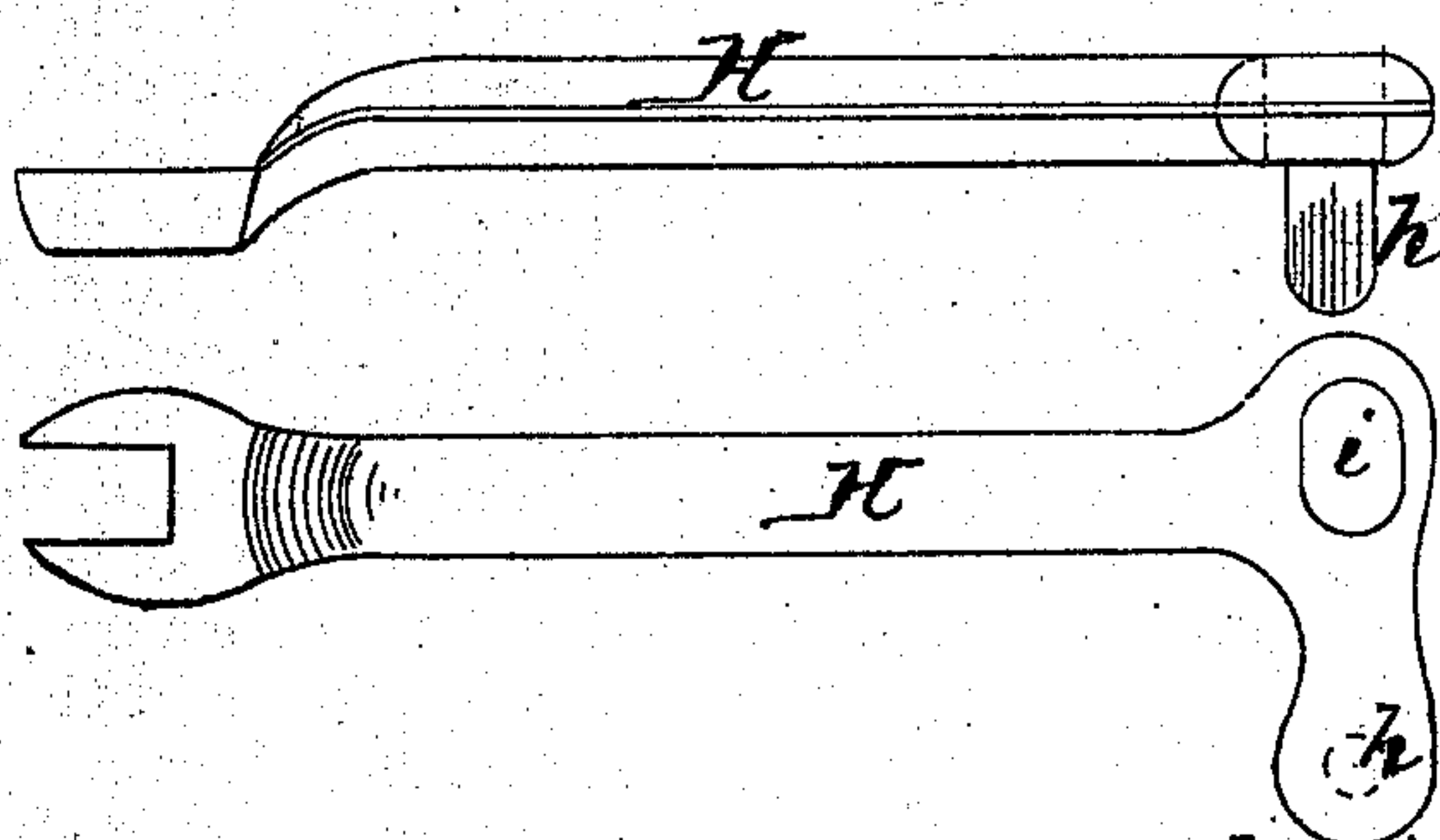


Fig. 3.



Witnesses:

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UNITED STATES PATENT OFFICE.

CORNELIUS O. FOLEY, OF TROY, NEW YORK.

IMPROVEMENT IN STOVE-GRATES.

Specification forming part of Letters Patent No. 119,343, dated September 26, 1871.

To all whom it may concern:

Be it known that I, CORNELIUS O. FOLEY, of Troy, in the county of Rensselaer and in the State of New York, have invented certain new and useful Improvements in Stove-Grates; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon making a part of this specification.

The nature of my invention consists in the construction and arrangement of a grate for stoves, ranges, or furnaces, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a plan view, and Fig. 2 a transverse vertical section of my grate. Fig. 3 represents the lever or handle by which the grate is operated.

A represents the bed-plate of a stove provided along its front side with a groove, *a*, for the reception of the usual front grate. In the center of each side or end of the bed-plate A is a semi-tubular depression, *b*, in which the grate rests. B represents the grate, provided at its ends with journals C C', as shown. The journal C rests in the depression *b* at one end of the bed-plate, and passes through a hole in the side of the stove, its outer end being provided with an upward-projecting pin, *d*. By reference to Fig. 1 it will be noticed that this journal C is, immediately inside of the pin *d*, made square, although the entire remainder of the journal is round. The journal C' is, at a suitable distance from the end of the grate, provided with a collar, *e*. This journal is inserted in a tubular bearing, D, provided with wings E E, the collar *e* fitting in a groove in said bearing, and a slot or opening is formed on top of said bearing in the groove, so that the collar cannot slip out of the same by the movement of the grate. The bearing D is placed in the depression *b* at the other end of the bed-plate, while the wings E pass under the bed-plate. *f* is a lug or projection on the under side of the bed-plate, for supporting the grate. The grate B can be shaken endwise, and, in so doing, the grate passes beyond the fire-box and under the bed-plate, drawing out the bearing D with

its wings E E, said bearing and wings then forming, as it were, a part or a continuation of the grate. It will, however, be noticed that the wings E E do not pass entirely from under the bed-plate, and hence cannot get out of place. The grate can also be dumped at any time; but when the brick are in the fire-box it cannot be taken out. To take out the grate it is first necessary to remove the brick over the journal C, and then first turn the grate vertically, when it can be drawn out so that the wings E E will clear the bed-plate. From the bed-plate A, and cast with it, extends a bar, G, outside of the stove, said bar having a hole through its outer end, as shown in Fig. 1. This hole is for the insertion of a pin, *h*, cast on the under side of the short arm of an angular lever, H, which, in the angle, is provided with an elongated slot, *i*. The pin *h* is inserted in the hole in the bar G, and the pin *d* on the end of the grate-journal is passed through the slot *i*; then, by working the long arm of the lever H, the grate can be shaken without any rattling or noise. The long arm of the lever H is formed in the shape of a wrench, as shown in Fig. 3, to fit over the square portion of the journal C to turn the grate.

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

1. The bearing D, provided with wings E E, constructed and arranged to operate substantially as and for the purposes herein set forth.
2. The combination of a grate, B, with journals C C', bearing D, and wings E E, all constructed and arranged, as shown and described, so that the grate in its movement will pass beyond the fire-box and under the bed-plate, substantially as herein set forth.
3. The bar G, forming part of the bed-plate, and extending beyond the side of the stove, for the purposes set forth.
4. The angular lever H, provided with pin *h* and slot *i*, and its long arm formed as a wrench, all substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 12th day of August, 1871.

CORNELIUS O. FOLEY.

Witnesses:

C. L. EVERT,
EDM. F. BROWN.

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