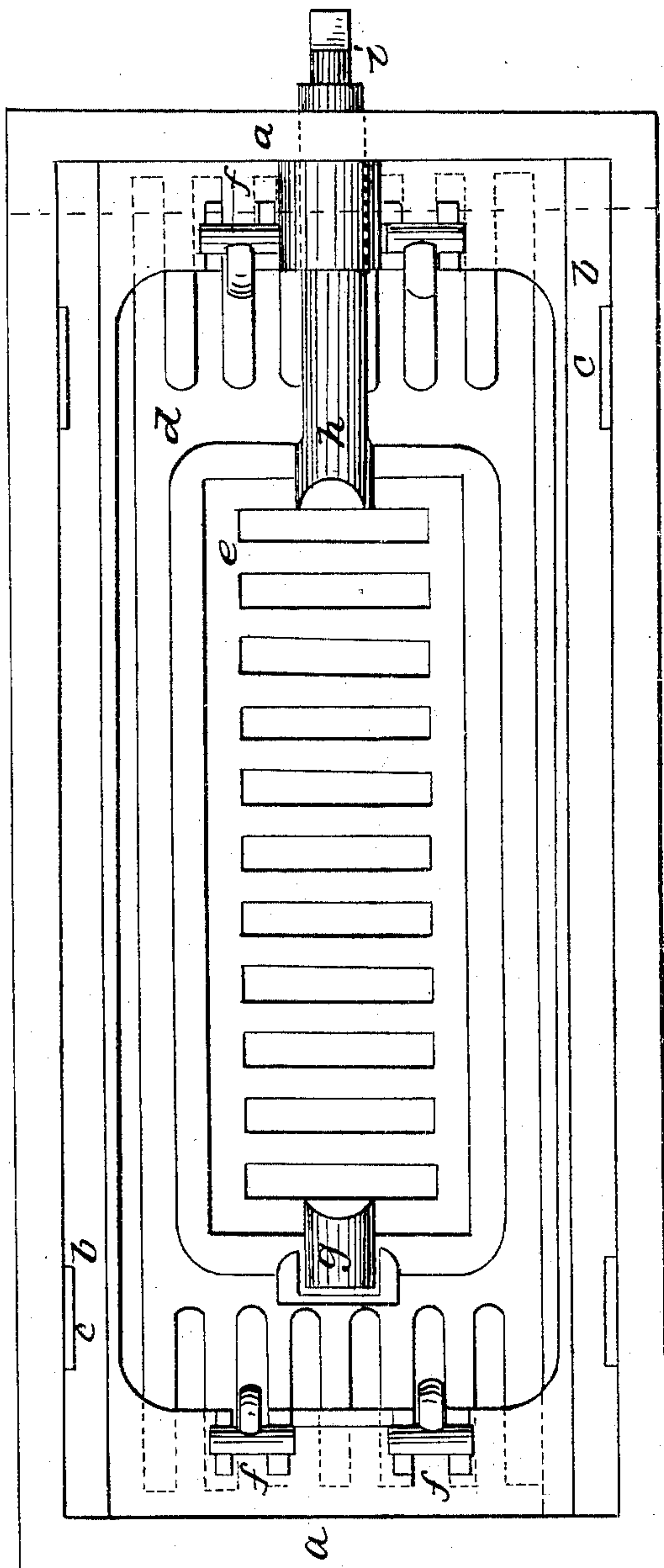


I. SMITH.
Stove Grate.

No. 37,204.

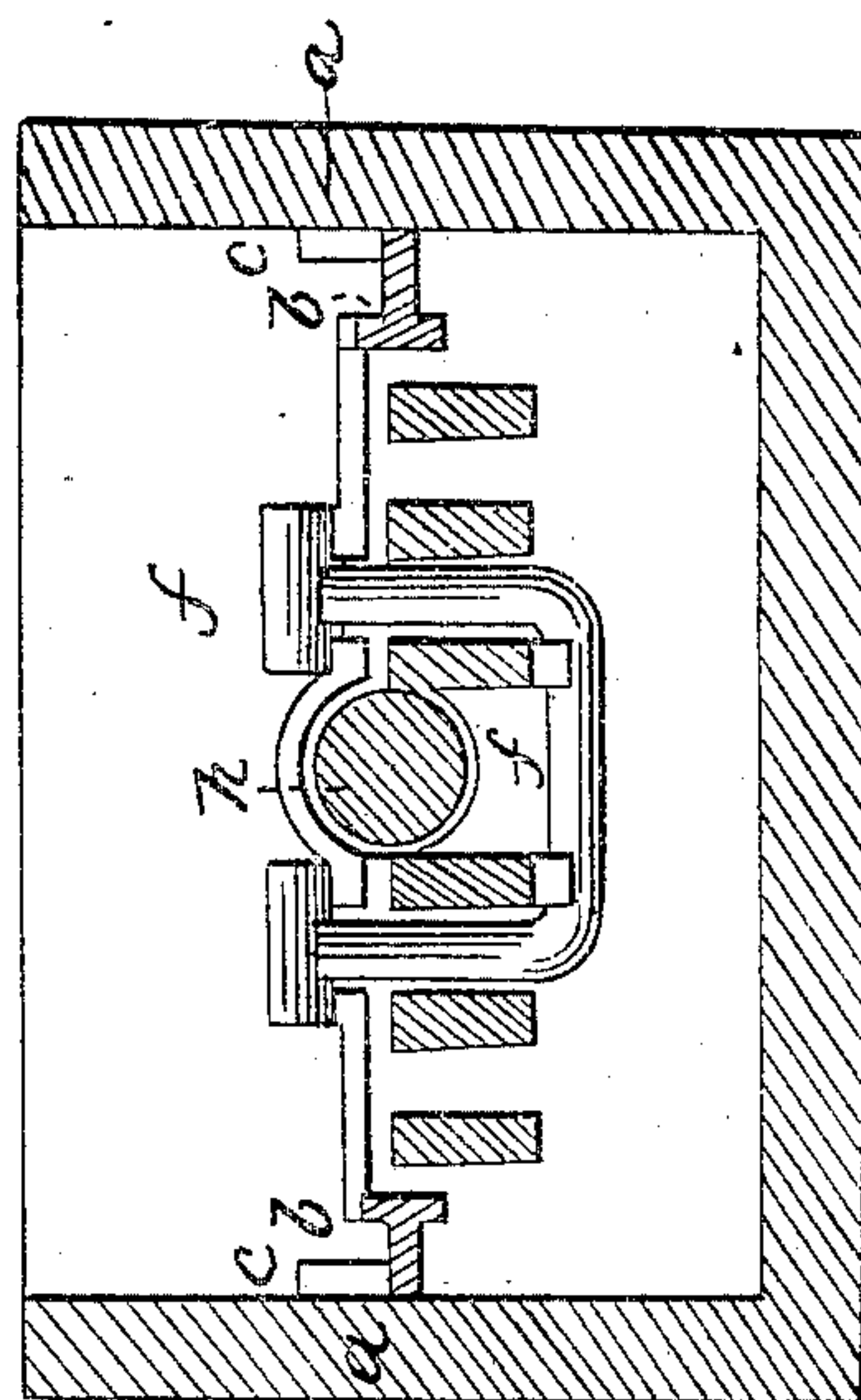
Patented Dec. 16, 1862.

Fig. 1



Witnesses
Geo. Chamber
James S. Cowbank

Fig. 2



Inventor
Isaac Smith
by Atty. Thos. T. Everett

UNITED STATES PATENT OFFICE.

ISAAC SMITH, OF ALBANY, NEW YORK, ASSIGNOR TO S. H. RANSOM & CO.,
OF SAME PLACE.

IMPROVEMENT IN GRATES FOR STOVES.

Specification forming part of Letters Patent No. 37,204, dated December 16, 1862.

To all whom it may concern:

Be it known that I, ISAAC SMITH, of the city of Albany, in the State of New York, have invented a certain new and useful Improvement on Coal-Grates; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters and marks thereon.

My invention relates to an improved grate upon which Letters Patent were granted to me on the 27th day of November, 1860, wherein the grate, by being suspended upon cranes or hinges, can have given to it a motion from end to end, so that the grate will operate as a sifter to separate the ashes and other fine material from the coal or fuel in addition to the performance of the usual functions of a grate; and my invention consists in combining with such grate an arrangement by which the dumping function of a grate can be exercised when required in addition to the sifting function herein named as being peculiar to the improved grate of the patent above referred to.

The drawings forming part of this specification represent by Figure 1 a top view of the present improvement connected with the hinged grate, Fig. 2 being a transverse section of Fig. 1 made on a line drawn just outside of the right-hand crane or hinge.

In each of these figures, where like parts are shown, like marks and letters are used to indicate the parts.

Within the fire-box *a* of the stove the frame *b* of the grate is shown, supported in the usual way upon projecting pieces *c*, which are at-

tached to the fire-box. From the frame the parts *d* and *e*, which constitute the grate, are suspended by cranes on hinges *f*, upon which the entire grate may be moved with ease and the sifting function be rapidly and perfectly performed. The part *e*, it will be perceived, has journals *g* and *h* resting in grooves or bearings in part *d*. The journal *h*, extending through the fire-box of the stove, allows of the attachment of a handle to its end, so that by means thereof the entire grate may be moved forward and backward for the performance of the sifting function; or the part *e* may be turned and the dumping function thus be performed. The handle for giving motion to the grate has a slot or hole, so that it embraces the end of the journal *h*, and fits into a recess, *i*, therein, and thus conveniently can be made to operate the grate in both of the movements, as herein referred to.

The hinge or crane shown by the figures of the drawings is shaped somewhat like the letter *U*; but, as is evident, other forms of hinges or cranes may be used.

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

Combining with the grate suspended by hinges, as herein referred to, the dumping arrangement, substantially as described.

This specification signed this 31st day of October, 1862.

ISAAC SMITH.

Witnesses:

JOHN J. CLARK,
GEORGE L. STEDMAN.