(No Model.) 2 Sheets—Sheet 1.

A. L. GOODENOW.

GRATE FOR STOVES.

No. 369,334. Patented Sept. 6, 1887.

Fig. 1.

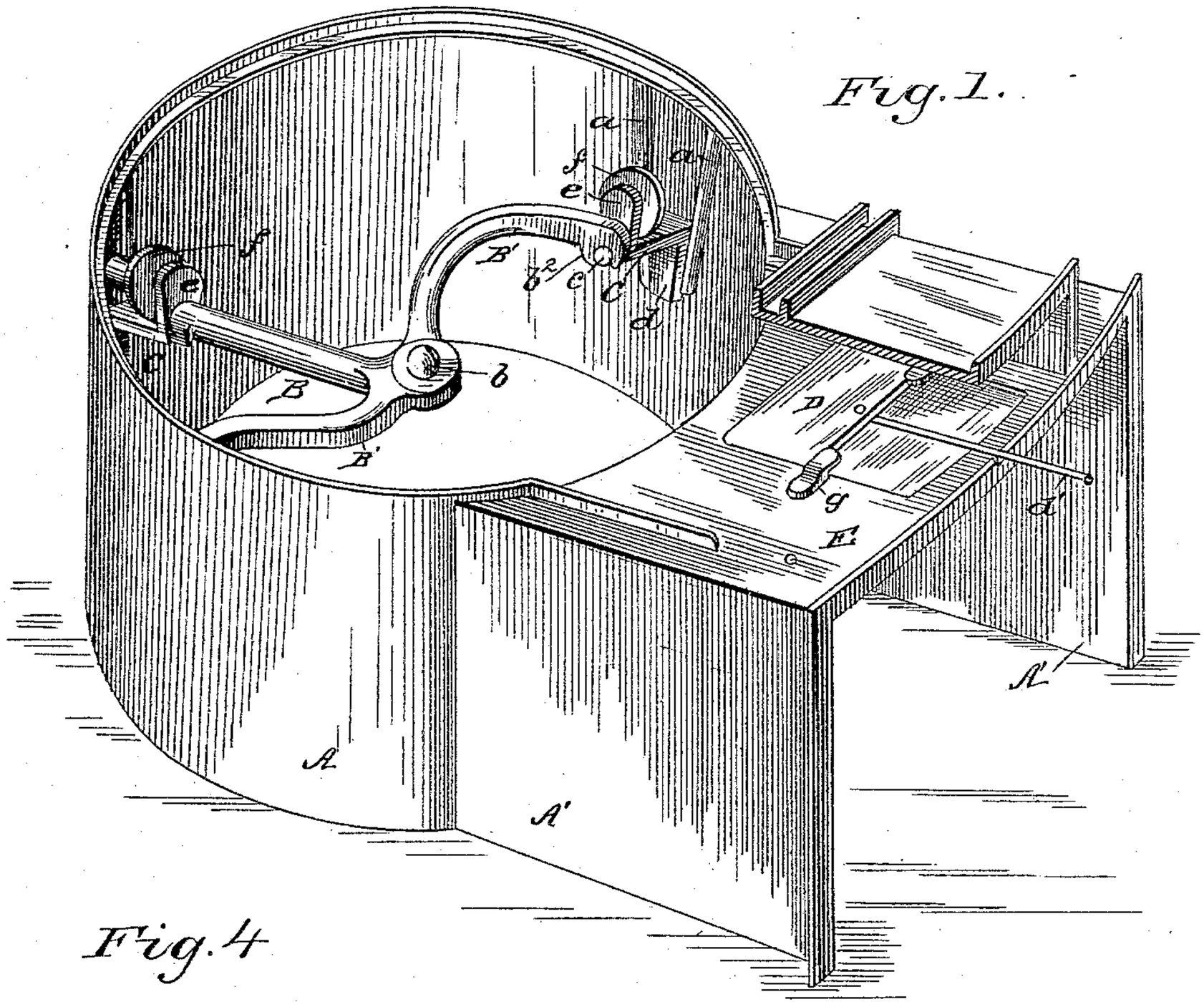


Fig. 4

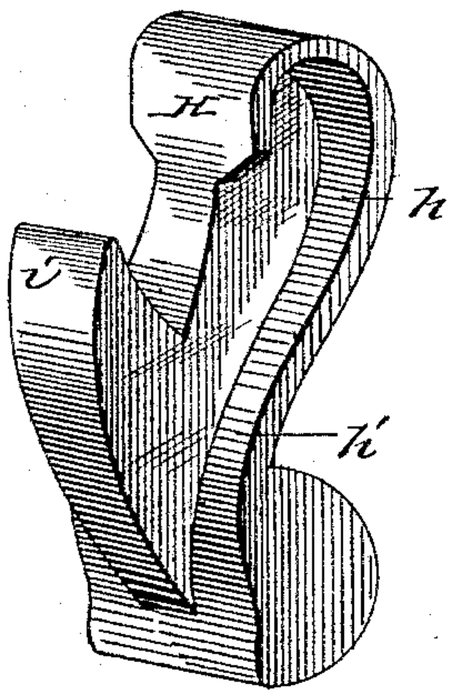
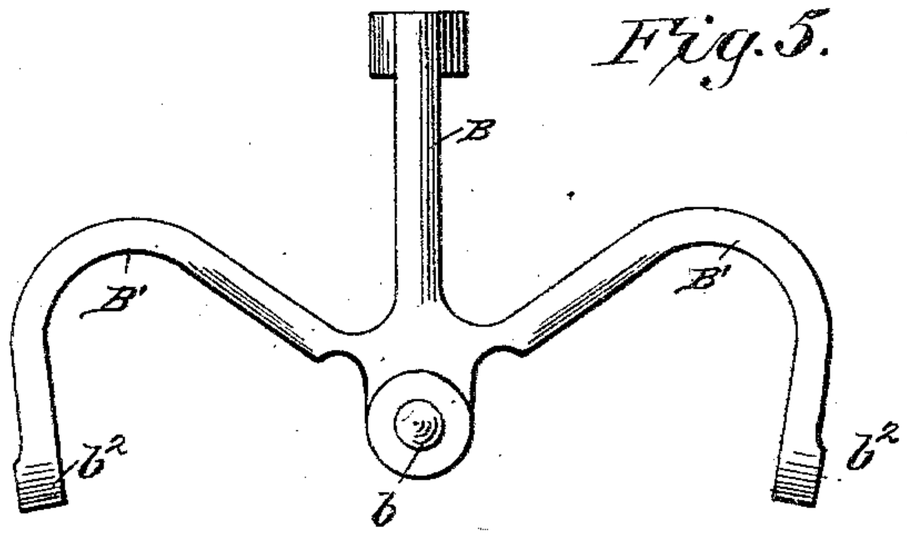


Fig. 5.



WITNESSES:

Fred. L. Dieterich.

Newton Lovejoy.

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ATTORNEY

(No Model.)

2 Sheets—Sheet 2.

A. L. GOODENOW.

GRATE FOR STOVES.

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Fig. 2.

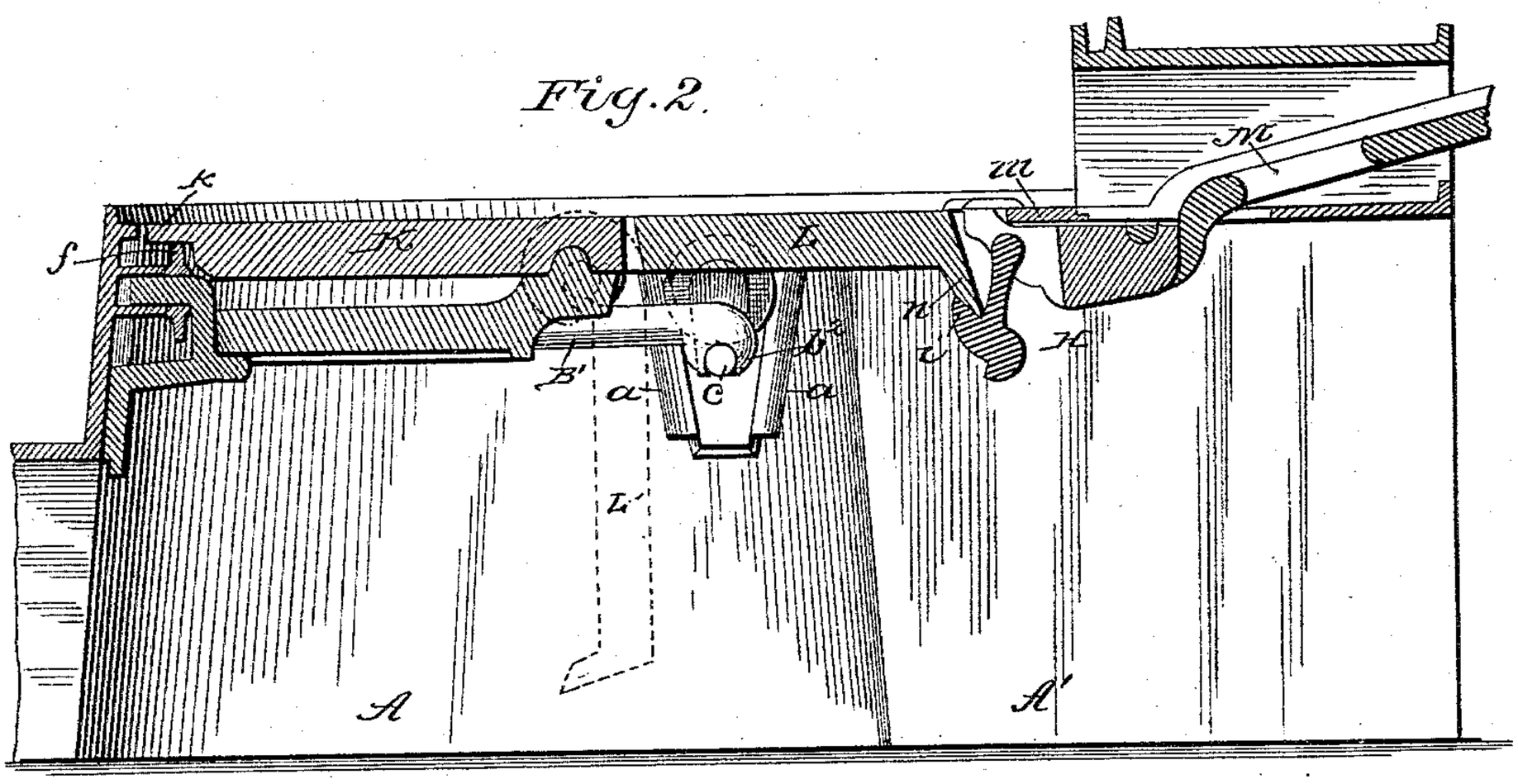
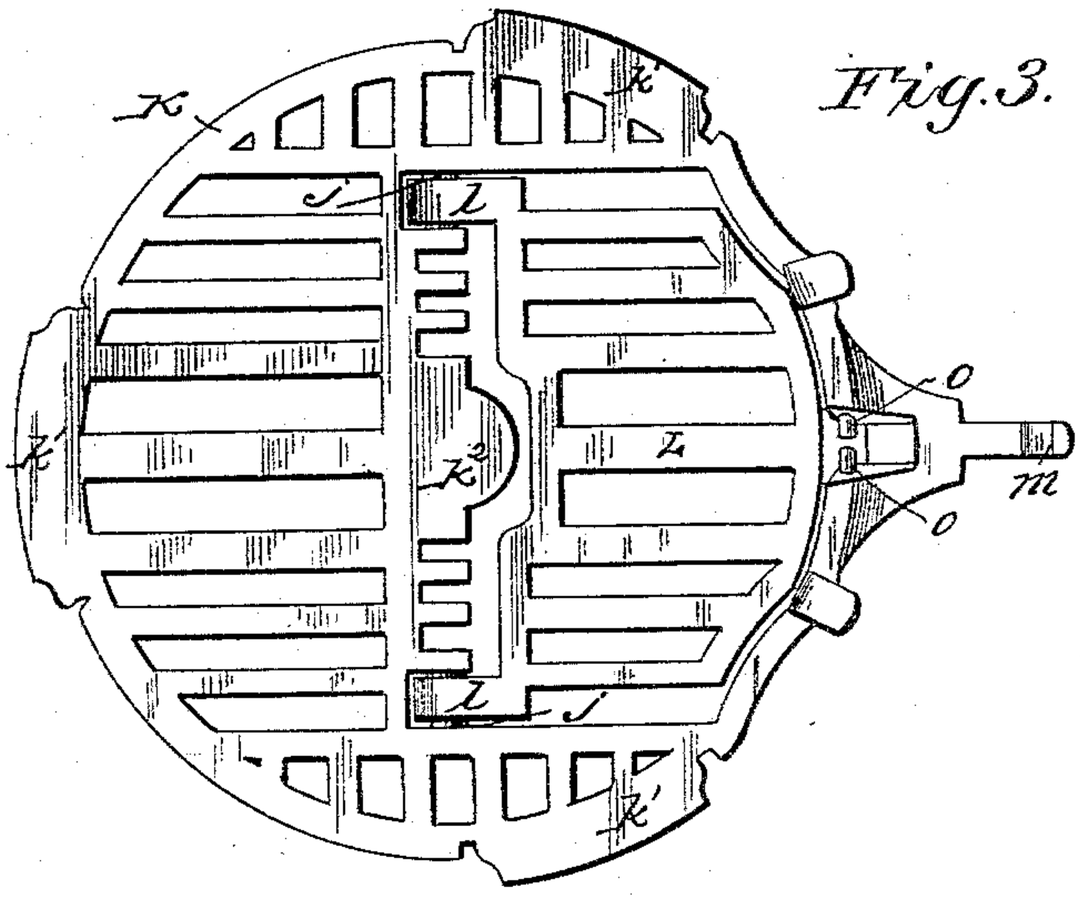


Fig. 3.



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UNITED STATES PATENT OFFICE.

ALBERT L. GOODENOW, OF UTICA, NEW YORK.

GRATE FOR STOVES.

SPECIFICATION forming part of Letters Patent No. 369,334, dated September 6, 1887.

Application filed August 6, 1885. Serial No. 173,881. (No model.)

To all whom it may concern:

Be it known that I, ALBERT L. GOODENOW, a citizen of the United States, residing at Utica, in the county of Oneida and State of New York, have invented certain new and useful Improvements in Grates; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to grates for furnaces; and it consists, first, in a grate made in two parts pivoted to each other, the forward pivoted portion adapted to drop downward, and held in its closed position by a dog secured to the front portion of the rim of the grate.

It further consists in a frame for supporting the grate.

The several parts are shown in the accompanying drawings, and their construction and operation set forth in the specification.

In the drawings, Figure 1 is a perspective view of a portion of the furnace-base, showing the grate-supporting frame and the rollers which support the grate. Fig. 2 is a transverse vertical section of Fig. 1; Fig. 3, a plan view of the grate; Fig. 4, a perspective view of the locking-dog, and Fig. 5 a plan view of the supporting-frame.

The object of the device is to afford a ready means for cleaning the furnace of ashes and clinkers, and to prevent clogging of the grate during the operation of "shaking."

Referring more particularly to the drawings, the base-section A of the furnace has cast upon its inner surface three sets of vertical flanges, *a*, Fig. 1, inclined toward each other at their lower ends and forming guides for brackets C. These brackets have each a tongue, *d*, which slides down into the guides, (and are thus held in place,) and an upturned arm, *e*, in which the wheel *f* is journaled. The outer end of each bracket terminates in a rounded projection, *c*, the object of which will be hereinafter explained. The grate-supporting frame consists of a straight bar, B, and two curved bars, B′, the ends of which terminate in lugs *b*², which are seated upon the projections *c* of the brackets. The supporting-frame is thus held in position by means of these lugs and projections. At the point of intersection of the bars B B′ is a pivot, *b*.

The grate is made in two parts. The main part K has on its outer edge three seats, *k*′, which rest upon the rollers *f*. The inner end of the main frame terminates in a projection, *m*, which forms a grasp or handle, by means of which the operating-lever M is attached for rotating the grate. At or near the central line of the main frame K journals *j* are formed to receive the curved ends *l* of the swinging grate-frame L. The forward end of this swinging frame terminates in a downward projection, *n*, which engages with the lip *i* of dog H, and is held in its horizontal position by said dog. This dog is formed substantially as shown in Fig. 4. The flanges *h* on each side engage with ears *o* on the forward end of the frame K, and the dog thus pivotally attached thereto. These flanges diminish in width from the upper to the lower part, *h*′, so as to permit the dog to be turned back with disengagement from the lugs.

The operation of the grate is as follows: The brackets, with the wheels *f*, are first inserted in the guides *a*. The supporting-frame B B′ is then placed in position and the grate placed thereon, the part L being held by the dog H. When it is desired to rock the grate, the damper D is removed from the lugs *g* and the lever M inserted within this opening and secured to the end *m*. The lever is then moved back and forth and the grate given a rotary movement by means of the wheels *f*. If it is desired to dump the contents into the ash-pit, the dog H is drawn back (by means of a rod or hook) from engagement with the projection *n*, and the part L allowed to fall, as shown in dotted lines, Fig. 2. This part L can then be raised and again engage with and be held up by the dog. It will be observed that the wheels give free movement to the grate.

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

1. The combination, with the ash-pit wall, wheel-supporting brackets secured thereto, and the grate, of a main grate-supporting frame consisting of three arms the ends of

which are seated upon projections upon said wheel-supporting brackets, substantially as and for the purpose set forth.

2. A grate consisting of a main section having an interior opening in its front part and an auxiliary section hinged to the rear of the opening of the main section and adapted to swing inwardly, in combination with a locking latch or dog provided with flanges or ears and pivotally suspended from the main grate at the front of said opening by trunnions projecting from the rim of the main grate beneath the flanges or ears, whereby the auxiliary section is automatically latched or locked in position when its front is raised to the level of the main grate, substantially as and for the purpose described.

In testimony whereof I affix my signature in presence of two witnesses.

ALBERT L. GOODENOW.

Witnesses:
E. J. UNDERWOOD,
NEWTON LOVEJOY.