

(No Model.)

L. BANNISTER.
GRATE.

No. 272,514.

Patented Feb. 20, 1883.

Fig. 1.

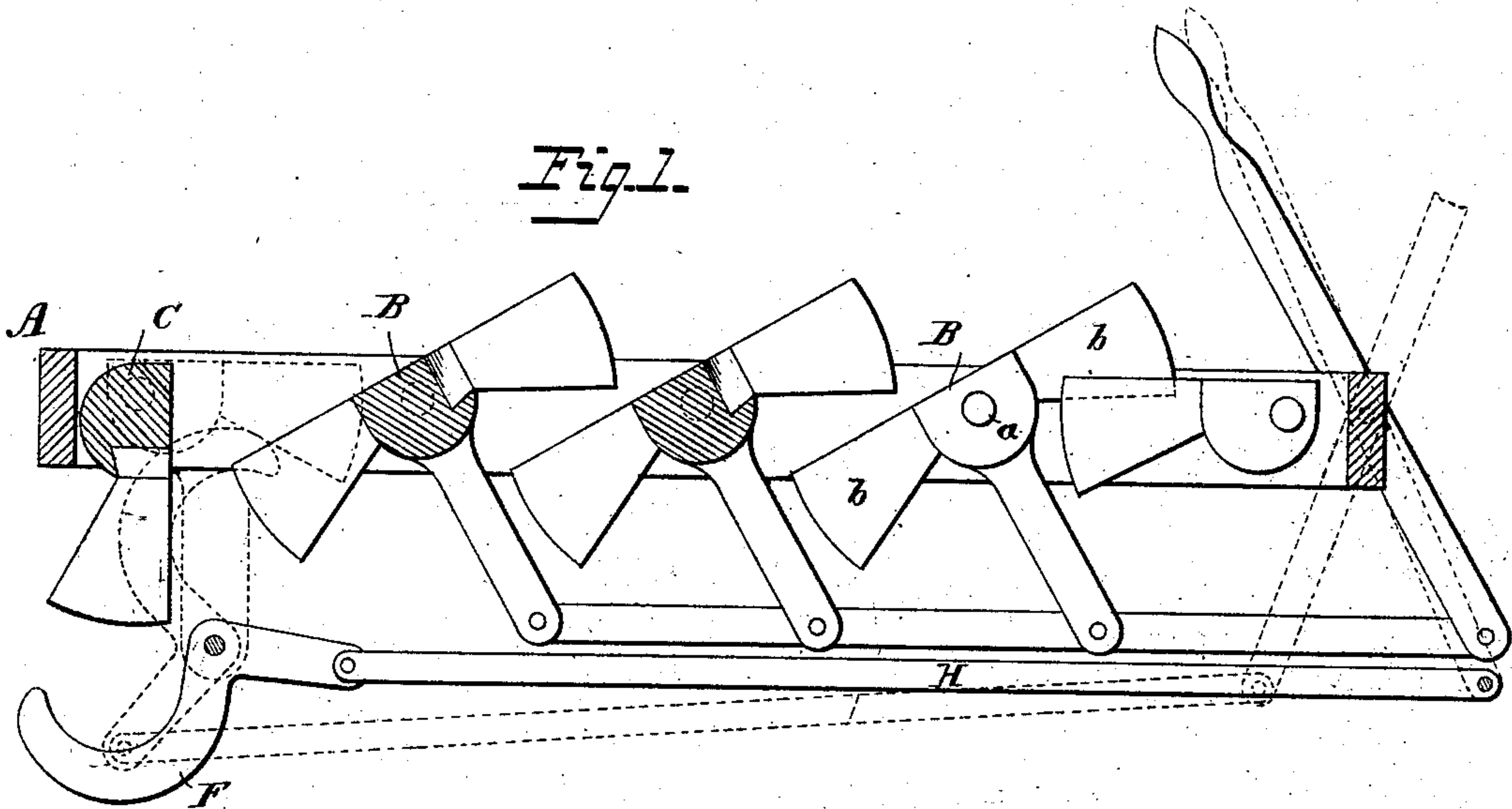
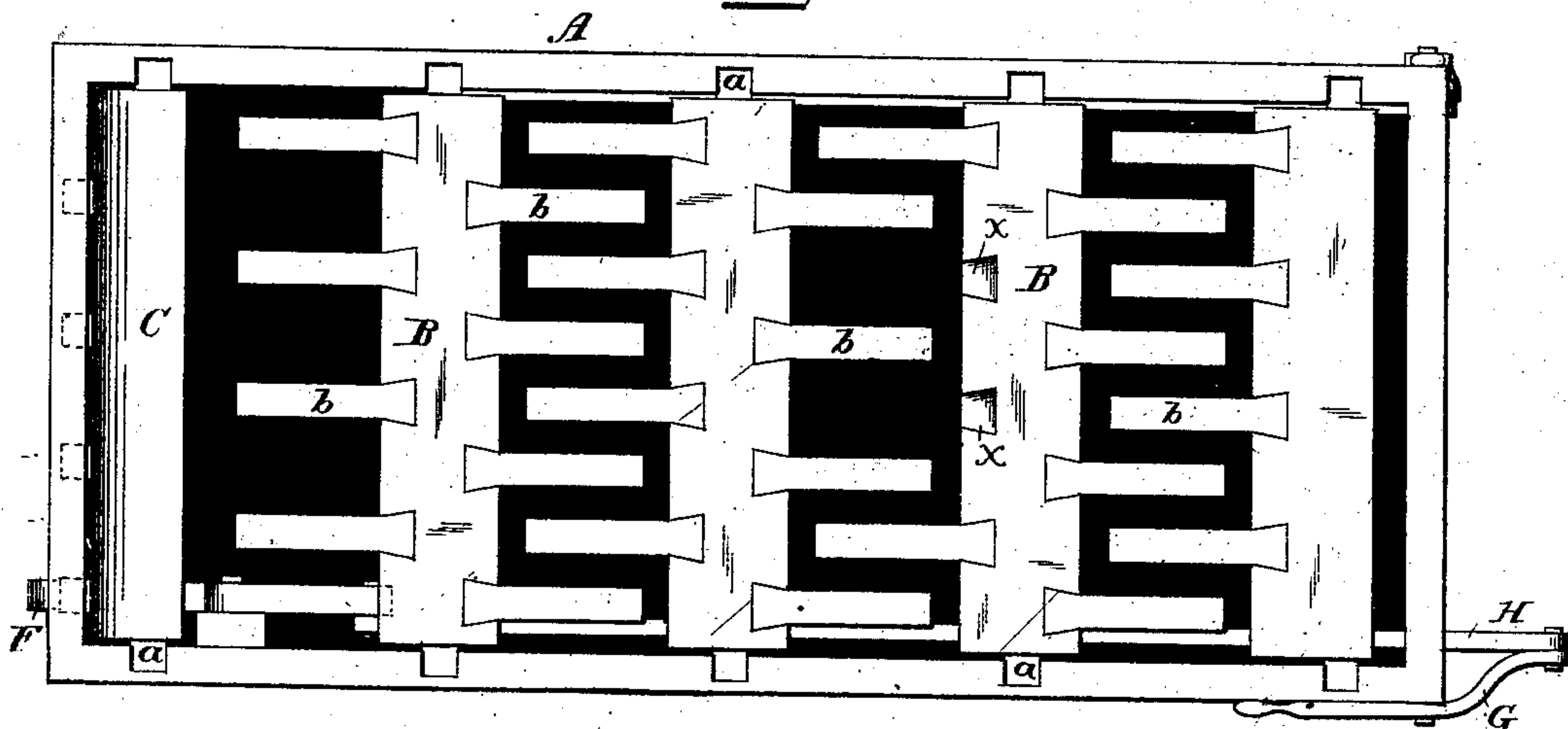


Fig. 2.



Attest:

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UNITED STATES PATENT OFFICE.

LEMUEL BANNISTER, OF PHILADELPHIA, PENNSYLVANIA.

GRATE.

SPECIFICATION forming part of Letters Patent No. 272,514, dated February 20, 1883.

Application filed December 18, 1882. (No model.)

To all whom it may concern:

Be it known that I, LEMUEL BANNISTER, of the city and county of Philadelphia, and State of Pennsylvania, have invented Improvements in Grates, of which the following is a specification.

My invention is a grate constructed, as fully described hereinafter, so as to facilitate the removal of the contents of the fire-pot, avoid obstructing the ash-pit, and with bars constructed to avoid the loss resulting from the ordinary constructions.

In the drawings, Figure 1 is a longitudinal section of a grate showing my improvements, and Fig. 2 is a plan view.

In ordinary grates provided with rocking-bars it is common to dump the fire or discharge the contents of the fire-pot by dropping the front ends of one or more bars. This is objectionable, as the dropped bar obstructs access to the ash-pit, and when embedded in the ashes is difficult to elevate. I avoid these objections, first, by so constructing one of the bars that it may be turned to such a position independently of the others as to open a passage for the discharge of the contents of the fire-pot, and, secondly, by placing such bar at the rear of the grate, thereby avoiding any obstructing of the ash-pit at the front.

Thus in the grate illustrated, A is the frame; B, the rocking bars, which have journals *a*, side fingers, *b*, and are rocked by any suitable appliances; and C is the dumping-bar arranged at the rear of the grate, having journals *a*, and with fingers at one side only, alternating with those of the next bar. The journals of the bar C are preferably arranged eccentrically nearest the rear side, so that when the bar is turned to drop the fingers the bar will be carried away from the next bar and leave a wide opening for the passage of the fire or ashes. As the bar C is at the rear, it in no way interferes with the free removal of the contents of the ash-pit, or with access thereto, and it is, moreover, much easier to push the ashes back to the rear opening than to drag them to the front.

Any suitable device may be employed to turn the bar C and hold it in its horizontal position. I have shown a lever, F, which, when in the position shown in dotted lines, is beneath the end finger of the bar and supports the latter, but when turned to the position shown in full lines permits the bar to turn until the fingers are vertical. This lever F may be operated by a lever, G, at the front of the grate, and a connecting-rod, H, as shown.

One or more fingers of a rocking grate-bar will sometimes burn away or become warped by heat, so that the entire bar must be discarded. I avoid this by making each bar with a series of sockets, *x*, adapted to receive the ends of detachable fingers, any one of which may be removed when injured and a new one substituted therefor.

I am aware that grates have been made with independent bars, any one of which may be turned to bring the fingers to a vertical position. I do not claim this, my invention relating to that class of grates in which the raking is done by the simultaneous movement of the connected bars.

I claim—

1. The combination, with the rocking fingered bars of a grate, connected as set forth, of an independent bar, C, having fingers alternating with those of the next bar, and appliances whereby said bar C may be turned to drop the fingers, substantially as described.

2. The combination of bars B, connected as set forth, the rocking bar C and lever F, and operating appliances, substantially as described.

3. A rocking grate-bar with a body having a series of sockets at each side, and detachable lateral fingers with inner ends adapted to said sockets, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

LEMUEL BANNISTER.

Witnesses:

CHARLES E. HENRY,
ROBT. L. BROOKE.