

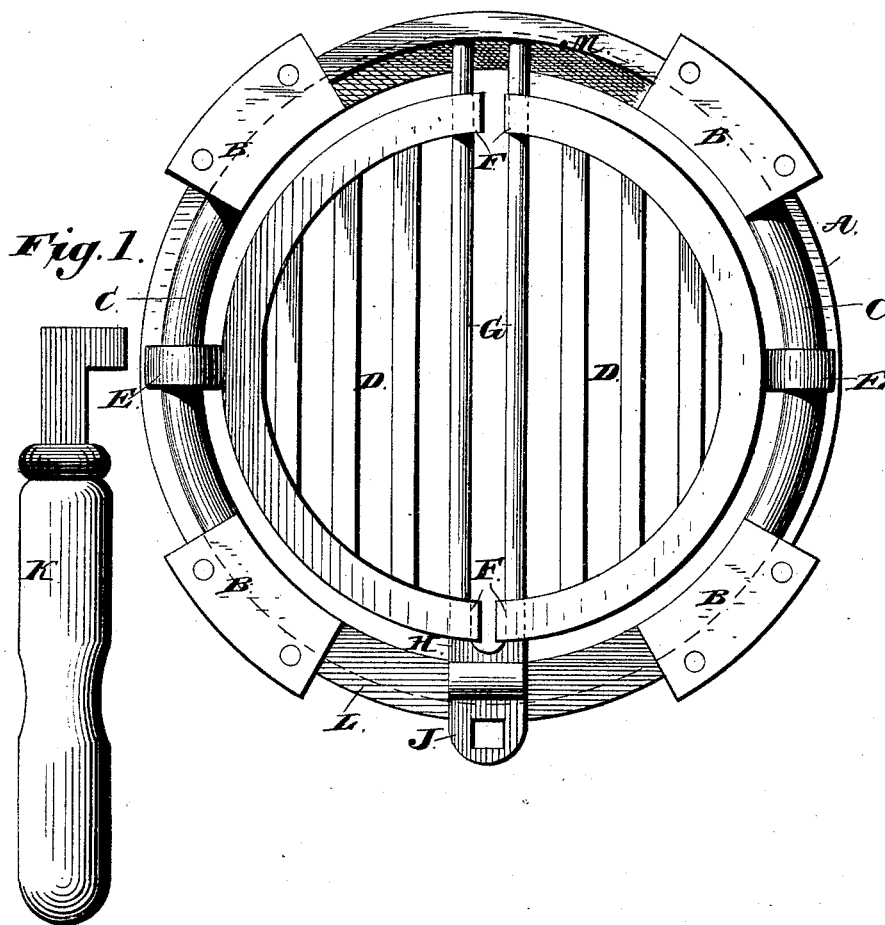
(No Model.)

3 Sheets—Sheet 1.

F. M. GOODALL.
GRATE.

No. 422,763.

Patented Mar. 4, 1890.



WITNESSES:

C. S. Hoyer
L. Douville

INVENTOR:

Frances M. Goodall
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(No Model.)

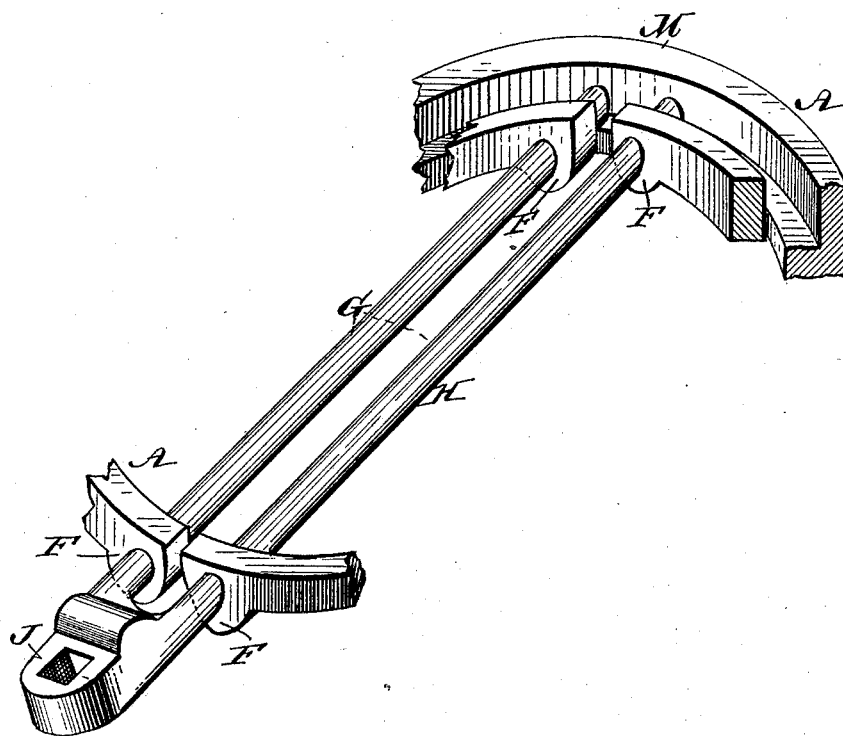
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GRATE.

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fig. 2.



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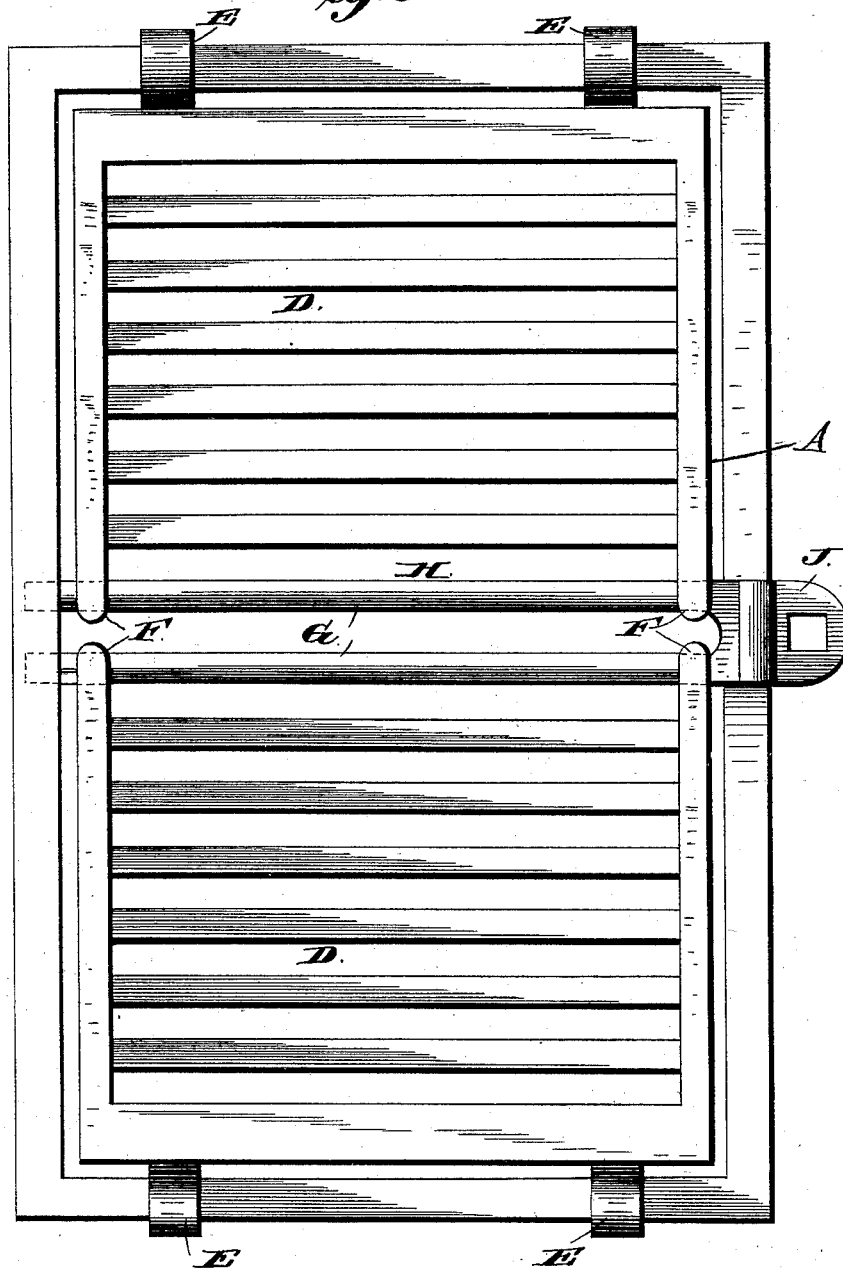
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Fig. 3.



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UNITED STATES PATENT OFFICE.

FRANCES M. GOODALL, OF PHILADELPHIA, PENNSYLVANIA.

GRATE.

SPECIFICATION forming part of Letters Patent No. 422,763, dated March 4, 1890.

Application filed August 14, 1889. Serial No. 320,704. (No model.)

To all whom it may concern:

Be it known that I, FRANCES M. GOODALL, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Grates, which improvement is fully set forth in the following specification and accompanying drawings.

My invention relates to stove-grates of the order of dumping-grates; and it consists of a removable support having legs which form part of the grate-bars when in position, as will be more fully hereinafter set forth.

Figure 1 represents a top plan view of a circular grate embodying my invention, a detachable handle being shown at one side thereof. Fig. 2 represents a detail perspective view of part of a grate frame and support embodying my invention, the same being on an enlarged scale. Fig. 3 represents a top plan view of a square grate with my invention shown applied thereto.

Similar letters of reference indicate corresponding parts in the several figures.

Referring to the drawings, A designates a grate-frame, having ears B for attachment to a proper part of a stove, said ears being secured to circular guide-rods C.

The grate proper comprises two semicircular sections D, each of which has a hook E or analogous device to engage and have movement on the guide-rods C, forming hinges for said grate-sections and allowing the same to be raised and lowered and the grate shaken.

The opposing ends of the rim of the grate proper are formed with eyes F, through which are inserted the bars G of a support H, the latter having a head J, with an opening to receive the end of a handle K, for the purpose either of withdrawing the bar or reciprocating the entire grate in horizontal directions. The head J of said support rests on the part L of the frame, and the projecting ends of the bars occupy a similar position at the opposite side of the grate on the part M of said frame. The length of the parts L and M and the rods C are such that they limit the shaking motion of the grate.

The bars G unitedly support the grate-sections D and form the central portions of the grate-bars, as fully shown, and when with-

drawn the said grate-sections are allowed to fall, and an increased central space formed for the removal of the ashes and cinders.

My improvement can be readily applied to other shapes of grates, as in Fig. 3, where the formation and arrangement of the parts are embodying many features similar to those shown in Fig. 1. In this instance, however, two hooks E are supplied to each grate-section. The parts L and M are preferably flat on their upper sides, and the guide-rod C, which is curved where engaged by the hooks E, is cut away or flattened at said parts L and M.

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

1. A grate consisting of a frame having the guide-rods C and the ears B, the latter secured to and extending outward from said rods, grate-sections having eyes in adjacent ends, and a detachable support having bars adapted to pass through said eyes and sustain said sections on said frame, said sections having hooks E, adapted to bear on said guide-rods C, serving as hinges for said sections, said parts being combined substantially as described.

2. The combination of the guide-rods C, having ears B secured thereto, two grate-sections formed of bars and having eyes at adjacent ends, the support H, having a head and two bars, the latter adapted to pass through said eyes and sustain said sections, and hooks on said sections bearing on said guide-rods, said guide-rods having flattened portions on which said support H is adapted to move, substantially as described.

3. A grate consisting of an outer frame, grate-sections formed of bars hinged to said outer frame, and a detachable support having bars inserted in the eyes at the inner end of the said sections, and having its ends resting on flattened portions of the outer frame, said parts being combined substantially as described.

FRANCES M. GOODALL.

Witnesses:

JOHN A. WIEDERSHEIM,
A. P. JENNINGS.