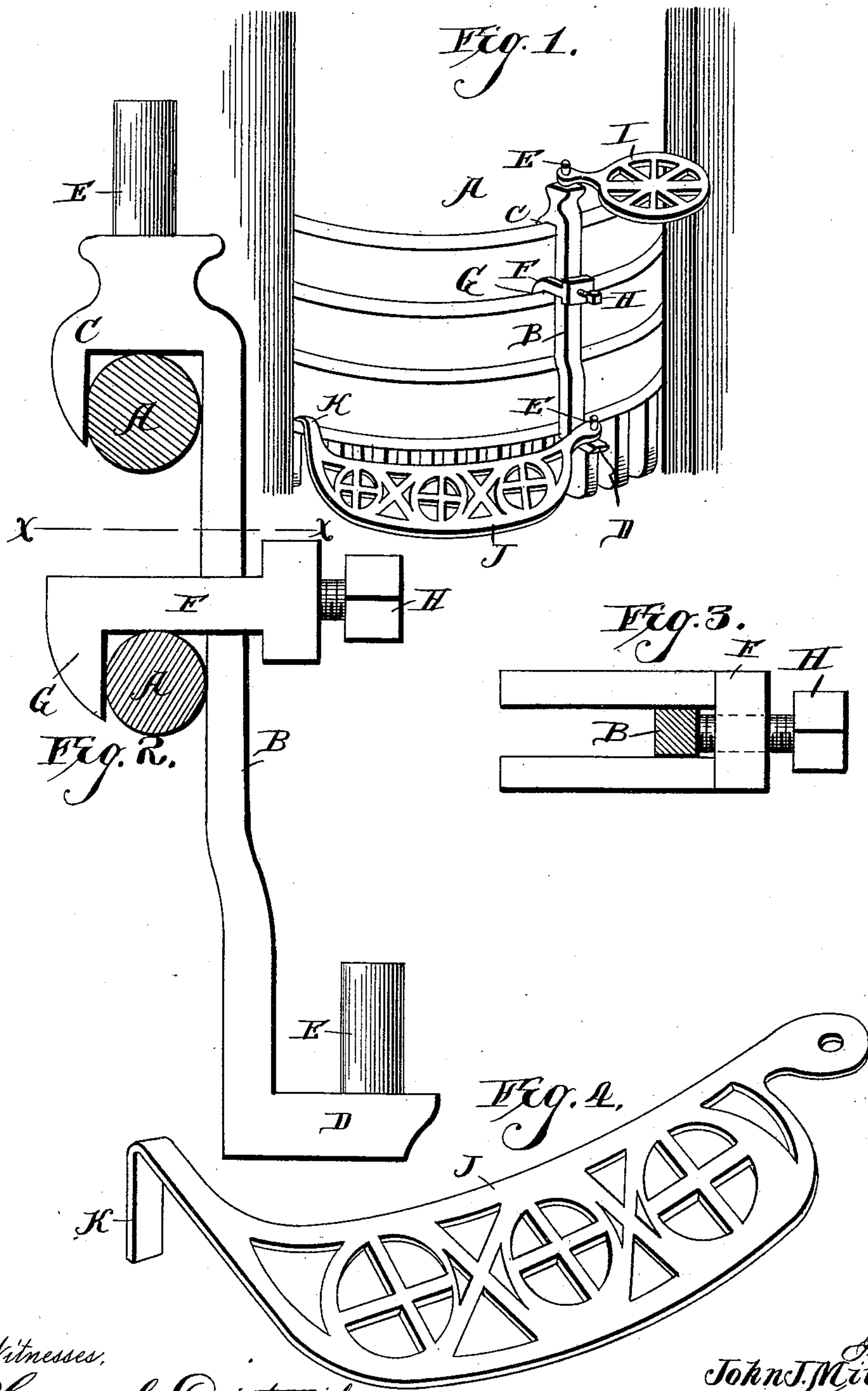


(No Model.)

J. J. MITCHELL.
GRATE ATTACHMENT.

No. 404,423.

Patented June 4, 1889.



Witnesses,
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UNITED STATES PATENT OFFICE.

JOHN JAMES MITCHELL, OF BIRMINGHAM, ALABAMA.

GRATE ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 404,423, dated June 4, 1889.

Application filed March 19, 1889. Serial No. 303,849. (No model.)

To all whom it may concern:

Be it known that I, JOHN JAMES MITCHELL, a citizen of the United States, residing at Birmingham, in the county of Jefferson and State of Alabama, have invented new and useful Improvements in Grate Attachments, of which the following is a specification.

My invention relates to improvements in grate attachments; and it consists in certain novel features hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a perspective view of a grate having my improved attachment applied thereto. Fig. 2 is detail view showing the supporting-bar in elevation and the grate-bars in section. Fig. 3 is a horizontal section on the line *xx* of Fig. 2. Fig. 4 is a detail view of the extended shelf or supporting-plate.

Referring to the drawings by letter, A designates the grate, of the usual or any preferred construction, and B designates the shelf-supporting bar, provided at its upper end with a hook C, adapted to engage one of the grate-bars and at its lower end with the forwardly-projecting lug D, as shown, and on the upper side of the lug D and the hook C the shelf-supporting bar is provided with the pins E, as shown, which serve as pivots for the shelves.

F designates a clamping-stirrup, bail, or U-shaped bar, which is adapted to pass on opposite sides of the shelf-supporting bar, and is provided at the ends of its arms with the downwardly-projecting lugs or hooks G, which are adapted to engage one of the grate-bars, as clearly shown. In the shoulder or outer portion of this clamping-bar I mount the set-screw H, which is adapted to bear against the front side of the shelf-supporting bar and thereby clamp the said bar and the stirrup against the grate-bar.

I designates a swinging shelf or supporting-plate, which is mounted on the upper pivot-pin E, and is similar in construction to the shelf shown in Letters Patent No. 264,553, granted to me September 19, 1882, and operates in the same manner as said shelf. On the lower pivot-pin E, I mount the extended shelf J, which is adapted to extend across the entire front of the grate, and provided at its

free end with a depending hook, K, which is adapted to engage over one of the grate-bars, as clearly shown in Fig. 1.

From the foregoing description, taken in connection with the accompanying drawings, it will be seen that I have provided an extremely simple grate attachment by means of which a vessel may be supported near or over the fire, so as to heat water or to maintain edibles at the desired temperature. The upper shelf can be swung over the fire, so as to cook food, as will be readily understood, while the extended shelf is more especially adapted to holding the cooked food in front of the fire to prevent its losing its temperature.

My improved device can be applied to any grate and can be adjusted to any desired height of the same or from side to side thereof. The extended shelf can be removed, if so desired, and a single shelf similar to the shelf I, but having an extended stem or offset, be used so that two vessels can be supported over the fire, as will be readily understood.

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

1. A grate attachment comprising a shelf-supporting bar provided at its upper end with a hook adapted to engage the grate-bar and at its lower end with a forwardly-projecting lug and the shelves pivotally mounted on said lug and the upper end of the bar, as set forth.

2. The combination of the shelf-supporting bar provided at its upper end with a hook adapted to engage the grate-bars and a pivot-pin projecting vertically from said end and provided at its lower end with a forwardly-projecting lug and a pivot-pin on the upper side of said lug, the shelves mounted on the pivot-pins, and the clamping-bar adapted to pass around the supporting-bar and engage one of the grate-bars and be clamped to the supporting-bar, as set forth.

3. The combination of the shelf-supporting bar provided at its upper end with a hook adapted to engage the grate-bar, the swinging shelf mounted on the said supporting-bar, the clamping-bar passing on opposite sides of the shelf-supporting bar and provided with depending hooks adapted to engage the grate-

bar, and the set-screw mounted in said clamping-bar and bearing against the shelf-supporting bar, as set forth.

4. In a grate attachment, the combination
5 of the shelf-supporting bar and the extended shelf pivotally mounted at the lower end of said bar and provided at its free end with a depending hook adapted to engage one of the grate-bars, as set forth.

10 5. In a grate attachment, the shelf-supporting bar clamped to the grate, the shelf I, piv-

oted to the upper end of the said bar, and the shelf J, pivoted to the lower end and having the hook K at its outer end to engage one of the grate-bars, as set forth. 15

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

JOHN JAMES MITCHELL.

Witnesses:

JOHN P. CARPENTER,

PHILIP D. MACKEY.