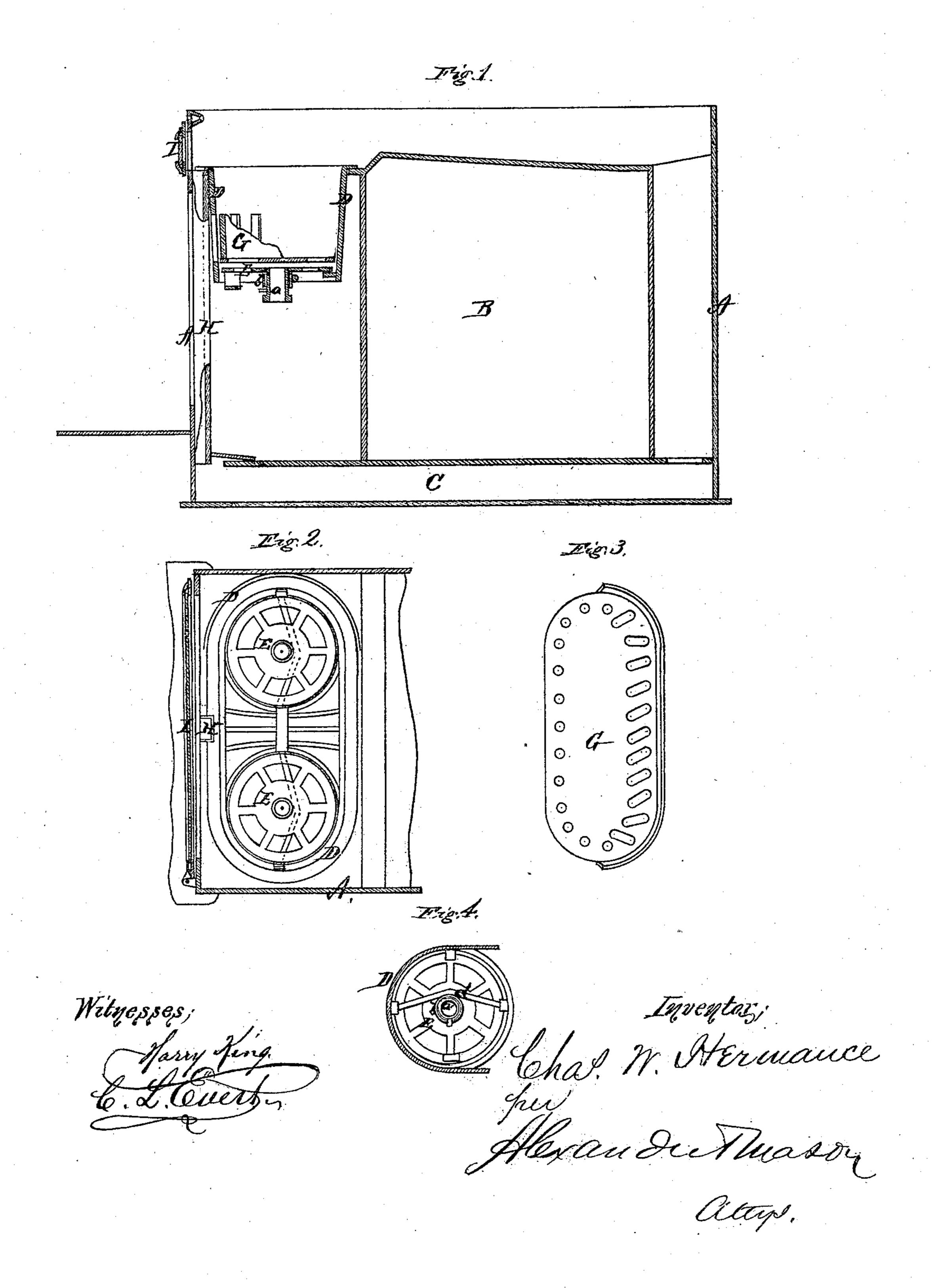
## C. W. HERMANCE. Cooking Stove.

No. 98,964.

Patented Jan. 18, 1870.



## Anited States Patent Office.

## CHARLES W. HERMANCE, OF SCHUYLERVILLE, NEW

Letters Patent No. 98,964, dated January 18, 1870.

The Schedule referred to in these Letters Patent and making part of the same

To all whom it may concern:

Be it known that I, CHARLES W. HERMANCE, of Schuylerville, in the county of Saratoga, and in the State of New York, have invented certain new and useful Improvements in Cooking-Stoves; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The nature of my invention consists—

First, in suspending a cast-iron fire-box, or chamber, in front of the oven of a cooking-stove, in such a manner as to admit of a free circulation of air around the same, thereby obviating the necessity of using fire-brick to protect the fire-chamber from the effects of heat while burning coal.

Second, in the combination, with the fire-box or chamber of a cooking-stove or range, of one or more

round or circular dumping fire-grates.

Third, in the construction and combination, with the said dumping fire-grates, of an auxiliary grate, to be used when it is desired to burn wood instead of coal.

Fourth, in the arrangement of a front centre dividing-flue; communicating with, and extending from the fire-box to the oven-bottom flue-space.

Fifth, in the combination, with the front of a cooking-stove or range, above the fire-box, of a mica door,

or illuminating-window.

In order to enable others skilled in the art to which my invention appertains, to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawings, in which-

Figure 1 is a longitudinal vertical section of a cook-

ing-stove, showing my improvements;

Figure 2 is a plan view of the front end of the stove; Figure 3 is a plan view of the wood-grate; and

Figure 4 is a bottom view of one of the dumping fire-grates.

A represents a cooking-stove, of any suitable size and shape, of which B is the oven, and C the oven-

bottom flue-space.

In front of the oven B is suspended a cast-iron firebox, or chamber, D, with square or rounded ends, said box being suspended in such a manner as to admit of a free circulation of air around the same. The circulation of air around the fire-box or chamber D, obviates the necessity of using fire-brick to protect the fire-chamber from the effects of heat, while burning coal.

In the fire-box are two circular grates, EE, each of which is provided with a central tube, a, extending downward.

The tube a is inserted in a collar, b, attached to the side of a bent rod, d, which is pivoted in suitable manner, so as to allow the grate to be dumped when desired. The front side of the fire-box D is cut with vertical slots of suitable height, so as to form the usual grate.

When it is desired to burn wood instead of coal, an auxiliary grate, G, is placed upon the grates E E.

The wood-grate G consists of a plate of suitable size, having suitable perforations for draught, and a rim extending along its front edge upward, so as to cover the openings in the front side of the fire-box D.

In the centre of the front side of the stove is a flue, H, which communicates with, and extends from the fire-box D to the oven-bottom flue-space C, for the purpose of carrying the heat directly from the fire-box to the bottom of the oven.

Above the fire-box of the stove, and in its front side, is a mica door, I, or illuminating-window, which adds greatly to the cheerfulness of the stove.

Having thus fully described my invention,

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

1. In combination with a cooking-stove, or range, the cast-iron fire-box D, provided on its edge with a flange, which rests on a ledge formed on the upper part of the fire-box receptacle, whereby the box is suspended within the stove, with an air-chamber around its sides, ends, and bottom, substantially as set forth.

2. In combination with the fire-box receptacle D, as described, the employment of one or more circular grates, E, which are capable of two movements, namely, a rotary motion in a horizontal manner, and a dumping or a right-angle motion from its normal position, substantially as herein set forth.

3. In combination with the suspended fire-box D, the movable wood-grate G, constructed and applied

substantially as set forth.

4. In combination with a cooking-stove, the front centre flue H, communicating with, and extending from the fire-box to the oven-bottom flue-space, substantially as herein set forth.

5. In combination with the front of a cooking-stove, or range, above the fire-box, a mica door, or illuminating-window, substantially as shown and described.

In testimony that I claim the foregoing, I have hereunto set my hand and seal, this 20th day of November, 1869.

CHARLES W. HERMANCE. Witnesses:

G. F. WATSON, J. H. DE RIDDER.