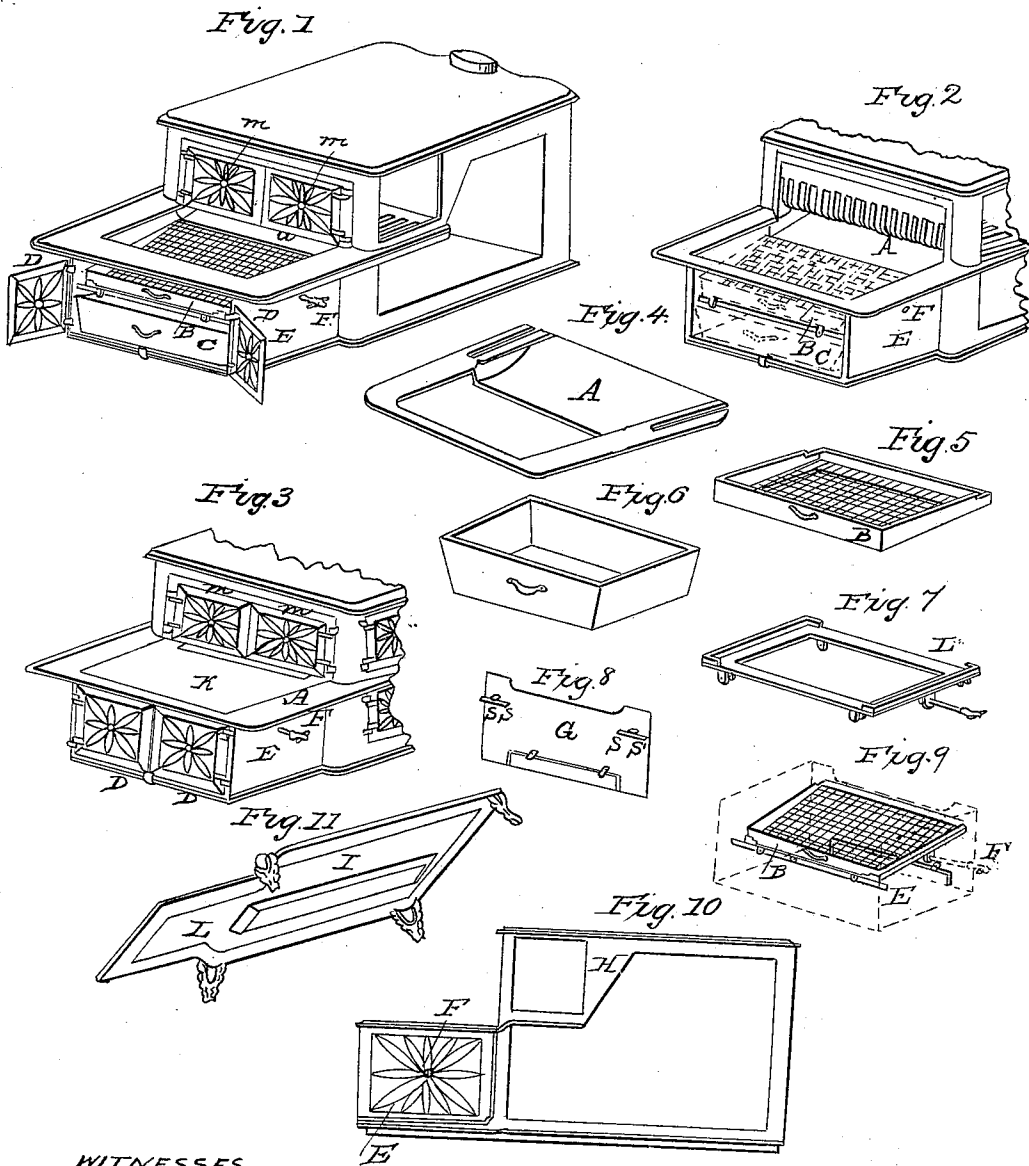


J. SPEAR.
Cooking Stove.

No. 53,497.

Patented March 27, 1866.



WITNESSES
Alfred Vermouth
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UNITED STATES PATENT OFFICE.

JAMES SPEAR, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN COOKING-STOVES.

Specification forming part of Letters Patent No. 53,497, dated March 27, 1866; antedated January 10, 1866.

To all whom it may concern:

Be it known that I, JAMES SPEAR, of the city and county of Philadelphia and State of Pennsylvania, have invented a new and useful Improvement in Ash-Sieves for Cooking Stoves and Ranges; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification, in which—

Figure 1 represents a plan view of the stove with the doors to the ash-pit open; *a*, the guide-plate for the ashes; *b*, the sieve; *c*, the ash-pan; D D, the doors; E, the side of the box; F, the handle to shake the sieve. Fig. 2 represents a sectional view of the same, with the doors to the box removed; Fig. 3, a sectional view, with the ash-sieve and ash-pan inclosed, and the hearth-plate K in its place. Fig. 4 represents the hearth of the stove with the ash-pit removed; Fig. 5, the sieve; Fig. 6, the ash-pan; Fig. 7, frame or carrier for the sieve *b*; Fig. 8, the partition-plate between the front of the oven and the back part of the ash-box G; Fig. 9, the ash-sieve inclined; Fig. 10, the side-plate of the stove and ash-box combined, H and E; Fig. 11, the bottom plate of the stove and the bottom of the ash-box combined, I and L.

The nature of my invention consists in providing a cooking stove or range with a large box to receive the ashes and a ready means of separating the unburnt coal from the ashes after they are drawn from the fire-chamber and before they are removed from the stove, and also an easy mode of removing both the ashes and unburnt coal from the stove after they are separated.

To enable others skilled in the art to make and use my invention, I will proceed to describe more fully its construction and operation.

Take any of the well-known large-oven cooking-stoves with elevated hearths, such as the Wellington or Columbia cook-stoves, and remove the bottom of the ash-pit or hearth, as is shown in Fig. 4, and in place thereof extend the bottom plate J, Fig. 11, of the stove on a line with the front part of the hearth, forming a bottom for the ash-pit or box, and in front of the box or ash-pit place doors D D, as is

shown in Figs. 1 and 3. The side plates of the stove being extended, as is shown in Fig. 10, letter E, forms sides for the box or ash-pit, and in this inclosed box place a sieve in an inclined position, resting on a frame, Fig. 7, to which frame a handle is attached, extending through the side of the box, as is shown in Fig. 3, letter F. This frame is supported by a bar, O, Fig. 9, running lengthwise in the box, and lugs S S, Fig. 8, on the partition-plate G. By taking hold of the handle F, Fig. 3, and moving it back and forth with a rapid motion, you vibrate the sieve and cause the ashes to separate from the unburnt coal. The box or ash-pit, being entirely closed, as shown in Fig. 3, no dust can escape into the room, as the heat from the fire and the suction of the chimney form a vacuum in the box, thereby causing the finest particles of ashes to become, as it were, a piece of lead, which falls immediately into the ash-pan. Consequently no dust can possibly escape. The sieve and ash-pan being entirely inclosed, as is shown in Fig. 3, is a decided improvement on my patents of February 19, 1861, and April 15, 1862. Again, the sieve being inclined, the unburnt coal will roll by the motion of the sieve to the front part of the sieve, and will allow the ashes to fall through the sieve more easily than when the sieve lies in a flat position.

Having thus fully described the nature of my invention, what I wish to secure by Letters Patent is—

1. The application of an inclined sieve, when applied within the limits of a stove or range, as shown and described.

2. The sieve B, the doors D, the hearth-plate A, the partition-plate G, and frame L, arranged and combined substantially as described.

3. The bottom plate J and L, when arranged in combination with the partition-plate G and hearth-plate A, as shown and described.

4. The inclosed sifting-pan B, capable of being vibrated, in combination with an ash-pan, C, when both are applied to a stove or range, as shown and described.

JAMES SPEAR.

Witnesses:

ALFRED WEYMOUTH,
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