J. A. LAWSON.
Cooking-Stove.

No. 206,252. Patented July 23, 1878.

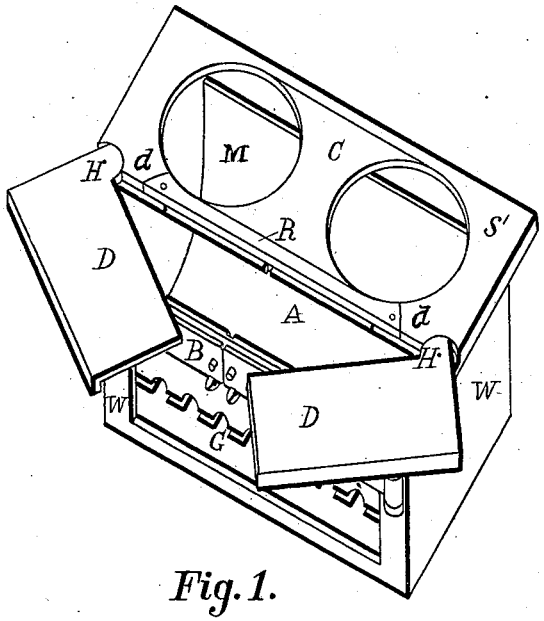



Fig. 1.

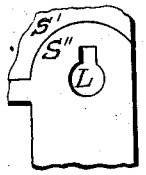



Fig. 4.

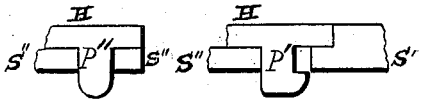
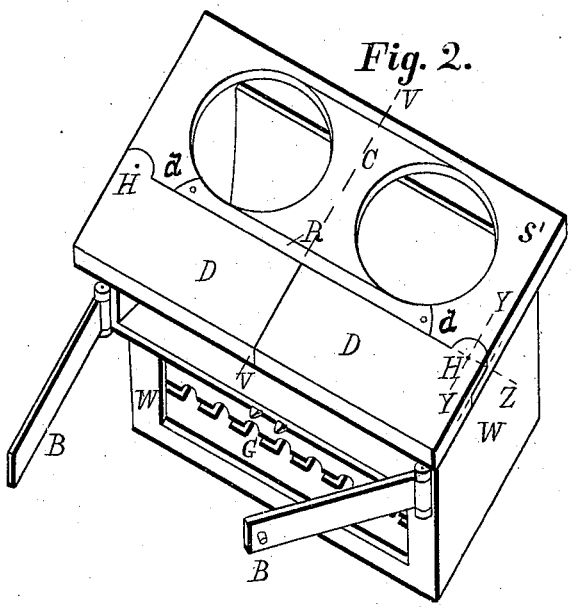



Fig. 5. Fig. 6.

Fig. 2.



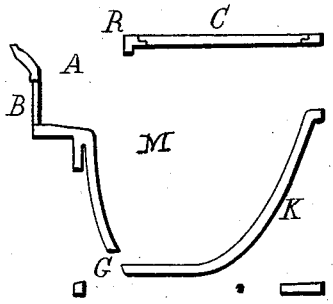




Fig. 3.

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# UNITED STATES PATENT OFFICE.

JAMES A. LAWSON, OF TROY, NEW YORK.

## IMPROVEMENT IN COOKING-STOVES.

Specification forming part of Letters Patent No. **206,252**, dated July 23, 1878; application filed January 9, 1878.

*To all whom it may concern:*

Be it known that I, JAMES A. LAWSON, of the city of Troy, county of Rensselaer, and State of New York, have invented a new Improvement in Cooking-Stoves, of which the following is a specification:

The nature of my invention consists in the manner of arranging and constructing a fuel-supply aperture and covers to close the same, as applied to cooking-stoves, the object of which is to produce a large and convenient opening for putting in the fuel at the top of the stove and over the fire, so that when wood is used the sticks may be put in on their sides, instead of being forced in at the usual end fire-door, and the fuel-supply aperture may be easily opened and closed.

My invention consists in making a fuel-supply aperture in the top at the front and over the fire-chamber, and combining therewith two horizontally-swinging covers with the latter, each swinging from their line of union with the top at their pivoted corners, separating as they swing out to uncover the fuel-supply aperture, and approaching each other to cover the same by contact, and so arranged that each cover may be operated independently of the other, and so as to uncover a part of the fuel-aperture when desired, or the whole of it by both.

My invention also consists in combining, with a fuel-feeding aperture and two horizontally-swinging covers, a removable center-piece rest, so that when the covers are swung out the center-piece rest and center-piece may be removed and the whole area of the fire-chamber top opened when it is desired to insert a very large stick of wood, which is too knotty to split, and which cannot be passed in at the other aperture.

My invention also consists in combining, in a cooking-stove, the fuel-supply aperture formed in the top at the front, and provided with the two horizontally-swinging covers, and the doors opening into the front of the fire-chamber beneath the top for the insertion of broiling apparatus.

My invention also consists of combining, in a cooking-stove, the fuel-supply aperture formed in the top at the front with the horizontally-swinging covers and the removable center-piece rest, together with the front doors beneath the top, and opening into the fire-chamber for the insertion of a broiling apparatus.

In the accompanying drawings there are six figures illustrating my invention, and these are shown in connection with the parts of a cooking-stove to which they relate, and in all the drawings the same letters are applied to designate the same parts.

Figure 1 exhibits, in perspective, a section of a cooking-stove, showing my invention with the fuel-aperture formed in the top and the pivoted swinging covers partly opened. This illustration also shows the removable center-piece rest and center-piece. Fig. 2 exhibits the section of a stove in perspective, with the pivoted swinging covers closed and in contact upon their closing edges; also the doors in the front below the top opening into the fire chamber for the insertion of a broiling apparatus. Fig. 3 shows a vertical section of the part of a stove containing my invention, and as taken on the line V V of Fig. 2. Fig. 4 exhibits a top view of the turn-table plate formed in the stove-top, and as having an aperture, through which the feathered pivot attached to each of the covers passes, and on which they swing horizontally. Fig. 5 shows a section of the cover and the pivot, as well as the circular turn-plate formed in the top and below the plane of the latter, taken vertically on the line H Z of Fig. 2. Fig. 6 exhibits a section of the feathered pivot, the cover to which the latter is attached, the semicircular turn-table formed in the top, all taken on the line Y Y vertically of Fig. 2.

The several parts of the stove are designated by letter-reference as follows: The fuel-aperture is shown at A as formed upon the top and front, and as extending across the same. The horizontally-swinging and pivoted covers are designated at D D, and as having semicircular turn-plate corners at H H. The letter M is placed to denote the fire-chamber, S′ the stove-top, and S″ S″ a semicircular turn-table section formed in the latter, and in a lower plane than the rest of the top, and which coincides in form with that of the turn-plate corners H H, formed in the covers. The removable center-piece rest is designated at R as forming a striking-face for the closed

covers and a support at the front for the usual center-piece C, placed between the boiler-holes. The letters B B are used to denote the doors beneath the top, at the front, which open into the fire-chamber below the stove-top, to insert a broiling apparatus. W W designate the exterior perpendicular walls of the stove; G, the grate; K, the rear wall of the fire-chamber. At L is shown the aperture in the turn-table plate. P′ designates the pivot and feather, and P″ the pivot with the feather turned back. The removable center-piece rest has a lip formed upon each edge at the end, and this rests upon a corresponding flange formed upon the under side of the top. A dowel or pin attached to the rest passes through a hole made in the flange formed on the lower edge of the top, as shown at *d d* of Fig. 1, from which means of support the center-piece rest may be easily lifted out and removed.

With the fuel-aperture designated at A, and as extending across the front, a large fuel-supply opening is produced, through which wood can be easily fed into the fire, and when combined, in construction, with the two horizontally-swinging covers, it is easily opened and closed, and the fuel can be much more easily inserted than when forced through the usual end door, which opens into the fire-chamber.

When it is desired to burn knotty pieces of wood, and such as cannot be split, and are too large to be put into the fire-chamber through the aperture A, then the removable center-piece rest R may be taken out, also the center-piece C, which it supports, which will uncover the whole top of the fire-chamber, so that pieces of wood as large as the fire-chamber may be inserted—a great convenience where wood is burned and it is desired to keep up a slow fire through the night without replenishing.

There being two horizontally-swinging pivoted covers, a part of the fuel-aperture can be opened by swinging out one of them, or the whole area of it by both, and thus a very large fuel-supply aperture can be utilized without the necessity of operating one large cover, which would be heavy and cumbersome, and which would project too far from the stove to be convenient.

I am well aware that a fuel-supply aperture has been formed in the top and at the front of a cooking-stove designed to burn coal, which was closed by a single swinging cover; but a single swinging cover must necessarily be limited to an opening of only a portion of the top over the fire-chamber, and it could not be used where the whole length of the fire-chamber was uncovered without great inconvenience. In fact, a horizontally-swinging cover made in a single piece, and extending across the whole front, would so warp, from its length and the unequal expansion to which it would be exposed, as to become inoperative and useless. By the use of two swinging covers, however, this difficulty is avoided, and a fuel-supply aperture utilized which extends across the whole front of the top, if desired, and by means of which a removable center-piece rest is made available, so that the whole area of the top over the fire-chamber may be uncovered, and large knotty pieces of wood may be inserted and burned, which could not be used were the fuel-supply aperture restricted to the size necessary to make a single horizontally-swinging cover applicable.

While I have shown the covers as arranged to swing by means of a feathered pivot, and with the pivot-aperture formed in the semicircular table-plate, the covers may be arranged to swing horizontally to open and close by any pivoting means, provided the semicircular turn-plate is formed in the cover and the coinciding table-plate in the top.

I am well aware that two horizontally-swinging covers have been employed to form a hearth-plate, and hinged to the front stove-wall, arranged to uncover a broiling apparatus; but they were not formed in and pivoted to the usual boiler-hole top, and so as to form, when closed, in parallel continuity, a part of the stove-top.

I am also aware that removable center-pieces are not new, the difference existing between my removable center-piece rest and the usual center-piece being that the rest which supports the center-piece at the front is usually made fixed and cast with and as a part of the top, while in my arrangement of combined parts to open the whole area of the fire-chamber top, the rest may be taken out as well as the center-piece.

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

1. In a cooking stove or range, the combination of the fuel-supply aperture A, formed in the boiler-hole top at the front and over the fire-chamber, and the two horizontally-swinging covers D D, pivoted to the top, each operating independently of the other, to uncover a part of the fuel-supply aperture, and both to uncover the whole of it, and arranged in horizontal continuity with the top, as shown and described.

2. In a cooking-stove, the combination of the fuel-supply aperture A, formed in the top and at the front, and the two horizontally-swinging pivoted covers D D, the semicircular turn-plates H H, formed with the covers, the coinciding table-plates S″, formed in the stove-top, the pivoting-apertures L, and the feathered pivot P″, arranged to operate as and for the purposes herein described and set forth.

3. In a cooking stove or range, the fuel-supply aperture A, formed in the boiler-hole top at the front and over the fire-chamber, and the two horizontally-swinging covers D D, pivoted to the top with the center-piece rest R, removable by means of its flange, dowel, or

pins, combined and arranged to uncover the whole area of the fire-chamber top, in the manner as shown and described.

4. In a cooking-stove, the combination of the fuel-supply aperture A, formed in the top and at the front, the two horizontally-swinging pivoted covers D D, the removable center-piece rest R, with the doors B B, opening into the fire-chamber at the front beneath the top, arranged to operate as and for the purposes described and set forth.

Signed at Troy, New York, this 12th day of December, 1877.

JAS. A. LAWSON.

Witnesses:
BERNARD BLAIR,
CHARLES S. BRINTNALL.