G. W. WALKER.

Portable Range.

No. 161,365. Patented March 30, 1875.

Fig: 1.

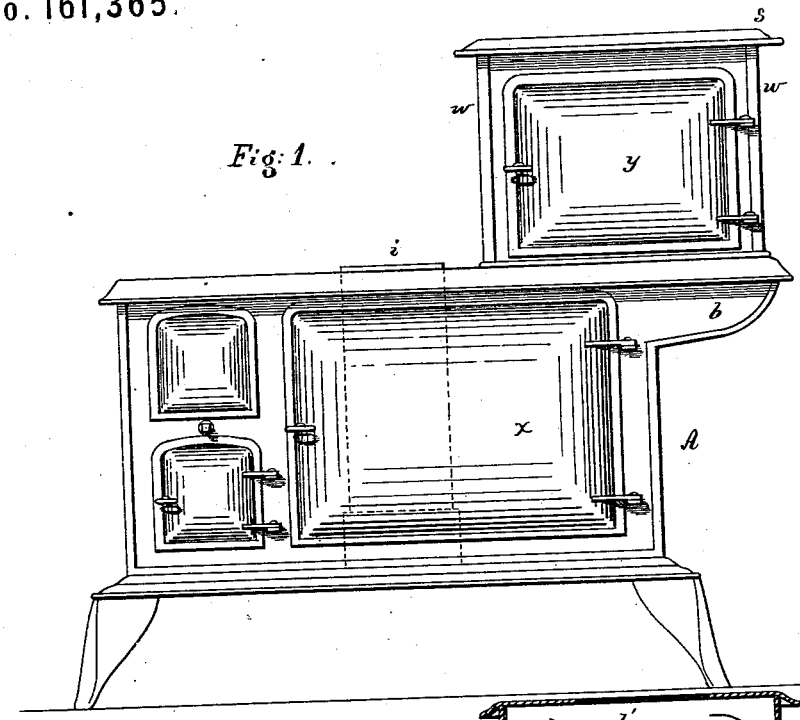
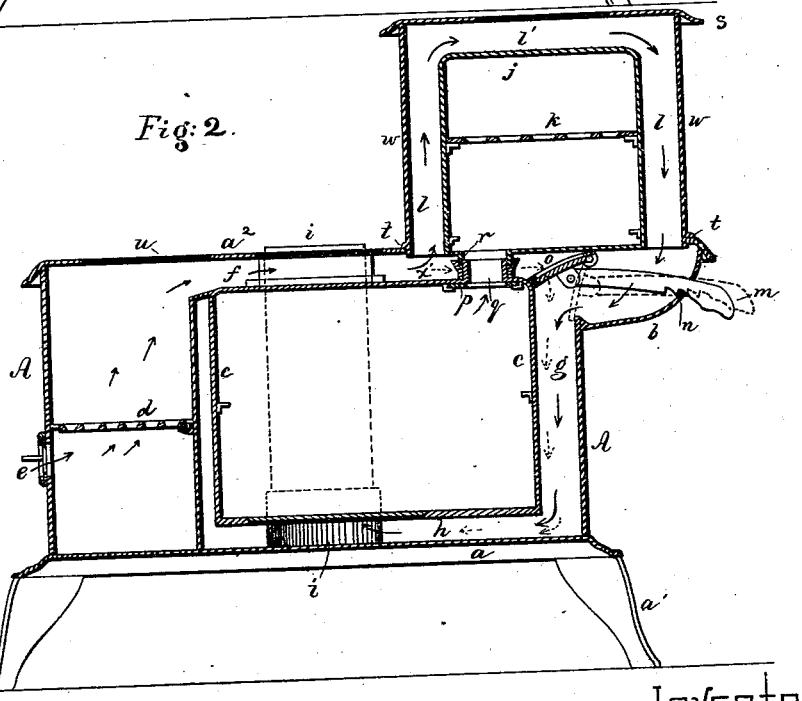



Fig: 2.




Witnesses.
L. H. Latimer.
Wm. Pratt.

Inventor.
George W. Walker
per Crosby & Gregory

# UNITED STATES PATENT OFFICE.

GEORGE W. WALKER, OF MALDEN, MASSACHUSETTS.

## IMPROVEMENT IN PORTABLE RANGES.

Specification forming part of Letters Patent No. **161,365**, dated March 30, 1875; application filed February 6, 1875.

*To all whom it may concern:*

Be it known that I, GEORGE W. WALKER, of Malden, in the county of Middlesex and State of Massachusetts, have invented an Improved Portable Range, of which the following is a specification:

My invention relates to an improved portable range, and consists in the combination, with a range-body, its oven, and a damper, of an elevated oven and flues, whereby the products of combustion are conducted over the lower oven, then about the elevated oven, and then about the lower oven, substantially as described.

Figure 1 represents a side view of a portable range provided with my improvements, and Fig. 2 is a longitudinal section thereof.

A represents the body of the range, mounted on suitable legs $a^1$. The grate $d$, of any proper kind, is mounted in the fire-chamber. The top plate $a^2$ is provided with the usual openings $u$. The fire-chamber is supplied with air at the slide-opening $e$, and the pipe for carrying away the products of combustion is shown at $i$ by dotted lines. The range-oven is designated by $c$, and about its walls are spaces or ways $f\ g\ h$, for the passage of the products of combustion. When the register-damper $o$ is in the position denoted by dotted lines the products of combustion, after reaching the point $x'$ in the way $f$, pass on in the direction of the dotted arrows, and about the oven $c$, and out of the pipe $i$; but when the register-damper is turned, as in Fig. 2 in full lines, in which position it is generally to be retained, then the products of combustion pass through ways or flues $f\ l\ l^1\ l^2\ g\ h$ to the pipe $i$, passing about both ovens, as designated by the full arrows, and heating them. The damper is held in adjusted position by means of its notched controlling-arm $m$, adapted to engage the stove-frame. At the back of the range-body I cast or otherwise form a projection, constituting a passage or flue, $b$, which communicates with the passage $l^2$ at the back of the elevated oven, and this construction enables the products of combustion to circulate freely about the elevated oven when desired, and also enables me to economize room on the top plate. The pipe $i$, for carrying away the products of combustion, instead of projecting from the top of the range near the elevated oven, is placed at the side of the range, and the top of the elevated oven is provided with open spaces to receive kettles or a boiler.

When it is desired to heat both ovens, which is the great object of my invention, and which is usually the case, then the register-damper $o$ is placed as shown in full lines in Fig. 2, and the products of combustion pass freely about both; but when it is desired to heat the range-oven principally the register-damper is turned to the position shown in dotted lines, then the circulation through ways $l\ l^1\ l^2$ being stopped the products of combustion pass about the oven $c$. This register-damper is arranged to swing and cut off the passage of the products of combustion between ways $f\ g$, or between way $g$ and the flue $b$.

A thimble or sleeve, $r$, projecting from the bottom of the elevated oven, enters a sleeve or thimble, $q$, projecting from the top of the range-oven, and in connection therewith there is a movable slide-damper, $p$, or other suitable damper, which I call an oven-damper. This oven-damper enables the heated air in one oven to be let into the other oven when desired. The oven-doors are designated by the letters $x\ y$.

I do not limit my invention to the use of a register-damper, for any well-known form of damper may be used instead, and the pipe $i$ may be otherwise located with reference to the body of the stove.

Having described my invention, I claim—

The combination, with the range-body, its oven, and the damper or plate $o$, closing the end of the flue-space $f$ between the two ovens, of the flues $f\ l\ l^1\ l^2\ g\ h$, to convey the products of combustion from the fire-chamber, over the lower oven, about the elevated oven, and then about the lower oven, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

GEORGE W. WALKER.

Witnesses:

G. W. GREGORY,

L. H. LATIMER.