G. W. WALKER.
Cooking-Stove.

No. 202,205. Patented April 9, 1878.

Fig. 1.

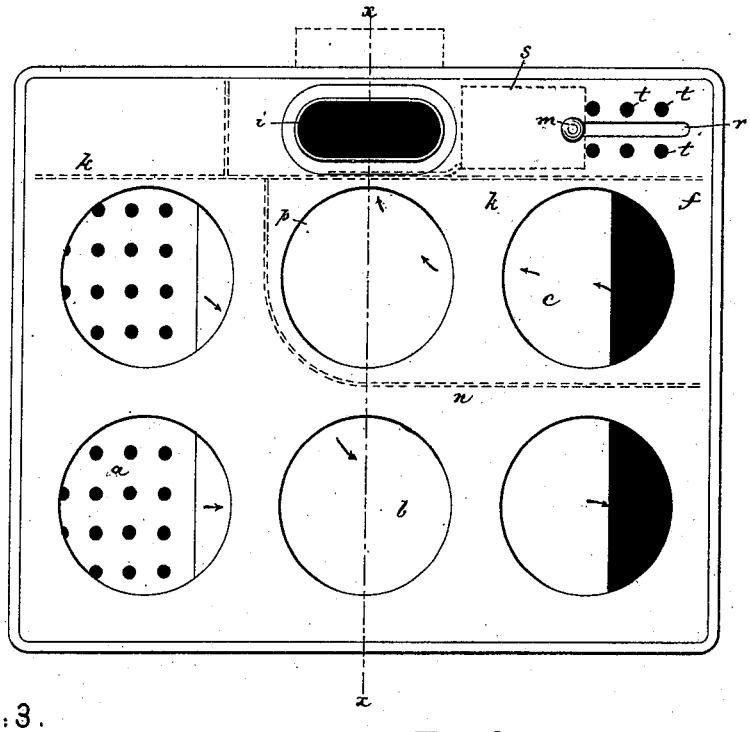


Fig. 3.

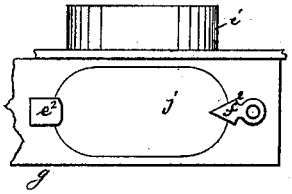
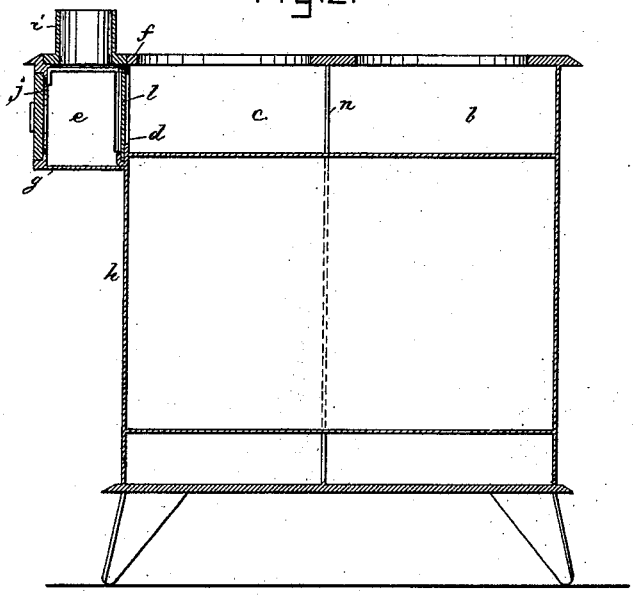


Fig. 2.



Witnesses.

A. Hunerwadel

W. J. Pratt.

Inventor.

George, W. Walker

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Atty's

UNITED STATES PATENT OFFICE

GEORGE W. WALKER, OF MALDEN, MASSACHUSETTS.

IMPROVEMENT IN COOKING-STOVES.

Specification forming part of Letters Patent No. **202,205**, dated April 9, 1878; application filed March 8, 1878.

To all whom it may concern:

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

This invention relates to range-stoves for cooking purposes. Some stoves have the pipe-collar made separate, so that it may be applied to the top or back of the stove, according to the location of the pipe-receiving opening in the chimney. A detachable pipe-collar and its damper have been made removable together, from the top to the back of the stove, and vice versa; and in another application filed by me concurrently with this I have shown a duplex damper adapted to simultaneously close both the openings into which the pipe-collar may be placed.

In this my present invention, instead of as in the plans before alluded to, in each of which the damper closes two separate openings at the front and back of the stove, just at the base of the pipe-collar, a single damper, so fixed in the stove as to have only a reciprocating motion, is adapted to close a main passage, through which the products of combustion pass before entering the openings communicating directly with the pipe-collar.

Figure 1 represents, in top view, a range-stove provided with my invention; Fig. 2, a vertical section thereof on the line *x x;* and Fig. 3, a back view, showing the covering-plate made interchangeable with the pipe-collar.

The products of combustion from the combustion-chamber *a* pass over the oven through space *b*, thence down by the side of and under the oven, and up through space *c*, as denoted by the arrows, from which space *c* such products pass through the main passage *d*. (See Fig. 2.)

Back of the stove is a chamber, *e*, bounded, as shown in the drawings, by the top plate *f*, and a casting, *g*, extending from below the top plate to the stove-back *h*. The casting *g* may form part of the stove-back. The top plate and the back of the casting *g* each have an opening to receive either the pipe-collar *i* or the covering-plate *j*, to thereby permit the pipe-collar to be placed at the top or back of the stove, the covering-plate closing the opening not in direct communication with the pipe-collar. A partition, *k*, (shown clearly in dotted lines, Fig. 1,) separates the chamber *e* from the space *c*, and the main passage *d* between them is arranged to be more or less closed by a damper, *l*, which slides along over the partition *k*, the handle *m* of the damper projecting out through the stove. By this construction it is obvious that the products of combustion, before entering the chamber *e* and the pipe-collar in either of its two positions, must pass through the main passage *d*, and that by one damper co-operating with it the products of combustion entering the pipe-collar in either of its positions may be controlled. The partition *k* is also of advantage, in that it directs the products of combustion in such a course that they are obliged to pass directly under all the holes of the top plate back of the partition *n*, whereas if the partition *k* were not employed much of the products of combustion would pass into the chamber *e* and fail to be fully effective for the application of heat to any kettle or other thing at the hole *p*. The handle *m* works in a slot, *r;* and near the slot, but coverable by a portion of the damper-shank *s*, (shown in dotted lines, Fig. 2,) are air-holes *t*. These holes and the slot serve to admit air into the chamber *e* when the damper is partially or wholly closed, it during its closing movement uncovering such holes, the amount of air so admitted depending upon the position of the damper. This external air so admitted is prevented from coming in contact with the oven-surface or the vessels in the holes of the top plate. The partition *k*, it will be observed, prevents the escape of gas into the room through the slot or openings *t* when the damper is closed.

I claim—

1. A stove provided with the partition *k*, chamber *e*, and openings for the removable pipe-collar and covering-plate, in combination with a single damper to close or open the main passage leading into chamber *e*, to operate substantially as described.

2. A stove provided at its back with a chamber, *e*, separated from the flue-space of the stove by a partition, *k*, provided with a pas-

sage, *d*, therein, in combination with a damper to open or close such passage, and with a removable pipe-collar and covering-plate, interchangeable, as and for the purpose described.

3. In a stove provided with a chamber, *e*, at its back, the combination, with a damper located therein, of a partition, *k*, provided with a main passage to be closed, as described, by the damper, and a passage uncovered by the damper when covering the passage in the partition, to admit external air into the chamber as the damper is closed.

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

GEO. W. WALKER.

Witnesses:
G. W. GREGORY,
L. A. BAXTER.