(No Model.)

G. HAY.

HEATING STOVE.

No. 442,481. Patented Dec. 9, 1890.

Fig. 1.

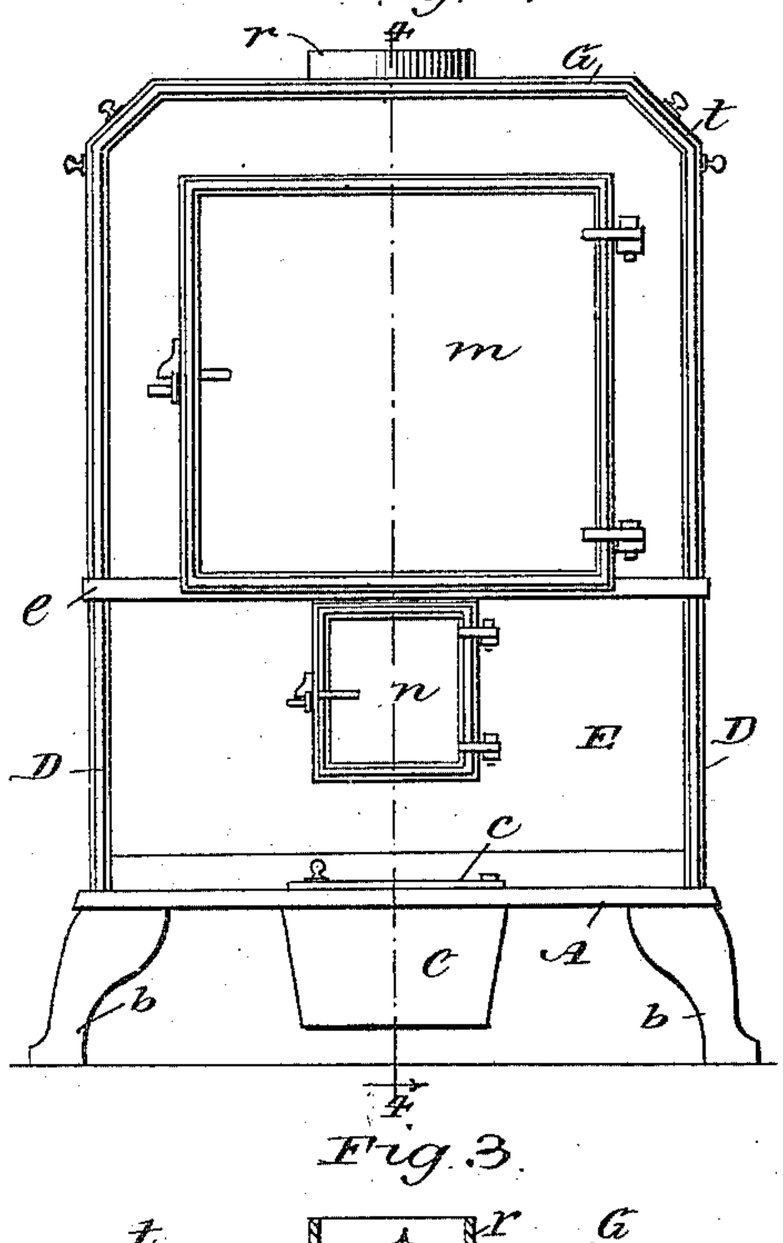


Fig. 3.

Fig. 2.

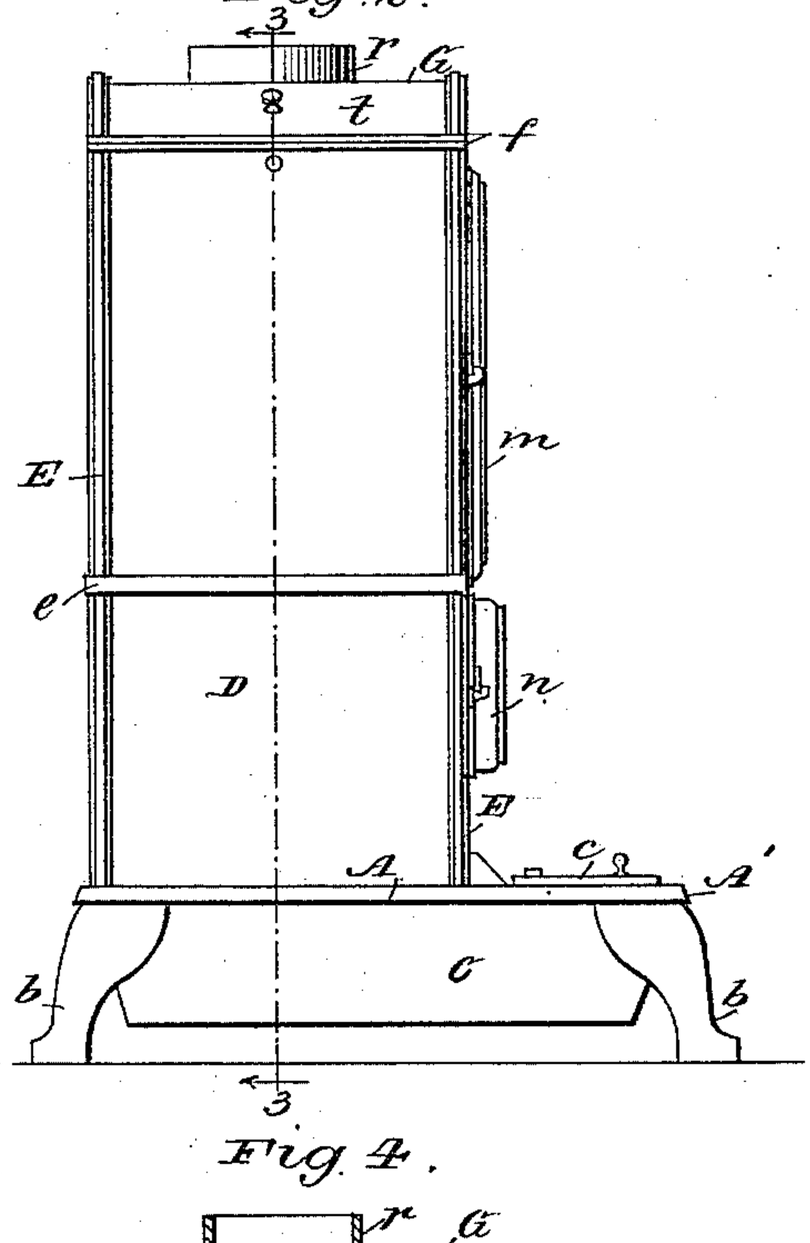
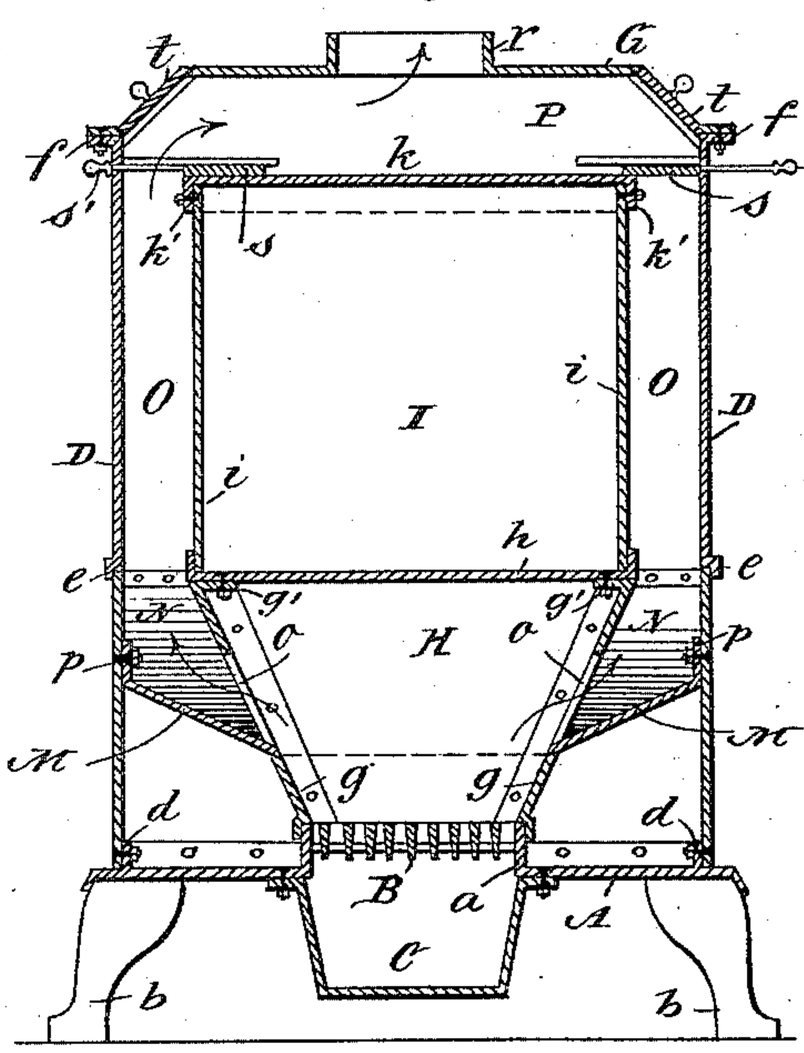
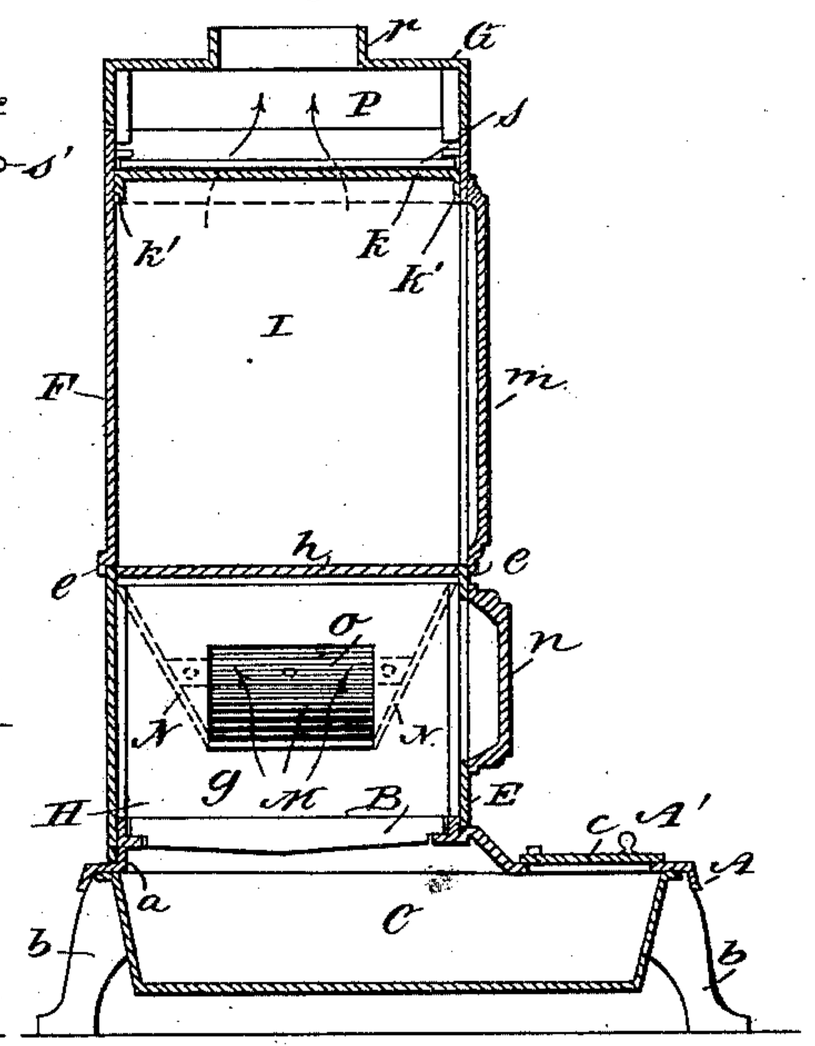


Fig. 4.





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GEORGE HAY, OF PICTOU, CANADA.

HEATING-STOVE.

SPECIFICATION forming part of Letters Patent No. 442,481, dated December 9, 1890.

Application filed June 23, 1890. Serial No. 356,353. (No model.)

To all whom it may concern:

Be it known that I, GEORGE HAY, of Pictou, in the Province of Nova Scotia and Dominion of Canada, have invented a new and useful Heating-Stove, of which the following is a full, clear, and exact description.

This invention relates to an improvement in stoves, and particularly to such as are employed for heating irons for tailors' use, the objects being to furnish a compact and convenient device for quickly heating tailors' irons, or for other similar use, and afford means for controlling combustion, so as to prevent waste of fuel.

To these ends my invention consists in certain features of construction and combination of parts, as is hereinafter described and claimed.

Reference is to be made to the accompanying drawings, forming a portion of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a front elevation of the stove. Fig. 2 is a side elevation of the stove. Fig. 3 is a front elevation in section taken on the line 3 3 in Fig. 2, and Fig. 4 is a side elevation in section taken on the line 4 4 in Fig. 1.

The stove is preferably made of cast metal having a shape which is substantially rectangular, its parts being principally comprised of plates which are formed and assembled, as will be explained.

The base-plate A, rectangular in form, is of such relative dimensions to that of the upright stove-body that it will project forwardly of the same a suitable distance to form a hearth A′. A main rectangular aperture is formed in the base-plate A of proper dimensions to afford draft for the fire-chamber, and around said aperture a border-flange *a* is upwardly extended a short distance, upon the opposite front and rear walls of which flange inwardly-projected ledges are produced for the support of a fire-grate B. The base-plate A is supported by four feet *b*, affixed at the corners, which feet are of such a height as to afford room for the depending ash-pit C, that is formed on or secured to the lower surface of the base-plate, said ash-pit being forwardly extended to nearly reach the front border edge of the base-plate. To afford free access to the ash-pit C, and also to provide for necessary influx of air to the fire-chamber, an orifice is formed in the base-plate A forwardly of the main aperture—that, is below the grate B—said draft-hole being covered by a movable plate *c*.

The side walls D of the stove-body are erected near the side edges of the base-plate A, and are supported vertically and parallel to each other by the attachment of their lower ends to the upright integral flanges *d*, which are formed on the top face of the base-plate A, the front wall E and rear wall F being similarly attached to the base-plate. The four walls D, D, E, and F are preferably divided at about their center, vertically considered, each wall being held intact where its sections are connected by providing the top sections with overhanging and depending flanges *e*, that have a lateral contact with the exterior of the lower wall-sections and retain the upper sections in position laterally, the weight of the combined plates serving to hold them in place, or they may be fastened by screws.

Each of the vertical side-wall plates D have outward flanges *f* formed on them at their upper ends, as shown in Figs. 2 and 3, for the support and attachment thereon of a top plate G, the side portions of which plate are bent downwardly and outwardly, so as to elevate the main portion of the top plate above the flanges formed on its side edges, which are seated upon the flanges *f* of the side walls D.

Within the four walls of the stove-body a fire-chamber H is formed, which is partly comprised of the inclined side plates *g*, that rest with their rabbeted lower edges upon the flange *a*, as shown in Fig. 3, said inclined side plates being extended to join the front and rear walls of the stove-body with their flanged ends, that are secured to these walls by bolts or screws. The upper ends of the side plates *g* are flanged inwardly to lie in the same horizontal plane, as at *g′*, and between the upper ends of these side plates *g* and the side walls D of the stove-body equal spaces intervene.

Upon the flanges *g′* a flat plate *h* is placed, which is the bottom plate of an oven I, that is located above the fire-chamber H. The bottom plate *h* is of a width equal to the distance between the exterior top edges of the inclined side plates *g*, and has upwardly-turned flanges formed on its edges that align with the top

edges of the plates *g*. The side plates *i* of the oven I are of equal height and extend from the front wall E to the rear wall F of the stove-body, against which said plates *i* impinge, and upon the top edges of the oven side plates a top plate *k* for the oven is placed and secured by a bolted engagement of the depending flanges *k'* of the top plate *k* with the side plates *i*, as shown in Fig. 3.

There is an opening formed in the front-wall plate E opposite the oven I to afford access to said oven, which aperture is preferably made equal in area to that of the oven front and is closed by a hinged door *m*.

Opposite the upper portion of the fire-chamber H the front plate E is apertured for the introduction of fuel, a door *n* being provided to seal this opening.

At a proper distance above the grate B the inclined side plates *g* of the fire-chamber H have each an equal-sized aperture *o* cut through to tap the spaces which intervene between the side walls D and plate *g*, and from the lower edges of the apertures *o* inclined flue-plates M are extended upwardly across the spaces mentioned, their flanged edges *p* being fastened by bolts or screws to the inner faces of the upright side walls D, laterally-inclined plates N being extended from the lower plates M to engage the front wall E and rear wall F, as shown by dotted lines in Fig. 4.

As will be seen, the described construction and arrangement of parts afford side flues O between the oven I and side walls D, which flues intersect a horizontal flue P, which extends above the oven.

At a central point in the top plate *k* an orifice is formed for the attachment of a draft-pipe, an integral collar *r* being formed around the hole as usual for the retention of the pipe. (Not shown.)

The horizontal sliding dampers *s* are placed at the junction of the side flues O with the horizontal flue P and are adapted to be moved and to graduate the opening between the vertical flues and horizontal flue by the rods *s'*, which are secured to the dampers and project laterally therefrom.

The upwardly-movable sliding doors *t* are located in proper guides, so as to close openings made in the inclined side portions of the top plate G, these openings being designed to permit the introduction of any suitable cleaning implement for the removal of soot that may form on the top plate of the oven.

It will be evident that by a proper regulation of the opening in the hearth of the stove and adjustment of the dampers *s* the fire in the chamber H may be readily controlled, any suitable fuel being used, and, as the flame will have direct contact with the oven I on four sides of the same, it will be speedily heated to any desired temperature necessary for the heating of tailors' irons or other articles which it may be necessary to heat quickly and evenly.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

1. In a heating-stove, a fire-chamber the side plates of which are apertured to connect the fire-chamber with vertical side flues of the stove, which flues intersect a horizontal flue that is located above an oven that rests upon the fire-chamber side walls, substantially as set forth.

2. A heating-stove having a depressed ash-pit, a fire-chamber above the ash-pit, an oven which rests upon the upper edges of two outwardly-inclined side plates of the fire-chamber, which side walls are apertured to connect the fire-chamber with two vertical draft-flues, a horizontal flue above the oven and having connection with the vertical flues, and a sliding damper for each vertical flue placed at the intersection of the vertical flues with the horizontal flue, substantially as set forth.

3. A heating-stove having a depressed ash-pit, a fire-chamber above the ash-pit, a grate at the base of the fire-chamber, an oven resting on the fire-chamber side plates, draft-apertures in the side plates of the fire-chamber, two opposite vertical flues which are formed between the side walls of the stove-body and the side plates of the fire-chamber and oven, a horizontal flue above the oven which is intersected by the vertical flues, a sliding damper for each vertical flue, which dampers control the draft from the fire-chamber to the outlet-draft aperture of the stove, and removable doors above the dampers which permit access to the horizontal flue, substantially as set forth.

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Witnesses:
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