2 Sheets—Sheet 1.

C. BALDWIN.

STOVE.

No. 181,393. Patented Aug. 22, 1876.

Fig. 1

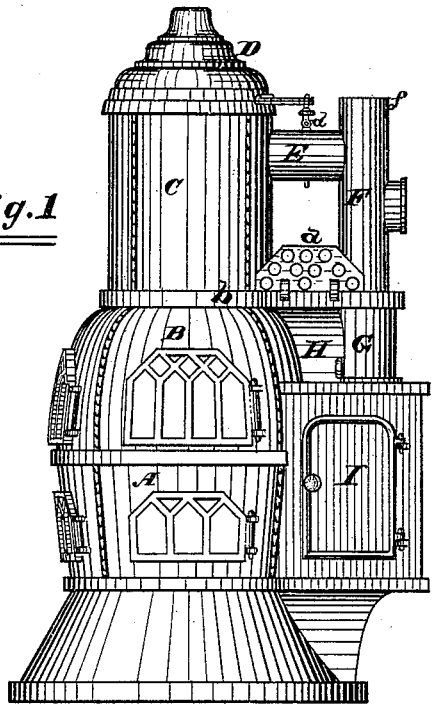
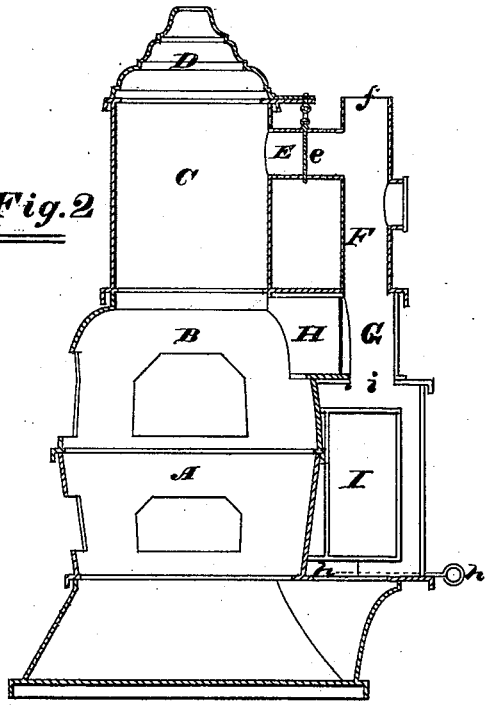


Fig. 2



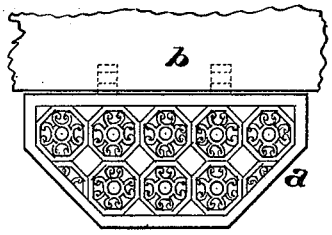


Fig. 3

Fig. 4

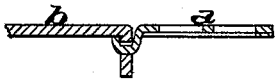
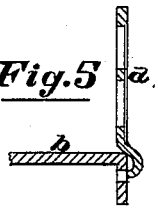


Fig. 5



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2 Sheets—Sheet 2.

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STOVE.

No. 181,393. Patented Aug. 22, 1876.

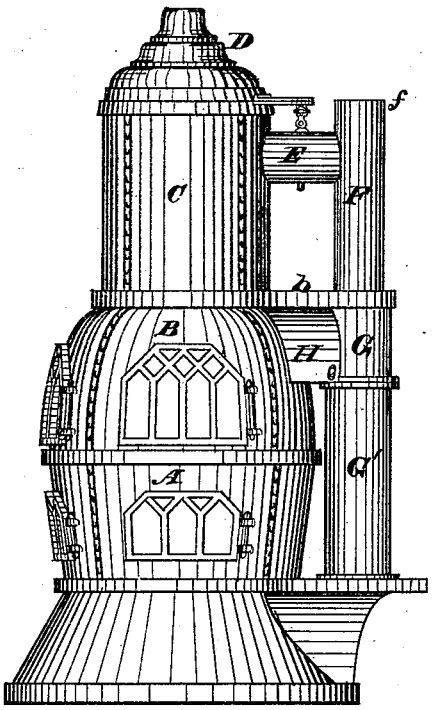

Fig. 6

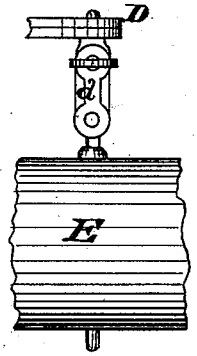

Fig. 7

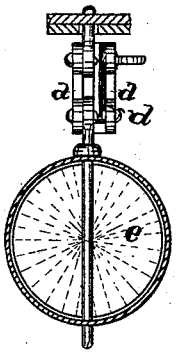

Fig. 8

Fig. 9

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UNITED STATES PATENT OFFICE.

CHARLES BALDWIN, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN STOVES.

Specification forming part of Letters Patent No. **181,393**, dated August 22, 1876; application filed April 29, 1876.

To all whom it may concern:

Be it known that I, CHARLES BALDWIN, of Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Stoves, which is fully described in the following specification, reference being had to the accompanying drawings, in which—

Figure 1 represents a side elevation of a stove, with my improvements attached; Fig. 2, a sectional view of Fig. 1; Fig. 3, a plan view of the shelf attachment; Figs. 4 and 5, detail views of the shelf attachment; Fig. 6, a side elevation, with the oven shown in Fig. 1 removed and a flue-pipe substituted in its place, and Figs. 7, 8, and 9 detail views of the connection between the gas-damper and the swinging top.

My invention relates to improvements upon the stove shown and described in Letters Patent No. 163,442, granted May 18, 1875.

The invention consists in special devices for connecting the gas-damper in the cross-pipe with the swinging top or cover of the stove, so that when the cover is swung out to open the top the damper will be opened, and vice versa; also, in the construction and arrangement of the center top shelf hinged thereto, drum, and back pipe, so that the shelf may be turned up out of the way when not desired for use; and also in making the back flue-pipe with a removable section, which is interchangeable with a small oven constructed for this purpose.

In the drawings, A represents the fire-pot of the stove, above which is the combustion-chamber B, and above that the drum C. The drum C contains the fuel-reservoir, and is surmounted and protected by a swinging cover, D. At the rear of the drum is a cross-pipe, E, which opens into the back pipe F, the upper end of which is connected with the exit-flue at *f*. The cross-pipe E is for the purpose of conducting off the gas from the reservoir, when the latter is opened by swinging round the cover, and thus preventing it from coming out into the room. To effect this a damper, *e*, is placed in the pipe, which is closed ordinarily, so that there shall be no draft up through the reservoir, but must be opened when the cover is opened to permit the gas to escape into the pipe F, and out through the exit-flue. Heretofore this damper has been turned by hand, independently of the cover. I connect it to the rear extension of the cover by means of the link-pieces *d d*, which are attached to both parts by bolts passing through the respective ends of the link-pieces, and suitable lugs on the damper and cover.

It will thus be seen that by means of this attachment the damper must always be turned with the cover, and the connecting devices being properly arranged the damper will be opened when the cover is opened, and closed when the latter is closed.

In order to properly adjust the link-pieces, and compensate for any lost motion on account of wear, a small piece, *d'*, is employed, having a hole in its upper end, through which the upper bolt passes, and recessed at its lower end, so as to rest firmly upon the lower bolt, or it may be attached to the lower bolt and rest on the upper one. This piece is placed upon one side or the other of the lugs on the damper and swinging cover, for the purpose of adjusting them to secure the proper relation of the two parts. The link-pieces *d* may be disconnected from the cover D by removing the upper bolt, and turned down, if desired, so as to form a handle, by means of which the gas-damper may be turned by hand instead of automatically through the cover, as heretofore described.

Shelves *a* are attached to the center top *b*, or name-ring, as it is sometimes called, of the stove. These shelves or supports are attached to the center top by ordinary curved lips, which fit into holes in the side of the center top *b*, as clearly shown in Figs. 4 and 5 of the drawings. They are attached to the rear extension of the center top *b*, which is made to accommodate the flue-pipes at the rear of the stove, and are located on each side of this extension. The space between the drum C and the back pipe F is sufficiently large to receive these plates, which may be turned up into said space, so as to be out of the way when not required for use, this position being shown in Fig. 5 of the drawings. These shelves are exceedingly convenient to support any small cooking utensil or article, which it may be desired to gently warm.

In the construction of the patented stove above referred to a pipe is placed at the rear of the fire-pot and combustion-chamber, for the purpose of accommodating circulating flues, which should be provided in a stove made for use. This pipe has been made heretofore in one piece, its upper end being connected directly with the combustion-chamber by means of the pipe H. I make this flue-pipe G with a removable part, G′, below the connecting-pipe H, and provide a small oven I, constructed so as to be substituted in place of the pipe G′ when removed. For this purpose the oven must be constructed with openings *i*, which will fit under the opening in the pipe G, so that when the oven is put in place the openings will register. The oven should be constructed with suitable flues, so that the products of combustion may be carried down on one side of it, and up the other, in the usual way, for the purpose of heating it, suitable dampers being arranged in the pipes to accomplish this result.

When it is not desired to heat the oven the dampers are turned so that the products of combustion pass directly through the pipes H and G into the pipe F and out at the exit-flue *f*.

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

1. The combination of the swinging cover D, damper *e*, and link-pieces *d*, substantially as and for the purpose set forth.

2. The combination of the cover D, damper *e*, link-pieces *d*, and adjusting-piece *d′*, substantially as and for the purpose set forth.

3. The link-pieces *d*, pivoted to the damper *e*, and constructed as specified, so as to be used either for connecting the damper to the swinging top or for a handle to operate the damper independently, substantially as described.

4. The combination of the drum C, pipe F, center top *b*, having a rear projection, and shelves *a*, all constructed and arranged as shown, so that the shelves may be turned up into the space between the reservoir and pipe when not in use, substantially as described.

5. The combination of the exit-pipe H, short flue-pipe G, and projecting base-plate of the stove, all constructed and arranged as shown, so as to permit the application at pleasure of either a removable oven, I, or a removable flue-pipe, G′, between the pipes H and G, and the rear extension of the base-plate, substantially as described.

CHARLES BALDWIN.

Witnesses:
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J. M. THACHER.