2 Sheets—Sheet 1.

C. TRUESDALE.

Cook-Stove.

No. 205,925. **Patented July 9, 1878.**

FIG. 5.

FIG. 1.

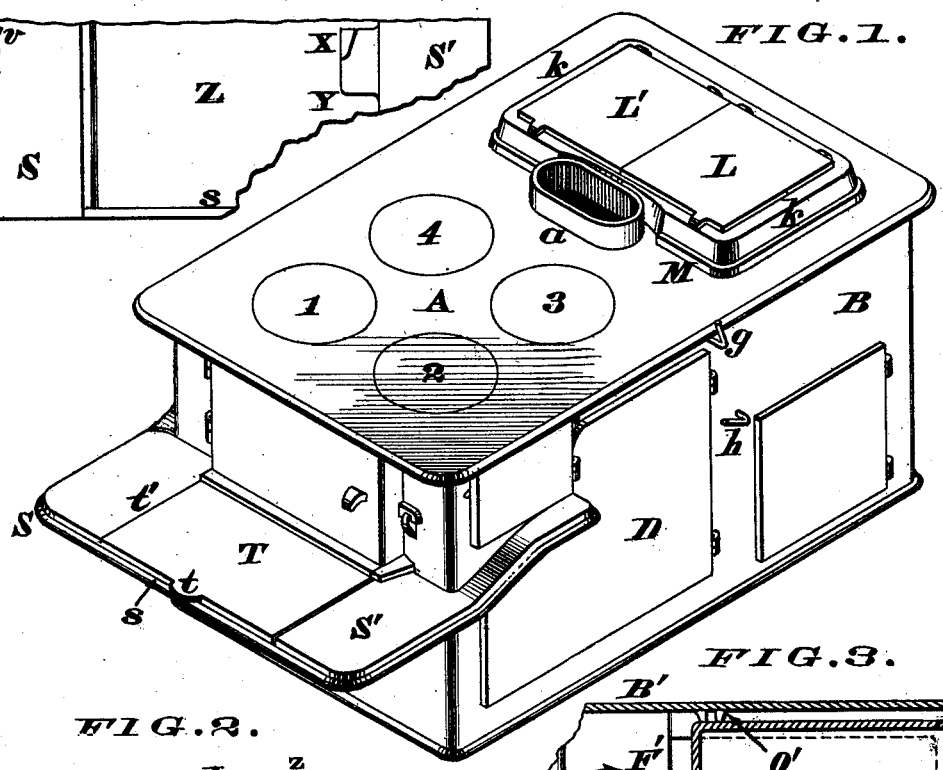


FIG. 2.

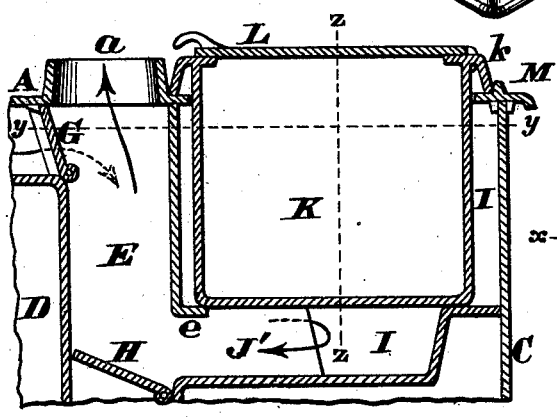


FIG. 3.

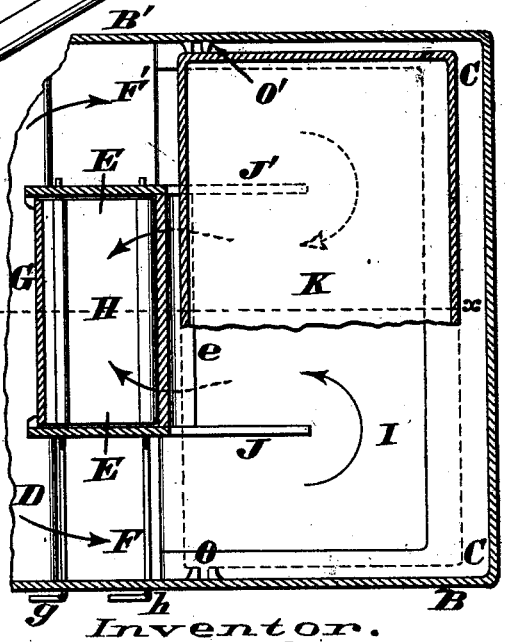
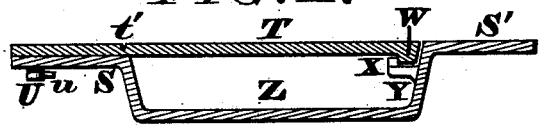


FIG. 4.



Attest,
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L. A. Boyd.

Inventor.
Charles Truesdale.
by James H. Laymaun
his Attorney.

2 Sheets—Sheet 2.

C. TRUESDALE.

Cook-Stove.

No. 205,925. Patented July 9, 1878.

FIG. 6.

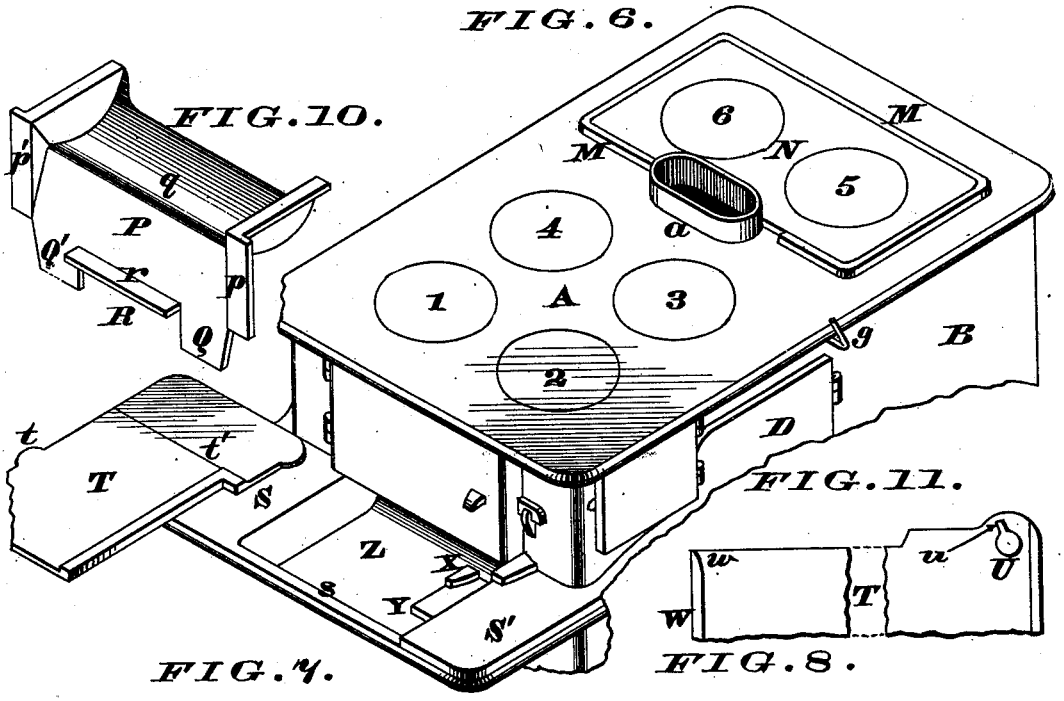


FIG. 10.

FIG. 11.

FIG. 7.

FIG. 8.

FIG. 9.

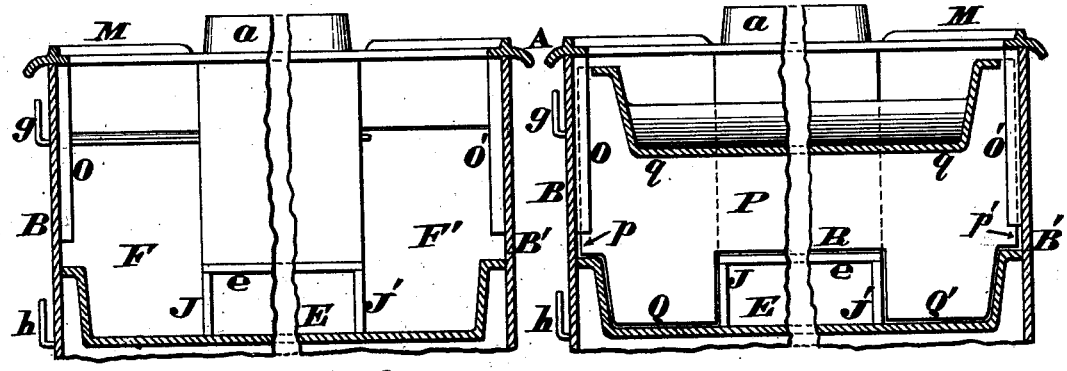
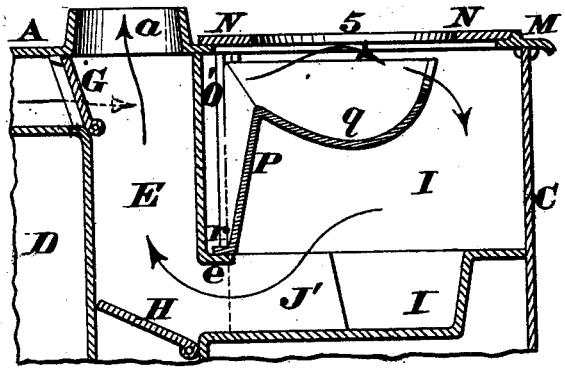


FIG. 12.



Inventor.
Charles Truesdale
by James H. Layman.
his Attorney

Attest.
J. W. Layman
L. M. Bond

UNITED STATES PATENT OFFICE.

CHARLES TRUESDALE, OF CINCINNATI, OHIO, ASSIGNOR OF ONE-HALF HIS RIGHT TO WILLIAM RESOR & CO., OF SAME PLACE.

IMPROVEMENT IN COOK-STOVES.

Specification forming part of Letters Patent No. **205,925**, dated July 9, 1878; application filed May 6, 1878.

To all whom it may concern:

Be it known that I, CHARLES TRUESDALE, of Cincinnati, Hamilton county, Ohio, have invented certain new and useful Improvements in Cook-Stoves, of which the following is a specification:

This invention relates to that class of cook-stoves which have incased reservoirs located between the rear plate of the stove and the collar or neck to which the pipe is applied; and the first part of my improvements consists in constructing said stoves in such a manner as to enable them being readily converted into six-hole stoves, as hereinafter more fully described.

The second part of my invention relates to a peculiarly-constructed cut-off plate, which is applied to the rear chamber of the stove after the reservoir has been removed therefrom, the object of said plate being to prevent a too direct current in said chamber and to deflect the products of combustion upwardly, so as to more thoroughly heat the culinary vessels on the rear extension of the stove.

The third part of my invention comprises a novel construction of those hearth-plates which are capable of swinging laterally or in a horizontal plane, the details of said plate being hereinafter more fully described.

In the annexed drawings, Figure 1 is a perspective view of a cook-stove embodying my improvements, the reservoir being shown in position and the swinging hearth-plate shut. Fig. 2 is an enlarged vertical section of the stove at the line *x x*, the dampers being shown set so as to cause the products of combustion to circulate under the incased reservoir. Fig. 3 is a horizontal section of the stove at the line *y y*, about one-half of the reservoir being broken away. Fig. 4 is a vertical section, showing the swinging hearth-plate in its closed condition. Fig. 5 is a plan of the hearth proper of the stove. Fig. 6 is a perspective view of the stove after the reservoir has been removed therefrom and the plate with the two additional holes substituted in the place of said reservoir, the swinging hearth being shown in its open position. Fig. 7 is a vertical section of the stove at the line *z z*, the plate with the two additional stove-holes being omitted. Fig. 8 is a similar section in the same plane, but showing the cut-off or deflecting plate applied to the rear chamber of the stove. Fig. 9 is a vertical section of the stove at the line *x x*, the two-hole plate and the deflector being in position; and Fig. 10 is a perspective view of the cut-off plate or deflector removed from the stove. Fig. 11 is a plan of the under side of the swinging hearth-plate, the central portion of said plate being broken away.

A represents the top plate, B B′ the side plates, and C the rear end plate, of a cook-stove of any approved size and shape, said top plate being provided with four customary holes, 1 2 3 4, and a collar, *a*. D represents the oven, and E F F′ represent respectively the central and the two side flues at the rear end of said oven. G is the upper, and H the lower, damper of the central flue E, said dampers being provided with customary handles *g h*.

I is a chamber, located between the rear plate C and flues E F F′, flue-strips J J′ being arranged so as to compel the products of combustion to take a circuitous route through said chamber, as indicated by arrows in Figs. 2 and 3. Incased or inclosed within this chamber I is a customary reservoir, K, whose bottom rests upon the upper edges of flue-strips J J′, and also upon the horizontal and rearwardly-projecting flange *e* of central flue E. Furthermore, the exposed portion of this reservoir has a marginal flange, *k*, and one or more hinged lids, L L′.

All of the above-described parts are admitted to be old in what is commonly known as "incased reservoir-stoves;" but, in order to render such appliances readily convertible into a six-hole cook-stove, I cast on the upper surface of plate A a rectangular or other suitable shaped bead or rib, M, which not only receives the flange *k* of the reservoir, but said bead also retains a removable plate, N, having two holes, 5 and 6, as seen in Fig. 6.

I also provide chamber I with two grooves or other guides, O O′, for the reception of the vertical flanges *p p′* of the cut-off or deflecting

plate P, which plate has at bottom a rectangular opening, R, that spans the flue-strips J J′, as seen in Fig. 8, the horizontal flange *r* of said plate resting upon flange *e* of central flue E, as represented in Fig. 9. This plate has two curtains, Q Q′, that close the passages between flue-strips J J′ and the side plates of chamber I, the upper portion of said plate being dished or concaved at *q* to avoid contact with the cooking utensils applied to the holes 5 or 6.

The hearth of my stove consists of two similar-shaped wings, S S′, united by a web, *s;* but said members are not all situated in the same horizontal plane, the ones S and *s* being somewhat lower than the one S′, in order that the swinging hearth plate or shelf T may be perfectly level either when swung aside so as to afford access to the pit Z or when shut over said pit. The left rear corner of this plate or shelf has a downwardly-projecting pivot, U, with a lateral lug, *u*, said pivot and lug being adapted to pass through the eye or perforation V *v* of the wing S of the hearth when said plate is applied to the stove.

t is a pull or handle of any kind, wherewith said plate is manipulated. The free or right edge of said plate has on its under side a rib or flange, W, whose advancing end is chamfered off at *w* to slide readily against the wedge-shaped lug X of a flange, Y, which latter projects inwardly from the right wall of ash-pit Z.

The wedge X serves to draw the free edge of hearth-plate T up snugly against the wing S′ of the hearth proper, as seen in Fig. 4. Hearth-plate T is grooved or channeled, *t′*, on its upper surface, which crease *t′* is about as far distant from the left edge of said plate as is the free edge of said plate from the right side of the stove, as more clearly shown in Fig. 1.

When reservoir K is used, the operation of the stove is the same as ordinary four-hole stoves, which operation, being clearly indicated by the arrows in Figs. 2 and 3, requires no further description.

The stove can be readily converted into a six-hole stove by first lifting out the reservoir K and then applying the cut-off plate P to chamber I, care being taken to insert the flanges *p p′* of said plate in the guides or grooves O O′ of the sides B B′. Plate N is then applied to top plate A, so as to fit snugly within the bead M, as seen in Figs. 6 and 9.

As the curtains Q Q′ of plate P cut off all communication between the lower portions of side flues F F′ and chamber I, it is evident the products of combustion can escape only by passing transversely across the concave *q* of said plate, after which the fire and smoke descend in the rear of chamber I, and finally escape between the flue-strips J J′, and thence up the central channel E, as clearly indicated by the arrows in Fig. 9. By thus deflecting the products of combustion upwardly by means of plate P *q* any vessels that may be seated in the holes 5 and 6 are heated in the most thorough manner.

By simply lifting off the plate N, withdrawing deflector P, and replacing water-tank K, the stove is at once converted into an incased reservoir-stove, and without changing the dampers.

By causing my hearth-plate to extend in a horizontal plane continuously from the wing S′ to the pivot U a perfectly level and unobstructed surface is afforded for the reception of all kinds of culinary vessels, &c.; and it is evident such vessels will remain securely in position, no matter whether said plate T is open or shut.

It is also apparent that, by dropping the wing S below the level of wing S′, or vice versa, the plate T is capable of being swung in either direction, and without lifting it bodily either in opening or closing said plate.

I am aware it is not new to pivot a hearth-plate to the hearth proper, and therefore my claim to this device is expressly limited to the plate T when combined with a stove having one of the wings S or S′ dropped below the level of the opposite wing, in order that said plate may open and close in a horizontal plane from its junction with said wing to, or nearly to, the opposite edge of the hearth proper, the upper surfaces of these members T and S or S′ being flush with each other when the former is in its closed condition, as seen in Fig. 1.

Finally, the deflector P may be made in two or more sections; but I prefer to cast it entire, so as to cheapen its construction and facilitate its application to the stove.

I claim as my invention—

1. An incased reservoir-stove capable of being readily converted into a six-hole stove by fitting in the rear portion of the same a detachable plate, which plate cuts off the downward or direct exit of the products of combustion and deflects them upwardly, substantially as herein described.

2. In combination with the flues E F F′ and chamber I of an incased reservoir-stove, the deflector P *p p′* Q Q′ R and grooves O O′, substantially as herein described.

3. The deflector or cut-off plate P *p p′* Q Q *q* R *r*, cast in one piece, and adapted for converting an inclosed reservoir-stove into a six-hole stove, substantially as herein described.

4. In combination with a stove-hearth, S S′ *s*, having the portions S *s* below the level of the portion S′, or vice versa, the laterally-swinging hearth plate or shelf T, substantially as herein described.

5. In combination with the laterally-swinging hearth-plate T, having a flange, W, at its free edge, the wedge-shaped lug or projection X, immovably attached to the stove, for the purpose described.

6. The pivoted and laterally-swinging hearth-

plate T, extending from the wing S or S′ of the hearth proper to the opposite edge, or nearly to the opposite edge, of said hearth, the upper surfaces of said members T and S or S′ being in the same horizontal plane when said plate T is closed, substantially as herein described.

In testimony of which invention I hereunto set my hand.

CHARLES TRUESDALE.

Witnesses:
JAMES H. LAYMAN,
WILLIAM MILLER.