C. TRUESDALE.

Summer Stove and Furnace.

No. 216,710. Patented June 17, 1879.

FIG. 1.

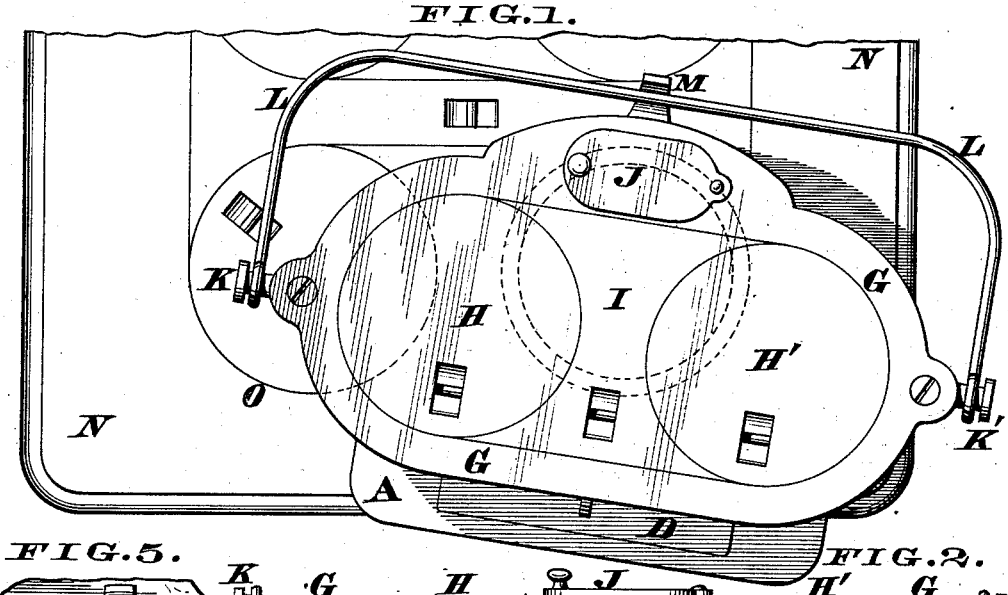


FIG. 5.

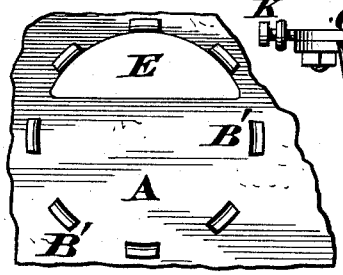


FIG. 2.

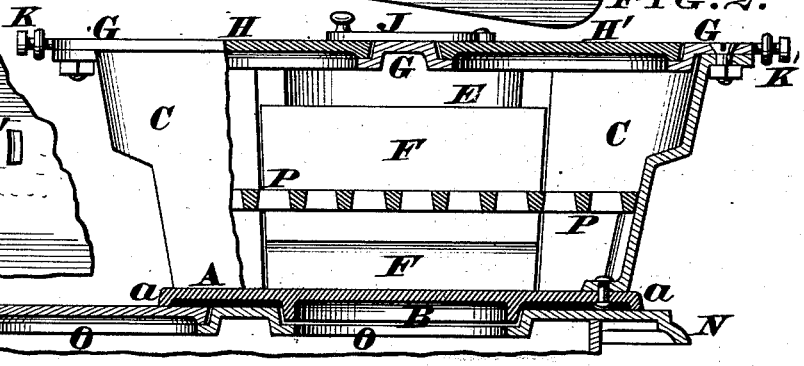


FIG. 3.

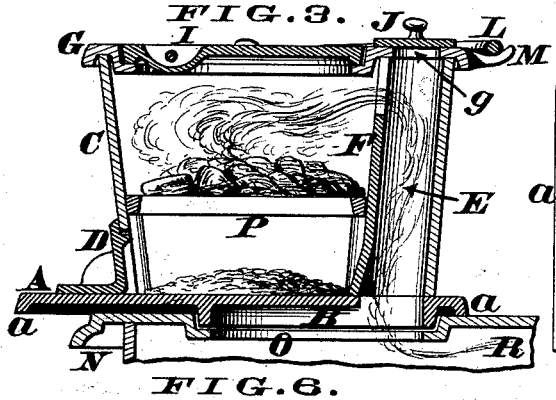


FIG. 4.

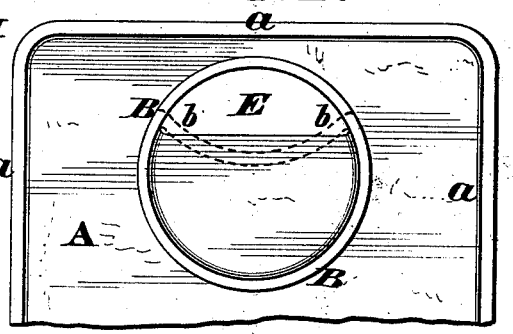
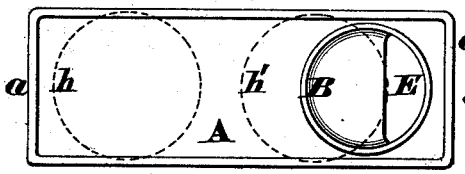


FIG. 6.



Inventor.

Charles Truesdale

by James H. Layman

his Attorney.

Attest.

D. W. Layman

S. A. 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 SUMMER STOVES AND FURNACES.

Specification forming part of Letters Patent No. **216,710**, dated June 17, 1879; application filed March 24, 1879.

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 Summer Stoves or Furnaces, of which the following is a specification.

This invention comprises a novel construction of those portable devices which are capable of being applied temporarily to a cook-stove in such a manner as to discharge the products of combustion from the furnace into one of the customary holes or openings of the stove.

The construction comprises a furnace or fire-box having two openings at top, an extended base-plate at bottom, a ring or flange capable of entering either one of the cook-stove openings, a draft-inlet below the grate of said furnace, and a discharge-flue that receives the products of combustion at its upper end and conducts them down into the cook-stove, as hereinafter fully described, and pointed out in the claim.

In the annexed drawings, Figure 1 is a plan of my improved furnace in position on a cook-stove, and disposed obliquely with reference to the latter. Fig. 2 is a vertical section of the stove and furnace, taken in the plane of the bail ears or lugs. Fig. 3 is a transverse section of the same, taken in the plane of the furnace-flue; and Fig. 4 is a plan of the extended base-plate. Figs. 5 and 6 are plans of modified forms of my invention.

The principal member of my device consists of a base-plate, A, large enough to serve as a secure bearing for a summer stove or furnace, with one or more holes, and having a marginal flange or rib, *a*, adapted to rest snugly on the top plate of an ordinary cook-stove. Cast with this base-plate A, or otherwise applied to depend from the same, is an annular flange or ring, B, capable of fitting in either one of the cook-stove openings after the lid or cover has been removed. This flange or ring may be made small enough in diameter to enable my furnace being applied to cook-stoves of different sizes, as it is well known that the diameters of stove-holes are not the same, varying according to the localities where the patterns are made. Therefore, by making the flange B six inches in diameter, it is apparent my furnace can be applied to cook-stoves whose openings are either six, seven, eight, or nine inches across.

Secured to base A in any suitable manner is the furnace or fire-box C, having at front an ash-door, D, which door serves as the air-inlet, and at rear a descending flue, E, said flue being separated from the fire-box by a readily-detachable back plate, F, of iron or tile.

By this arrangement the flue is prevented encroaching on the capacity of said fire-box C, and an injured back plate can be readily replaced by a new one. Furthermore, the furnace has a top plate, G, provided with two lids, H H′, and, if preferred, with a "short center," I, as seen in Figs. 1 and 3. This plate has an opening, *g*, at the upper end of flue E, which opening is capable of being uncovered to a greater or less extent by means of a pivoted slide, J, so as to regulate the draft.

K K′ are ears or lugs to which the handle or bail L is attached, and M is a support for said handle. N is the top-plate of an ordinary cook-stove, and O are the customary openings or holes in the same.

My furnace is applied to a cook-stove as follows: Either one of the covers is first removed from openings O, and the furnace is then placed upon stove N so as to cause the ring B to enter said opening, which act is readily effected on account of said ring projecting some distance below the rib *a*. As soon as ring B enters said opening, flange *a* sustains the entire weight of the furnace, the ring serving now as a center or pivot to permit the device being readily rotated in either direction in a horizontal plane, the extended bearing afforded by base-plate A *a* insuring the utmost stability, and effectually preventing any accidental upsetting of said furnace. The fuel is then placed on grate P, and when ignited the products of combustion descend through flue E, and are discharged into the main flue R of the cook-stove, as seen in Fig. 3, the damper or slide J being now set to secure the proper draft.

The invention may be modified by using lugs or other projections instead of the ring, as seen at B′ in Fig. 5; or the flue E may be lo-

cated at the end of the furnace, as shown in Fig. 6, in which illustration the position of the furnace-lids is indicated by dotted lines *h h'*. Finally, the ring may have a crescent shape, as indicated by dotted lines *b b* in Fig. 4, in which case flue E would be situated in the segmental portion of the annulus cut off by these dotted lines; or, in other words, said flue would be external with reference to this crescent-shaped flange.

I am aware it is not new to make a portable furnace in the shape of a pot whose only bearing is in the stove-hole, into which hole the products of combustion descend through a flue that is situated within the fire-box of such furnace.

I am also aware it is not new to locate grates in the bottom of such furnaces or cressets, and allow the smoke from the same to pass directly down into the cook-stove.

Furthermore, I am aware it is not new to place a furnace on top of a cook-stove and connect the discharge-flue of the former with the smoke-pipe of the latter. Therefore my claim is not to be construed as an attempt to cover the broad idea of a furnace whose smoke is discharged into the stove upon which the furnace is temporarily set; but the invention is expressly limited to the specific construction of summer stove herein described and illustrated.

Finally, as illustrative of the state of the art, reference is here made to Letters Patent No. 181,040, issued August 15, 1876, to C. H. Chase, which patent shows a summer stove having an air-inlet at front of the furnace and below the grate, and a discharge-flue at the rear of said grate, which flue communicates with the fire-box in substantially the same manner as does my flue E.

I claim as my invention—

The within-described specific construction of summer stove, which construction includes the furnace C, top plate, G, covered openings H H', extended base-plate A, flange or collar B, inlet D, situated below grate P, and a discharge-flue, E, which latter conducts the products of combustion down into the cook-stove, the upper end of said flue communicating with furnace C, in the manner shown.

In testimony of which invention I hereunto set my hand.

CHARLES TRUESDALE.

Witnesses:

JAMES H. LAYMAN,

GEORGE H. KOLKER.