C. H. PHELPS.

Vapor-Conductor for Cooking-Stoves.

No. 195,901. Patented Oct. 9, 1877.

FIG. 1

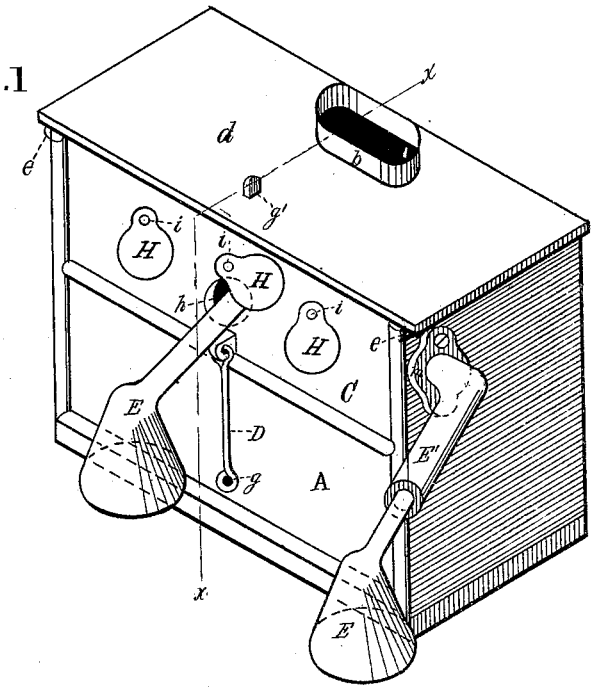


FIG. 2

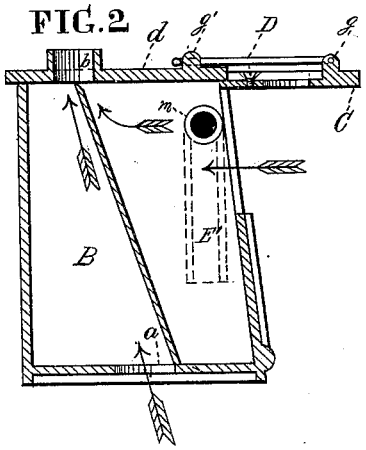


FIG. 3

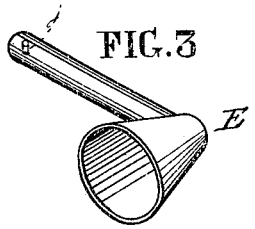
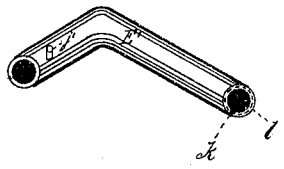


FIG. 4



Witnesses

Thomas J. Bewley

George C. Hazel

Inventor

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per Stephen Ustick Attorney.

UNITED STATES PATENT OFFICE.

CHARLES H. PHELPS, OF PHILADELPHIA, PA., ASSIGNOR OF ONE-HALF HIS RIGHT TO CHARLES PHELPS AND ELLEN DRAPER, OF TROY, N. Y.

IMPROVEMENT IN VAPOR-CONDUCTORS FOR COOKING-STOVES.

Specification forming part of Letters Patent No. **195,901,** dated October 9, 1877; application filed February 10, 1877.

To all whom it may concern:

Be it known that I, CHARLES H. PHELPS, of the city and county of Philadelphia, in the State of Pennsylvania, have invented a new and useful Improvement in Vapor-Conductors for Cooking-Stoves, which improvement is fully set forth in the following specification, reference being had to the accompanying drawing, in which—

Figure 1 is an isometrical view of the conductor. Fig. 2 is a cross-section at the line *x x* of Fig. 1, with the fall C hooked up. Fig. 3 is an isometrical view of the pipe E. Fig. 4 is a like view of the pipe E′.

Like letters of reference in all the figures indicate the same parts.

My invention consists of a box which has an opening in its bottom to connect with the usual smoke-pipe collar on the top plate of the stove, and a collar on its top plate for the reception of the smoke-pipe, there being a flue which connects with the bottom and top plates of said box, for the passage of the smoke from the stove to the smoke-pipe. The box sits flat on the top of the stove, in the rear of the openings in its top for the reception of the cooking-vessels. It has a large opening in front, covered by a hinged fall, that is hooked up to admit of the vapor from the cooking-vessels passing into the box, and thence into the smoke-pipe. To admit of this passage through the smoke-opening in the top plate, the above-named smoke-flue at its top end covers only about one-half of the opening. There are a number of holes in the fall above mentioned, all of which are closed by pivoted covers when the fall is elevated; but when there is but a single vessel in connection with the stove, the fall is lowered so as to cover the large opening in the front of the box, and one of the small openings is uncovered and a wide-mouth pipe connected therewith, with its small end in connection with a hole in the fall for carrying off the vapor.

A is a box, which is placed on the rear part of the top of the stove, with the opening *a* over the collar of the stove. B is a flue, made of any convenient form in its cross-section. An elliptical form, however, is the most suitable when the stove is of such form. The object of the flue is to conduct the smoke to the smoke-pipe, (not shown in the drawings,) the said pipe being connected with a collar, *b*, on the top *d* of the box A. C is a fall, which is connected by means of pivots *e*, which project from its upper corners, with suitable bearings of the box, so as to be raised into the position shown by dotted lines in Fig. 2, to conduct the vapor which arises from the cooking, when two or more vessels are on the stove, through the large opening in the front of the box to the interior of the same, whence it passes through the collar *b* into the smoke-pipe. The fall is held up in its conducting position by means of the link D, one end of which has a joint-connection with the lug *g* of the fall, and the other end is hooked over the lug *g′* on the top of the box.

When there is but a single vessel in its cooking position on the stove the fall may be in its closed position, and the vapor conveyed to the box by the wide-mouthed pipe E, the small end of the pipe being inserted in one of the openings *h*. The fall has any desirable number of these holes, in adaptation to the number of cooking-vessels to be used.

The holes are provided with covers H, which are hung on pivots *i*, so as to be turned up for the connection of the pipe E with the fall C. In some cases it may be most advantageous to arrange the pipe E at the end of the box A, in which case I connect it, as shown by dotted lines in Fig. 1, with the elbow-pipe E′, connected with the end of the box.

The pipe E is adjusted longitudinally to suit the position of the cooking-vessel in relation to the conducting-box A.

The pipe E has a lug, *j*, at its connecting end, (seen in Fig. 3,) which is slipped through the recess *k* of the annular lip *l* on the inner surface of the pipe E, as seen in Fig. 4, for connecting the pipe E with the pipe E′; then, when the pipe E is turned partly around to bring it into its conducting position, it is held securely in connection with the pipe E′. The lug *j′* on the inner end of the pipe E′ fits in an annular recess of the collar *m* on the end of the box A, to hold it in place, the lug being passed through an opening in the an-

nular lip of the collar, to form the connection in the same manner as in the connection of the tubes E and E′.

The cooking-vessel may have an opening in its cover, in which the end of the pipe E′ is inserted to carry off the vapor into the interior of the box.

I claim as my invention—

1. The vapor-box A, having an opening, *a*, in its bottom, a smoke-collar, *b*, connected with a hole in its top, a smoke-flue, B, connected with the opening *a* and collar *b*, and one or more openings in its front for the ingress passage of vapor, substantially in the manner and for the purpose set forth.

2. The combination of the pipe E with the fall C, having openings *h*, and covers H, substantially as and for the purpose set forth.

CHARLES H. PHELPS.

Witnesses:

THOMAS J. BEWLEY,

STEPHEN USTICK.