

COOK-STOVE.

108240

PATENTED OCT 11 1870

Fig. 1.

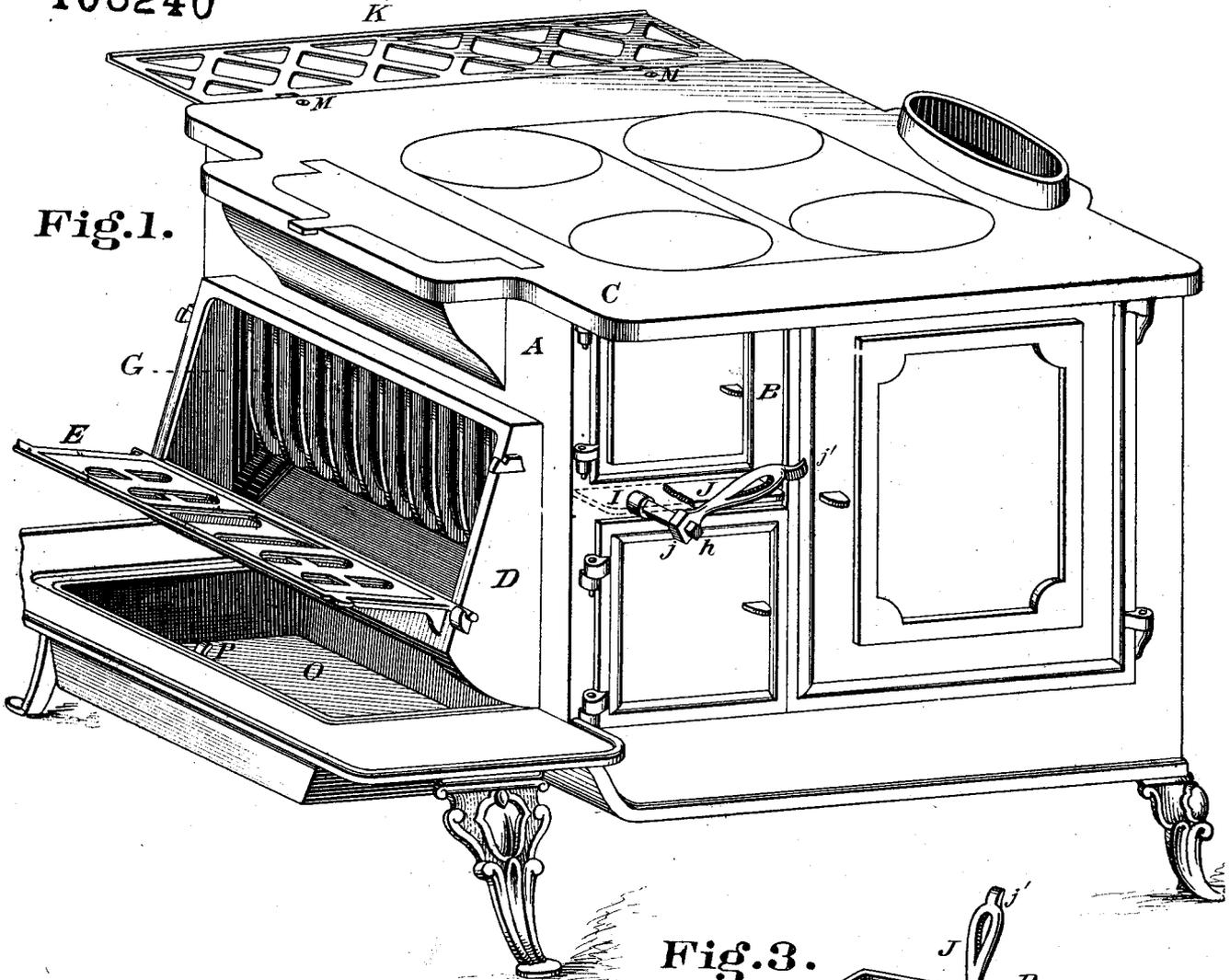


Fig. 3.

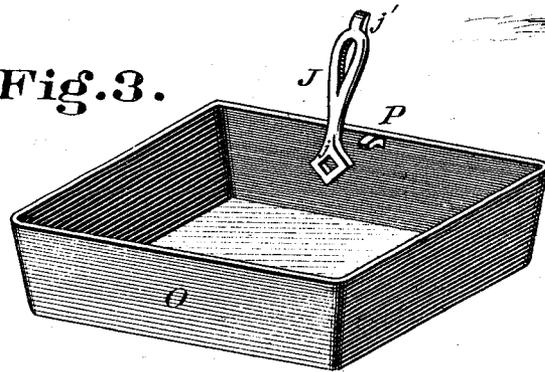


Fig. 2.

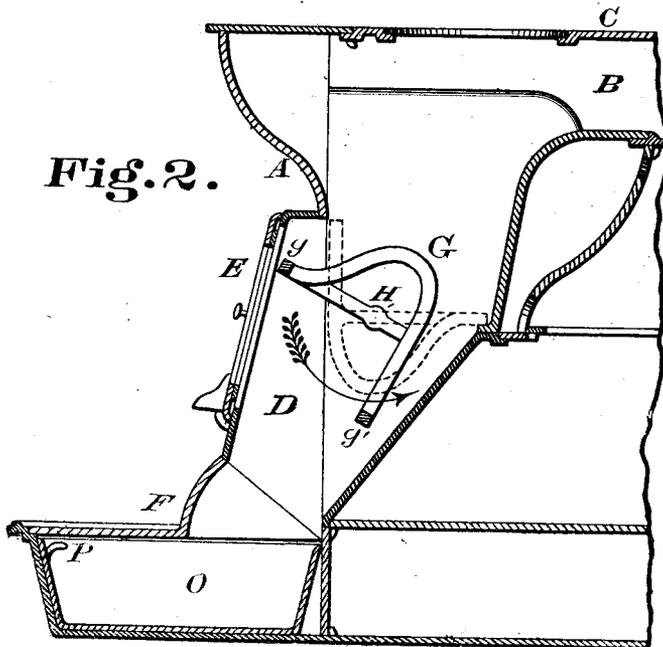
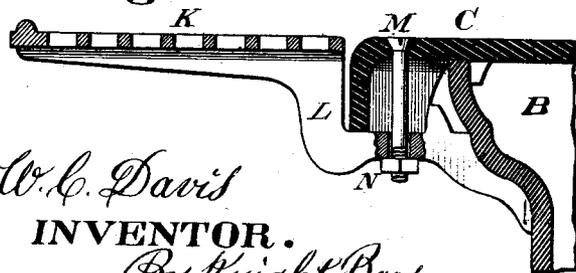


Fig. 4.



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Letters Patent No. 108,240, dated October 11, 1870.

IMPROVEMENT IN COOK-STOVES.

The Schedule referred to in these Letters Patent and making part of the same.

I, WILLIAM C. DAVIS, of Cincinnati, Hamilton county, Ohio, have invented a new and useful Improvement in Cook-Stoves, of which the following is a specification.

Nature and Objects of the Invention.

The use of bituminous coal as fuel in cook-stoves having suggested the necessity of some means of ready discharge of the cinders and ashes, various forms of shaking and dumping-grates have been proposed, but none of them, so far as known, fully accomplishing the object of prompt and complete discharge of the contents. It is also found to be necessary to present a form of grate that shall oppose no obstruction to the stirring-action of an ordinary hook or poker, and one that shall afford, by its height of open grating below the breast-plate, an ample incandescent surface for the purposes of toasting, roasting, &c.

My invention relates to a construction of forward-dumping grate, combining the above-recited advantages with those of complete closure of the fire-front, when necessary, the latter object being accomplished by the provision of a suitable protuberance, or bonneted projection, from the front plate of the stove, such as to enable the forward dumping of the grate, and the complete shutting in of the same, so as to prevent the escape of dust and ashes into the room.

General Description with reference to the Drawing.

Figure 1 is a perspective view of a cooking-stove embodying my improvements, the warm shelf being attached and the fire-door being open.

Figure 2 is a longitudinal section of the front part of said stove.

Figure 3 shows the ash-pan and lifter, detached.

Figure 4 is a transverse section of the warming-shelf, together with contiguous portions of the top and side plates.

- A represents the front plate;
- B, the jambs or side plates; and
- C, the top plate of my cook-stove.

The mouth or opening of the front plate is inclosed, around its top and sides, by a bonnet or projection, D, whose front edge slopes obliquely forward and downward, and is provided with a door, E, by which, in conjunction with the hearth-plate F, (which closes the ash-pit and the lower margin of the bonnet,) the entire fire-chamber and ash-pit may be inclosed or shut in whenever it is desired to empty the grate or to arrest the ingress of draught air to the stove.

The form and dimensions of the bonnet and hearth-plate and bonnet are clearly represented in figs. 1 and 2, and are such as, in addition to the objects just recited, to enable the forward dumping of a high fire-grate, G, such as is here shown in its normal posi-

tion in fig. 1, and in its discharging or dumping position in fig. 2.

The grate is suspended by trunnions H, occupying bearings I in the stove-jambs, and one or both terminating in a square or other suitable head, h, to take the corresponding eye j of a wrench, J, which, having a hook, j', at its other extremity, may serve also as an ordinary "lifter."

The trunnions H are so located on the grate as to enable the latter to remain securely in its normal position, save when forcibly removed therefrom by the action of the wrench; and said trunnions may be so located as to either cause the said grate to retain its dumped position until purposely restored to its normal position, or to automatically return to said position by its own weight.

The said grate is preferably composed of a series of U-formed bars, in planes parallel to the stove-jambs, and having no horizontal bar or parting other than the two terminal bars g g', so as to afford no obstruction to the descending ashes, or to the action of a poker or stirrer, and also to afford the greatest possible radiating incandescent surface for toasting or roasting.

I am aware that grates of cook-stoves have been made to dump rearwardly against the oven-plate or fire-back, but such devices are imperfect and objectionable, owing to the limited passage permitted or attainable for the descending debris.

I am also aware that grates of cook-stoves have been adapted to dump forward, but such grates have been objectionable or practically useless, owing to their very limited height, and other defects of construction.

K represents a rack or perforated shelf, adapted to be affixed to the stove-top, as represented, so as to form a continuation of said top, onto which shelf pots or other vessels may be shifted from the stove-top, when desired to be kept warm, without further cooking.

In order to utilize the ascending air which has been heated by contact with the stove sides, I make my said shelf in the represented open or perforated form; and that it may be easily attached to or detached from the stove, there project from the under side of the shelf two or more brackets, L, which, engaging under the down-turned flange of the top plate, in the manner shown, bears against the jamb.

A series of screw-bolts, M, depending through holes in the top plate, outside of the jambs, and extending through said brackets, are provided with nuts N which serve to hold the shelf in place.

The said shelf is preferably perforated, and flush with the stove-top, for the objects stated.

For the purpose of convenient handling without

soiling of the fingers, the ash-pan O has cast on, and projecting from its inner side or sides, one or more ears, P, which enable the pan to be lifted by means of a lifter, which may be the same combined wrench and lifter J which is employed to operate the grate and the stove-lids.

Claim.

I claim as my invention—
The forwardly-dumping grate G, in the described

combination with the bonneted projection D and door E, and hearth-plate F, substantially as and for the objects set forth.

In testimony of which invention, I hereunto set my hand.

WILLIAM C. DAVIS.

Witnesses:

GEO. H. KNIGHT,
JAMES H. LAYMAN.