J. VAN.

Cook Stove.

No. 50,519. Patented Oct. 17, 1865.

Fig. 1

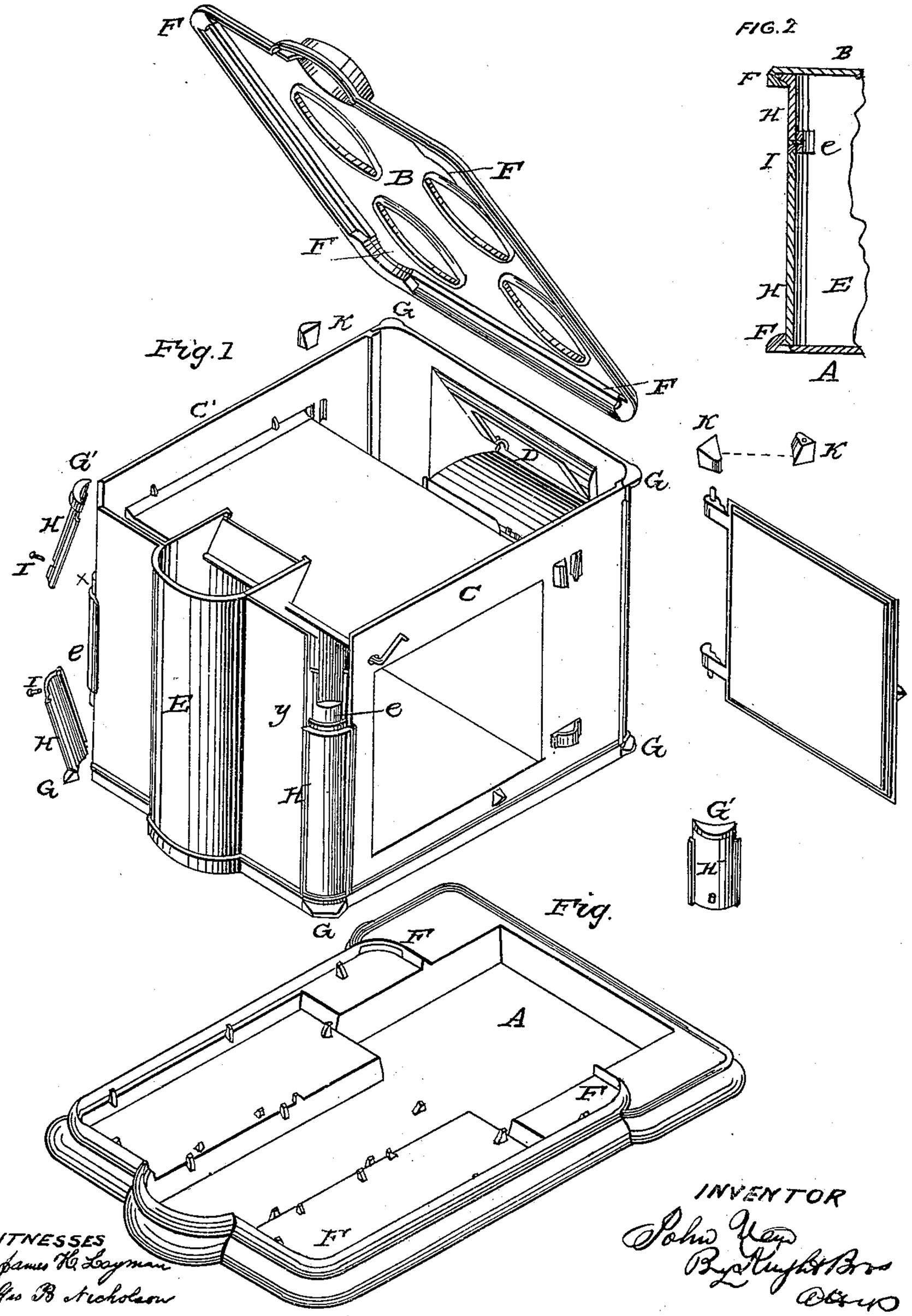

FIG. 2

Fig.

WITNESSES

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JOHN VAN, OF CINCINNATI, OHIO.

IMPROVEMENT IN COOK-STOVES.

Specification forming part of Letters Patent No. **50,519**, dated October 17, 1865.

To all whom it may concern:

Be it known that I, JOHN VAN, of Cincinnati, Hamilton county, Ohio, have invented new and useful Improvements in Stoves; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification.

My invention relates to a new and useful mode of securing together the parts of stoves without the use of rods.

The plates constituting the top, bottom, and sides of stoves are commonly secured together by a number of rods, which being passed down through holes in the top plate traverse the interior of the stove and protruding through other holes in the bottom plate are secured by nuts. These rods, which have almost universally superseded the various forms of flanges and short screw-bolts, are themselves very objectionable on several grounds. Being of wrought-iron, their manufacture is necessarily a distinct one from and more costly than that of the foundry proper. Being long and slender, they are very liable to become bent, and are then useless until straightened, and even when straight their insertion in the stove is notoriously a slow and tedious operation. Being of wrought-iron and usually surrounded by the flame and intensely hot emanations of combustion, they quickly burn out, a casualty that is fraught with inconvenience and even danger to users, especially in places remote from cities. They act to accumulate soot and ashes, and thereby to clog and impair the efficiency of the flues. Their greater expansibility causes them to slacken and to permit the loosening of the plates from one another and the consequent opening of the seams. The last-cited evil induces the practice of tight screwing in first setting up of the stove, which puts the plates on a strain and renders them liable to crack on the first application of heat and cold. They detract from the appearance of the stove. They are more than ten times the expense of my fastenings, which being nearly invisible do not in the least impair the ornamental finish of the stove. In fact, the expense of my fastening is practically nominal merely, being but two or four small screws, and the labor of tapping the screw-holes therefor, say, not exceeding five cents a stove, while a suit of the customary rods will average at least fifty cents per stove. A signal advantage of my principle is the ease with which the stove may be set up or taken down and the facility for being packed in boxes or hogsheads piecemeal, thus preventing loss by breakage.

Figure 1 is a perspective view of a stove embodying my invention, the top and bottom plates being detached from the sides. Fig. 2 is a vertical section through one of the rear corners.

A, B, C, C′, D, and E represent respectively the bottom, top, side, front, and back plates, forming the exterior of the stove.

F are pockets formed at the corners of the bottom and top plates, A B, respectively.

G are lips projecting from the front plate, D, which lips enter the pockets F in the front corners of the bottom and top plates.

The rear edges of the side plates are rabbeted at *c* to fit peculiarly-formed plates H, called by me the "locking-strips." The locking-strips are provided with lips G′, which enter their appropriate pockets F in the rear corners of the bottom and top plates. The locking-strips are lapped or halved to projections *e* from the back plate, to which they are attached by small screws I, of which there may be one screw to each locking-strip, as at *x*, or one screw only to a pair of locking-strips, as at *y*.

The process of setting up is both simple and expeditious. The oven and other interior portions being set in their places between the side plates, as usual, the said plates are placed upon the bottom plate. The lips G of the front plate are then made to enter their appropriate pockets F. The top plate, B, is then so applied as for the upper front lips to enter their pockets. The lips G′ of the locking-strips H being then engaged in their pockets and screwed fast at their overlapping portions, the work is complete.

In order to prevent the accidental unshipping of the stove-doors, each upper socket, K, is a separate casting in the form of a dovetail, and is secured to its place between two undercut and converging cheeks by a few taps of a hammer.

The accompanying illustration represents my mode of fastening applied to a common cooking-stove; but I do not propose to restrict my invention to the precise form or application

herein described, so long as the end is obtained by means substantially equivalent. For example, the locking-strips may screw to each other instead of to projections upon the back plate, or the locking devices may be transferred to the side plates or otherwise. Nor is it intended to confine the invention to cooking-stoves, as the principle is evidently applicable to a great variety of warming and cooking apparatus, such as hall, parlor, and office stoves, hot-air and other furnaces, kitchen-ranges, &c.

I claim herein as new and of my invention—

1. The mode of fastening the exterior plates of a stove by means of the pockets F, lips G G′, locking-strips H, and screws I, or devices substantially equivalent.

2. The detachable dovetailed hinge-socket K, for the upper pivot of a stove-door.

In testimony of which invention I hereunto set my hand.

JOHN VAN.

Witnesses:

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