No. 620,258. Patented Feb. 28, 1899.

F. STAPP.

PROSPECTOR'S KNOCKDOWN CAMP STOVE.

(Application filed Feb. 15, 1898.)

(No Model.)

Fig. 1.

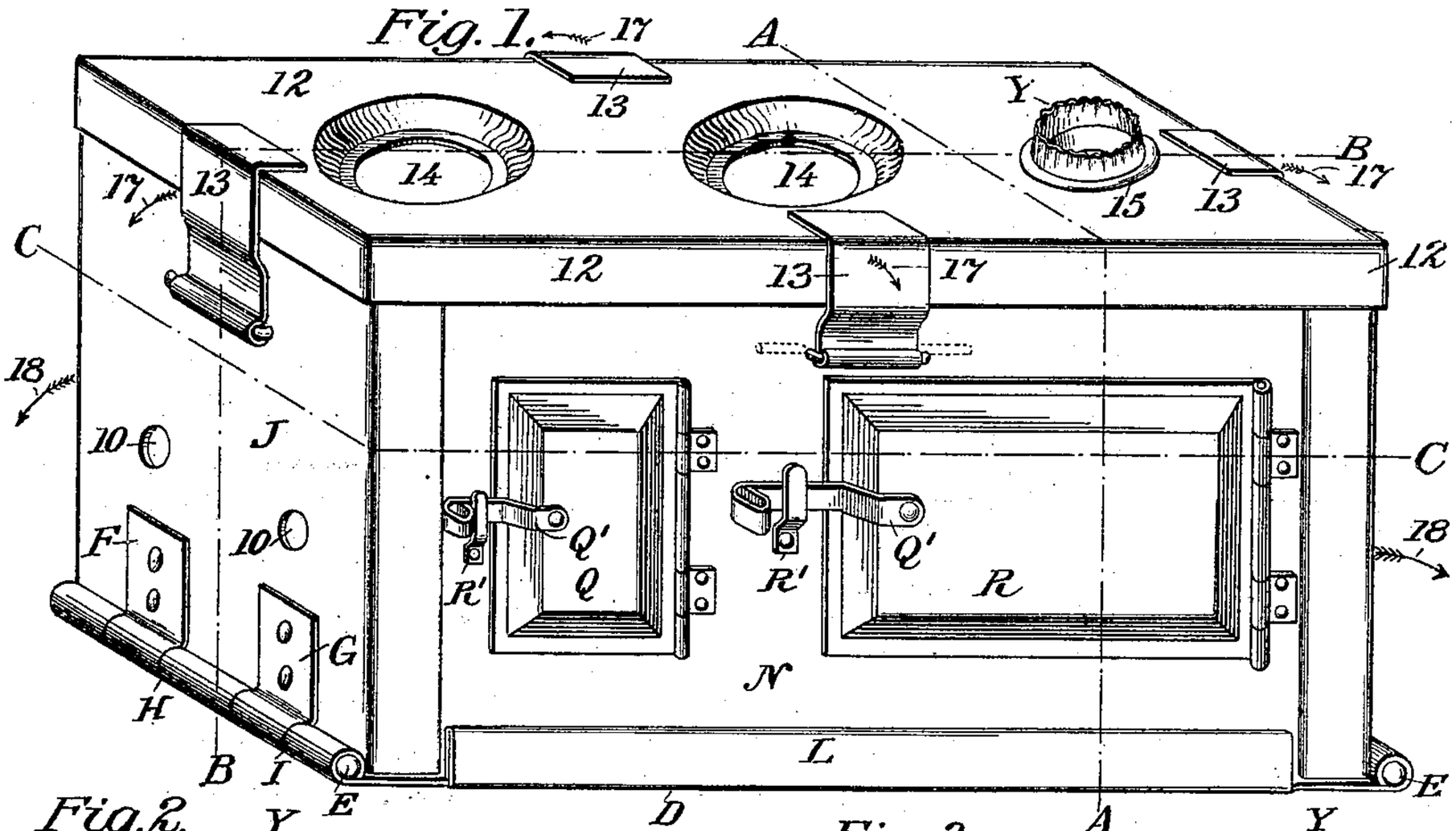


Fig. 2.

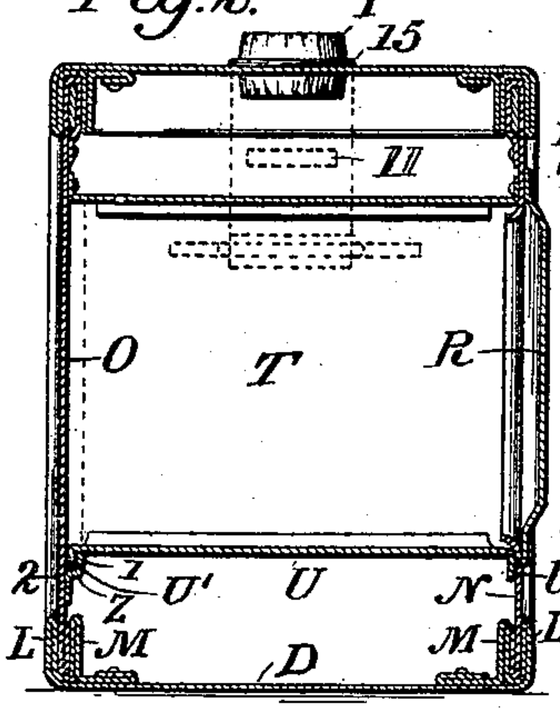


Fig. 3.

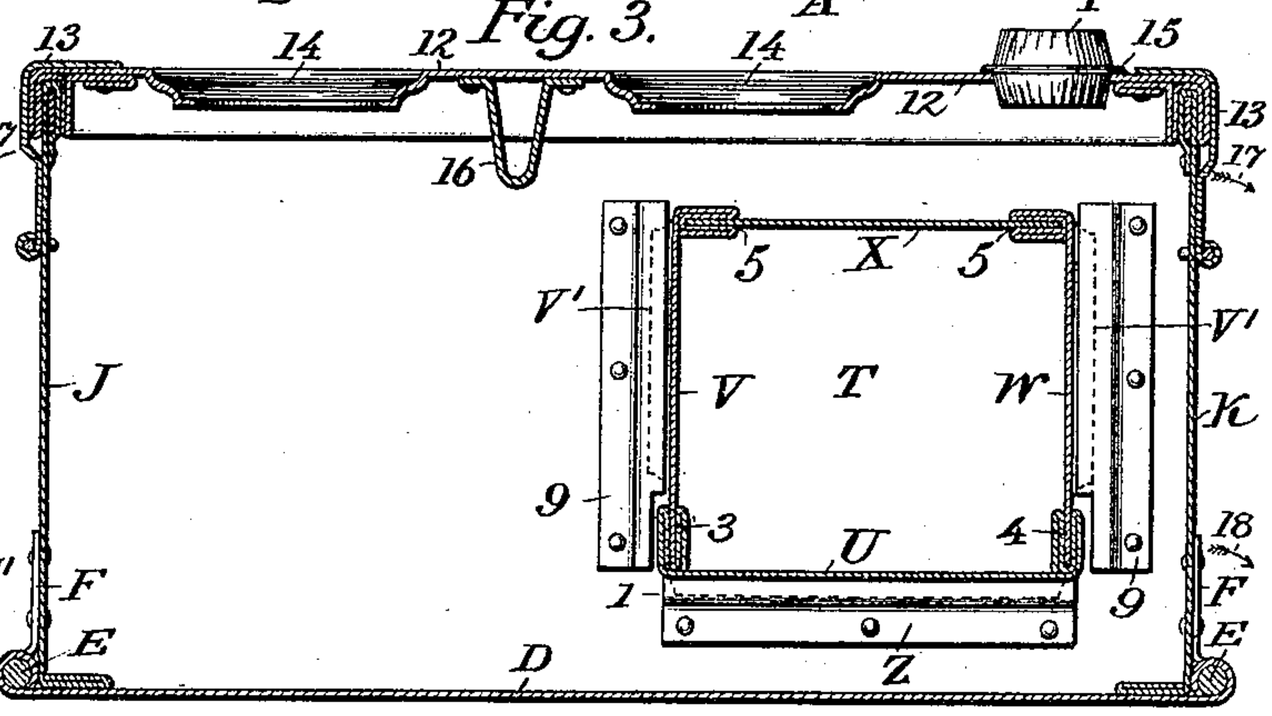


Fig. 4.

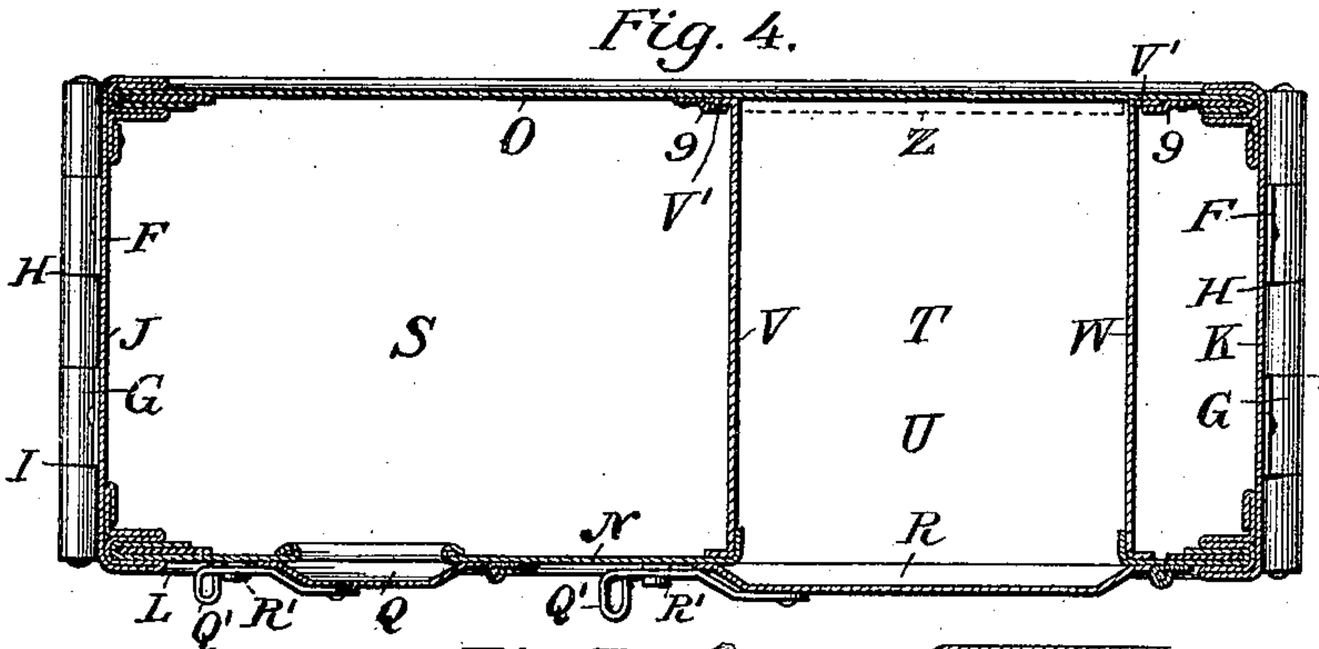


Fig. 5.

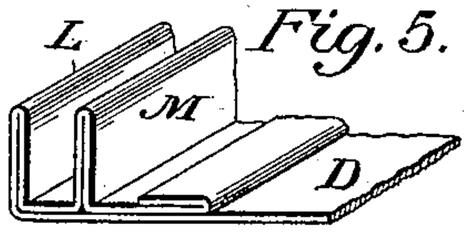


Fig. 6.

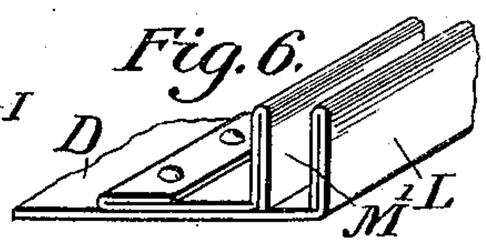


Fig. 9.

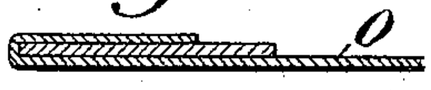


Fig. 7.

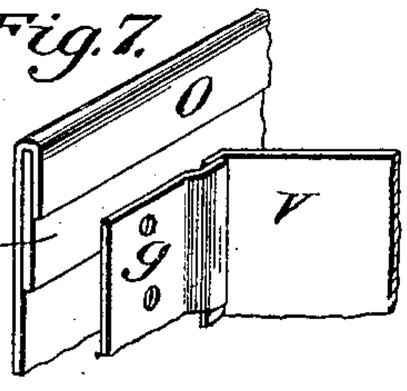
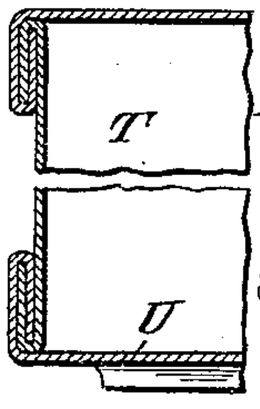


Fig. 8.



Witnesses.

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UNITED STATES PATENT OFFICE.

FREDERICK STAPP, OF DENVER, COLORADO.

PROSPECTOR'S KNOCKDOWN CAMP-STOVE.

SPECIFICATION forming part of Letters Patent No. 620,258, dated February 28, 1899.

Application filed February 15, 1898. Serial No. 670,420. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK STAPP, a citizen of the United States of America, residing at Denver, in the county of Arapahoe and State of Colorado, have invented certain new and useful Improvements in Prospectors' Knockdown Stoves; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to improvements in knockdown stoves; and the objects of my invention are, first, to provide a stove suitable for the use of prospectors and miners that can be easily and quickly taken apart or set up and the various pieces packed together upon one another in a compact rectangular bundle; second, to provide a thoroughly practical, strong, and durable prospector's knockdown stove, and, third, to provide a knockdown stove having its several coacting parts heavily reinforced, especially at their edges, and provided with simple but strong interlocking joints which enable the several parts to be quickly assembled together into a compact rigid stove. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of a knockdown prospector's stove embodying my invention. Fig. 2 is a section of Fig. 1 on line A. Fig. 3 is a section of Fig. 1 on line B. Fig. 4 is a section of Fig. 1 on line C. Figs. 5, 6, 7, 8, and 9 are fragmentary perspective views of various parts of the stove, showing the arrangement and construction of the joints used and the method of reinforcing the several pieces of the stove.

Similar letters and figures of reference refer to similar parts throughout the several views.

Referring to Fig. 1, D designates the bottom of the stove. It comprises a rectangular piece of sheet-iron. Its opposite short ends are carried over a pintle E, which forms part of a hinge, the other parts F and G of which are pivotally mounted on said pintle in recesses H and I, formed to receive them. The parts F and G are riveted to the ends J and K. The opposite side edges of the bottom are provided with narrow channels, which I preferably form as follows: In making the bottom a piece of sheet-iron from two and one-half to four inches wider on each side edge is used than the width of the bottom is to be when completed. The opposite side edges of the bottom D are folded over to stand vertically from the sheet and are then turned upon itself and carried down to the body of the sheet, thus forming a vertically-projecting rib L. The edges of the sheet-iron are then extended along the body of the sheet about one-fourth of an inch and are then again bent up into a second vertical rib M to stand vertically, which leaves a space between the two ribs wide enough to admit freely the edges of the sides N and O. This second vertical projecting rib M is then bent again upon itself and carried down to the body of the sheet and along the sheet far enough to answer for a substantial stiffening or bracing strip and the extreme edge is folded over onto it to reinforce it, and it is then secured, preferably, by rivets to the body of the bottom. In Fig. 6 I illustrate a modified arrangement of the construction of these channels. In this view the edge of the bottom is turned to stand at right angles to the plane of the sheet and is folded upon itself and extends to and terminates at the bottom of this rib and an independent vertical rib M′, which consists of an angular strip of iron thicker than that of which the bottom is made. This strip is secured by rivets or other means to the bottom. The sides N and O are straight flat rectangular pieces of sheet-iron of suitable thickness. All their edges are simply folded over to form a suitable stiffened edge, and in order to reinforce them so that they will be rigid and strong I insert in the fold a strip P of much heavier iron all around the edges of each side, securing them to the edges. To the side N, I pivot two doors Q and R. These doors are provided with a suitable latch Q′ and a holder R′. The door Q opens into the fire-box portion S of the stove and the door R opens into an oven T, which is attached to the opposite side O and is also supported by the side N. This oven T is composed of four independent pieces of sheet-iron U, V, W, and X. These pieces are loosely interlocked in such a manner that

they form a box-shaped oven which is detachably secured to and supported to the sides N and O and is positioned with a suitable space both above and below it for the products of combustion to pass freely around it to the smoke-stack Y. The bottom U of the oven has flanges U′ at each end turned downward at right angles to the plane of the sheet. On the inside of the side O a strip of iron Z is secured which has an outward offset edge 1, that forms a channel 2 between the strip and the side wide enough to receive the flange which holds the oven-bottom at substantially right angles to the side. At the side edges of the oven-bottom channels 3 and 4 are formed. These channels are formed similar to those in the bottom of the stove or like those shown in Fig. 8. In these the lower edges of the sides V and W are placed. The top edges of these sides are also provided with either channel-joints 5, as shown in the sections, or the lock-joint 7, as shown in Fig. 8. The side pieces are each provided with a right-angled flange border edge V′, that fits in the channels formed by the offset vertical strips 9, which are similar to the strip Z. The top piece X of the oven is fitted to slide into the channels of the two side pieces, and the oven is then complete and attached to the side O. The opposite edges of all the sides of the oven are turned outward at right angles to form a short flange. This flange rests against the side N, and the oven-doorway, which is cut through the side, has its border edges turned inward to extend into the oven and fit closely but loosely all around against all the sides. The ends J and K of the stove are provided at their side edges with channels and ribs similar to those formed on the bottom plate of the stove, and their top edges are folded over and reinforced by a strip, as shown in Fig. 9. The end at the fire-box is provided with two holes 10, which admit air into the fire-box, and near the top of the opposite end an opening 11 is formed to increase the draft up the chimney. The ends pivot on their hinges and their ribs and channels telescope over the ends of the sides, which joins them together. The top plate 12 of the stove has all its edges ribbed and channeled and fits telescopically over the top edges of both the sides and ends, which secures the ends against displacement from the sides and rigidly joints sides and top together. Near the top of each of the ends and sides I pivot a flat hook 13, which is adapted to fit over and rest on top of the top plate and clamp it to the ends and sides against displacement. All the parts of the stove are thus firmly and rigidly jointed and secured together, and a strong, light, rigid stove is thus formed. In the top plate I form two cooking-apertures 14, and at the end opposite the fire-box I place a stove-pipe union Y, which I preferably make reversible in its aperture in the plate and provide it with a stop-bead 15 to define its operative position in the plate. Between the cooking-apertures on the under side of the top plate I rivet a truss member 16 to stiffen the plate transversely. Its side edges are stiffened by the ribs and when necessary, as when large broad stoves are made, by additional strips.

To knock the stove down for stacking, it is only necessary to first swing back the hook-clips in the direction of the arrows 17. Then lift the top plate from the sides and ends. Then swing the ends out in the direction of the arrows 18. Then lift from the base-plate the sides. Then slide out the top plate of the oven and unhook and slide or raise out from the base-plate of the oven the sides. Then unhook from the side O the base-plate of the oven. The base-plate of the stove is then raised and the ends are swung under and laid against its bottom. The other pieces are laid on top of one another and make a compact pile that can be easily bound together, in which condition the stove can be packed over rough trails without much danger of injury. The top, which is most likely to get injured, is strongly braced and the border edges of the cooking-apertures are reinforced, forming them into two step portions by pressing the metal around the edge of the aperture in toward the fire-box in a concentric ring around the aperture in curved steps, and the remaining parts are so simple in construction and are constructed of such pliable material that if they should get bent in transportation they could easily be straightened.

Having described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination of the top plate; the cooking-apertures thereon having their border edges trussed by two depressed curved steps; the channel-grooves all around the edges of said top plate and the transverse truss between said cooking-apertures, the sides and ends adapted to mesh in said channels, the base-plate pivoted to said ends, channel-grooves therein adapted to receive and removably confine said side pieces, with an oven supported between said sides and compressing four independent side pieces arranged to interlock and intermesh at their edges, right-angled flanges at the ends of said oven sides and clips secured to one side having a space between them and said side adapted to receive said flanges and projections on the opposite side adapted to support the adjacent ends of said oven sides and said oven and the fire-box and oven-doors, substantially as described.

2. The combination of the sides having reinforced ends, the clips secured to one of said sides, the inward-projecting edge of the oven-doorway on the opposite side, the independent oven side flanged to hook around said clip and adapted to fit around said projection, the channel-grooves in said oven sides and the fire-box and oven-doors and their latches and holders, substantially as described.

3. The combination in a knockdown stove, of the base-plate having channel-grooves, the ends hinged thereto and containing channel-grooves in their side edges, the sides adapted to fit in the channel-grooves of said base-plate; the top, also containing channel-grooves at its sides and also in its edges; adapted to receive the top edges of said sides and the top edges of said hinged ends, the oven removably secured to said sides and arranged with its sides and top and bottom formed of separate pieces and removably interlocked to one another and the hooks adapted to lock the said sides and top together, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

FREDERICK STAPP.

Witnesses:
PHILLIP FRITCH,
GRACE P. LINDSLEY.