March 2, 1926. 1,575,451

J. J. SCHEIB

KNOCKDOWN COOKING STOVE

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Fig. 1

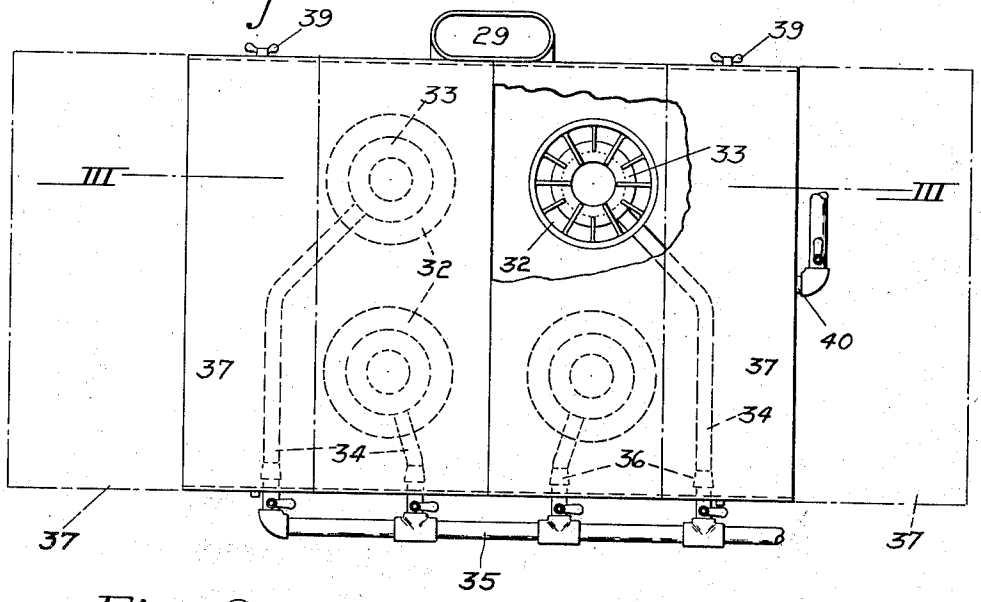


Fig. 2

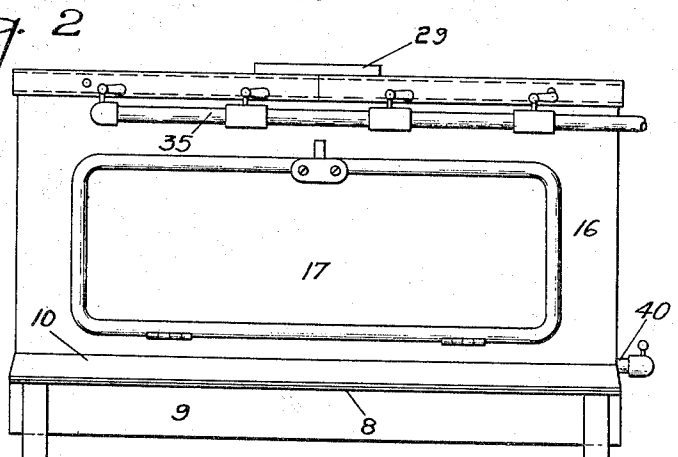
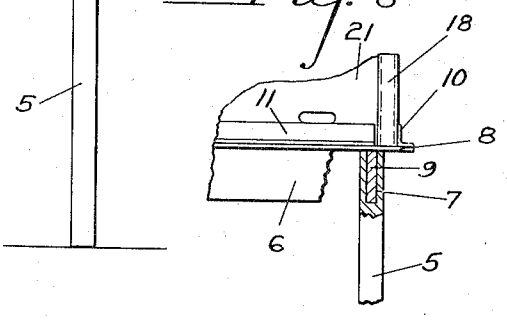


Fig. 8



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Fig. 3

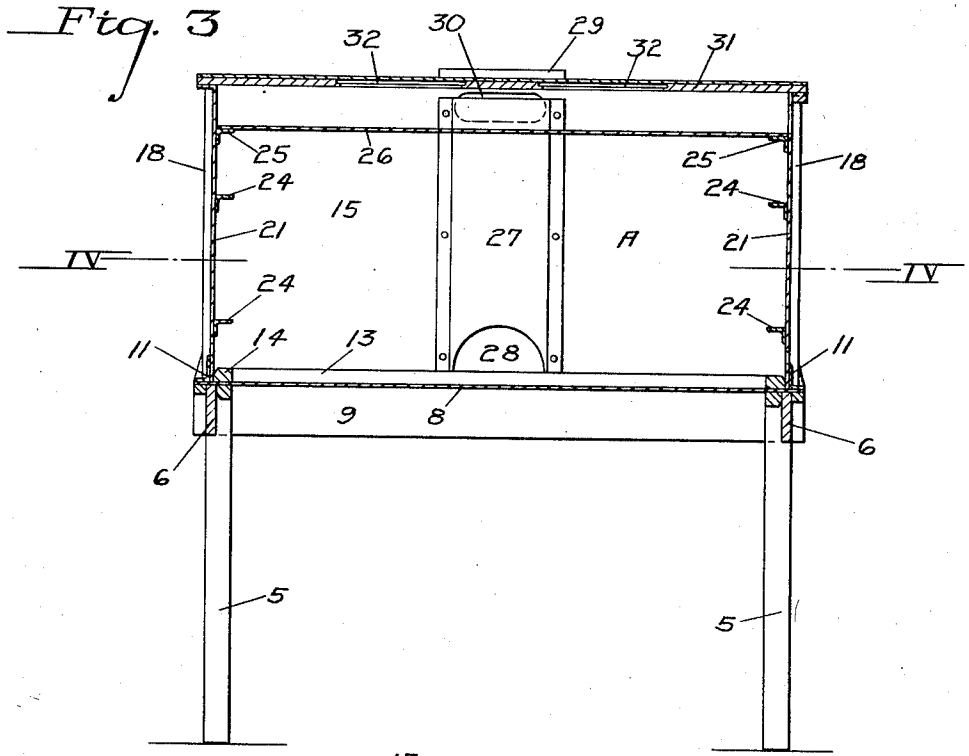


Fig. 4

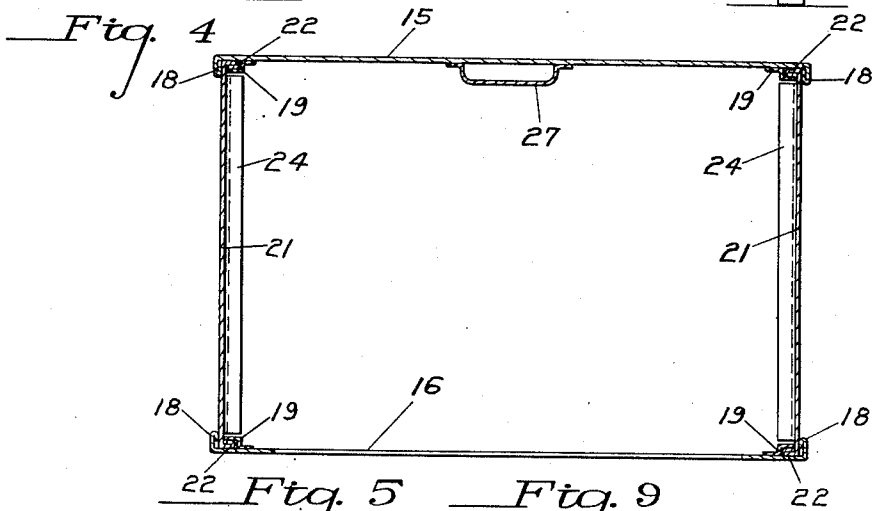


Fig. 5

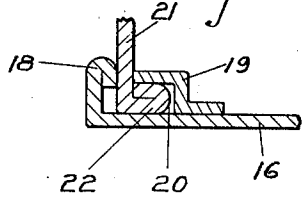
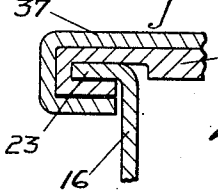


Fig. 9



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Fig. 6

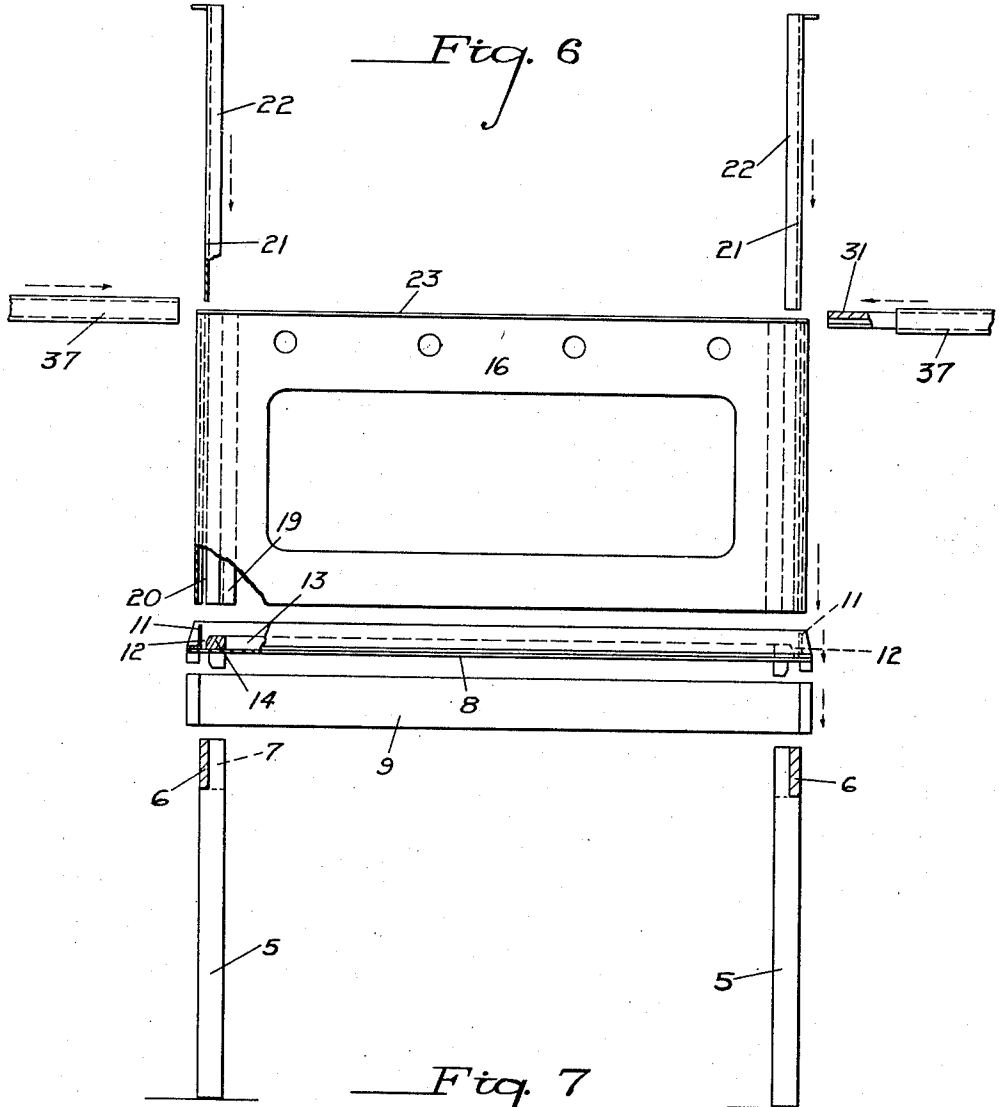
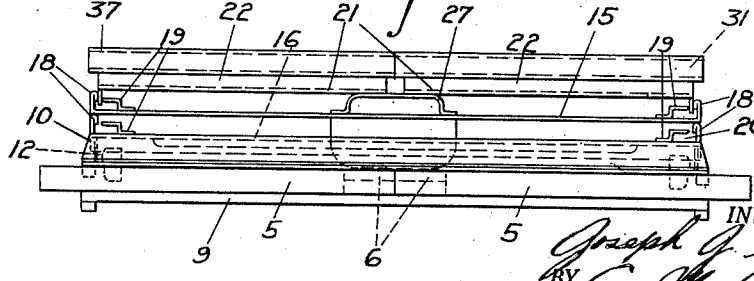


Fig. 7



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Patented Mar. 2, 1926. 1,575,451

UNITED STATES PATENT OFFICE.

JOSEPH J. SCHEIB, OF PITTSBURGH, PENNSYLVANIA.

KNOCKDOWN COOKING STOVE.

Application filed October 2, 1924. Serial No. 741,143.

To all whom it may concern:

Be it known that I, JOSEPH J. SCHEIB, a citizen of the United States, residing at Pittsburgh, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Knockdown Cooking Stoves, of which the following is a specification.

This invention relates to cooking stoves, and particularly to stoves which may be easily taken apart and set up, to save space in the transportation and storage thereof, and to facilitate removal thereof from one place to another.

According to the present invention, I propose to provide what may be called a knockdown or collapsible stove, particularly a cooking stove. The great increase recently in the number of families and individuals having small apartments or one or two rooms in which "light housekeeping" is done, has led to the demand for a light cooking stove, which shall have the advantages of standard cooking ranges, but which may be readily moved from place to place, which will not require considerable space, and which may be cheaply manufactured and sold.

The present invention has for its principal objects to provide a stove which may be cheaply but durably built, which can be set up or taken apart by the user without any special knowledge of stove construction, and without the use of bolts, screws, or other small fastening means, but which shall be rigid and of good appearance when assembled.

A further object of the invention is to provide an improved top for stoves of this kind.

These and other objects are attained by my invention, which may be readily understood by the accompanying drawings. In the drawings:

Fig. 1 is a top plan view of the assembled stove;

Fig. 2 is a front elevation thereof, showing the top members retracted;

Fig. 3 is a vertical longitudinal section through the stove;

Fig. 4 is a transverse section on line IV—IV of Fig. 3;

Fig. 5 is a detail sectional view of one of the corner joints;

Fig. 6 represents an exploded view of the several parts of the stove indicating the relation in which they fit together;

Fig. 7 is a front elevation of the collapsed stove;

Fig. 8 is a detail view, looking at one end of the stove, showing the supporting frame assembly in position;

Fig. 9 is a detail view showing the manner in which the top and sides are connected, and showing the slidable top members.

In the drawings, 5 designate legs, of which there are preferably four. The two legs at each end of the stove are connected by rigid cross pieces 6, to provide two end supporting frames. The tops of the legs are slotted, as indicated at 7 in Fig. 8. Resting on the top of the legs, or the end frames formed thereby, is a flat bottom plate 8 having longitudinally extending flanges or strips 9 on the under surface thereof. These strips are received in the slots 7, as shown in Fig. 8.

Along the longitudinal edges of the top of the bottom plate are beads or angle bars 10, and along the ends are similar beads or flanged members 11. Spaced inwardly from these strips or members 10 and 11, and parallel therewith in such manner as to form a narrow marginal groove or channel 12, are other strips 13 and 14, respectively.

Set into the groove 12 along one longitudinal edge thereof is the back plate 15, and in the corresponding other edge is the front plate 16, in which is a hinged door 17. Both vertical edges of plates 15 and 16 are turned over to provide flanges 18. Secured to each vertical edge, parallel with flange 18, is a vertical strip 19 suitably shaped to provide groove 20 of the interlocking corner joints hereinafter described.

After the front and back plates have been set up, the end plates 21 are slipped down into place, as indicated by the arrows in Fig. 6. These end plates have a width equal to the distance between the front and back plates, and have inwardly turned, beaded, vertical edges 22 thereon. These edges engage in grooves 20, and thus form an interlocking sliding joint between the side members and the end members at each corner. Fig. 5 shows a detail view of one of these joints.

When the parts have been thus far assembled, the stove has the appearance of a

stand with an open top rectangular receptacle thereon. The top of the front and back have outwardly turned lateral flanges 23 thereon, for the purpose hereinafter described.

At suitable places on the inside of the end plates are horizontal shelf-supporting clips or angles 24, and above these is a similar angle 25 on which a top plate 26, for the oven, is set. An enclosed chamber A is thus formed, providing the oven of the stove. Top plate 26 is below the top of the rectangular enclosure.

A channel shaped member 27 is secured to the back plate inside the oven in a vertical position, and, being open at its bottom, as indicated at 28, it provides a flue, the top of the channel communicating through a port in the back wall with a stove pipe connection 29 secured to the back wall. Opening 30 at the top of this channel also provides a flue for gases from the burners in the top of the stove, hereinafter described.

Slidable on the top flanges 23 longitudinally of the stove, is the top burner plate 31 having the desired number of burner holes 32 therein, below which are secured gas burners 33, having suitable mixer tubes 34. A valved gas manifold 35 is preferably secured to the front plate, and carries the valves and mixers 36 for the burners. When the top is in place, the mixing tubes fall in line with the respective mixers on the front plate.

The sliding connection between the top and the front and back plates is best shown in Fig. 9.

Slidable longitudinally of the top plate are covers or slides 37, each of which covers substantially half the top area of the stove. These slides may be moved together, as shown in Fig. 1, in which case they cover the entire top of the stove and all the burner openings. Individual lids are not, therefore, necessary. When desired, one or both of these slides may be moved to the position of the dot and dash lines of Fig. 1. When so opened, these slides provide a shelf space at each side of the stove, on which kettles and other articles may be conveniently set.

Bolts with wing nuts 39 may pass through slots in the slides to limit their sliding movement, and represent the only removable bolts in the assembly. These do not serve to hold the parts together, but merely limit the sliding movement of the slides.

A suitable burner 40 may be removably retained in the oven.

Various changes and modifications may be made in the construction within the contemplation of my invention and under the scope of the appended claims. It will be readily appreciated that the stove is not primarily a portable stove such as those designed for use by campers, but is a light stove for use in homes. It can be compactly crated for shipment, as clearly shown in Fig. 7, and requires little room for storage. These factors, together with the fact that it is very light and that an expert stove mechanic is not required to set it up, enter into its economic sale to the consumer. Furthermore, because it is so readily taken apart and put together, it can be cheaply moved from place to place.

It will be understood, also, that the stove can be made in any suitable sizes and with varying numbers of burners, according to the requirement of the trade.

I claim as my invention:

1. A knock-down stove including end walls and side walls, interlocking sliding joints along the vertical edges of the side and end walls, a bottom plate having means thereon for holding the side and end walls in position thereon, an upper plate removably supported by the walls below the top thereof in spaced relation to the bottom one, said space forming an oven, one of said walls having a door thereon, and a removable top plate having burner openings therein supported above the side and end walls.

2. A knock-down stove including end walls and side walls, interlocking sliding joints along the vertical edges of the side and end walls, a bottom plate having means thereon for holding the side and end walls in position thereon, an upper plate removably supported by the walls below the top thereof in spaced relation to the bottom one, said space forming an oven, one of said walls having a door thereon, a removable top plate having burner openings therein supported above the side and end walls, and supporting means slidably connected with the lower plate.

3. A knock-down stove including end walls and side walls, interlocking sliding joints along the vertical edges of the side and end walls, a bottom plate on which the side and end walls set having flanges along the sides and end thereof surrounding the lower edges of side and end walls, a removable upper plate within the side and end walls and below the top thereof above the bottom plate, the space between the upper plate and the bottom plate enclosed by the side walls constituting an oven, a top plate above the side walls slidably secured thereto and having burner openings therein, and burners below the openings and above said upper plate.

4. A knock-down stove having separable side and end walls having separable connections therebetween, a bottom plate on which they are removably supported, a top plate slidably guided and retained on the upper edges of the side walls and having burner openings therein, sliding covers on

the top plate movable to cover and uncover the burner openings and adapted to project beyond the top when extended to a position to uncover the openings, and a second plate within the side and end plates and below the top plate whereby an oven is formed in the lower part of the stove.

5. A knock-down stove comprising back, front and end walls being slidably connected through interlocking joints along the vertical edges thereof, a removable bottom plate, a removable intermediate plate, a removable top plate slidably retained on the side walls, means on the back wall providing a flue and comprising a channel secured against the back wall, said back wall having an opening therein adjacent the top of the channel, a flue pipe connection on the outside of the back wall over the opening, the channel having an opening therein below the said intermediate plate, a burner in the enclosure below the intermediate plate, and burners under the top plate above the intermediate one.

In testimony whereof I hereunto affix my signature.

JOSEPH J. SCHEIB.