J. N. STONE.

KNOCKDOWN SHEET METAL LOCKER.

APPLICATION FILED AUG. 6, 1917.

1,268,509.

Patented June 4, 1918.

3 SHEETS—SHEET 1.

Fig. 1.

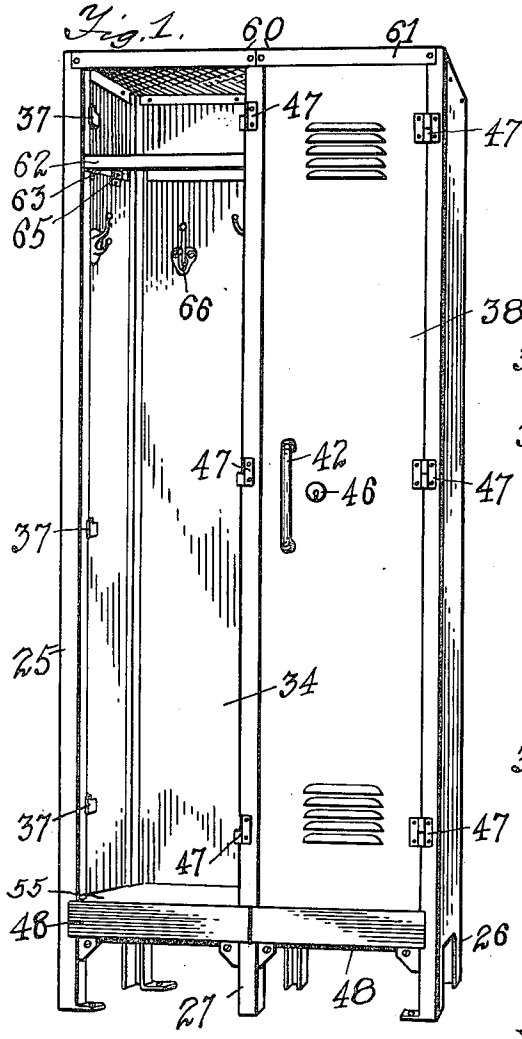


Fig. 2.

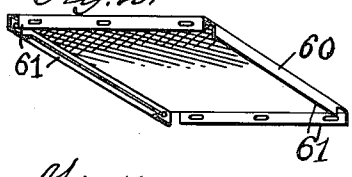


Fig. 3.

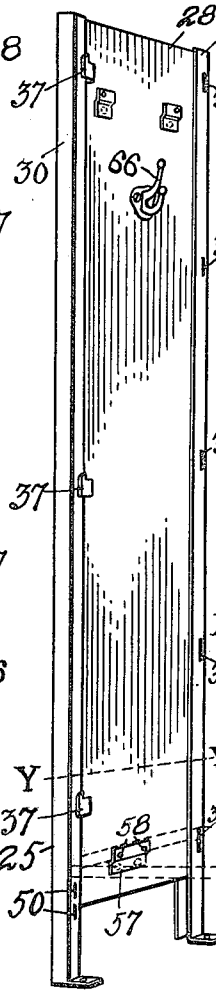


Fig. 4.

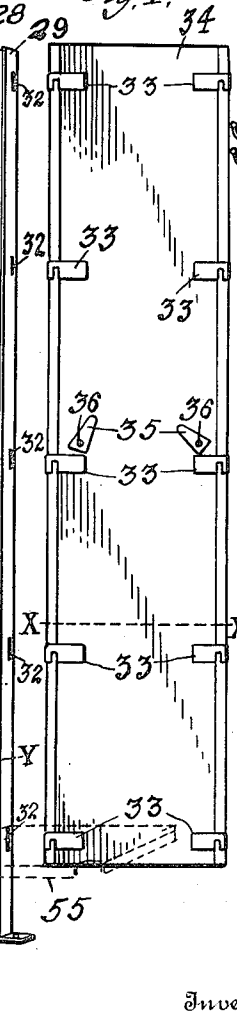


Fig. 5



Fig. 6.

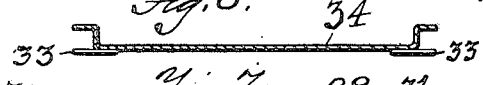
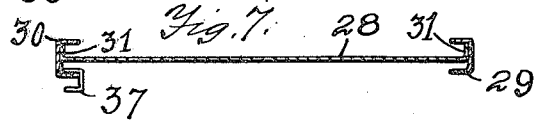


Fig. 7.



Witness

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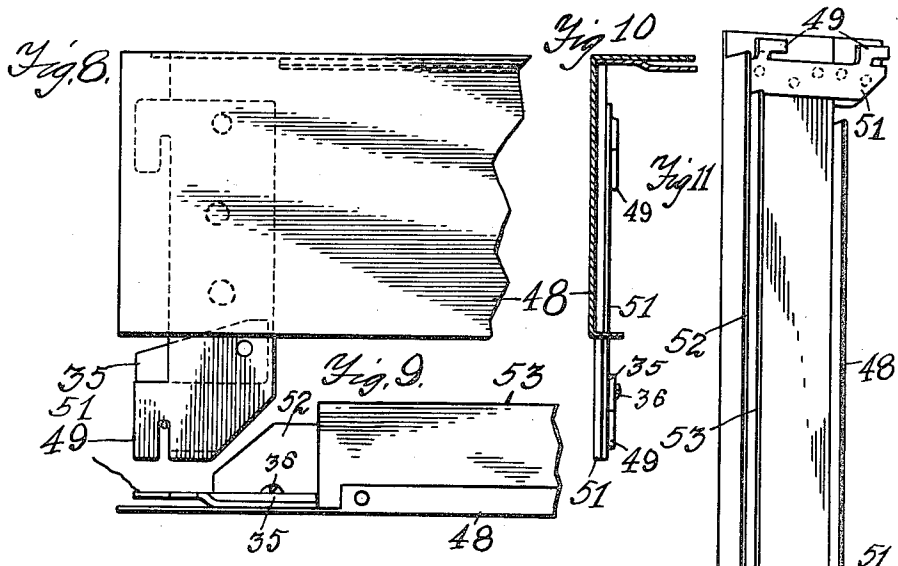
KNOCKDOWN SHEET METAL LOCKER.

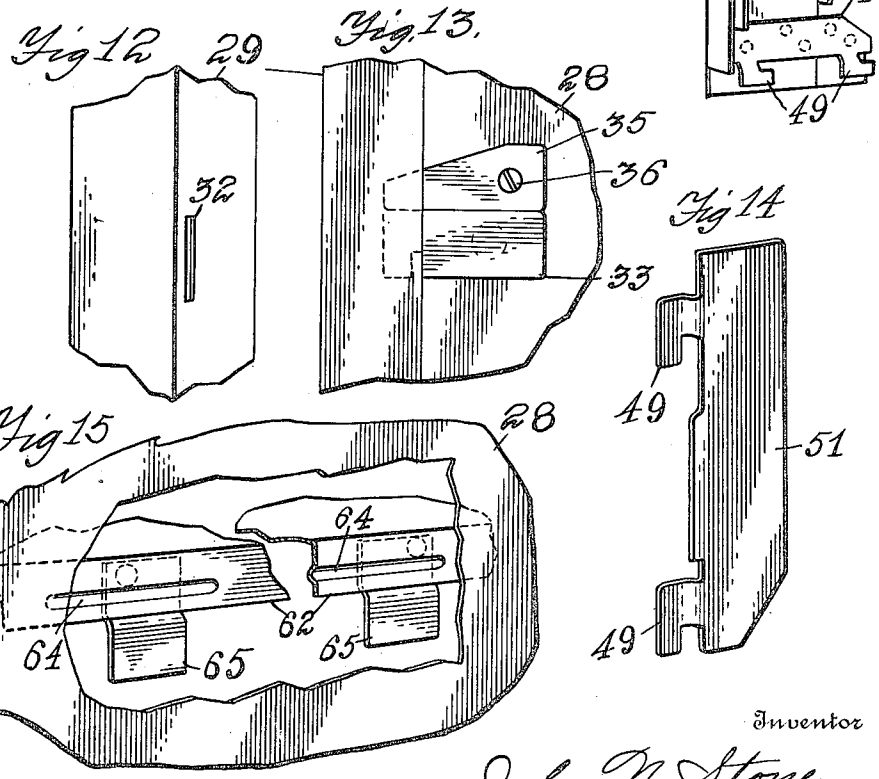
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3 SHEETS—SHEET 2.





Witness

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3 SHEETS—SHEET 3.

Fig. 16.

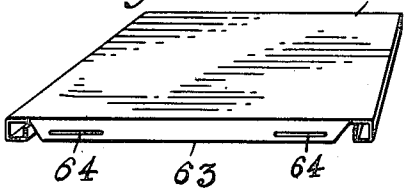


Fig. 17.

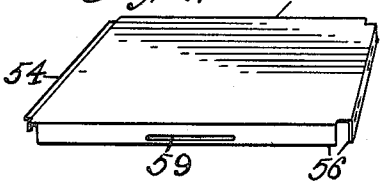


Fig. 19.

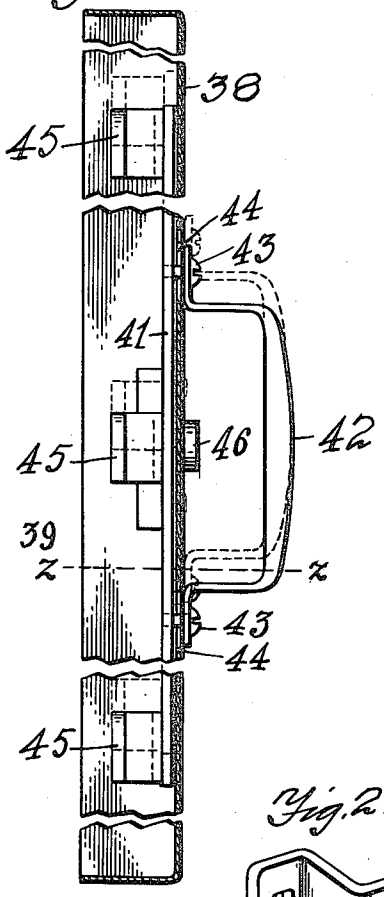


Fig. 18.

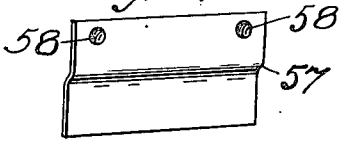


Fig. 20.

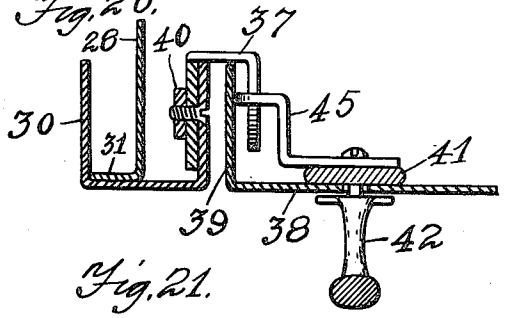


Fig. 21.

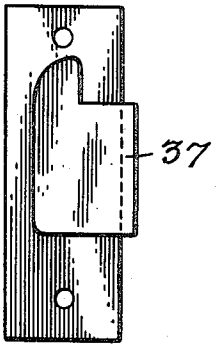
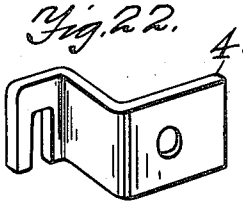


Fig. 22.



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UNITED STATES PATENT OFFICE.

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KNOCKDOWN SHEET-METAL LOCKER.

1,268,509. Specification of Letters Patent. Patented June 4, 1918.

Application filed August 6, 1917. Serial No. 184,589.

To all whom it may concern:

Be it known that I, JOHN N. STONE, a citizen of the United States, residing at the village of Gowanda, in the county of Erie and State of New York, have invented certain new and useful Improvements in Knockdown Sheet-Metal Lockers, of which the following, taken in connection with the accompanying drawings, is a specification.

The invention relates to sheet metal lockers; and the object of the improvement is to provide a simple and durable knock-down locker construction, which when assembled supports the different parts with great strength and rigidity, the parts of said locker construction being so shaped as to be easily constructed by means of suitable dies and presses; and the invention consists in the novel features and combinations hereinafter set forth and claimed.

In the drawings, Figure 1 is a front perspective view of a pair of lockers with the door of one of the lockers removed so as to reveal the construction of the assembled locker and the door of the other locker being in the closed position. Fig. 2 is a perspective view of the underside of the top plate of a locker, showing the construction and arrangement of the same. Fig. 3 is a perspective view of the inner side of one of the end portions or uprights of the locker separated from the remaining portions and showing the means of attachment to said remaining portions, the bottom shelf being shown in dotted line in position thereon. Fig. 4 is a rear elevation of the back plate showing the hooked lugs thereon for engagement with the end portions and the lock plates for securing said back plate in its attachment to the end portion. Fig. 5 is an edgewise elevation of the central partition or upright, for use when a plurality of lockers are set up in series showing the hinge butts thereon and the stop lugs for the door. Fig. 6 is a crosswise sectional view of the back plate at line X—X in Fig. 4 showing the construction and arrangement of the same; and Fig. 7 is a crosswise sectional view of one of the end uprights, for example, at line Y—Y in Fig. 3. Fig. 8 is an end elevation of a portion of the base plate; Fig. 9 is a top plan view of the same; Fig. 10 is a sectional view of the same; and Fig. 11 is an inner perspective view of said base plate showing the construction and arrangement of the same. Fig. 12 is a perspective view of a portion of one of the standards showing the closed slot therein for engagement with one of the attaching hooks or lugs on the back or base plates; and Fig. 13 is an elevation of one of the hooks on the back plate inserted in one of said closed slots with a wedge plate inserted in said slot to close the same and thereby lock the back plate firmly in the set up position so that it cannot be knocked down without withdrawing said wedge plate. Fig. 14 is a perspective view of one of the double hooked latch plates before it is spot welded to the base plate. Fig. 15 is an elevation of a portion of one of the uprights, the central portion being broken away to show the manner of attachment of the hat shelf in the locker; and Fig. 16 is a perspective view of said hat shelf removed from the locker and showing the ribs which lock over the blister in the shelf support. Fig. 17 is a perspective view of the bottom shelf showing the rib to lock over the blister in the shelf support and the front flange edge for engagement with the base plate. Fig. 18 is a perspective view of one of the double blistered shelf supports before welding to the sheet metal uprights. Fig. 19 is a lengthwise sectional view of the door showing the bar lock with the handle attached thereto; and Fig. 20 is a crosswise sectional view at line Z—Z showing the engagement of the bar lock with the locking plates on the standards; Fig. 21 is an elevation of one of the hooked lugs which engage the bar lock, and Fig. 22 is a perspective view of one of the hooked locking plates on the slidably mounted locking bar for engaging the hook plates or lugs on the uprights.

Like characters of reference refer to corresponding parts in the several views.

The numeral 25 designates the left end upright, the numeral 26 the right end upright, and the numeral 27 one of the central or partition uprights.

Each of the uprights 25, 26 and 27 is constructed with a central plate 28 and channel posts or standards 29 on the rear edge and 30 on the front edge, which channel posts greatly stiffen and strengthen the entire construction, the edges 31 of the central plates 28 being turned in an angular flange which braces within the channel posts 29 and 30 providing a surface for spot welding said flanged edges 31 to the inner wall or bottom of the channel posts 29 and 30, said flanged edges 31 usually

extending preferably about half way across the bottom of the channel posts 29 and 30. In some cases the end uprights are preferred with the outer sides of the channels posts 29 and 30 flat against the wall of the central plate 28. The reason for usually preferring the construction as shown with the flanged edges only one-half way across said channel standards or posts 29 and 30 is so that the said uprights may be attached to when it is desired to enlarge the number of lockers. This arrangement also standardizes the construction.

The rear posts 29 have the closed slots 32 therein to receive in holding engagement the hooked lugs 33 on the back plate 34, the central hooked lugs 33 of the back plate 34 being provided with wedging plates 35 which are attached by means of screw bolts 36 and are shipped as shown in Fig. 4 so that they may be removed and placed in wedging engagement above the hooked lugs 33 within the slots 32 as shown in Fig. 13, thereby holding the entire series of spaced hooked lugs 33 along the sides of the back plate 34 in holding engagement within the spaced slots 32 of the channeled uprights 29 and thereby firmly supporting said uprights in the correct spaced relation.

The channel posts 30 for the front edges of the door are provided with spaced hooked lugs 37 into which the flanged edge 39 of the door 38 closes providing a stop for the door; the hooked lugs 37 being preferably attached by screw bolts 40, as shown in Fig. 20. The door 38 has the slidably mounted lengthwise locking bar 41 supported on the inner side thereof by means of the handle 42 which is attached to the bar 41 preferably by screw bolts 43 at each end of said handle, which screw bolts 43 slidably move in the slots 44. The bar 41 has the hooked plates 45 attached thereto at spaced distances corresponding to the hooked lugs 37, preferably one near the top and another near the bottom, and a central lug to hold the door firmly throughout its length. A lock 46 is provided on the inner side of the door which engages the bar 41 when in the latching or locking position of the lugs 45 and 37. It is apparent that the door may be quickly and easily unlatched by raising the handle 42 as shown in dotted outline in Fig. 19 thereby raising the lugs 45 from the lugs 37 and permitting the opening of the door 38, suitable butt hinges 47 having been provided on the uprights for the rear edge of the door.

After the insertion of the back plate 34 a base plate 48 having the double lugs 49 at each end is inserted in the double slots 50 in the channel posts 30 thereby firmly locking the front portion of the uprights 25, 26 and 27. The double lugs 49 are preferably formed on a plate 51 which is spot welded to the base plate 48. The base plate 48 has the inturned flanged upper edge 52 which has a spaced lengthwise plate 53 welded thereto to receive therebetween the flanged front edge 54 of the bottom shelf 55 thereby supporting the front edge of said bottom shelf and holding the uprights and back portion in spaced relation to one another. The sides of the bottom shelf 55 are turned downward in flanges 56 which engage within the bent out holding plates 57 spot welded to the central plates 28 of the uprights in correct position to receive said flanges 56 within said bent out portion of the plates 57, blisters 58 being provided in the upper portion of the bent out portion 57 to lock over the rib 59 on the flange 56 of the bottom shelf 55 at each side.

It is apparent that the horizontal front flange 54 may be inserted between the plates 52 and 53 of the base plate 48 and the rear portion of the shelf 55 may be pressed down into holding engagement with the ribs 59 beneath the blisters 58, said blisters springing into the required holding engagement, thereby holding said shelf firmly in place and bracing all the parts, the back and sides of the rear shelf being provided with downward flanges. This arrangement permits the quick removal of the shelf 55 when it is desired to knock-down the locker construction. The top 60 is preferably attached by means of screw bolts in spaced slots to thereby lock all the parts into the required holding engagement, the downwardly extending flanged sides 61 of the stop 60 stiffening and strengthening the upper portion of the locker when attached in the set up position.

The top or hat shelf 62 is also provided with downwardly extending flanged edges 63 which have spaced ribs 64 thereon for engaging the blistered lug plates 65 in locking engagement as shown in Fig. 15. It is apparent that the shelf 62 may be inserted into the locker and pressed into holding engagement between the ribs 64 and blistered lugs 65 on the uprights at each side. Suitable garment supporting hooks 66 may also be provided on the uprights and the back plate, being preferably secured thereto by means of screw bolts for shipment knocked down.

In setting up the lockers a left end upright 25 is selected without hinges and if a series of lockers are desired an upright 27 with hinges 47 and locking hooks 37 and a right end upright 26 with hinges 47 are selected with sufficient back plates 34. The hooks 33 of the back plates 34 are inserted in the slots 32 and the wedges 35 are inserted in the central slots 32 thereby holding the uprights and backs firmly in position. The front base plates 48 are then attached by inserting the hooked lugs 49 within the slots 50. The top plate 60 is then placed upon each of the lockers and bolted into

place, after which the bottom shelf 55 for each locker is inserted by raising the rear side thereby allowing the front flange 54 to enter beneath the flange 52 and between said flange 52 and the spaced flange 53, after which the rear portion of the shelf 55 is forced downward onto the shelf supports 58, being locked in place by the blisters 58 springing over the ribs 59. The top or hat shelf 62 is then inserted by forcing it down onto the shelf supports 65, the ribs 64 engaging beneath the blisters on said supports 65. Finally, the door 38 is hung by means of the butt hinges 47 thereby completing the assembling of the locker, and it is apparent that it can easily be knocked down by simply reversing the steps for setting it up.

I claim as new:—

1. In a knock-down locker, a body, a shelf having a downturned flange formed with a lengthwise rib, a member borne by the body and having a part offset to receive the flange of the shelf, and substantially circular blisters struck-out from the offset part of the member below the top thereof to engage over the ribs.

2. A knock-down locker comprising channeled sheet metal corner posts, connective end plates having lengthwise flanges spot welded within said corner posts to thereby form end uprights, a back plate, spaced hooked lugs along each lengthwise edge of said back plate, the rear channel posts having spaced slots therein to receive said spaced hooked lugs in holding engagement, locking wedges one to each edge of said back plate to hold said hooks in said slots and bolted to said back plate, a front base plate having hook and slot connection to the front channel posts, said base plate having a channeled flanged upper edge, the bottom shelf engaging in said flanged upper edge and having downwardly flanged edges with ribs thereon, lugs on said end uprights having blisters engaging over said ribs, an upper shelf having downwardly extending flanged edges, ribs on said flanged edges and blister lugs on said uprights engaging said ribs, a top removably attached to said uprights and back plate, a door hinged to one of the front channel posts, spaced hooked stops on the other channel post to receive said door, and a latch bar on the inner side of said door having spaced lugs thereon to engage said spaced hooked stops in latching engagement.

3. A knock-down locker including end members each composed of a pair of U-shaped channeled corner posts, a metal plate having its sides flanged and the latter secured to the inner faces of the bottoms of the channels of the corner posts at points between and spaced from the free edges of the sides of the channels, a back plate, and hooked lugs on the back plate, the rear corner posts having their inner sides formed with openings to receive said hooked lugs in the space between the metal plate and said inner sides of the channels.

4. A knock-down locker including end members each composed of a pair of U-shaped channeled corner posts, a metal plate having flanged sides directly secured to the corner posts so as to hold said plate spaced from the inner sides and the free edges of said inner sides of the channels of the rear corner posts, said inner sides of the channels of the rear corner posts having openings, a black plate, and hooked lugs on the back plate engageable in said openings and in the space between the metal plate and the inner sides of the channels of the rear corner posts.

5. In a knock-down locker, end members having corner posts provided with openings, a back plate connecting the end members, hooked lugs on the back plate engaging in said openings, wedge plates engaging on top of the hooked lugs and with the top end walls of the openings, and screws to removably secure the wedge plates against movement, and to hold same onto the back plate during knock-down position of the parts.

6. In a knock-down locker, end members having channeled corner posts, a metal plate secured to said posts in spaced relation to the inner sides of the channels of the corner posts, hooked-lug bearing members secured to the inner faces of the inner sides of the channels of the front corner posts and in said space between said sides and the metal plate and with the hooked lugs extending on the outer faces of said inner sides of the channels, a door, a back connecting the end members and locking means on the door engaging said hooked lugs.

7. In a knock-down locker, end members having channeled corner posts, a metal plate secured to said posts in spaced relation to the inner sides of the channels of the corner posts, hooked-lug bearing members secured to the inner faces of the inner sides of the channels of the front corner posts and in said space between said sides and the metal plate and with the hooked lugs extending on the outer faces of said inner sides of the channels, a door, a back connecting the end members, said hooked lugs being arranged in spaced relation to said inner sides of the channels of the front corner posts, and said door having a flange on its free side, engageable in said space between the hooked bearing lugs and the inner sides of the front channel bars, and locking means borne by the door and engageable with said hooked lugs.

8. In a knock-down locker, end members composed of channeled corner posts and metal plates connected to said corner posts so as to leave space between the inner sides of the channels of the front posts and said

plates, said inner sides of the front posts each having an opening, a base plate engageable at its ends with the front faces of the front corner posts, hooked lugs borne by said base plate and spaced to the rear thereof for engagement in said openings of the corner posts and in the space between the metal plate and the inner sides of the channels of the front corner posts and a bottom plate engaged with said base plate.

9. In a knock-down locker, end members composed of channeled corner posts and metal plates connected to said corner posts so as to leave space between the inner sides of the channels of the front posts and said plates, said inner sides of the front posts each having an opening, a base plate engageable at its ends with the front faces of the front corner posts, hooked lugs borne by said base plate and spaced to the rear thereof for engagement in said openings of the corner posts and in the space between the metal plate and the inner sides of the channels of the front corner posts, said base plate having its upper side flanged inwardly, a plate underlying and spaced from said flanged upper side of the base plate and secured to the latter, and a bottom plate having a flange received in said space between the flange of the base plate and the said plate secured to the latter.

10. In a knock-down locker, a body structure, a movable shelf having downwardly extending flanges provided with ribs, plates borne by the body and having parts offset to leave space between said parts and the body structure to receive the shelf flanges in said space, and substantially circular blisters on the offset parts to engage said ribs of the shelf flanges.

11. In a locker, end members composed of U-shaped channel bars, and a plate having its sides flanged with the flanges secured to the bottoms of the channels of the channel bars and the free edges of the flanges abutting one of the sides of the bars so as to hold the body of the plate at points substantially central of the space between the sides of the channels and free of engagement with the free edges of said sides of the channels.

In testimony whereof I have affixed my signature in the presence of two witnesses.

JOHN N. STONE.

Witnesses:

H. A. SANDBERG,

MABEL E. SANDBERG.