

June 5, 1956

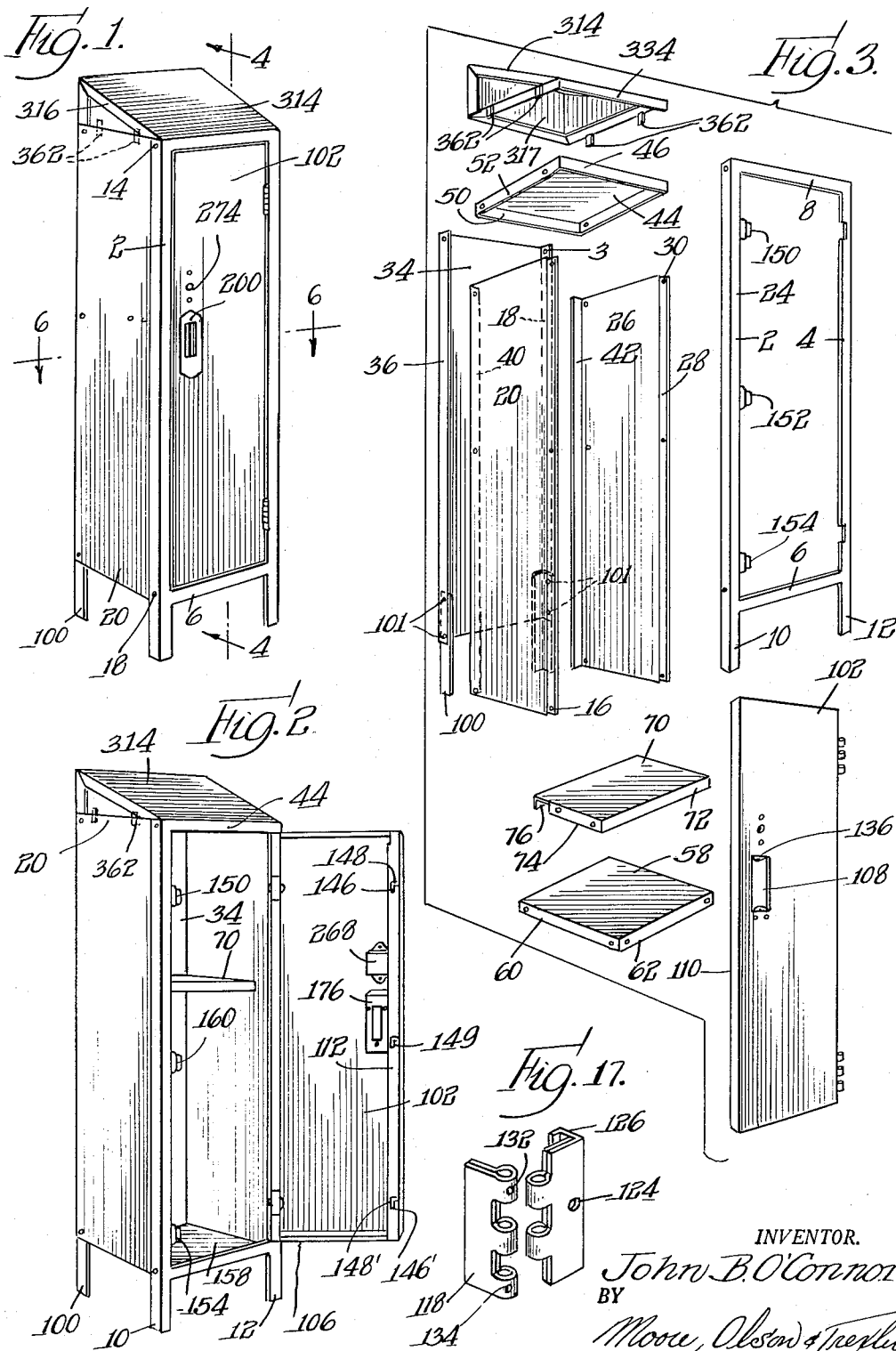
J. B. O'CONNOR

2,749,199

LOCKER CONSTRUCTION

Original Filed May 31, 1946

4 Sheets-Sheet 1



INVENTOR.

John B. O'Connor

BY

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Attys.

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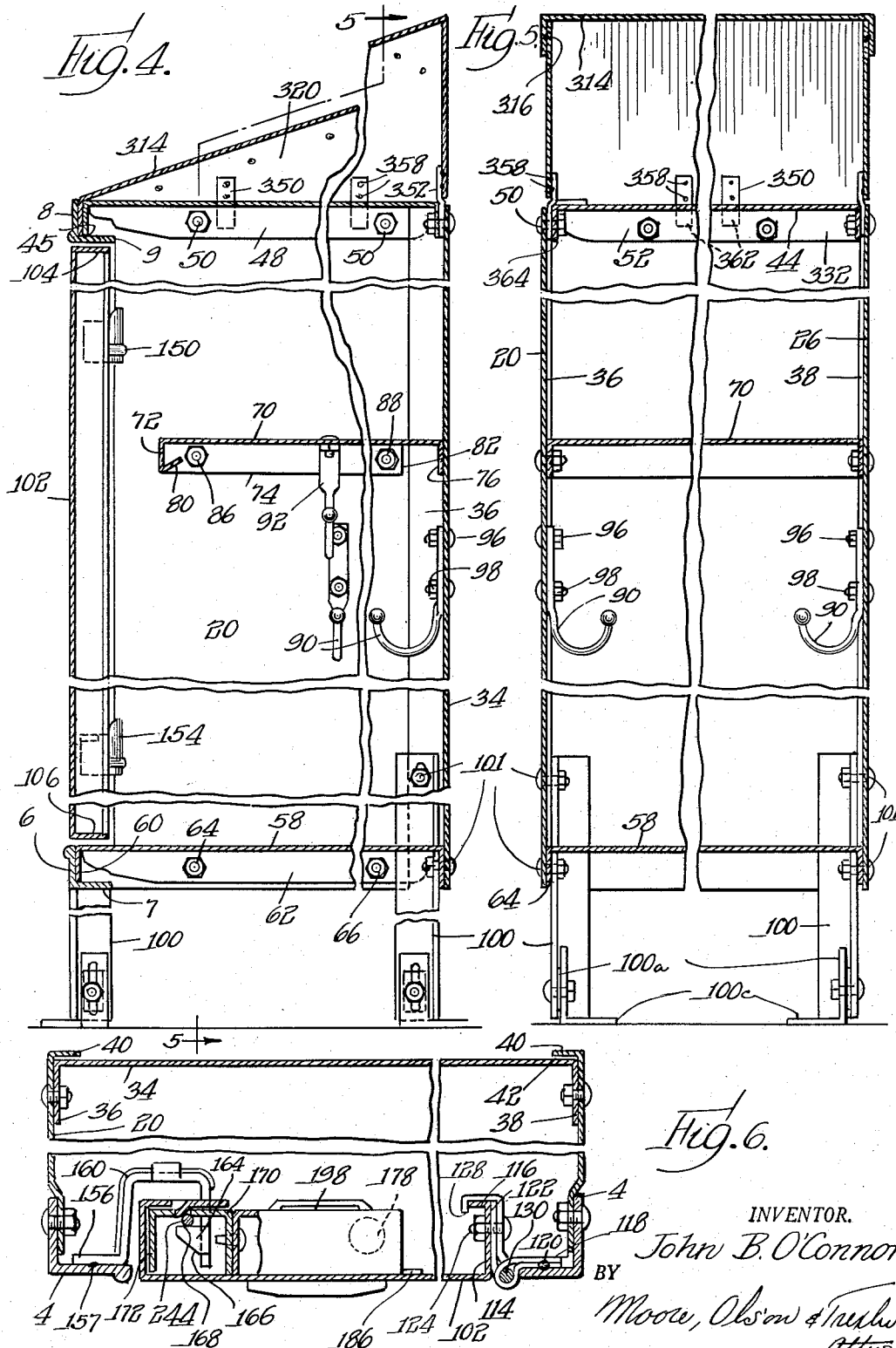
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Fig. 11.

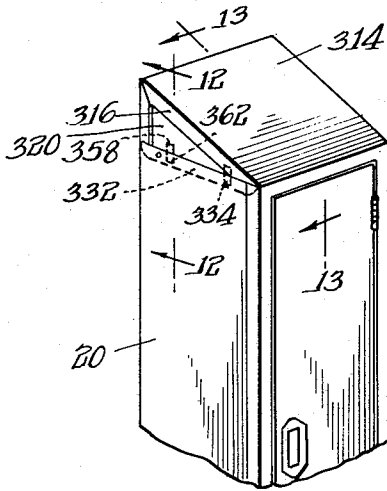


Fig. 12.

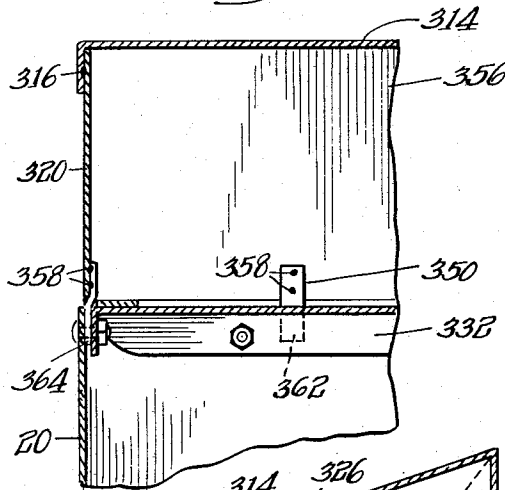


Fig. 13.

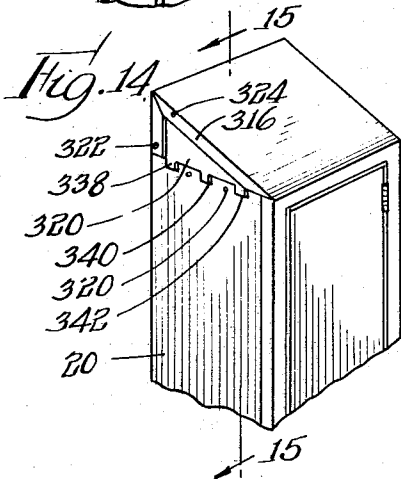
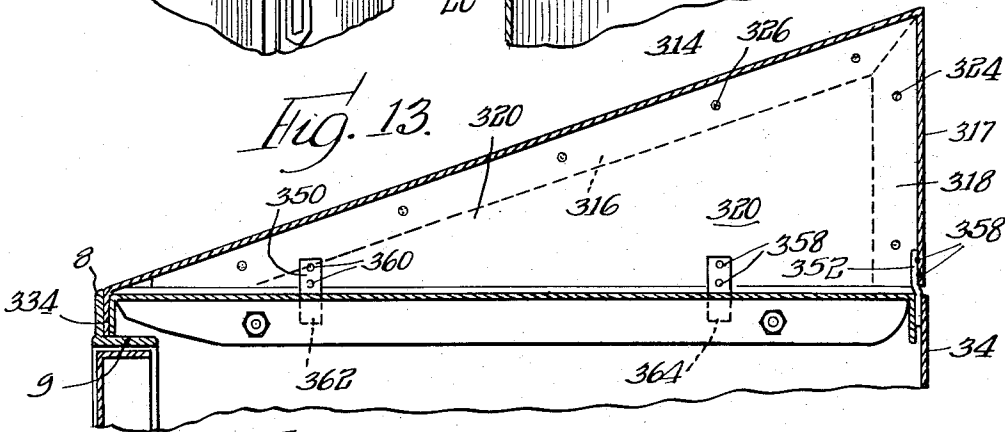
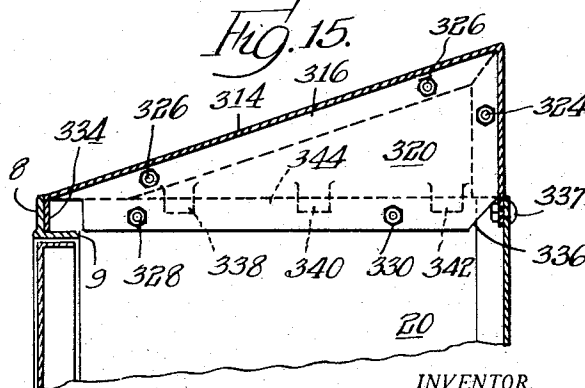


Fig. 15.



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2,749,199

LOCKER CONSTRUCTION

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Application May 29, 1948, Serial No. 30,054, now Patent No. 2,651,559, dated September 8, 1953, which is a division of application Serial No. 673,566, May 31, 1946, now Patent No. 2,568,592, dated September 18, 1951. Divided and this application November 18, 1952, Serial No. 321,175

6 Claims. (Cl. 312—257)

This invention relates to metal lockers.

The present application is a division of my prior patent application, Serial No. 30,054, filed May 29, 1948, now Patent No. 2,651,559 which in turn is a division of my prior filed patent application, Serial No. 673,566 filed May 31, 1946, now Patent No. 2,568,592. The invention of the instant application relates particularly to a locker of the general type illustrated, wherein the locker is provided with a top having an upper surface lying in an inclined plane and preferably slanting forwardly toward the front of the locker, the construction including means for attaching such type of top to the locker and for the purpose of preventing the deposit of extraneous objects, dust and dirt on the top of the locker.

Another object of the invention resides in the details of construction of a locker formed with an inclined top generally and specifically of the type illustrated.

These and other objects of the invention will be apparent from perusal of the following specifications when taken in connection with the accompanying drawings, wherein:

Fig. 1 is a perspective view of a locker with my improved top thereon;

Fig. 2 is a similar view of the locker with the door open;

Fig. 3 shows various parts of the sheet metal members making up the locker;

Fig. 4 is a side sectional view taken on line 4—4 of Fig. 1;

Fig. 5 is a sectional view taken on line 5—5 of Fig. 4;

Fig. 6 is a sectional view taken on line 6—6 of Fig. 1;

Fig. 7 is a perspective view of a multiple compartment locker showing a double door;

Fig. 8 is a section taken on line 8—8 of Fig. 7;

Fig. 9 is a section taken on line 9—9 of Fig. 7;

Fig. 10 is a perspective view of the shelf supporting members of Figs. 7, 8, and 9;

Fig. 11 is a perspective view showing the sloping top attachment for the cabinet;

Fig. 12 is a section taken on line 12—12 of Fig. 11;

Fig. 13 is a section taken on the line 13—13 of Fig. 11;

Fig. 14 is a perspective view of a modified form of sloping top construction;

Fig. 15 is a section taken on line 15—15 of Fig. 14;

Fig. 16 is a fragmentary perspective view of the component parts of the adjustable feet for each of the legs of the cabinet;

Fig. 17 is a perspective view of the hinge members which pivot the door to the frame of the locker.

Referring now to the drawings in detail, and particularly with reference to Figure 1, it will be noted that the locker comprises a front frame member of integral construction which includes the two vertical angle iron side pieces 2 and 4, the integral bottom cross angle 6 and the top cross angle 8. The cross bars 6 and 8 are preferably united by welding. The two side angles 2 and 4 extend downwardly at their lower ends to provide the integrally formed feet 10 and 12. Suitably attached to the front upstanding ver-

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tical frame members 2 and 4 as at 14 and 16, as by rivets or self tapping screws or by bolts and nuts, is a side panel 20 formed of sheet metal. The marginal flange portion 18 of this panel 20 underlies the angle portion 24 of the vertical angle iron 2. Similarly another side panel 26 has a forward flanged portion 28 which is fixed to and lies beneath a corresponding side flange of the vertical corner bar 4. A sheet metal back 34 has right angle flanges 36 and 38 which are fastened to flange portions 40 and 42 of the side panels 20 and 26. A sheet metal bottom 58 is provided with depending flanges 60, 62, and two similar flanges on the other side, not shown in Figure 3. The front depending flange 60 of this bottom 58 lies inwardly of the front face of the bottom cross angle 6 and its bottom edge lies upon an inwardly extending horizontal flange 7 of the bottom cross bar 6, as shown in Figure 4. The other flanges of the bottom are bolted as at 64 and 66 and 68 to the side and rear panels of the locker.

The locker preferably includes an intermediate shelf 70 having depending flanges 72, 74, 76 and a flange opposite the flange 74, not shown. The front depending flange 72 has an inwardly and upwardly bent tongue 80 for finish and the two side flanges 74 and its opposite one terminate as at 82, short of the rear depending flange 76, so as to clear the two flange walls 36 and 38 of the rear panel 34. The shelf 70 is bolted as at 86 and 88 to the two side panels 20 and 26. If desired, hooks 90, 92 and 94 may be attached to the back walls at 96 and 98 or to the side panels or to the depending side flanges 74 of the shelf 70. Thus there is provided a generally rectangular structure formed of the panels and the front rigid frame member 2, 4, 6, and 8.

The front frame member comprises front legs 10 and 12 while the rear legs are formed by a pair of relatively short corner angle uprights 100 which are adequately bolted to the corners of the side and back panels 20, 26, and 34, as shown in Figures 4 and 5.

Preferably the bottoms of the legs 10, 12 and 100 are provided with adjustable legs comprising the slotted angularly shaped corner pieces which pass through the slots thereof and through registering perforations in one of the flanges of the legs to provide adjustment, see Figures 4 and 5.

Preferably the bottoms of the front legs 10 and 12 and the rear legs 100 are provided with adjustable legs. To this end, one of the flanges of the bottom portions of the legs 10 and 12 and the rear legs 100 is provided with a plate-like reinforcement or spacing member 100a, see Figure 16, and a bolt hole 100e is drilled or otherwise provided both through this plate and through the flange of the leg to which it is welded. In addition, there is provided a foot section 100b which is preferably of the same width as the flange 100 to which the plate 100a is welded and which has a vertically elongated slot 100d, and this section 100b in turn is provided with a normally disposed, flat, plate-like foot section 100c which extends at right angles to the face of the section 100b to provide a relatively broad foot, as shown in Figure 16, whereby greater stability is lent to the cabinet as well as separate adjustability of the four legs as to height. A bolt passing through the slot 100d and through the bolt hole 100e serves to maintain the adjustment and length of each one of these legs. As shown in the drawings, it will be noted that the lengthwise direction of the feet 100c are in opposition to one another, whereby to provide greater stability for the cabinet.

Cooperating with the integral door frame member 2, 4, 6, and 8 of the locker, and which member is shown in Figure 3, is a door 102 of sheet metal, also shown in Figure 3. This door member has an upper, inwardly extending horizontal flange 104 and a bottom inwardly extending horizontal flange 106, see Figure 4. In addi-

tion, at its front right hand side it is provided with an elongated rectangular opening 108. It likewise has a front vertical inwardly extending flange 110 which in turn, as shown in Figure 2, is provided with an inwardly extending short flange 112 that parallels the plane of the door 102. This flange 112 is spaced from the plane of the door 102. The opposite vertical edge of the door is provided with an inwardly extending flange 114, see Figure 6, which in turn has a right angled, relatively shorter flange 116 that preferably lies parallel to and in the plane of the flange 112. A pair of hinged leaves 118 are spot welded as at 120 to the upper vertical door frame 4. In addition, another pair of leaves 122 is bolted as at 124 to the vertical flange 114. The end 126 of one of the leaves 122 is bent around the flange 116 and terminates in a short flange 128 that covers the vertical end of the flange 116. These hinge members are formed as shown in Figure 17 and a pivot pin 130 passes through the spaced loops or barrels of the hinges and after they are assembled the pin is held in position by means of the indents 132 and 134 formed in portions of the barrels of the leaves 118 whereby to hold the hinges assembled. This is a type of hidden hinge that covers the raw edge of the flange 116 and lies flush with the bulb 4 of angle 4 of the framework.

At the opening 108 of the door 102 the front wall is provided with integral, inwardly extending tabs or ears 136 and 138, see Figure 3. Both of these ears are perforated to receive rubber bumpers.

The door 102 is adapted to receive a shiftable handle mechanism comprising a front plate 200, see Figure 1, which is mounted on the front of the door 102 and is capable of sliding vertically with respect to the opening 108 of the door, see Figure 3, all as described and claimed in the parent application, Serial No. 673,566, filed May 31, 1946, now Patent No. 2,568,592, and also in the divisional application filed concurrently herewith. This front or handle plate 200 has portions rigid therewith which project through the opening 108 of the door 102 and connect with a housing 178, see Figure 6, which in turn is rigidly connected to a vertically extending latch carrying bar or channel bar 170 which channel bar in turn carries an elongated latch 244 adapted to engage behind a shoulder 168 of a keeper 164, and which keeper has a camming or wiping surface 166 adjacent to the locking shoulder 168 of the keeper. This keeper 160 has a flange 156 welded as at 157 to the rear face of the front flange of the rigid corner angle iron 4 so that the keeper or keepers are constantly in position to register with openings 148 in the rear wall of an integral guideway formed by the flange 110 on the rear of the door and the flange 112 bent at right angles thereto to form a vertical guideway to receive the channel bar 170, all as shown and described and claimed in my parent and concurrently filed divisional applications.

In the operation of such type of door, upon the closure of the door the flexible latch 244 will wipe past the camming surface 166 of the keeper and snap lock behind the shoulder 168 thereof, whereby to snap lock the door in locked position. Vertically sliding the handle plate 200 with respect to the front of the door will raise the lower edge of the latch 244 free of the locking shoulder 168 to release the door to opening movement. A lock 268, described and claimed in the parent application and also in the concurrently filed divisional application, is mounted on the rear face of the door and is adapted to cooperate with certain stop mechanism carried by the rear of the channel bar, and not herein shown, whereby to prevent the sliding movement of the handle plate 200 of the door and consequently to prevent the release of the latch so that the snap locked condition of the door cannot be released, and hence the door will remain locked by the manually operable lock 274. This lock 274 has a key fitting barrel which projects through the front of the door, as shown in Figure 1.

The details of the locking mechanism per se and the manner in which it cooperates with the door are not herein further shown in detail since the same forms the subject matter of my parent application and the separate divisional application thereof filed, wherein the invention resides in the constructional features of the locker independently of the locking mechanism.

In Figures 1 to 6 I have illustrated a locker wherein there is a single compartment provided with an intermediate shelf, the front of the locker or cabinet being closed by a single door. In Figures 7 to 10 inclusive I have provided a locker or cabinet having a vertical series of compartments each provided with its own door and each door having a locking construction identical with that described in my parent application. In providing a multicompartment locker having a plurality of doors, I provide a detachable support member 276, see Figure 10. This support member has outwardly and rearwardly extending arms 278 and 280 which are suitably perforated to receive bolts. The forward portion of this partition member 276 is substantially flat and is cut away at its ends as at 282 and 284 to avoid the front portions of the vertical corner strips 2 and 4 of the rigid front frame members. In this construction these front frame members are provided with slotted portions or abutments 286 and 288, see Figure 9, which receive the corner portions of the support portion 276 formed by the cutouts 282 and 284, whereby the front edge is supported at 286 and 288 and whereby the rear edge of the member 276 is supported by the bolts 292 and 294 which engage the side panels 20 and 26. It will be noted that these side panels and the rear panel 34 in this construction extend the entire height of the multidoor locker. The support member 276, as shown in Figures 8 and 10, has an inwardly and downwardly extending interior flange 296. A horizontal partition member and shelf 298, see Figure 8, has side depending flanges 300, and an opposite one, not shown, and a front depending flange 304, see Figure 8, and a rear depending flange 306. The side flanges, like 300, are held to the opposed side panels 20 and 26 by means of bolts 292 and 308. The front depending flange 304 of the shelf 298 has a countersunk shoulder 312 which rests directly upon the right angled internal corner formed by the intersection of the horizontal flange 298 and the vertical flange 296 of the partition member or support 276 and is spot welded to the member 276 as at 277, thereby supporting the same at the front. This horizontal partition member 298 forms a bottom for the upper compartment and a top for the next lower compartment. The upper part of the vertical flange 304 of this partition 298 above the flange 290 and the flange 296 of the front partition member 276 act as a stop for the bottom and top edges respectively of the doors. In the multiple tier type of locker the doors are preferably fitted with locks but not handles.

In accordance with the main constructional objects of the present invention, the cabinet or locker construction is provided with a slanting or sloping top or roof. The sloping top is preferably, but not necessarily, designed as a separate unit that may be attached to any flat top locker of similar size, or if the locker be purchased with the sloping top and later the user prefers a flat top, the sloping top may be removed. As shown in the drawings, this top member 314 has laterally depending flanges 316, there being an identical one on the other side, and which also has a rear vertical wall 317, see Figure 13, in turn having two vertically extending flanges 318, only one being shown, which flanges are bolted to triangular side pieces 320, there being an identical side piece 320 on the opposite side, not shown, and secured in position by means of bolts 324 and 326, see Figures 13 and 15. If desired, these bolt fastenings may be replaced by spot welding. In addition, the bottoms of these two side members 320 and the rear wall are

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bolted as at 328, 330 and 337 to the top edge of the rear panel 34. The lower edge 332 of these side triangular members 320 is disposed inside of the top edge 344 of the panel 20 and also, not shown, disposed inside of the top edge of the opposite side panel. The top frame member, as shown in Figure 13, has a horizontal portion 9 disposed at right angles to the vertical portion 8 of said frame member, and the lower end of a front frame 334 of top 314 rests upon this horizontal flange 9 and against the vertical portion 8 thereof. The rear lower corner of the triangular portion 320 is cut away as at 336, see Figure 15, to allow the sloping top to be easily inserted into the top of the locker. In addition these triangular side members 320 are slitted and are provided with three preferably outwardly bent ears 338, 340 and 342, which are bent slightly outwardly and overlie the upper edge 344 of the side panel 20 whereby these triangular three side panels 320 of the top have portions straddling the upper edge of the side portions 20, see Figure 15.

In the construction shown in Figures 11, 12 and 13, which possibly is a preferred construction, instead of providing the sides of the top with slotted internal lugs 338, 340 and 342, I secure gauge clips 350 and 352, see Figure 13, to the opposite side members 320 as by welding. Preferably these clips are of 24-gauge sheet metal and are secured by the spot welds 358 and 360. These clips have downwardly projecting portions 362 and 364 which are adapted to project inside of the top edge of the side portions 20 of the cabinet in the manner shown in Figures 11, 12 and 13, and the front flanges or skirt 334 of the top, as shown, will rest on the horizontal flange 9 and against the vertical flange 8 of the top portion.

In short, except for the manner of forming the gauge clips separately and then welding them onto the side members of the top, the constructions of Figures 14 and 15 and the constructions of Figures 11 to 13 are substantially identical. In any instance it will be appreciated that by means of the foregoing construction a cabinet may be sold with either a flat top, as shown in my prior application, or with a sloping top, as illustrated in this application, together with means for quickly and easily attaching the sloping top in position. It will be appreciated that the sloping top eliminates dirt and prevents the unsightly accumulation of rubbish, packages, or other refuse on the top of the locker.

Obviously the invention is not limited to the specific details of construction disclosed herein but is capable of other modifications and changes without departing from the spirit and scope of the appended claims.

Having thus described the invention, what is claimed as new and desired to be secured by Letters Patent is:

1. A locker comprising a front frame including opposed vertical front frame members, an upper cross member, a bottom cross member and legs, and a pair of side panels secured to the free sides of said front frame members, a rear panel secured to said side panels, a bottom secured to said side panels and to said rear panel, door means secured to one of the front frame members for closing the front of said locker, the upper cross member of said front frame being formed with an inwardly extending horizontal flange and an upwardly extending front flange, and a top lying in an inclined plane and slanting forwardly, the forward portion of said top having a flange lying within the front flange of the upper cross member of the front frame with its bottom edge resting upon the horizontal flange of said cross member, said top having downwardly extending side flanges and inwardly extending rear flanges, and a pair of triangular side members having their upper and rear edges secured to the flanges of said top, the bottom horizontal edge of said triangular side members being slotted to provide outwardly extending tongues, the bottom edges of said triangular members lying inside of the upper edges of said

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side panels and the tongues lying outside of the upper edges of said side panels, and fastening means for securing the upper edges of said side panels to the lower edges of said triangular side members.

2. A sheet metal cabinet comprising a rectangular front frame, a pair of sheet metal sides and a sheet metal rear, said sides and rear being secured together at the corner portions, and the front vertical walls of said sheet metal sides being secured to the front frame, a door for closing the opening of said front frame, a bottom closing the lowermost portion of said cabinet, a separable generally triangular top having an inclined top member forming the hypotenusal wall of said structure and having parallel opposed side members and a rear wall member, said side members and said rear member of said separable top having downwardly depending portions adapted to fit inside the upstanding wall portions of said two sides and rear and front frame of said cabinet, and clips attached to the bottom portions of said side members and adapted to project downwardly overlappingly of the upper edges of said sides of the cabinet for securely holding the sloping top to said cabinet.

3. A sheet metal cabinet comprising a rectangular front frame of angle iron, a pair of sheet metal sides and a sheet metal rear, said sides and rear being secured together at the corner portions, and the front vertical walls of said sheet metal sides being secured to the angle iron front frame, a door for closing the opening of said front frame, a bottom closing the lowermost portion of said cabinet, and a top structure connected to the edge portions of said sides and said rear to form a sloping top, said top structure including side members and a rear member having downwardly depending skirts adapted to fit inside the upstanding wall portions of said two sides and rear and front frame of said cabinet, the lower portions of the side members of said top structure being provided with slitted portions providing free tongues, said tongues being bent outwardly laterally of the planes of the side members of said top structure whereby said tongues may overlie the outside upper edges of the sides of said cabinet while the side members and rear member of said top structure are adapted to lie within the inner walls of the sides, rear and front frame of said cabinet, and means for attaching said side members to the upper edges of the sides of said cabinet.

4. A sheet metal cabinet having a rear, two sides and a front, the front being formed of an angle iron frame including a vertical flange and a horizontal, rearwardly extending flange, and a sloping top attachment comprising two triangularly shaped side members having depending flanges and a rear member having a depending flange and a top member having a depending flange, means for securing said top member, said front, said side members and said rear member together, and means for positioning said top attachment at the top of said cabinet with the depending flanges of said members of the top attachment fit within the top edges of said cabinet and at the front thereof lie upon the horizontal flange of said front frame and against the vertical flange of said front frame, and means for securing said flanges of the top attachment to the top edges of the sides of said cabinet.

5. A sheet metal cabinet having a rear, two sides and a front, the front being formed of an angle iron frame including a vertical flange and a horizontal, rearwardly extending flange, and a sloping top attachment comprising two triangularly shaped side members having depending flanges and a rear member having a depending flange and a top member having a depending front flange, means for securing said top, side and rear members of the top attachment together, and means for positioning said top attachment at the top of said cabinet with the depending flanges of said top attachment overlapping the top edges of said cabinet and at the front thereof lying upon the horizontal flange of said front frame and against

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the vertical flange of said front frame, and means for securing said flanges of the members of the top attachment to the top edges of the sides of said cabinet.

6. A sheet metal slanting top for a rectangular cabinet comprising a substantially rectangularly shaped top member having a slanting top wall and a rear wall extending at an acute angle to said top wall, said slanting top wall having opposed laterally depending flanges, said rear wall having opposed flanges disposed at an acute angle to the flanges of the top wall, and a pair of triangular side closing walls at said top portion, means for securing said triangular side closing walls to the opposed flanges of the rear wall and to said opposed depending flanges of said slanting top wall, said triangular side closing

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ing walls having freely extending tabs disposed in spaced apart relation along the free edges of said triangular shaped side closing walls.

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