P. H. YAWMAN.

UNIT METAL TRANSFER CABINET.

APPLICATION FILED NOV. 6, 1915.

1,292,946.

Patented Jan. 28, 1919.

4 SHEETS—SHEET 1.

Fig. 1

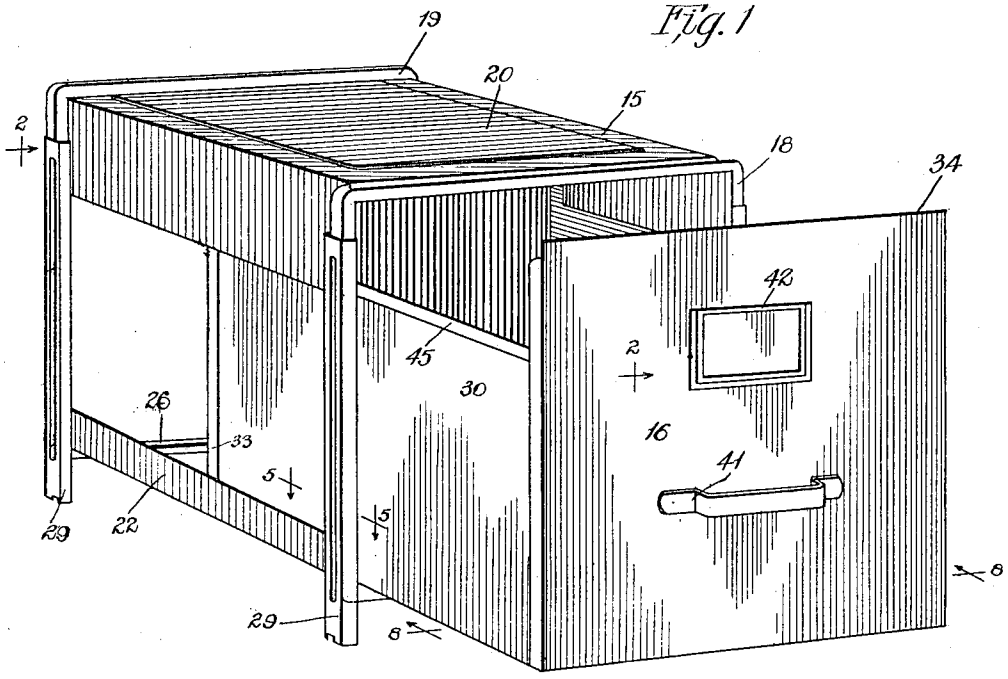
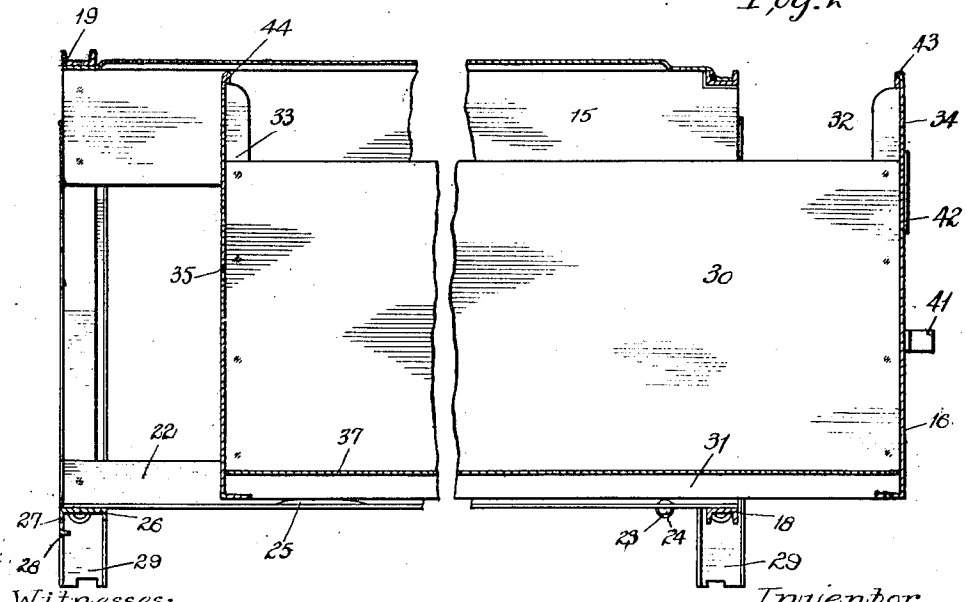


Fig. 2



Witnesses:

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4 SHEETS—SHEET 2.

Fig. 4

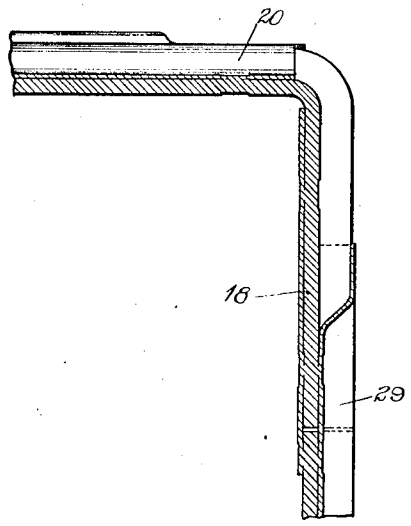


Fig. 3

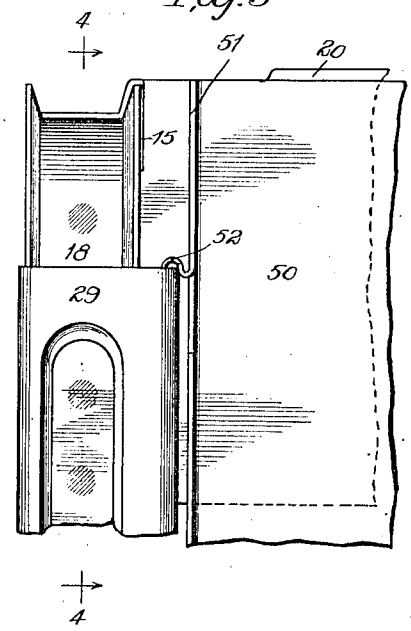


Fig. 5

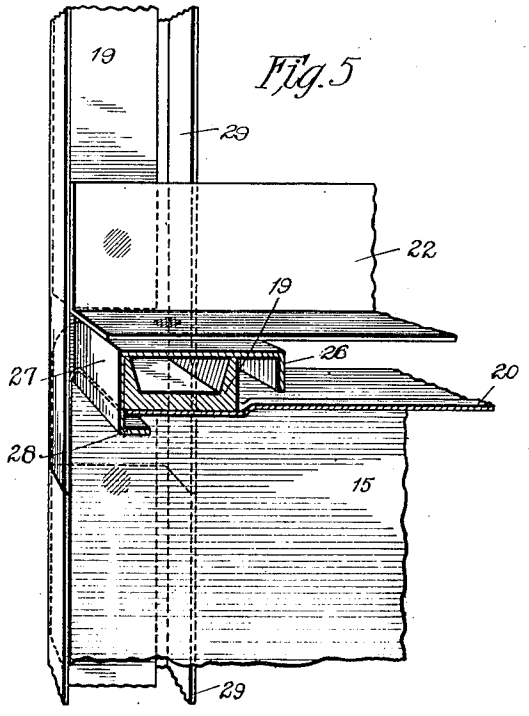
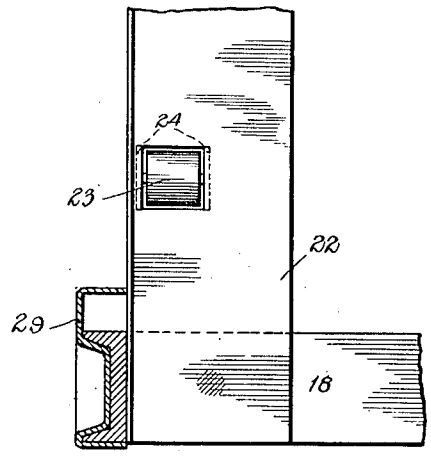


Fig. 6



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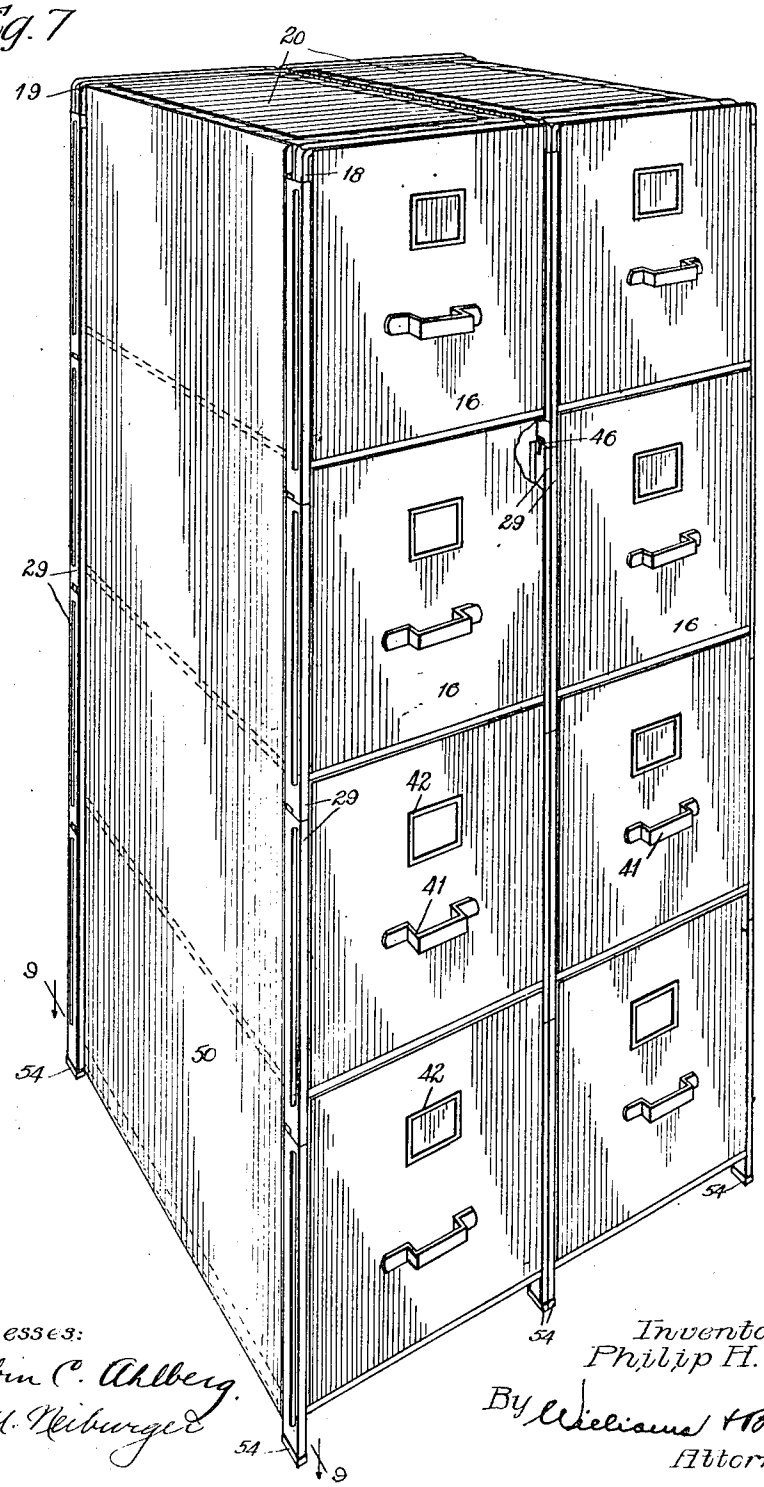
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4 SHEETS—SHEET 3.

Fig. 7



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4 SHEETS—SHEET 4.

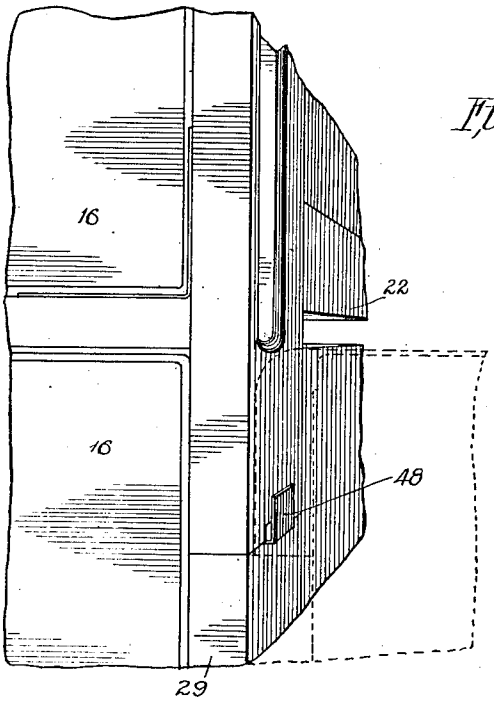


Fig. 11

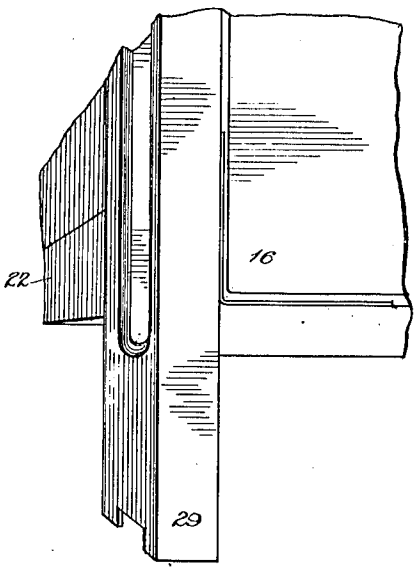


Fig. 10

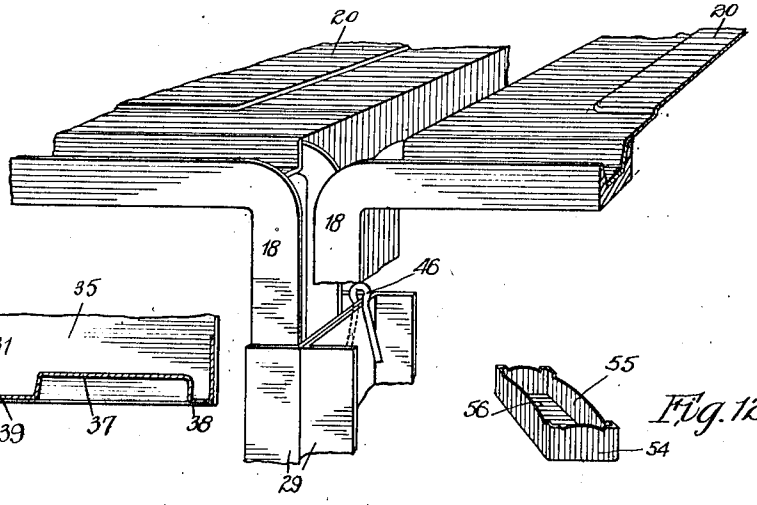


Fig. 8

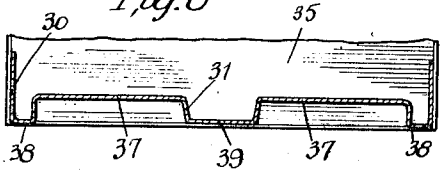


Fig. 12

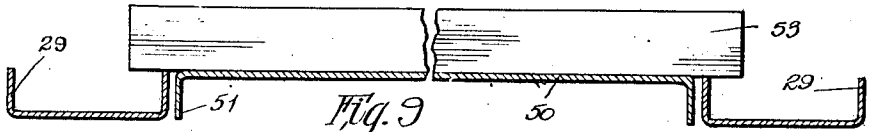


Fig. 9

Witnesses:

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UNITED STATES PATENT OFFICE.

PHILIP H. YAWMAN, OF ROCHESTER, NEW YORK, ASSIGNOR TO YAWMAN & ERBE MANUFACTURING COMPANY, OF ROCHESTER, NEW YORK, A CORPORATION OF NEW YORK.

UNIT METAL TRANSFER-CABINET.

1,292,946. Specification of Letters Patent. Patented Jan. 28, 1919.

Application filed November 6, 1915. Serial No. 59,896.

To all whom it may concern:

Be it known that I, PHILIP H. YAWMAN, a citizen of the United States, residing at Rochester, in the county of Monroe and State of New York, have invented a certain new and useful Improvement in Unit Metal Transfer-Cabinets, of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

My invention relates to metal transfer cabinets, and particularly to the structural improvements therein which coöperate to produce a cabinet which is inexpensive to manufacture, pleasing in appearance, rigid in structure, and durable in service.

The foregoing advantageous results arise in part from the use of pressed metal style strips which extend vertically along each of the four corners of each cabinet unit and which extend a slight distance below the main frame of the unit thus forming legs for the bottom unit and at the same time forming supporting pillars for each of the units placed above the bottom unit. These style strips, or columns also serve to aline the unit cabinets one above the other and provide means for locking the cabinets together laterally.

Certain of the advantageous results heretofore mentioned also arise in part from the use of a pressed steel locking member carried at the rear of each cabinet unit and arranged to engage under a portion of the frame of the nether cabinet unit when the units are stacked one upon another, this arrangement providing a sturdy structure which effectually prevents the tipping of one unit upon another when heavily weighted drawers are pulled out sufficiently that the weight in the drawer overbalances the weight of the cabinet frame.

A feature of this invention results from securing the side and top plates of the cabinet unit to the front and rear channeled frames so that the front channel extends below the top plate, thus serving as a stop for the rear end of the drawer to prevent the drawer from being entirely withdrawn in its ordinary use, while the rear channel extends above the top plate thus permitting the drawer to be pushed back flush with the rear end of the cabinet. The extension of the rear channel iron above the top plate also aids in securing a rigid structure and in the interlocking feature between vertically adjacent cabinets.

Another feature of advantage results from the paneling of the top plate of the cabinet units resulting in a stiffening of the structure and providing narrow friction surfaces for the top of the back end of the drawer, the utility of this being particularly noticeable when a heavily weighted drawer is withdrawn sufficiently that its center of gravity is brought in front of the rollers upon which it rests during movement.

Another feature of the invention resides in the dust proof finishing panels for closing the ends of sections or groups of cabinets stacked one upon another, and particularly the feature of attaching these panels to the cabinets.

Still another feature of the invention resides in the method and apparatus provided for attaching cabinets laterally so that units may be readily added either to the right or to the left of the section which has been already started; and

Still further features reside in the details of construction, welding and shaping of parts, all of which coöperate in the production of the novel structure hereinafter more fully described.

My invention is illustrated in the accompanying drawings in which like figures designate similar parts throughout the several views, and in which—

Figure 1 is a perspective of a cabinet unit with the drawer partially withdrawn.

Fig. 2 is a section taken on the line 2—2 of Fig. 1.

Fig. 3 is a side elevation of the upper right hand corner of a section of units showing the method of attaching the dust cover.

Fig. 4 is a section on the line 4—4— of Fig. 3.

Fig. 5 is a section through the upper limb of the rear channel of one cabinet and through the locking member of the next above cabinet illustrating the operative relation of these parts.

Fig. 6 is a section taken on the line 5—5 of Fig. 1.

Fig. 7 is a perspective of eight cabinet

units as they appear when stacked together in two vertical rows, four units high, and with the left hand section dust cover attached.

Fig. 8 is a section through the drawer taken on the line 8—8 of Fig. 1.

Fig. 9 is a section on the line 9—9 of Fig. 7 illustrating the method of attaching the dust cover to the lower cabinet unit.

Fig. 10 is a sectional perspective of the adjacent upper front corners of two units illustrating the method of uniting units horizontally.

Fig. 11 is a perspective of a modification of my invention illustrating a means for horizontal attachment of units whereby the engagement of diagonally opposite units bind four units together; and

Fig. 12 is a perspective of a buffer, preferably placed under the legs of the bottom cabinet unit so that the cabinet may be readily moved upon the floor or carpet.

Each cabinet unit comprises a steel frame 15 and removable drawer 16. Each of these parts is made principally of sheet steel pressed and welded so as to form a light, but rigid structure.

The receiver for the drawer is provided at the forward end with a rectangular frame 18 made of bent channel steel, the two ends of the channel being brought together and electrically welded between inner and outer steel plates in a manner to be more fully described hereinafter. The channel steel constituting the rectangle 18 is so formed that the open channel portion thereof extends along the outside of the entire rectangle. The receiver 15 for the drawer 16 is likewise provided with a rear frame member 19 made from channel steel and bent so that the channeled portion forms the outside of the frame. The forward frame 18 is a complete rectangle formed of one strip of channel steel, while the rear frame 19 has three sides formed of similar bent channel steel, two constituting right and left vertical corner supports and the third constituting the top connection between these supports. The lower horizontal limb 26 of this rear frame is formed of pressed steel for a purpose hereinafter described.

A paneled top plate 20 is electrically welded to the inner side of the top part of the rear frame 19 and is formed and welded to the outer part of the top of the horizontal portion of the channel constituting the forward frame 18. The metal which forms the paneled top 20 is also carried down along each side of the drawer receiver a distance sufficient to somewhat overlap the upper edges of the drawer and is electrically welded to the inner faces of both the front and rear channel frames 18 and 19. Extending between the forward and rear channel frames and electrically welded to the inner faces of each are the sheet metal angles 22 which form the lower corners of the drawer receiver. Near the forward end of each of these angles a roller 23 is suitably supported so that the drawer may be moved with a minimum amount of exertion even when heavily loaded. These rollers are preferably supported from ears 24 formed of the stock formerly in the space occupied by the roller. Near the rear of the angle plate 22 a boss 25 is thrown up from the horizontal plate to the same height as the top of the roller 23, the roller and this boss constituting the sole supports for the drawer as it is reciprocated in the receiver.

The horizontal portions of the right and left angle plates 22 are attached together at the rear by means of the pressed steel locking member 26 which is electrically welded, as shown in Fig. 5, to each of the members 22. The locking member 26 is formed with a rear wall 27 slightly greater in height than the depth of the channel member forming the upper horizontal portion of the rear frame. The lower edge of the wall 27 is bent forward at right angles to the perpendicular and constitutes a short hook 28 which extends under the horizontal portion of the rear channel of the nether unit thus forming a lock which effectually prevents the units being separated at the rear until they have been separated at the forward end and until the upper one of the two adjacent units has been moved to the rear sufficiently that the forward edge of the hook 28 may pass the under edge of the channel 19.

As shown most clearly in Figs. 1 and 6, four style strips or finishing strips 29 are welded to the vertical portions of the front and rear channel frames. These style strips are formed of pressed steel and have depressed portions which engage the base of the channel portion of each vertical leg of the channel frame. These style strips are extended about 1½ inches below the body of each cabinet unit thus forming legs for the bottom cabinet and, in fact, by their abutment one upon another forming supporting legs for each of the cabinet units stacked one upon another. These style strips also serve to hold the cabinet units in perfect alinement one above another by reason of the manner in which the portion thereof which constitutes the legs of the cabinet units registers with the channeled frame portion of the nether cabinet both at the front and at the rear.

In Fig. 4 the method by which the ends of the channel iron 18, which constitutes the forward frame, are welded between the depending portion of the top plate 20 and the depressed portion of the style strip 29 is clearly illustrated. By the process of electrical spot welding the base of the channel member is welded to the two adjacent steel

members, thus providing a structure almost as rigid as though the forward frame were a continuous unarticulated rectangle.

The drawer proper is made of three pieces of sheet steel. The sides 30 and bottom 31 are formed of one piece which is electrically welded to the inwardly extending flanges 32 and 33 formed of the front and rear plates 34 and 35. As shown in Fig. 8 the bottom plate 31 of the drawer is raised at the points 37 thus providing rigid base surfaces 38 for engagement with the rollers 23, and also providing a depressed portion 39 for the reception of the retaining rod for index cards and follower block, in case such are desired. A handle 41 and a card holder 42 are spot welded to the front plate 34 of the drawer thus securing a strong structure and eliminating the usual unsightly rivets. The upper edges of the front, rear, and side plates of the drawer are folded back upon themselves, as illustrated at 43, 44, and 45, thus stiffening and strengthening the upper drawer edges and presenting at the same time a more sightly appearance than could be secured without this expedient.

In Fig. 10 is illustrated the preferred method of horizontal attachment for adjacent cabinet units. In accordance with this method of attachment a cotter pin 46 is slightly spread and pressed over adjacent walls of registering style strips 29, a sufficient space for these cotter pins being provided immediately back of the front channel frame members and immediately in front of the back channel frame members. This method of horizontal attachment permits a cabinet section to be enlarged either to the right or to the left and has an important advantage in the fact that no special apparatus is required, the size of cotter pin used being immaterial excepting that pins of sufficient strength to answer the purpose must be selected.

In Fig. 11 a modification of the horizontal attachment is illustrated. In accordance with this modification the upper ends of the right hand style strips are provided with an offset and upwardly projecting ear 48 which will be engaged by the bottom of the diagonally opposite cabinet unit when the latter is brought into position. In this manner four cabinet units are united at their common corners. This method of horizontal attachment, however, provides only for increases to the right of a built up section, and while this is usually sufficient it is sometimes found desirable to build to the left in which case the cotter pin method of adjustment is preferable.

In Fig. 7 is illustrated eight cabinet units stacked in two piles, four high. Although these cabinets are primarily intended for transfer cabinets and as such are usually stored in closets or warehouses, they are sometimes used merely as filing cabinets and when so used often become a part of exposed office furniture. Both from the standpoint of appearance and for the purpose of making the cabinets more nearly fire and dust proof, I have provided a removable section end plate 50 preferably made of the proper height for a section of four vertically stacked cabinet units.

In Fig. 3 is illustrated the method of attaching the dust plate 50 to the upper cabinet unit, while in Fig. 9 is illustrated the device for holding the base of the plate 50 in place.

Referring to Fig. 3, the plate 50 is provided with a vertically extending flange 51, an ear 52 being cut from this flange and bent so as to project over the upper edge of the style strip 29. The base of the member 50 is provided with a flange 53 which extends clear across the plate from side to side, thus stiffening it and also by its projection back of the portion of the style strips 29, which form the legs for the lower cabinet unit, preventing the plate 50 from springing out at the bottom.

In Fig. 12 I have illustrated a pressed metal buffer 54 which is adapted to fit onto the bottom of the style strip 29 to prevent scratching the floor and to provide means for readily moving a section of cabinets on the floor or carpet. This buffer has side walls 55 and a slightly curved base 56. The walls are very slightly tapered so that they will clamp on to the bottom of the style strip when once firmly pressed into position.

Although I have described my invention with reference to the details illustrated in the accompanying drawings it is obvious that certain of these details may be modified without departing from the spirit or scope of my invention.

What I claim is:

1. A drawer receiving unit for a sectional metal cabinet, comprising front and rear channel iron frames and a top plate welded to the external side of the front channel frame and to the internal side of the rear channel frame, and a drawer having a back end portion the top of which engages the inner side of the top plate of the drawer receiver, the horizontal portion of the front channel frame serving to prevent the accidental withdrawal of the drawer from the receiver.

2. A drawer receiving unit for a sectional metal cabinet, comprising a top plate, a rear frame attached to the outer face of the top plate at the rear end thereof, a front frame attached to the under face of the top plate at the front end thereof, and side plates attached to the inner edges of both the front and back frames, and a drawer having a back plate the upper edge of which is arranged for engagement with the inner sur-

face of the top plate in the operation of the drawer.

3. A sectional metal transfer cabinet, comprising similar units stacked in vertical alinement, vertical corner style strips for each unit extending horizontally beyond the body portion of the units, and an end plate for a plurality of vertically stacked units formed so as to fit between the projecting portions of the front and rear style strips, and upper and lower projecting ears on said plate for engagement with the style strips of upper and lower cabinet units for holding said plate in position.

4. A cabinet unit comprising a rectangular frame member formed from a single piece of metal having its ends abutting at one side of said unit, and a strip of approximately the same length as, and inclosing the said frame member at the said side of the unit to provide a finish therefor, the said strip being welded to said frame member at each side of the joint formed by the abutting ends.

5. A cabinet unit comprising a rectangular frame member formed from a single piece of metal having its ends abutting at one side of said unit, and a wall member welded to said frame member at each side of the joint formed by the abutting ends.

6. A sectional cabinet comprising a pair of units disposed side by side and having channel shaped side elements, channel shaped finishing strips spanning said channel shaped elements, and clips clamping the juxtaposed sides of said finishing strips to each other.

7. A cabinet comprising a plurality of units stacked in vertical alinement and having front and rear style strips in combination with an end plate disposed between the adjacent edges of said style strips, and means for detachably connecting said end plate to one of said units.

8. A sectional cabinet comprising a plurality of units arranged in vertical alinement each unit being provided at each side with vertical front and rear frame members and style strips secured to each frame member and projecting below each unit, the style strips secured to the front frame members each having a portion engaging the front side of the frame members of the nether unit and the style strips secured to the rear frame members each having a portion engaging the rear side of the rear frame members of the nether unit.

9. A sectional cabinet comprising a plurality of units arranged in vertical alinement each unit being provided at each side with vertical front and rear frame members and style strips secured to each frame member and projecting below each unit, the style strips secured to the front frame members each having a portion inclosing the rear side of the frame members of the nether unit and the style strips secured to the rear frame members each having a portion inclosing the front side of the rear frame members of the nether unit.

10. A sectional cabinet comprising a plurality of units arranged in vertical alinement, each of said units having a vertical frame member and a finishing strip secured to said frame member and telescoping externally with the upper end of the frame member of the nether unit, the said style strip having its upper end displaced below the upper end of said frame member, and its lower end extending substantially the same distance below the lower end of said frame member.

11. A sectional cabinet unit comprising a pair of vertically disposed rectangular front and rear frames oppositely disposed, angle bars connecting the lower corners of said frames with their bottom flanges extending inwardly, and style strips secured to the vertical members of said rectangular frames and extending below the bottom thereof, the said style strips being of substantially the same length as said vertical members and inclosing a portion thereof to provide a finish therefor.

12. A sectional cabinet unit comprising a pair of vertically disposed front frame members, a pair of vertically disposed rear frame members, means connecting said frame members to form a support for the drawer and style strips secured to one pair of said frame members, and extending below said members, the said style strips being of substantially the same length as said vertical members and inclosing a portion thereof to provide a finish.

13. A cabinet unit comprising a pair of vertically disposed end frame members and style strips secured to said frame members and extending below said members, the said style strips being of substantially the same length as said vertical members and inclosing a portion thereof to provide a finish.

14. A sectional cabinet comprising a pair of units each having a pair of vertically disposed frame members and means secured to a frame member of one unit and co-acting with a corresponding frame member of the other unit to prevent longitudinal and lateral displacement of said units relatively to each other, the said means comprising a channel shaped style strip, the said style strip having its upper end displaced below the upper end of said frame member, and its lower end extending substantially the same distance below the lower end of said frame member.

15. A cabinet unit comprising front and rear frame members, a top plate extending between and attached to the upper horizontal portions of said frame members, a drawer

having an inner end projecting against the top plate to prevent downward tilting of the drawer when partially withdrawn and overbalanced, the height of the rear frame being greater than that of the forward frame and the attachment of the top plate to the rear frame being substantially on a plane with the lower face of the horizontal portion of the rear frame so that the end of the drawer will slide under the horizontal portion of the rear frame without obstruction and the attachment of the top plate with the horizontal portion of the front frame being in a plane above the lower edge of the upper horizontal member of the front frame so that the front frame will form an obstruction to the complete removal of the drawer.

16. A sectional cabinet comprising a pair of cabinet units arranged side by side, and means co-acting with adjacent portions of said units to draw said units together, comprising a cotter pin having legs converging inwardly toward the eye thereof, the eye being adapted to receive the edges of the adjacent portions of said units after they have been drawn together by the converging legs.

In witness whereof, I hereunto subscribe my name this 23d day of October, A. D. 1915.

PHILIP H. YAWMAN.

Witnesses:
FRANCIS J. YAWMAN,
EDWARD WETERY.