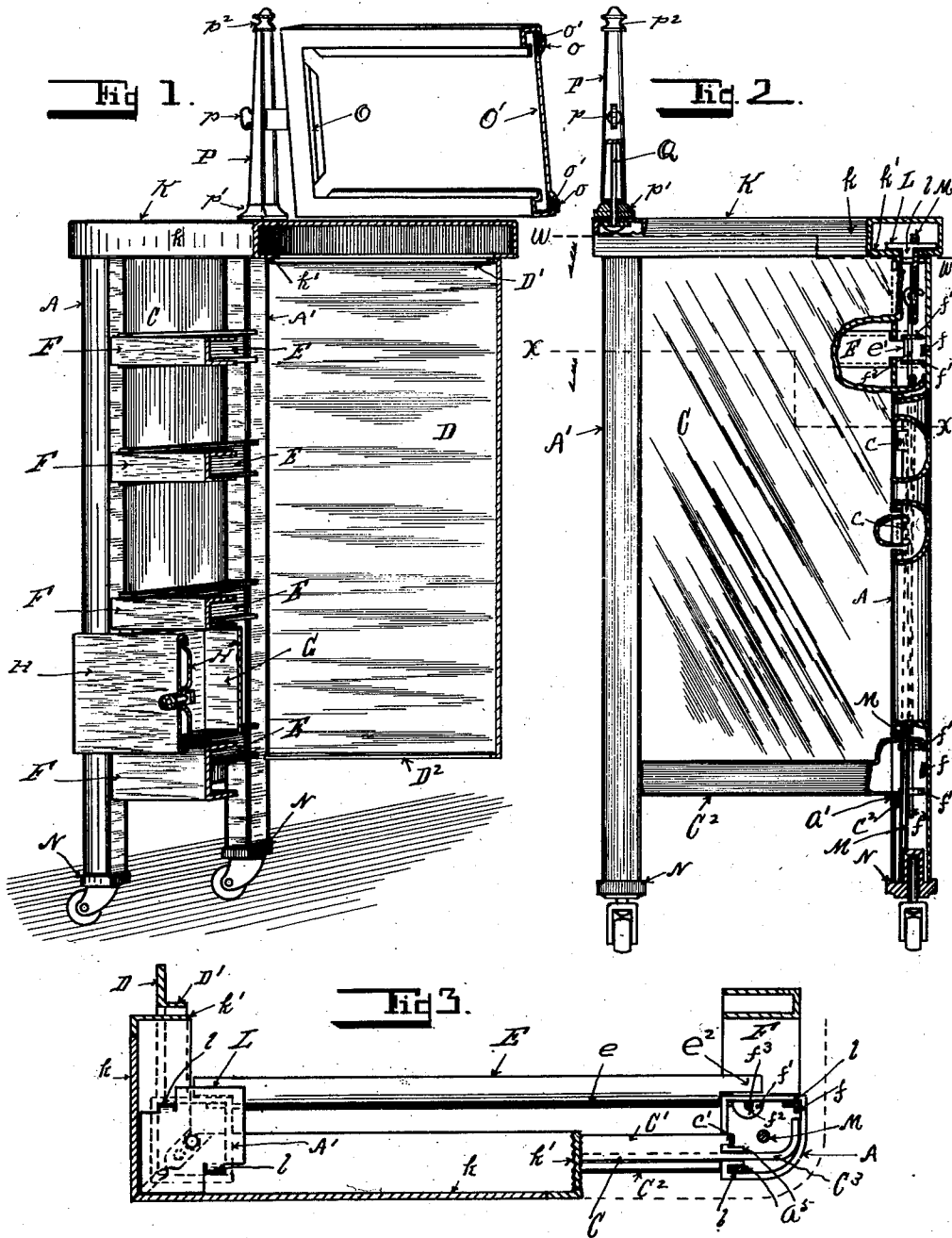


C. A. LINDEN.
METAL FURNITURE.
APPLICATION FILED APR. 18, 1910.

997,567.

Patented July 11, 1911.

3 SHEETS—SHEET 1.



Witnesses.

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Attys.

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3 SHEETS—SHEET 2.

Fig. 4

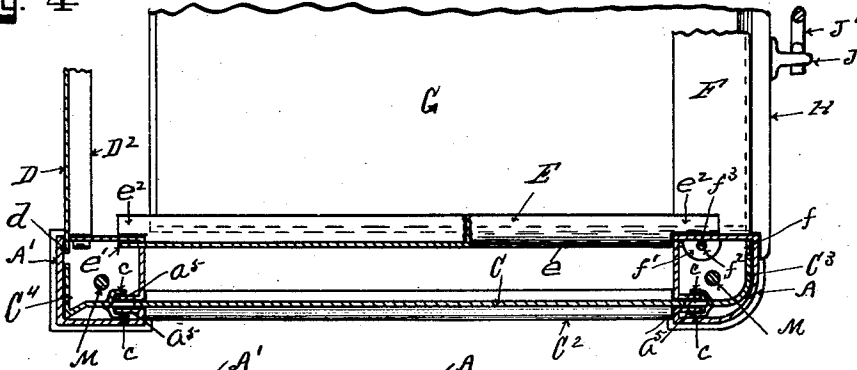


Fig. 5

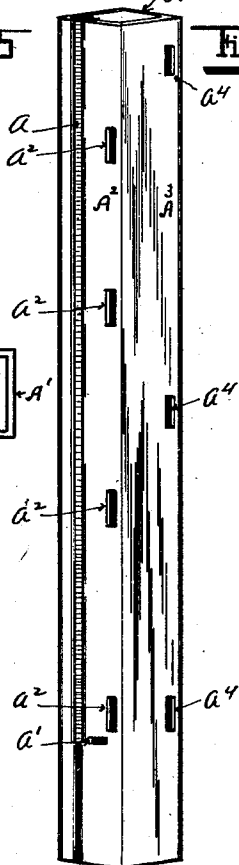


Fig. 7

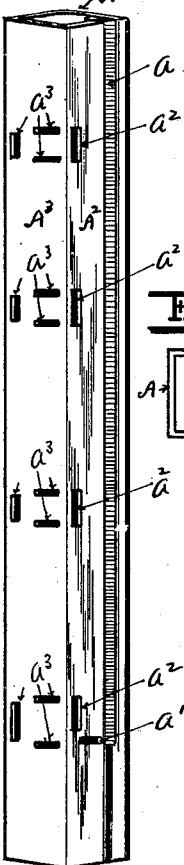


Fig. 9

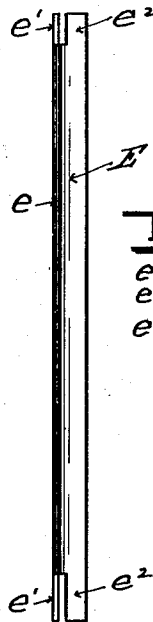


Fig. 6

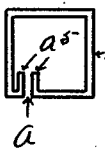


Fig. 8

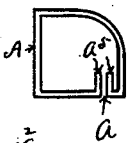
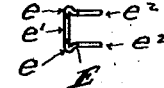


Fig. 10



Witnesses

G. J. Mead
Florence Stockert.

Inventor.

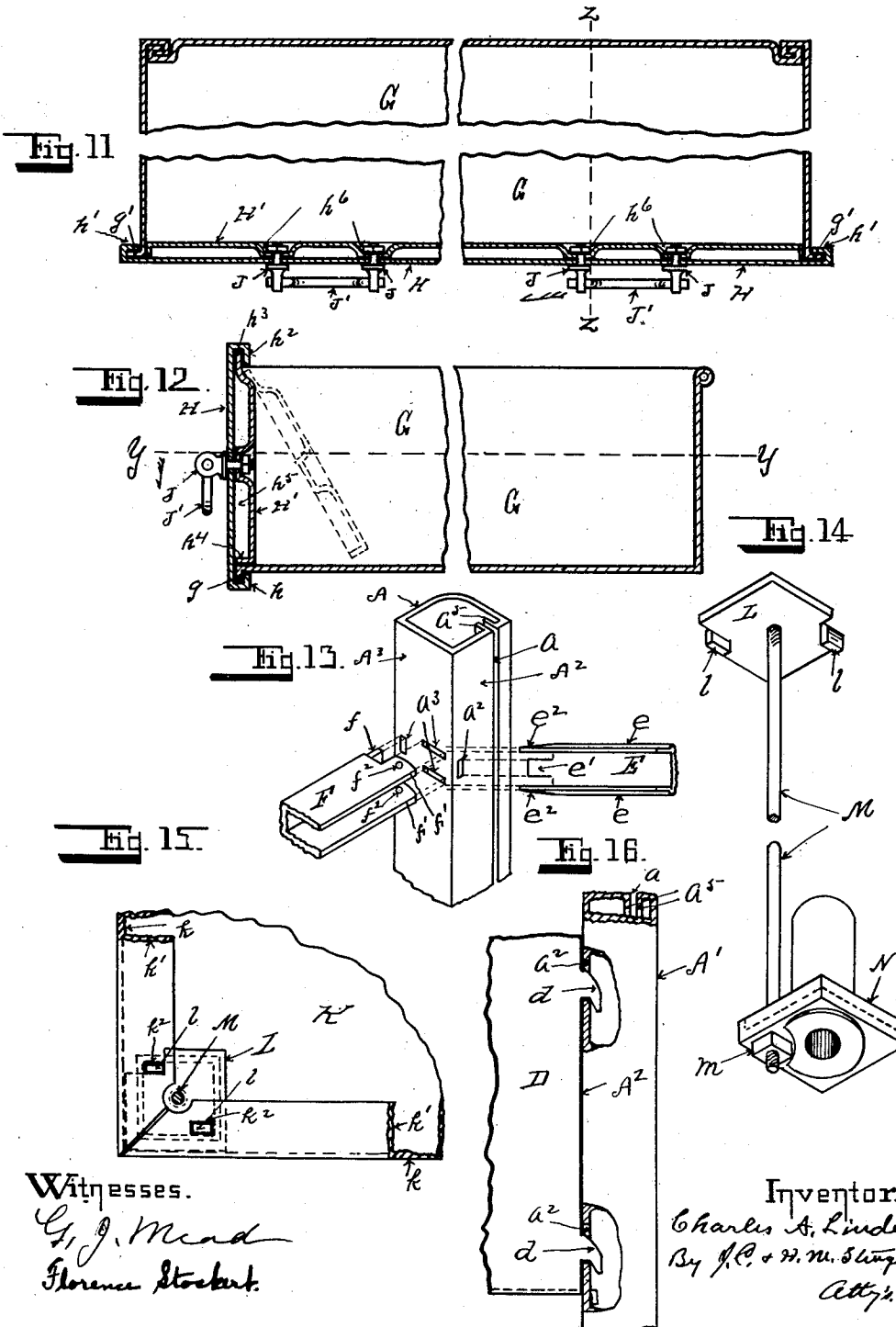
Charles A. Linden
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3 SHEETS—SHEET 3.



Witnesses.

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UNITED STATES PATENT OFFICE.

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METAL FURNITURE.

997,567.

Specification of Letters Patent.

Patented July 11, 1911.

Application filed April 18, 1910. Serial No. 556,001.

To all whom it may concern:

Be it known that I, CHARLES A. LINDEN, a citizen of the United States, residing at Jamestown, in the county of Chautauqua and State of New York, have invented certain new and useful Improvements in Metal Furniture; and I do hereby 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 of reference marked thereon, forming part of this specification.

My invention relates to metal furniture and particularly to the construction of the type thereof comprising bureaus, washstands, &c., of sheet metal, and the objects of my improvements are, first, to construct such metal furniture of sheet metal substantially without the use of rivets or bolts, with the exception of tie rods in the corner posts thereof, and yet so join the different parts together that all of them will be firmly and strongly held in place. Second, to so secure the top of the structure, the corner posts, and the caster sockets together that they are practically integral; third, to so construct and secure the drawer guides of the structure in place in the corner posts that the top and bottom of the ends of the drawer are guided thereby; fourth, to so construct the front of the drawer of two thicknesses of sheet metal that the inner member thereof so slides into place as to lock the parts of the drawer together. These and other features of my improved construction of sheet metal furniture are hereinafter fully set forth and explained and illustrated in the accompanying drawings in which:

Figure 1 is a perspective view of the inside of one end of a bureau embodying my invention. Fig. 2 is an end view of the same with parts broken away. Fig. 3 is a horizontal section of the same on the line $w-w$ in Fig. 2. Fig. 4 is a horizontal section of the same on the line $x-x$ in Fig. 2. Fig. 5 is a view in elevation of one of the rear corner posts looking toward the inside corner thereof and showing the slots therein for attaching the parts thereto. Fig. 6 is an end view of the same. Fig. 7 is a view in elevation of one of the front corner posts looking toward the inside corner thereof and showing the slots therein for attaching parts

thereto. Fig. 8 is an end view of the same. Fig. 9 is a top or plan view of one of the drawer guides. Fig. 10 is an end view of the same. Fig. 11 is a horizontal section of one of the drawers on the line $y-y$ in Fig. 12. Fig. 12 is a vertical section of the same on the line $z-z$ in Fig. 11. Fig. 13 is a perspective view of a section of one of the front corner posts, of one of the drawer guides, and one of the front drawer separators. Fig. 14 is a perspective view of one of the post caps, the caster socket cup, and one of the rods connecting them. Fig. 15 is a plan view of the underside of one of the corners of the bureau top with the cap for securing the corner post in place. Fig. 16 is a detail view showing the manner in which the back panel is secured in place.

Similar letters refer to corresponding parts in all of the figures.

The front and rear corner posts A, A', are made in the form of tubes of sheet metal, preferably rectangular in cross section, the front post A, preferably having its outside corner rounded; the preferred form of these posts being clearly shown in Figs. 5, 6, 7, and 8. These posts are each provided on their adjacent sides, A² and A², with vertical slots, a , extending downward from the upper ends thereof to the bottom of the rail C² of the end panel C, hereinafter described, from which point downward the joint is closed by means of internally clenched joints of the ordinary type, and adjacent to the lower ends of said slots, a , there is a horizontal slot, a' , to receive a lug on the lower edge of the rail C² of the panel C, and on the sides A², of said posts there are vertical slots, a^2 , to receive projections on the front and rear ends of drawer guides hereinafter described, and support the same when in place, and on the inner side, A³ of the post A, there are groups, a^3 , of one vertical and two horizontal slots, to receive projections on and support the front drawer-separating bars hereinafter referred to, and on the inner sides, A³, of the post A', there are vertical slots, a^4 , to receive projections on and support the back panel of the bureau.

The end panels, C, of the bureau are formed of a single sheet of metal, and have intumed flanges, C', formed up on their upper edges, and projecting beads or base rails, C² formed up on their lower edges, and on the front edges thereof there is a projec-

tion C^3 , adapted to enter the slot, a , on the post, A , and it is preferably so bent as to contact with the opposite side of said post, as illustrated in Fig. 4, and on the rear edge thereof there is a projection, C^4 , adapted to enter the slot, a , in the post, A' , and it is preferably so bent as to contact with the opposite side of said post, as illustrated in Fig. 4. These extensions, C^3 and C^4 , are also provided with lugs, c , struck up therefrom which are bent over the inturned edges, a^5 , of the slots, a , in the legs, A , A' , (see Fig. 4) so as to interlock therewith. In addition thereto there are extensions on the ends of the inturned flanges, C' , which bend downward over the upper ends of the legs, A , A' , adjacent to the slots, a , therein, (see Fig. 3), and on the ends of the base rail, C^2 , there are extensions, c^2 , which extend into and are bent downward in the slots, a' , of the legs, A , A' , (as is clearly shown in Fig. 2). In this manner I securely lock the posts and end panels together. The back panel, D , is provided with an inturned upper flange, D' , and a lower inturned flange, D^2 , struck up out of the metal, and is provided on its ends with hook-shaped lugs, d , which extend therefrom into the slots, a^4 , in the faces A^3 , of the rear posts A' , when they are moved downward slightly until the hooked extensions engage the slots so as to firmly secure the back panel, D , in place, as is clearly shown in Fig. 16.

The drawer guides, E , (Figs. 9 and 10) are formed up approximately U-shaped in cross-section out of sheet metal, and are provided on the rear edges with ribs, e , and on their ends with tongues, e' , adapted to enter the slots, a^2 , in the posts, A , A' , and with projections, e^2 , on the ends thereof adapted to extend over the faces, A^3 , of the posts, A , A' , when in place. The division bars, F , between the fronts of the drawers, are also formed up of sheet metal, substantially U-shaped in cross section, and have upon their ends three lugs, f , f' , f'' , the lugs, f' , being provided with holes, f^2 , as clearly shown in Fig. 13, so that when the lugs, f , f' , f'' , are inserted into the slots, a^3 , as indicated by broken lines in Fig. 13, they can be secured in place by means of a vertical rod, f^3 , passing through the holes, f^2 , inside of the post, A , as is clearly shown in Fig. 3. It will also be observed by reference to Fig. 3, that the ends of the bars, F , extend between and are overlapped by the extensions, e^2 , on the drawer guides, E , so that the fronts of the drawers are prevented from rubbing against the bars, F , thereby preventing the marring of the finish thereon.

The sides, bottom, and rear of the drawer, G , are preferably formed up of a single sheet of metal, and on the front edge of the drawer bottom there is a downward projecting flange, g , and on the front edges of the

sides of the drawer there are formed outwardly projecting flanges, g' . For properly stiffening the fronts of the drawers they are preferably made of two thicknesses of metal; the outer one, H , being provided with inturned flanges, h , to engage the downturned flange, g , on the front edge of the drawer bottom; inturned flanges, h' , to engage the flanges, g' , on the sides of the drawers, and an inturned flange, h^2 on the upper edge thereof. For locking these flanges into engagement, the inner section, H' , of the drawer front is formed up with an upper edge h^3 , adapted to pass under the flange, h^2 , on the upper edge of the outer portion, H , of the drawer front, with an outwardly turned flange, h^4 and h^5 on the lower and side edges thereof adapted to contact with the inside of the drawer bottom and drawer sides; and with counter-sinks, h^6 , adapted to receive the shanks, J , of the drawer pulls, J' . It will be clearly seen, by reference to Figs. 11 and 12, that when the front section, H , of the drawer front, is placed upon the drawer, and the inner section, H' , is inserted in the manner indicated by broken lines in Fig. 12, and the shanks J , of the drawer pulls J' , secured in place, the front sections H , and H' , are securely locked to the front edges of the drawer G , and at the same time a strong and serviceable front is provided therefor.

The top, K , of this structure is preferably struck up out of a single sheet of metal with down-turned and in-turned flanges k , and k' , around the periphery thereof, and through the parts k' of these flanges, near the corner of the top, K , there are slots k^2 , details of which features are clearly shown in Figs. 2, and 15. In these corners I place the interlocking plates, L , provided with the downwardly projecting lugs, l , (see Fig. 14) adapted to pass through the slots, k^2 , in the flanges, k' , on the table-top, and down into the corners of the corner posts, A , and A' , of the structure, as is clearly indicated by broken lines in Figs. 3 and 15, and from each plate, L , a rod, M , extends downward through the hollow posts, A and A' , and passes through a caster-socket cap, N , fitting over the lower end of each of said posts, where the rod, M , is provided with a nut, m , by means of which the table top, K , and the caster-socket cap, N , are firmly secured to the corner posts of the structure.

The mirror frame, O , is preferably made from a single sheet of metal by cutting out the center thereof so as to leave a continuous strip of metal out of which the frame, O , is formed up so as to receive a mirror. The plate, O' , closing the back of the frame having its edges provided with lugs or blisters, o , struck up from the plate near the edge thereof, which engage the rear inturned edge o' of the frame, O , so as to

firmly retain the back, O', in place in the frame. This frame, O, is supported by the usual trunnions, p, mounted in posts, P, on the top, K, of the bureau. These posts are preferably hollow and formed of sheet metal, and are provided with bases, p', and screw tops, p², which engage a rod, Q, preferably passing up through the top K, the base, p', and into the screw-top, p², by means whereof the posts are secured together and to the bureau top K.

In assembling the structure hereinbefore described, I preferably secure each end panel, C, to a front and rear post, A, and A', substantially as described. The drawer guides, E, are then inserted between each pair of posts, A and A'; the front division bars, F, are then inserted into one of the posts, A, and secured in place by inserting the rod, f³. One end of the rear panel, D, is then secured to the rear post, A', after which the opposite ends of the parts, F, and back panel, D, are secured in like manner to the corresponding posts, A and A'. The plates L, with the rods, M, attached, are then placed in the top, K, and the caster socket caps, N, and nuts, M, screwed up thereon, completing the assembling of the structure ready to receive the drawers G, and the mirror frame supports, P, and mirror frame, O, which can then be secured thereto as hereinbefore described.

Having thus described my invention so as to enable others to utilize the same, what I claim as new and desire to secure by Letters Patent is:

1. The combination in sheet metal furniture of the type described, of a corner post of sheet metal bent into tubular form, having a vertical slot therein provided with intumed flanged edges, a sheet metal panel secured in said slot, means on said end panel for engaging said flanged edges of the slot in the post, a top having an intumed peripheral flange, a locking plate engaging said flange, downwardly projecting lugs on said plate engaging slots in said intumed flange and the top of the corner post, and a rod extending downward through said plate and corner post and through a caster socket cap on the lower end of said post, substantially as set forth.

2. The combination in sheet metal furniture of the type described, of front and rear corner posts of sheet metal bent into tubular form, having vertical slots in their adjacent faces provided with intumed flanged edges and having vertical drawer guide slots in the rear posts, vertical drawer guide slots, and vertical and horizontal drawer separating bar slots in the adjacent faces of the front posts, an end panel secured in said vertical slots, lugs struck up thereon engaging the intumed flanged edges in said slots, drawer guides extending from said front and rear posts

and engaging the drawer guide slots therein, and drawer separating bars engaging the vertical and horizontal slots in the front posts, substantially as set forth.

3. The combination in sheet metal furniture of the type described, of front and rear corner posts of sheet metal bent into tubular form having vertical slots in their adjacent faces provided with intumed flanged edges, and vertical drawer guide slots therein, an end panel having on its upper edge an integral intumed flange and on its lower edge an integral bead or base rail, extensions on the side edges of said end panel extending into the slots in said posts and contacting with the opposite corners thereof, lugs struck up on said extensions engaging the flanged edges of said slots, lugs on the ends of the intumed flange on the upper edge of the panel engaging the top of the posts, lugs on the ends of the bottom of the base rail engaging slots in said posts, and drawer guides inserted in the drawer guide slots in said posts and having their ends overlapping the inside faces of said posts, substantially as set forth.

4. The combination in sheet metal furniture of the type described, of corner posts of sheet metal bent in tubular form having slots therein to receive sheet metal end panels, end panels secured in said slots by means of lugs thereon, a sheet metal rear panel secured between the rear posts by means of integral hooks thereon engaging slots in the rear posts, sheet metal drawer separating bars secured between the adjacent faces of the front posts by means of triple lugs on the ends thereof entering vertical and horizontal slots in said posts, sheet metal drawer guides secured between the front and rear posts by means of vertical lugs on the ends thereof entering vertical slots in the adjacent sides of said posts, integral extensions on said drawer guides spanning the ends of the drawer separating bars, and drawers formed up out of sheet metal operating on said drawer guides, substantially as set forth.

5. The combination in sheet metal furniture of the type described, of corner posts of sheet metal bent in tubular form, having slots therein to receive sheet metal panels and vertical drawer guide slots in the adjacent faces of the front posts, end panels secured in said slots by means of lugs thereon, a sheet metal rear panel secured between the rear posts by means of integral hooks thereon engaging slots in the rear posts, sheet metal drawer separating bars secured in the front posts by means of vertical and horizontal lugs on the ends thereof entering vertical and horizontal slots in the adjacent sides of said posts, sheet metal drawer guides secured between the front and rear posts by means of lugs on the ends thereof entering slots in the adjacent sides of said posts, integral extensions on

said drawer guides spanning the ends of the drawer separating bars, drawers formed up out of sheet metal operating on said guides, a table top, down-turned and in-turned flanges on the edges thereof, having locking plate slots near the corners of the in-turned flanges, locking plates with lugs thereon adapted to extend through said slots and into the corners of the tops of the posts, caps on the bottoms of said posts, and rods extending from said locking plates down through said posts and said caps, and means for tightening said rods, substantially as set forth.

6. In sheet metal furniture of the type described, the combination of a tubular post, a top, an inturned flange thereon having slots therein, a locking plate adapted to engage the slots in the inturned flange on the top and the top of said post, a plate adapted to close the lower end of said post, and means

adapted to retain said parts in engagement with each other, substantially as set forth.

7. In sheet metal furniture of the type described the combination of a tubular corner post, a bureau top, an inturned flange thereon having slots therein, a locking plate having downturned lugs thereon adapted to engage said slots in the inturned flange on the bureau top and the top of the corner post, a caster socket cap adapted to fit against the lower end of said post, a rod connecting said locking plate and said caster socket cap, and a screw threaded nut on said rod, substantially as set forth.

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

CHARLES A. LINDEN.

Witnesses:

C. P. ROGERS, Jr.,
ROBT. J. OSBORNE.