July 2, 1929. E. J. CARD 1,718,943

DESK

Filed Jan. 28, 1925 5 Sheets-Sheet 1

Fig. 1.

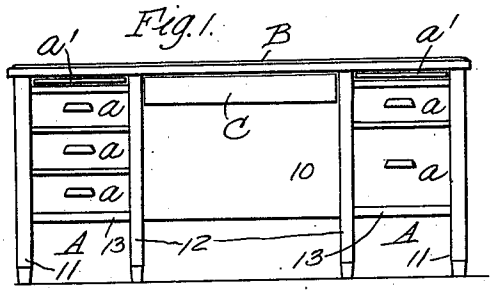
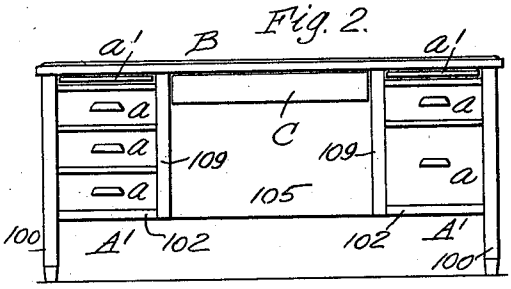


Fig. 2.



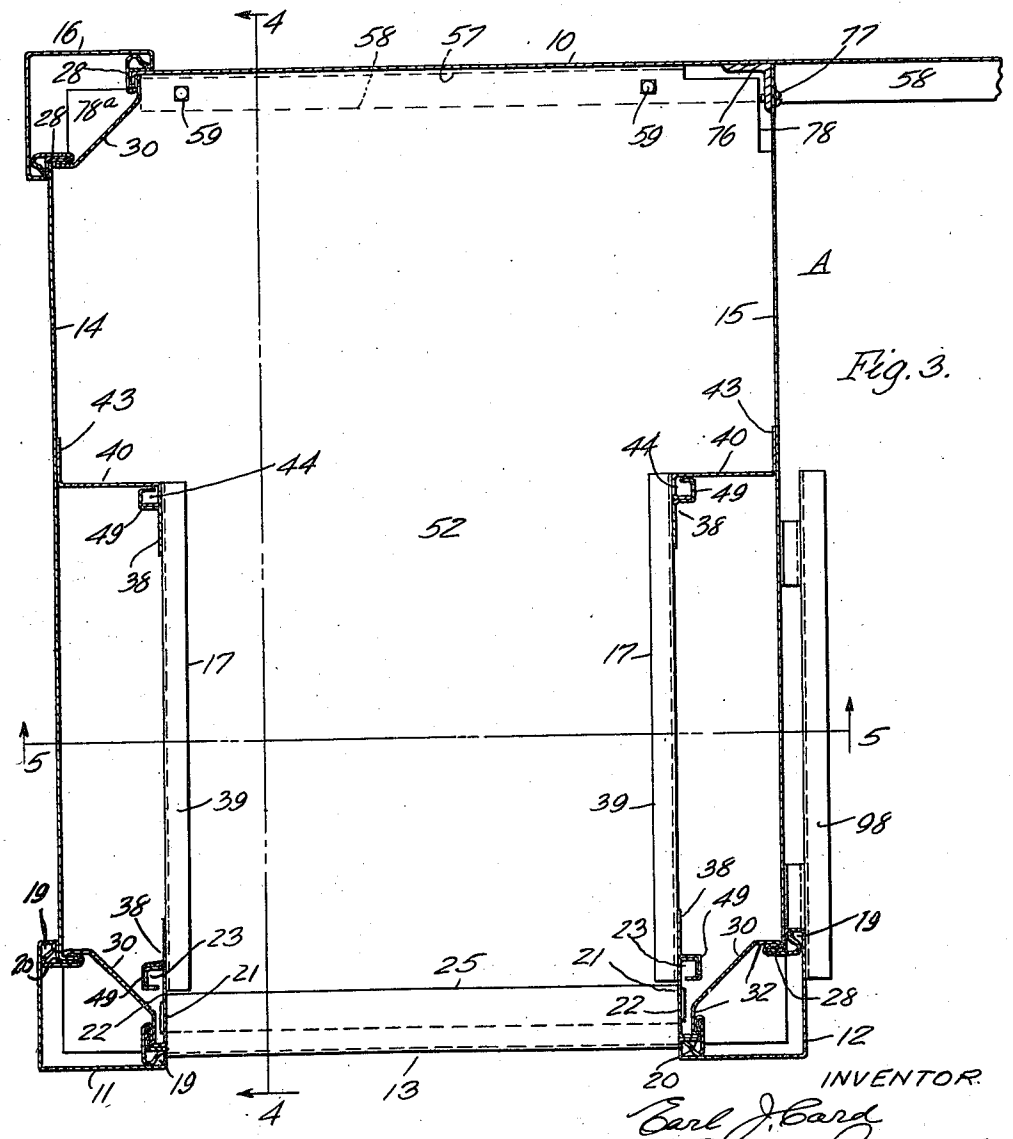


Fig. 3.

INVENTOR.
Earl J. Card
by Parker & Prochnow.
ATTORNEYS.

July 2, 1929. E. J. CARD 1,718,943

DESK

Filed Jan. 28, 1925 5 Sheets-Sheet 2

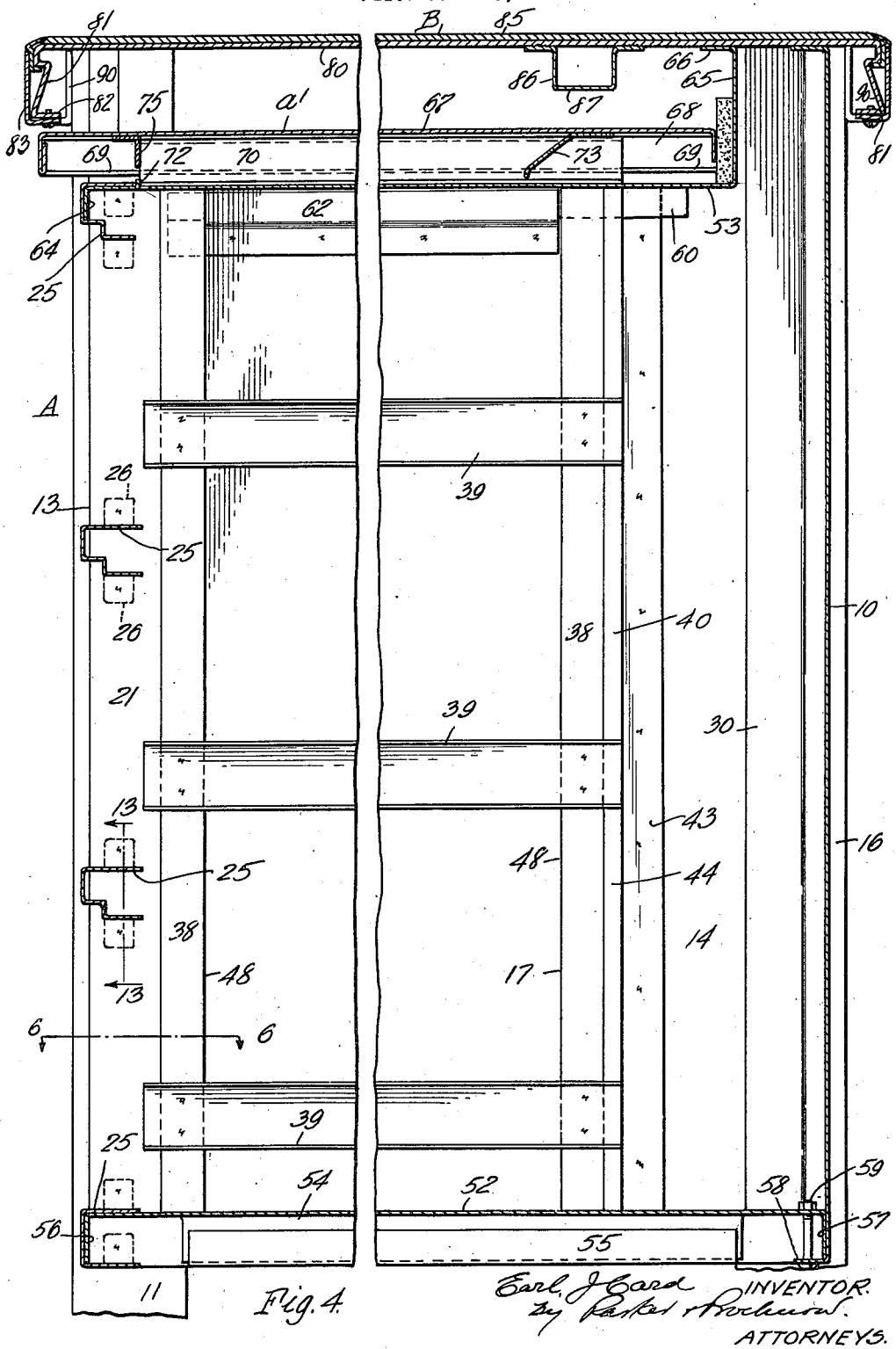


Fig. 4.

Earl J. Card INVENTOR.
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ATTORNEYS.

July 2, 1929. E. J. CARD 1,718,943

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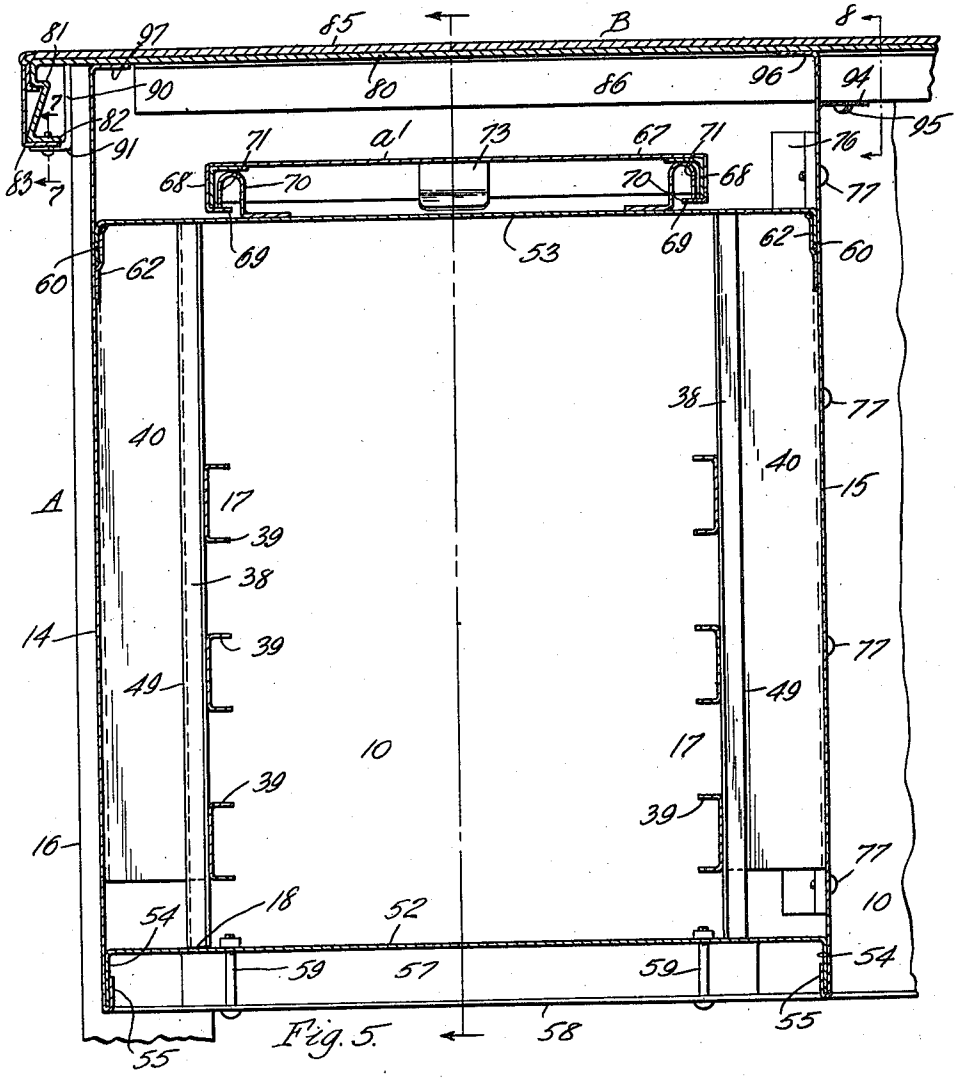


Fig. 5.

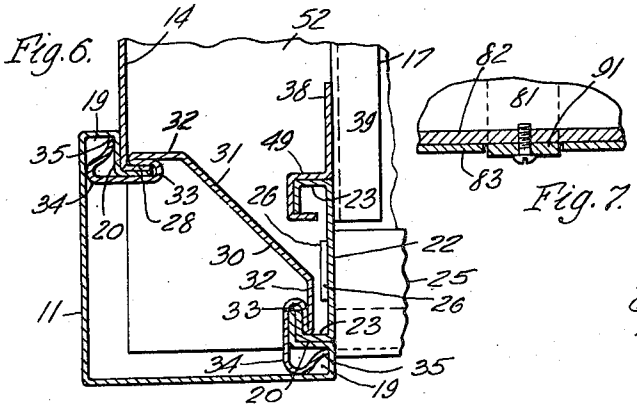


Fig. 6.

Fig. 7.

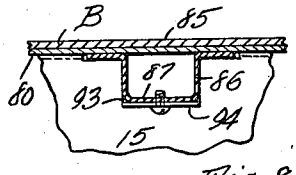


Fig. 8.

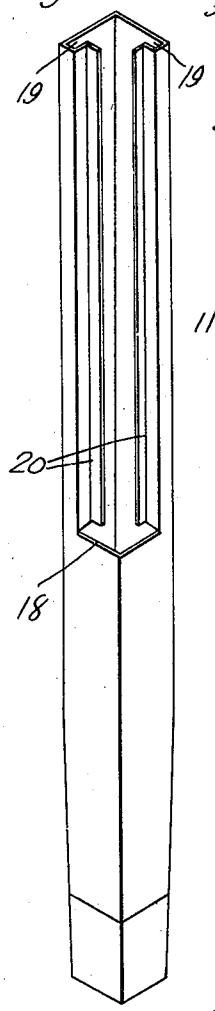
INVENTOR.
Earl J. Card
by Parker & Prochnow.
ATTORNEYS.

July 2, 1929. E. J. CARD 1,718,943

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Fig. 9.



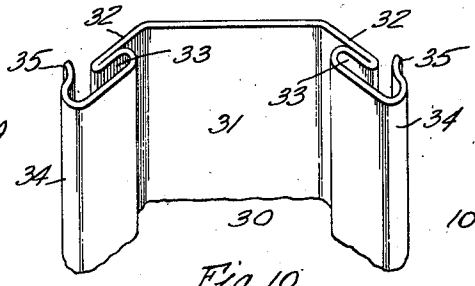
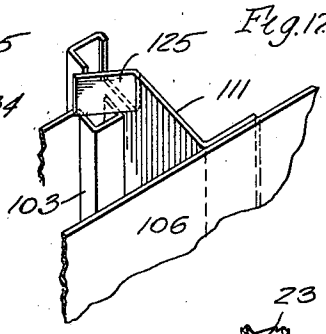


Fig. 10.

Fig. 17.



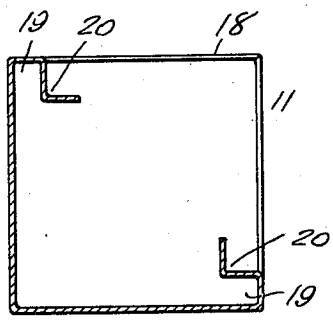


Fig. 11.

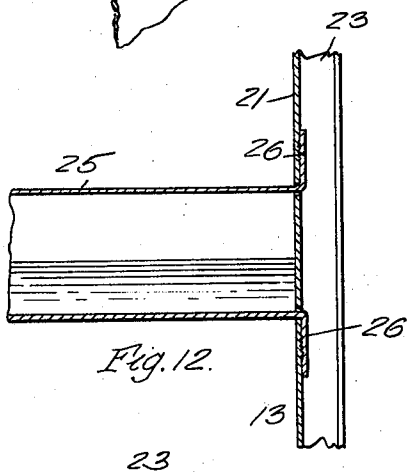


Fig. 12.

Fig. 13.

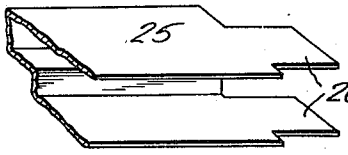
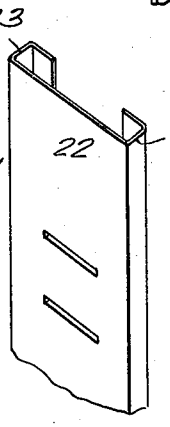


Fig. 14.



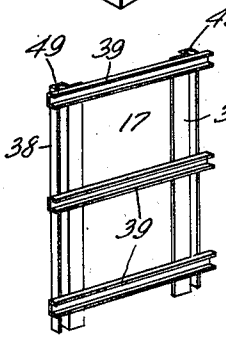


Fig. 15.

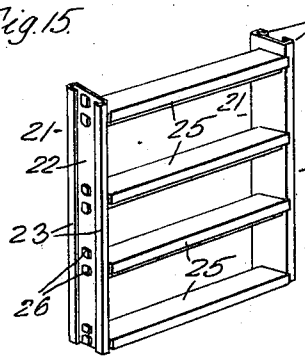


Fig. 16.

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By Parker & Prickett.

ATTORNEYS.

July 2, 1929. E. J. CARD 1,718,943

DESK

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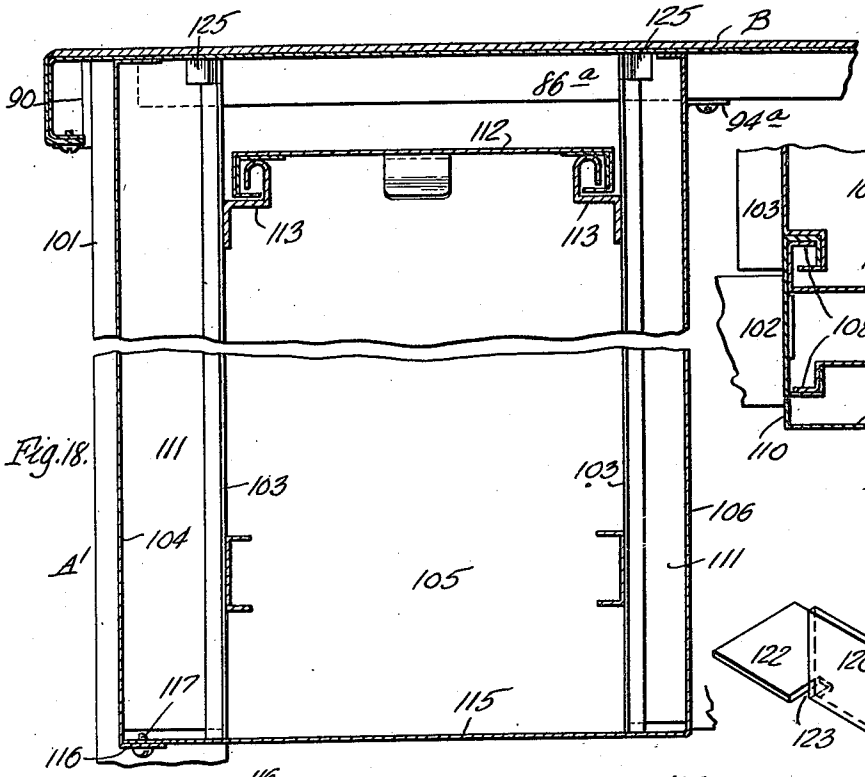


Fig. 18.

Fig. 20.

Fig. 24.

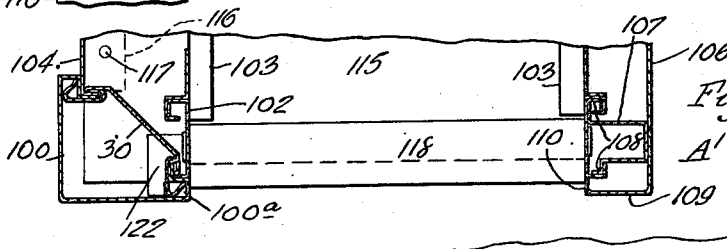


Fig. 19.

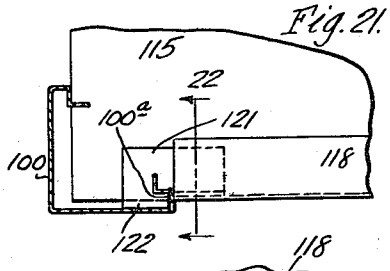


Fig. 21.

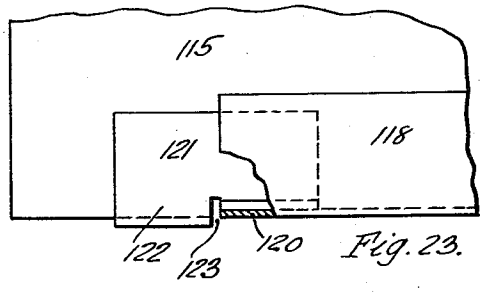


Fig. 23.

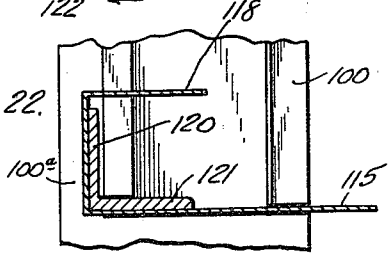


Fig. 22.

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by Parker & Prochnow.

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Patented July 2, 1929. 1,718,943

UNITED STATES PATENT OFFICE.

EARL J. CARD, OF JAMESTOWN, NEW YORK, ASSIGNOR TO ART METAL CONSTRUCTION COMPANY, OF JAMESTOWN, NEW YORK.

DESK.

Application filed January 28, 1925. Serial No. 5,333.

This invention relates to improvements in metal desks, and more particularly to pedestal desks, which are composed of a plurality of separately built up or formed parts or sections which may be readily assembled and taken apart and are shaped so as to adapt them to effect a substantial saving in storage and shipping space.

Desks of this sort usually comprise a pair of spaced drawer sections or pedestals, or one pedestal and a side wall or member spaced therefrom, and a desk top or member rigidly connecting the pedestals or the pedestal and other side member.

In the manufacture of such desks it has heretofore been customary to complete the assembly of the pedestal sections and other sections or parts of the desk before painting or finishing these parts by the usual dip-painting, after which it is necessary to suspend the assembled sections or parts to permit them to drain and dry. The drying or baking of such relatively large and bulky parts required a large amount of space, and much additional space was required to store the painted pieces. In addition, when the production of a number of different styles or patterns of desks has been attempted, it was necessary to provide a relatively large number of dies, and many stamping operations were required to produce all of the necessary parts for the various styles or patterns. The storage and other space required, and the expense of providing the many dies, presses, and space therefor has made the production of desks of this kind expensive.

One object of the invention is to produce a metal desk or the like of an improved construction which, while facilitating the manufacture of the desk and reducing the cost of the same, nevertheless insures a very strong, stable and rigid desk which is really superior to desks of previous construction, notwithstanding that the desk can be manufactured at a lower cost and with greater facility than inferior desks made in accordance with constructions heretofore employed.

Other objects of the invention are to improve and simplify the construction of desks and to reduce the cost of producing the same by providing a number of standard parts which are adapted to be used in the assembly of different styles or patterns of desks; also to construct desks of this kind having a plurality of substantially flat parts or sections which are adapted to be dip-painted or finished before assembly and which may, therefore, be suspended close together to permit them to dry, and which can then be stored for assembly as desired, thereby materially reducing the space required for drying and storing the parts.

Other objects of the invention are to provide a desk pedestal construction having rigid side and end sections formed with parts adapted to engage complementary parts or portions on detachable leg sections of novel construction, and a connecting strip or combined tie and brace member adapted to interlock with said complementary parts to securely hold them together and which braces the legs and said connections to form a rigid desk pedestal; also to construct pedestal desks in which the pedestals are braced in an improved and simplified manner by parts formed and adapted for quantity production, and to provide improved means for connecting the pedestals to the desk tops, and also to improve and simplify the construction of pedestal desks in the other respects hereinafter specified and claimed.

In the accompanying drawings, consisting of five sheets:

Figs. 1 and 2 are front elevations on a reduced scale, showing two different styles or patterns of sheet metal pedestal desks embodying the invention.

Fig. 3 is a horizontal section, on an enlarged scale, of the left hand pedestal of the desk shown in Fig. 1.

Fig. 4 is a longitudinal sectional elevation thereof, with the desk top attached, on line 4—4, Fig. 3.

Fig. 5 is a transverse sectional elevation thereof on line 5—5, Fig. 3.

Fig. 6 is a horizontal section on an enlarged scale, showing one of the desk legs and the means for securing the adjacent parts of the desk thereto.

Fig. 7 is a vertical section on line 7—7, Fig. 5, showing the means for securing the desk top to the upper part of the legs.

Fig. 8 is a sectional elevation on line 8—8, Fig. 5, showing the means for attaching the inner side panel of the pedestal to the desk top.

Fig. 9 is a perspective view of one of the legs, detached from the desk.

Fig. 10 is a perspective view of a portion of one of the locking strips or combined tie and brace for the leg and connected parts.

Fig. 11 is a cross section of the upper part of one of the legs, on an enlarged scale.

Fig. 12 is a section showing the means of attaching the drawer strike bars to one of the uprights of the drawer strike frame.

Figs. 13 and 14 are perspective views of the two parts shown in Fig. 12, in position for assembly.

Figs. 15 and 16 are reduced perspective views of the side guiding or suspension frame and the drawer strike frame respectively.

Fig. 17 is a perspective view of the rear upper portion of a drawer suspension member, showing supporting means therefor of slightly modified construction.

Fig. 18 is a fragmentary, longitudinal, sectional elevation, enlarged, of the pedestal of the desk shown in Fig. 2.

Fig. 19 is a horizontal section of the front portion thereof.

Fig. 20 is a similar view, on an enlarged scale, of the connection between the drawer strike frame and the inner side panel of the pedestal.

Fig. 21 is a horizontal section showing the means for attaching the pedestal bottom plate to one of the legs.

Fig 22 is a vertical section thereof on line 22—22, Fig. 21.

Fig. 23 is a plan view, partly broken away, of the bottom plate and its attaching member detached from the leg.

Fig. 24 is a perspective view detached, of the attaching member of Figs. 21–23.

Pedestal desks usually comprise two end pedestals, one or both forming a support and housing for drawers or other usual parts. The pedestals include legs on which the desk is supported, and they are separated by a knee space and are covered by a top extending over the pedestals and the intervening knee space. Fig. 1 shows a six legged desk, the pedestal construction of which is illustrated in Figs. 3–8, while Fig. 2 shows a four legged desk, the pedestal construction of which is disclosed in Figs. 17–24.

According to this invention, desks of various styles or patterns, having four or more legs, may be constructed by the use of certain stock parts adapted to be used in the assembly of either pattern or style of desk, and combining therewith other parts to effect the completion of the style or pattern of desk desired.

The desk shown in Figs. 1 and 3–8 comprises a pair of spaced pedestals A formed of sheet metal, each adapted to support and enclose drawers or the like *a*, and a sliding shelf *a'*. The pedestals A are separated by the usual knee space, and are connected by a top B also preferably formed of sheet metal, and a back wall, panel or member 10 extends across and encloses the backs of the pedestals A and the space between them. A center drawer C may, if desired, be arranged in the upper part of the knee space beneath the top B. As the pedestals A are substantially alike, only one is illustrated in detail and for the sake of clearness the drawers *a* have been omitted from the sectional views thereof, Figs. 3, 4 and 5.

Each pedestal, see Fig. 3, is preferably formed of a pair of spaced front legs 11 and 12 between and connected to which is a rigid front or drawer strike frame or member 13, outer and inner side walls, panels or members 14 and 15 respectively, a rear corner leg 16, and a pair of opposed side guide or suspension members 17 for guiding and supporting the drawers in the pedestal. The back of the pedestal is closed by a part of the back wall 10 before mentioned.

The legs 11, 12 and 16 are all alike and each comprises a square or rectangular metal tube, which at its upper portion has two connected sides, and the remaining two sides severed to leave a horizontal shoulder 18, and provide a pair of webs which are bent inwardly preferably parallel with the adjacent side wall and then transversely at right angles so as to form a vertical internal channel 19 and a vertical external rabbet or recessed abutment 20 adjacent each of the two diagonally opposite corners, see Figs. 9 and 11. The channel 19 and rabbet 20 extend from the shoulder 18 to the top of the leg.

The front strike frame 13 comprises a pair of upright side bars 21 rigidly connected by spaced horizontal strike bars. Each side bar is of channel form having a web 22 and side flanges 23 extending substantially at right angles to the web, and having inwardly bent edge portions extending towards each other from the flanges 23, see Fig. 15. The transverse strike bars 25 can be of any suitable cross section, but are preferably of the channel form shown in Fig. 13 connected to the side uprights 21, as by the lugs 26 on the strike bars which are adapted to enter slots in the uprights and are bent against the outer faces of the uprights and preferably welded thereto, see Fig. 12, to form a rigid frame.

The pedestal side walls 14 and 15 are formed of flat sheet metal plates, and instead of having parts which necessitate a relative endwise sliding movement between the plates and the legs to effect their connection, these plates are provided at their front edges with vertical flanges 28 bent inwardly at an angle corresponding to or complementary with the angle of the leg rabbets 20. The angular flanges 23 of the drawer strike frame 13 also form parts which are complementary to said rabbets 20. To connect the side walls 14, 15 and the front strike frame 13 to the legs 11 and 12, the said parts are moved laterally towards each other until the flanged front edges of the walls 14, 15 and the flanges 23

of the drawer strike frame 13 abut or fit into the rabbets 20 of the legs 11 and 12 with the bottom edges of the walls and of the uprights 21 adjacent the shoulders 18 of the legs. and said parts are then firmly and rigidly held together by tie and brace or locking members.

In accordance with the present invention, combined tie and brace members or locking strips 30 are provided which are adapted to be engaged endwise in the channels 19 of the legs and with the complementary parts of the side walls 14 and 15 and drawer strike member 13 and draw these parts firmly and securely together. There is one connecting member 30 for each leg, and each comprises a sheet metal strip rolled or otherwise formed into the shape shown, including a body part 31, a narrow web 32 extending at an angle along each edge thereof, and each web is first bent backwardly upon itself and then outwardly to form the narrow longitudinal recess 33, rounded shoulder or bead 34 and offset lateral edge portion 35, see Figs. 6 and 10. The connecting member is inserted and driven endwise into place, with the side wall flange 28 and one part 20 of the leg in one of the recesses 33, and the flange 23 of the strike frame and the other part 20 of the leg in the other recess 33 of the member 30, while the shoulders 34 thereof will engage the side walls of the leg. The edge portions 35 extend into and are forced against a corner of each channel 19 by the engagement of said shoulders 34 with the leg. The proportions of the shoulders 34 and edge portions 35 of the connecting strip are such that these parts require some force to drive them into the channels, thus bracing and stiffening the leg and holding the abutting parts rigidly in place in such a way that "weaving" or relative movement between the parts is prevented. The connecting members 30 extend diagonally across the hollow legs, and being interlocked with the flanged portions of the legs and also of the side walls and drawer strike frame, they tie together not only the sides of the legs, but also the side walls and front frame of the pedestals, and prevent the spreading of the legs and consequent distortion of the pedestals. In addition, the connecting members brace the hollow legs against collapsing and, therefore, make particularly sturdy and rigid corner constructions for the desk without increasing the weight of the desk, since because of the use of the combined ties and braces the parts connected thereby can be made of lighter stock. By forming the pedestals of the rigid outer walls or panels, drawer strike frames and legs, which are assembled by a simple lateral or abutting engagement, and then rigidly locking said parts by means of the internal connecting members, the exposed parts may be dip-painted or finished before assembly, as the finish will not be marred, and the only endwise connected or driven part is the internal connecting member which does not need a finish.

The back wall 10 and rear edge of wall 14 are also provided with the vertical flanges 28 to permit them to be similarly connected by a connector 30 to the rear leg 16.

Each drawer suspension or guide frame 17 comprises front and rear uprights 38 rigidly connected by horizontal drawer guide rails 39 preferably of channel form, and as shown in Fig. 3, the suspension frames 17 are connected to the drawer strike frame and the side walls 14, 15 in parallel, spaced relation to the side walls in such a manner that these frames 17 form additional braces for stiffening and strengthening the pedestals A. 40 represents upright supporting members for the rear ends of the suspension frames 17. In the construction illustrated, each supporting member 40 consists of a vertical plate extending inwardly from the side wall and having a flange 43 rigidly attached thereto as by spot welding. The inner edge portion of the support 40 is bent to provide a vertical channel 44. Each of the uprights 38 of the suspension frames preferably consists of a metal plate which is rigidly attached to the guide rails 39, as by welding, and is bent to form an offset vertical channel portion 49. These channel portions are adapted to interlock with the channel portions 46 of the supporting members 40 and the channel parts 23 of the uprights 21 of the drawer strike frame so as to engage with at least one face and one edge thereof, by driving or sliding the frames 17 endwise downwardly over said parts The guide rails 39 preferably extend outwardly beyond the attached web portions of the uprights 38 so as to engage the channel flanges 44 of the supports 40 and the inner faces of the uprights 22, thereby providing the suspension frames with opposed parts engaging opposite sides of the members to which they are attached and thus form connections which rigidly secure the suspension frames against both lateral and endwise movement.

The suspension frames 17 are preferably secured from vertical movement on the pedestal between horizontal bottom and top plates 52, 53 respectively. The bottom plate closes the lower end of the pedestal A, and is connected to the front strike frame 13, side walls 14 and 15 and rear wall 10 so as to brace and stiffen the lower end of the pedestal, while the top plate stiffens the upper end of the pedestal by being connected to the frame 13 and side walls 14 and 15. As shown, the bottom plate 52 is formed with opposite, depending side flanges 54 which fit tightly between the inner faces of the side walls 14 and 15 and the upturned bottom edges 55 thereof. Similar flanges 56, 57 depend from the front and rear edges of the bottom plate and stiffen the latter. The flanged front end of

the bottom plate fits into the channelled bottom strike bar 25 with the flange 56 engaging the front wall of the bar, thereby materially stiffening the strike frame 13 and bottom plate. The rear flange 57 of the plate 52 abuts against the rear wall 10 with its bottom edge resting on an inturned flange 58 on the wall, and preferably these parts are held together by screw bolts 59 or the like.

The top plate 53 engages the upper ends of the uprights 38 of the suspension frames 17 and is releasably connected to the side walls 14 and 15 by means of depending side flanges 60 on the plate which engage in seats formed by offset upstanding flanges of retaining strips 62 welded or otherwise fixed to the side walls 14 and 15 see Figs. 4 and 5.

The top plate 53 is also connected to the front frame of the pedestal A, so as to brace the pedestal at this point and to provide means for holding the front of the top plate against displacement. As shown, the front edge of the top plate 53 is formed with a downturned flange 64 which is arranged in the top strike bar 25 with the adjacent portion of the plate engaging the under side of the upper flange of the rail. The rear end of the top plate 53 is formed with an upwardly extending flange 65 having a bent over edge 66 adapted to abut against the under side of the desk top B and thereby prevent upward movements of the top plate and the drawer guide frames.

In the construction shown, the top plate 53 is spaced a distance below the desk top B and forms a support for a sliding shelf 67. This shelf may be constructed and slidably mounted in any suitable way. As shown, the shelf has downturned front and rear flanges, and side flanges 68 formed with inturned edges 69, and the shelf is adapted to slide on guide rails 70 secured on the top plate 53. The guide rails have downturned flanges 71 overhanging the inturned edges 69 of the shelf, whereby the shelf is held from lifting off of the rails.

Stops of suitable constructions are provided for limiting the in and out movements of the shelf 64. As shown, a stop or lug 72 is struck out of and extends upwardly from the top plate 53 in the path of a depending spring finger 73 secured to the underside of the shelf and is adapted to be engaged thereby when the shelf is drawn outwardly. The finger may be sprung over the stop 72 to permit the shelf to be inserted or entirely withdrawn. The shelf is also provided with a fixed inturned stop 75 which is adapted to engage the front end of one of the guide rails 70 to limit the inward movement of the shelf.

The rear edge of the inner side wall 15 may be connected to the rear wall 10 in any suitable manner, one of these walls, as the wall 10 in the construction shown, having a vertical angle bar 76 welded thereto, and against one leg of which the edge portion of the other wall 15 abuts, and is detachably secured by screw bolts 77 or the like. The adjacent rear corner of the bottom plate 52 is notched out at 78, as shown, to clear the bar 76, and preferably the other rear corner 78ª is similarly formed so that like bottom plates may be used in either right or left hand pedestals. The corner 78ª extends into the rear leg 16 between the shoulder 18 and the bottom of the connecting member 30 of that leg.

The top B may be of any suitable construction, that shown in the drawings being of sheet metal formed substantially as shown in my copending application, Serial No. 734,777, filed August 28, 1924. This top, see Figs. 4 and 5, includes the horizontal plate 80, a depending marginal flange 81 having an inturned lower edge 82 to which a securing strip 83 is attached for holding in place a marginal binding strip which binds and protects the edge of the flexible cover sheet 85 of the top. The top is preferably provided with a transverse channel shaped reinforcing and stiffening member or brace 86 having outbent flanges which are secured, preferably by welding, to the under side of the top plate 80. The top B is connected at its four corners to the outer corners of the pedestals and is also connected to the inner wall 15 between its front and rear edges in such a manner as to provide additional bracing and stiffening for the desk top and pedestal as well as to securely hold the top in place. For this purpose each of the corner legs 11 and 16 of the desk is provided at its upper end, preferably on both outer faces, with fixed lugs 90, see Figs. 4 and 5, each having an outwardly projecting part 91 adapted to engage beneath and be screwed or otherwise secured to the inturned bottom edge of the marginal flange 81 of the top A, the retaining member 83 being preferably notched (see Fig. 7) to receive the part 91 and conceal the same from view to avoid marring the appearance of the desk. Any other suitable means may be used for securing the top to the corners of the pedestals. The top B is preferably attached to the inner side wall 15 by engaging the brace 86 in a notch 93 formed in the top edge of the wall by slitting the metal thereof to receive the brace and bending the portion between the slits to form a lateral lug 94 which is adapted to engage and be releasably secured to the bottom of the brace as by a screw 95, Figs. 5 and 8. The top edge of the wall 15 is preferably flanged, as at 96, which flange is adapted to abut against the underside of the top plate 80. The outer wall 14 is formed with a similar flange 97, and these flanges materially stiffen the walls 14, 15 and form a good joint between said walls and the top B.

If a center drawer C is used, a drawer guide rail 98 is secured to the inner face of the wall

15 of each pedestal to guide and support the drawer beneath the top B, see Fig. 3.

A desk of less expensive construction, and having legs only at its four corners, is shown in Figs. 2 and 17–24. Each pedestal A′ of this desk has a front and a rear corner leg 100, 101 respectively, like the legs 11 and 16 of the desk above described, and the drawer strike frame 102 and suspension frames 103 are also substantially like those used in the first construction and are similarly secured to each other and to the front leg 100. An outer side wall 104, having inturned front and rear edges, and a back wall 105 similar to the wall 10 are connected to the rear leg 101 by one of the tie and brace strips 30 in the manner before described, while said side wall 104 and front strike member 102 are connected to the front leg just as before described. An inner wall 106 is shown, and as there is no leg at the inner side of the pedestal A′, this wall is provided with a vertical securing member or strip 107 preferably of channel shape welded thereto and having laterally extending flanges formed with offset portions 108 over which the channel portions of the adjacent upright of the strike frame 102 slidably fit. The front edge of the wall 106 is preferably bent to form a lateral web 109 and a rearwardly extending flange 110 adapted to conceal the strip 107 and upright of the strike frame, and also to form a finished, forwardly projecting front post to harmonize with the leg 100. The uprights of the suspension members 103 are formed to slide endwise over and interlock with the uprights of the strike frame and also with offset portions of rear supporting members 111 secured to the walls 104 and 106 as before. There is no pedestal top plate in this construction, the sliding shelf 112 being supported and guided on parallel guide rails 113 secured directly to the suspension frame uprights, see Fig. 18.

A bottom plate 115 extends beneath uprights of frames 102, 103. In the construction shown, this bottom plate is formed integrally with the side wall 106, and extends from the bottom edge thereof across the pedestal with its outer side edge resting on an inturned flange 116 of the outer side wall to which it is preferably detachably secured by screws or the like 117. Its outer front corner extends into the leg 100 and rests on the shoulder 18 thereof. The bottom plate is preferably provided adjacent said corner with means adapted to interlock with the leg 100 to maintain the parts in their intended relation and to stiffen and brace the pedestal. The front portion of the bottom plate 115 is provided with an integral channel portion 118, see Fig. 19, adapted to extend between the inner face of leg 100 and the front post 109 of side wall 106 to form a stiffening and finishing part for the bottom plate. The interlocking connection shown between the plate 115 and leg 100 comprises a sheet metal part of the form shown in Fig. 24 and having front and bottom flanges 120, 121 welded or otherwise secured in the channel portion 118. The bottom flange 121 is disposed on the top face of the bottom plate and is formed with a laterally and forwardly projecting extension 122, and a notch 123 formed in this extension and in the plate 115 adjacent the end of the channel 118, is adapted to receive the offset 100^a of the leg, while the part 122 engages behind this part and holds the end of the channel firmly against the leg.

The rear edge of the bottom plate (not shown) is preferably secured by bolts or screws to an inturned flange of the back wall, as in the first construction, and the rear edge of the side wall 106 is also secured to an angle bar on the back wall, while its upper edge is secured by a lug 94^a to the brace 86^a of the desk top B. The corners of the top are secured to the legs by lugs 90 and screws, as before explained.

As there is no pedestal top plate in this construction, the uprights of the drawer suspension members 103 extend nearly to the under face of the desk top B, and are there engaged by lugs or angularly extending portions 125 of the fixed suspension frame supports 111, formed by slitting the upper edge portions of said supports and bending the flaps thus provided so as to extend obliquely across the upper ends of said uprights, as shown in Figs. 17 and 18, thereby preventing upward movement of the suspension frames. Any other means may be provided for this purpose.

The pedestals of both desks described are composed largely of parts or sections which are interchangeable, such as the legs, drawer strike frames, suspension frames, outer side panels or walls, rear wall, and the connecting strips 30, and it is obvious that still other types of desks, or desks having a different number of legs, may be constructed by the use of these same parts, and completed with the addition of a minimum number of other different parts. Moreover some of the different parts described for one of the constructions shown, may be substituted for the different parts in the other construction, or vice versa.

The parts of the desks are all substantially flat sections which can be dip-painted before assembling and may be suspended close together to dry and can be stored or shipped in a minimum of space. The outer portions of the pedestals are adapted to be assembled edgewise instead of sliding or driving them endwise one over the other. This avoids chipping the paint or other finish and enables the desks to be easily and quickly assembled. The connecting and bracing strips are readily attached by driving them on endwise and provide an exceptionally secure and rigid connection between the parts of the pedestals.

I claim as my invention:

1. In a metal desk, the combination of an upright frame member, a side wall having a vertical edge flange, a detachable leg having spaced opposite portions each forming a vertical recessed abutment, said upright frame member having a part adapted to be seated in one of said leg abutments and said side wall flange being adapted to be seated in said other leg abutment, and a tie member adapted to be connected in an endwise direction with said upright frame member, side wall and leg and having portions which interlock with and retain said abutting parts thereof in firm engagement and secure said tie member to said abutting parts whereby said tie member holds said opposite leg portions and abutting parts against spreading.

2. In a metal desk, the combination of a rigid frame including a pair of upright end members, a side wall having a vertical front flange, a detachable leg having spaced opposite portions each forming a vertical recessed abutment, one of said rigid frame uprights having a part adapted to be seated in one of said leg abutments and said side wall flange being adapted to be seated in said other leg abutment, a tie member adapted to be connected in an endwise direction with said rigid frame, side wall and leg and having portions which interlock with and retain said abutting parts thereof in firm engagement, and secure said tie member to said abutting parts, said tie member having a web portion integral with said interlocking portions and extending across said leg from one of said spaced opposed portions thereof to the other to tie said portions together and stiffen said leg.

3. In a metal desk, the combination of a strike frame including a pair of upright end members, a side wall having a vertical front flange, a detachable leg having spaced opposed portions each forming a vertical recessed abutment and an internal vertical channel, a vertically extending offset portion on one of said strike frame uprights adapted to be seated in one of said leg abutments and said side wall flange being adapted to be seated in said other leg abutment, and a combined tie and brace member adapted to connect said strike frame, side wall and leg, and having interlocking portions which interlock with said abutting parts to hold the same in firm engagement and secure said tie member thereto, said tie members also having side flanges which extend transversely in said leg channels from one to the other of the opposite walls thereof to stiffen said leg.

4. In a metal desk, the combination of a strike frame including a pair of upright end members, outer and inner side wall members each having a vertical front flange, outer and inner corner legs each having a vertical recessed abutment adjacent said strike frame and in which a vertically extending offset portion on the adjacent strike frame upright is adapted to be seated, and each leg having a second recessed abutment spaced from and opposed to said first abutment and adapted to receive the flange of the adjacent side wall, and a combined tie and brace member for each leg adapted to be connected in an endwise direction to said leg, strike frame and side wall, and having portions which interlock with and secure said tie member to said abutting parts and retain said abutting parts in firm engagement and tie together the opposed parts of the leg.

5. In a metal desk, the combination of a strike frame including a pair of upright end members, outer and inner side wall members each having a vertical front flange, outer and inner corner legs each having a vertical recessed abutment adjacent said strike frame and in which a vertically extending offset portion on the adjacent strike frame upright is adapted to be seated, and each leg having a second recessed abutment spaced from and opposed to said first abutment and adapted to receive the flange of the adjacent side wall, and a combined tie and brace member for each leg adapted to be connected in an endwise direction to said leg, strike frame and side wall, and having portions which interlock with and secure the tie member to said abutting parts and secure said abutting parts together, said tie and brace member having an integral web portion extending across said leg from said strike frame upright to said side wall, and adapted to tie said parts together and brace said leg.

6. A metal desk having a rigid drawer strike frame and a side wall panel extending at right angles thereto, a leg having two connected side walls each formed with an integral attaching portion extending inwardly therefrom and forming an exterior vertical rabbet, vertical edge portions on said front frame and said side panel adapted to seat in said leg rabbets, and a tying and bracing member having opposed parts adapted to interlock with and connect said attaching portions of said leg and the abutting edge portions on said strike frame and side panel and secure said member thereto, said tying and bracing member also having a web connecting said interlocking parts to tie the same together and stiffen said leg and brace the connections between said strike frame and side panel.

7. A metal desk having a rigid drawer strike frame and a side wall panel extending at right angles thereto, a leg having two connected walls, an integral attaching portion extending inwardly from each of said walls and including a vertical exterior rabbet having two faces extending in angular relation, a complementary angular edge portion on said strike frame adapted to seat in one of said

rabbets and abut against said faces, a complementary edge portion on said side panel adapted to seat said other leg rabbet in engagement with the faces thereof, a tie member having opposed recessed portions adapted to embrace the opposite outer faces of the abutting portions of said strike frame, said side panel and said leg to secure these parts in connection, and said member having a web portion connecting said recessed portions thereof to brace said leg and said connections between said strike frame and said side panel.

8. A metal desk having a rigid drawer strike frame and a side wall panel extending at right angles thereto, a leg having two connected walls, an integral attaching portion extending inwardly from each of said walls and including a vertical exterior rabbet having two faces extending in angular relation, and a vertical interior channel, a complementary edge portion on said strike frame adapted to seat in one of said rabbets and abut against said faces, a complementary edge portion on said side panel adapted to seat in said other leg rabbet in engagement with the faces thereof, a metal tie and brace member having opposed recessed portions adapted to embrace the opposite outer faces of the abutting portions of said strike frame, said side panel and said leg to connect and hold these parts in engagement, and said member having an edge flange adjacent each of its recesses adapted to enter the adjacent internal channel of said leg to stiffen said leg.

9. In a metal desk, the combination of a rigid front strike frame opposite side walls, means for detachably connecting the front ends of said walls and said strike frame and bracing said connections, a supporting member rigidly secured to and extending inwardly from each of said side walls, each supporting member having a vertical channel extending along its free edge, a channel at each side of said strike frame, a pair of rigid drawer guide frames each having front and rear upright channel portions which are adapted to be endwise engaged over and interlock with one of said channel portions of said strike frame and the channel portion on one of said supporting members respectively, whereby said guide frames are rigidly secured to said strike frame and side walls.

10. In a metal desk, the combination of a rigid front frame having spaced end uprights, a pair of spaced offset portions on each upright, inner and outer side walls, connecting means between one of the offset portions of each upright and the front end of the adjacent side wall, a supporting member rigidly secured to and extending inwardly from each of said side walls, each supporting member having a vertical offset portion extending along its free edge, a pair of rigid drawer guide frames each having front and rear upright interlocking portions which are adapted to be engaged with the remaining offset portion on one of said frame uprights and with the offset portion on one of said supporting members respectively, whereby said guide frames are rigidly secured to said front frame and side walls.

11. In a metal desk, the combination of a rigid front frame, inner and outer side walls, corner legs and parts on said walls and front frame adapted to interfit with complementary parts on said legs, means for tying and bracing said interfitting connections, a supporting member extending inwardly from each side wall, and a pair of rigid drawer guide frames having parts adapted to interfit with parts on said supporting members and with parts on said front frame.

12. In a metal desk, a pedestal comprising a rigid front frame, inner and outer side walls, a pair of opposite rigid drawer guide frames each having spaced guide rails connected to front and rear uprights, a top and a bottom plate detachably secured to said front frame and said side walls, said drawer guide frames being adapted to have an endwise attachment with said front frame and parts on said side walls, and said top and bottom plates being adapted to engage the upper and lower ends respectively of said drawer guide frames to maintain them from endwise displacement.

13. In a metal desk, a pedestal comprising a rigid front frame, inner and outer side walls, a pair of opposite rigid drawer guide frames each having spaced guide rails connected to front and rear uprights, a desk top arranged over said side walls and said frames, a bottom plate detachably secured to said strike frames and said side walls, a pair of rigid drawer guide frames adapted to have an endwise connection with said strike frame and parts on said side walls and having their lower ends engaging said bottom plate to prevent endwise movements of said frames in one direction, a top plate detachably secured to said strike frame and parts on said side walls and spaced below said desk top and adapted to engage the upper ends of said guide frames to prevent endwise movements thereof in an opposite direction.

14. In a metal desk, a pedestal including a rigid front frame, opposite spaced side walls, a rear wall, detachable means adapted to interfit with parts at the front and rear edges of said side walls and with parts on said front frame and rear wall respectively to connect said parts, an upper and a lower pedestal plate extending between said side walls and each having parts adapted to interengage with parts on said side walls and with parts on said front frame so as to stiffen and brace said pedestal, a pair of spaced rigid drawer guide frames having parts adapted to interfit with parts on said front frame and side walls by an endwise engagement, and said top and bottom plates being adapted to en-

gage the upper and lower ends of said drawer guide frames to prevent unintentional endwise movements thereof.

15. In a metal desk, the combination of a rigid front strike member, inner and outer spaced rigid side wall members, a rigid back wall member, means for connecting adjacent ends of said parts, a bottom plate connected at its edges to the lower edges of said front, back and side members, a flat desk top supported by said outer side wall members, a depending brace extending transversely beneath and secured to said desk top, said inner side wall having a part extending beneath and bearing against the under face of said desk top and bracing said part in a direction at right angles to said other brace, and a connection between said top brace and said side wall, whereby said inner side wall member is suspended from and supported by said braced top.

16. In a metal disk, a pedestal comprising a rigid front strike member, inner and outer side wall members, a back wall member, a plurality of detachable corner legs, interfitting connecting parts on said legs and said front, rear and side members, a detachable tie and brace member for each leg adapted to tie and brace said interfitting connections, a bottom plate, connections between said plate and said side walls for supporting said plate in position to brace the lower end of said pedestal, a desk top, a brace secured to the underside of said desk top, and a connection between said brace and the upper end of said inner side wall whereby said top is braced in a direction at right angles to said brace and the inner side of said pedestal is supported from said desk top.

17. In a metal desk, a pedestal including inner and outer side walls a rigid front frame detachably connected thereto, a desk top, a bottom pedestal plate detachably connected to said side walls and said front frame, a pair of spaced, rigid drawer guide frames detachably connected to said front frame and to parts on said side walls and having their lower ends resting on said bottom plate, and a detachable connection between the upper end of said inner side wall and the under side of said desk top, whereby said inner side wall, bottom plate and said drawer guide frames are supported from said desk top.

18. In a metal desk, a pedestal including inner and outer side walls, a rigid front frame, corner legs having parts thereon which interfit with parts on said side walls and said front frame, a tie member for tying together and bracing said interfitting parts, a desk top, a detachable connection between said top and the upper part of said inner side wall whereby said inner side wall is supported from said top, a bottom pedestal plate connected to and supported by the lower edge of said inner side wall and extending across said pedestal and engaging said outer side wall, a hook member on said bottom plate adjacent one of said corner legs and which is adapted to interlock with a part of said leg to prevent lateral movements of said bottom plate.

19. In a metal desk, a pedestal including inner and outer side walls, a rigid front frame, corner legs having parts thereon which interfit with parts on said side walls and said front frame a tie member for tying together and bracing said interfitting parts, a desk top, a detachable connection between said top and the upper part of said inner side wall whereby said inner side wall is supported from said top, a bottom pedestal plate connected to the lower edge of said inner side wall and extending across said pedestal with its side edge engaging said outer side wall to prevent lateral movements of said bottom plate in one direction, and a hook member on said plate adapted to interlock with a part on one of said corner legs to prevent lateral movements of said bottom plate in an opposite direction.

20. In a metal desk, a pedestal comprising a rigid front strike member, inner and outer side wall members, a back wall member, a plurality of detachable corner legs, interfitting connecting parts on said legs and said front, rear and side members, a detachable tie and brace member for each leg adapted to tie and brace said interfitting connections, a bottom plate, connections between said plate and said side walls for supporting said plate in position to brace the lower end of said pedestal, a desk top, a transversely rectangular brace secured to the under side of said desk top, said brace being adapted to be received in a notch in the top edge of said inner side wall, and said top edge of the side wall being adapted to engage the desk top at each side of said brace whereby said pedestal and said desk top are braced in two directions and said bracing parts are held against relative movement and said inner side wall being attached to said brace to support the inner side parts of said pedestal.

21. In metal desks and the like, the combination of upright members disposed at an angle to each other, a detachable leg having walls provided with opposed vertical recessed abutments, each of said upright members having a part seated in one of said leg abutments, and a tie member which has endwise interlocking slip connections with said leg abutments and seated parts, which lock said parts to said leg abutments and secure the tie member thereto, whereby the tie member holds the walls of the leg and said upright members against spreading.

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