

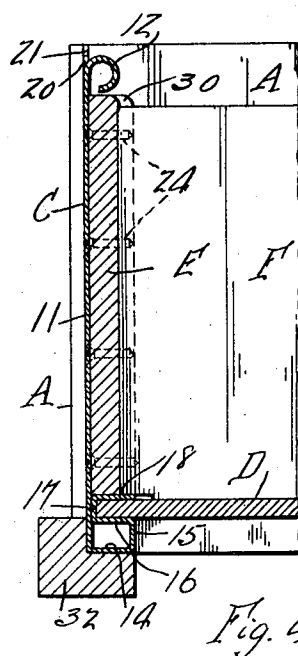
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DRAWER FOR FURNITURE

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DRAWER FOR FURNITURE

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This invention relates to improvements in drawers for desks and other articles of furniture.

Metal and wooden furniture each possess certain advantages and disadvantages. For example, in the case of desks, metal desks have the advantage that none of the parts of the desk warp due to changes in temperature or humidity of the air, but these desks have the disadvantage that they are noisy and resonant when the drawers are moved in or out.

In the case of wooden desks, these noises are avoided but when exposed to certain air conditions, the sides of the wooden drawers swell or warp, so that it becomes extremely difficult at times to pull out or close a drawer. It is, of course, also well known that a much more attractive finish can be made on a wooden surface than on a metal surface.

The objects of this invention consequently are to provide a drawer of this kind of composite construction in which wood and sheet metal are used, the sides of the drawer being formed of sheet metal for the purpose of embodying in a wooden desk the advantages of both wood and metal desks; also to provide a drawer of this kind with metal sides of improved construction for retaining the drawer bottom in place; also to provide a drawer of this kind with means of improved construction for retaining the partitions in place in the drawer; also to improve the construction of drawers of this kind in other respects hereinafter specified.

In the accompanying drawing;

Fig. 1 is a top plan view of the drawer embodying this invention.

Fig. 2 is a central sectional elevation thereof.

Fig. 3 is a fragmentary perspective view of a corner of the drawer on an enlarged scale.

Fig. 4 is a fragmentary sectional elevation thereof on line 4—4, of Fig. 1.

The drawer embodying my invention includes a wooden front A, a back B also made of wood, and metal sides C connected at their opposite ends to the front and back. The

front A may be provided with the usual handle 10.

The sides are preferably formed of sheet metal in such a manner that both sides are alike, so that only one set of dies is necessary to produce the opposite sides. Each of the sides includes a flat upright portion 11 which terminates at its upper edge in a suitably turned over portion for the purpose of preventing the exposure of a sharp metal edge at the upper edge of a drawer side. In the particular construction shown, the upper end is bent at 12 into a curved or rounded bead.

The lower end of each side is provided with a substantially flat shoe upon which the drawer may slide, and above this shoe with a portion for retaining the drawer bottom in place. In the particular construction shown, the lower portion of each side is, therefore bent inwardly to form a substantially horizontal surface or shoe 14 upon which the drawer may slide. The metal then extends upwardly, forming a web or part 15, and above the web 15, the metal is bent into U-shape to form an inwardly facing groove or recess for the edge of the drawer bottom, this being done by forming the metal so that the upper edge of the web 15 terminates in a horizontal web 16 which in turn terminates in an upright web 17 lying substantially in contact with the upright side portion 11 of the drawer side. This upright edge 17 terminates in a horizontal web 18 spaced parallel to the web 16 and at a distance therefrom sufficient to permit an edge of the drawer bottom D to enter between these two webs. As is clearly shown in Figs. 3 and 4 the lower edges of the sides of the drawer are bent upwardly into substantial S-shape.

The bead 12 at the upper edge of each side and the bent portions at the lower edge of the side, in addition to the functions described, serve to reinforce or stiffen the side against bending or flexing, so that the sides of the drawers are of rugged construction. These edge portions of the drawer sides terminate at short distances from the front and rear ends of the sides. This forms flat front and

rear upright end portions 20 on the ends of the metal sides of the drawer, which end portions are preferably secured to rabbets 21 and 22 formed respectively on the front and back of the drawer. These flat ends 20 of the sides are also provided with holes through which screws or other fastening devices 24 may pass for fastening the sides to the front and back of a drawer. This arrangement results in a strong and rugged construction, since the ends of the inwardly turned upper and lower edges of the sides engage the inner faces of the front and back of the drawer and thus prevent twisting or weaving of the drawer.

The drawer bottom D is preferably made of comparatively thin material and in the construction shown, the front and rear ends thereof are adapted to enter into recesses or grooves 25 and 26 formed in the front and back of the drawer. The side edges of the drawer bottom enter into the grooves in the lower portions of the sides. Consequently in assembling the drawer, the bottom D is placed into its operative position before the sides are secured to both the front and back of the drawer, and after the sides are so secured, the drawer bottom is locked in place. Consequently in the drawer described, all parts of the drawer are secured together merely by the screws or fastening devices 24.

In drawers of this kind it is customary to provide transverse partitions or walls, the ends of which are usually held in upright slots formed on the sides of the drawer. In connection with my improved drawer, in order to avoid weakening the metal sides C of the drawer, I provide inserts E which may be made of wood or other material and which are as long as the interior of the drawer and which are merely placed into the drawer against the metal sides C. These inserts E are provided with the usual upright grooves or channels 30 into which the side edges of the vertical partitions F of the drawer enter. When one or more of these partitions is in place, the inserts E will be held in their operative positions. If none of these partitions are required, the inserts are removed from the drawer.

In the case of drawers of this kind, I have found that it is desirable to provide the desk or other article of furniture with wooden guide rails upon which the metal shoes 14 of the sides of the drawer may slide, so as to reduce to a minimum the noise made by the moving of the drawer in and out. A guide rail 32 of this kind being shown in Fig. 4.

As a result of the construction described, the drawer will not either swell or warp under certain weather conditions, since the sides thereof will retain their original shapes at all times. The noise which results from the operation of an all-metal drawer is entire-

ly eliminated by having the metal sides contact only with wooden parts.

By providing wooden drawer supports or rails which cooperate with the metal shoes at the bottoms of the sides of the drawer, an excellent bearing on which the drawer slides, is provided. By the construction described the drawer fronts are entirely of wood and lend themselves readily to any desired attractive finish.

I claim:

1. A drawer having a front and a back made of wood, and metal sides having upright portions terminating at their upper edges in beads and at their lower edges in bent portions forming at their bottoms shoes on which the drawer may slide and with channel shaped portions into which the edges of a drawer bottom enter.

2. A drawer having a front and a back made of wood, and metal sides secured at their front and rear ends to said front and back respectively, the lower edges of said sides being bent upwardly into substantially S-shape to provide shoes on which the drawer may slide and grooves into which the edges of the drawer bottom may enter, said grooves being spaced at a distance above said shoes.

3. A drawer having a front and back made of wood, and metal sides having upright portions terminating at their upper ends in inwardly extending beads and at their lower ends in inwardly extending S-shaped portions, the upper parts of which form grooves to receive opposite edges of a drawer bottom.

4. A drawer having a front and back made of wood, and metal sides having upright portions terminating at their upper ends in inwardly extending beads and at their lower ends in inwardly extending S-shaped portions, the upper parts of which form grooves to receive opposite edges of a drawer bottom, inserts arranged in the spaces between said beads and S-shaped portions and having upright grooves, and partitions having their ends arranged in said grooves.

5. A drawer having a front, back and sides, said sides being made of metal, inserts positioned parallel to and against the inner faces of said sides and having upright guide grooves, and transverse partitions arranged crosswise of said drawer and having their ends engaging in said grooves, said partitions cooperating with the sides and ends of the drawer for retaining said inserts in their operative positions.

6. A drawer having a front, a back, and sides connecting the front and back, said sides being made of metal and having inwardly extending portions in their upper and lower edges thereof, inserts arranged in contact with the inner faces of said sides and between said inwardly extending portions, said inserts having upright grooves, and partitions extending transversely of said drawer and

having their ends arranged in said grooves, said partitions cooperating with the sides and ends of the drawer for retaining said inserts in their operative positions between said inwardly extending portions of the said sides.

front and back are disposed in a right angle between said end parts of said drawer sides and said ends of said inwardly extending portions of said upper and lower edges of said sides.

JACOB BODENSTEIN.

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| 7. A drawer having a front and a back made of wood, and having grooves spaced slightly above the lower edges thereof, metal sides for said drawer, said sides having the lower edge portion thereof bent upwardly to form grooves substantially in alignment with the grooves in said front and back, a drawer bottom having front, back and side edges adapted to enter the grooves in said front, back and sides, and means for securing said sides to said front after the edges of said bottom have been inserted in said grooves, whereby all of the parts of the drawer are secured together. | 70 |
| 8. A drawer having a front and a back made of wood, and having grooves spaced slightly above the lower edges thereof, metal sides for said drawer, said sides having the lower edge portion thereof bent upwardly to form grooves substantially in alignment with the grooves in said front and back, a drawer bottom having front, back and side edges adapted to enter the grooves in said front, back and sides, the upright portions of said sides having parts extending beyond said upwardly bent portions, and means for securing said parts of said upright portions to said front and back for securing all of the parts of the drawer together and for locking said bottom in said grooves. | 75 |
| 9. A drawer having a bottom of non-metallic material, and metallic sides provided at their lower edges with bent portions to form shoes on which the drawer may slide, and above said shoes with additional parts engageable lengthwise of and receiving the opposite faces of the side edges of the drawer bottom and for retaining the same in its operative position, all portions of said drawer being disposed so as to be supported by said bent shoe portions above the lower edges of the sides. | 80 |
| 10. A drawer having a front and back made of wood, and metal sides secured thereto and having flat upright portions terminating at their upper and lower edges in inwardly extending portions formed integral with said metal sides, said inwardly extending portions terminating at short distances from the front and rear ends of said sides whereby any drawer side can be interchangeably used on either side of the drawer, and whereby the front and rear edges of said inwardly extending portions engage the inner faces of said front and back, the end parts of the drawer sides which project beyond said inwardly extending portions being in the plane of said sides and bearing against and being secured to the side edges of the drawer front and back, so that the inner corners of said | 85 |
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