

Jan. 31, 1956

W. E. NORDMARK

2,733,111

EDGE BINDER FOR DESK TOP OR THE LIKE

Filed Feb. 21, 1955

3 Sheets-Sheet 1

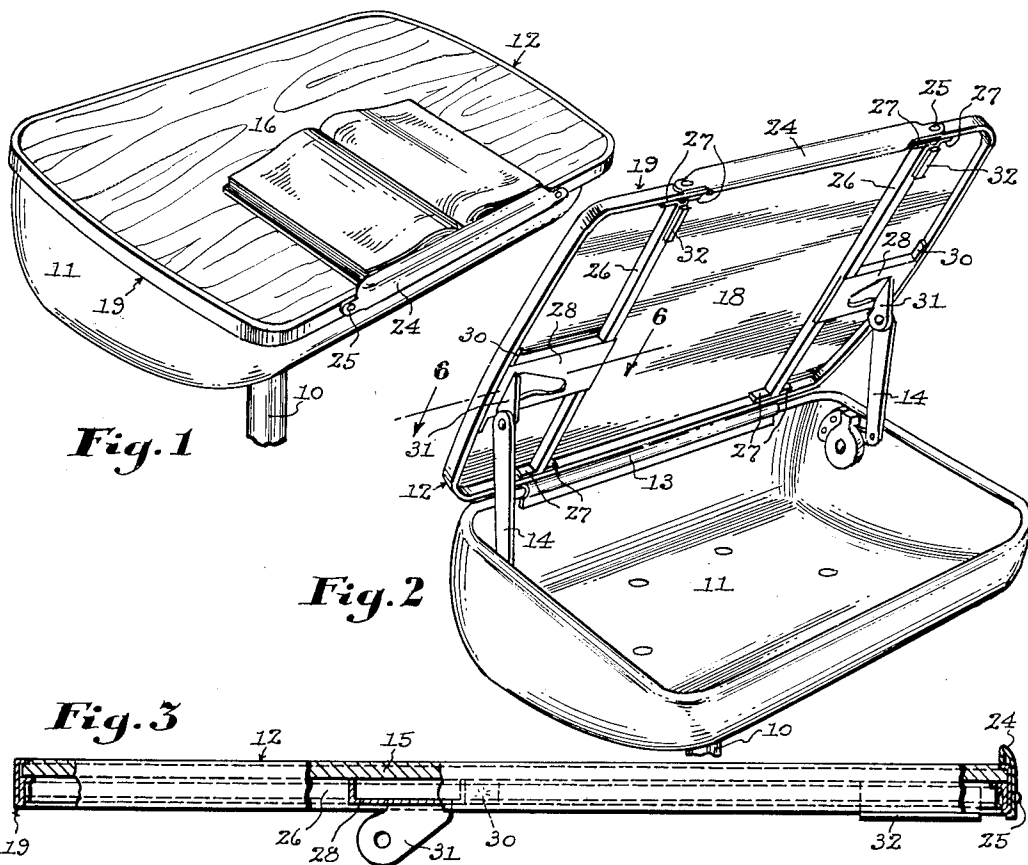


Fig. 2

Fig. 3

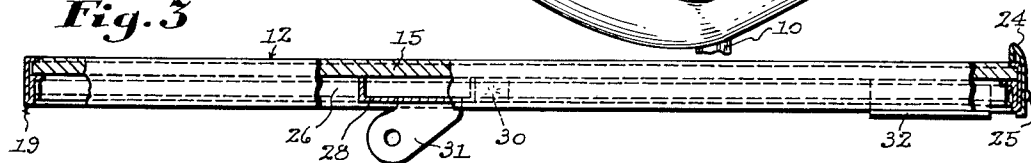
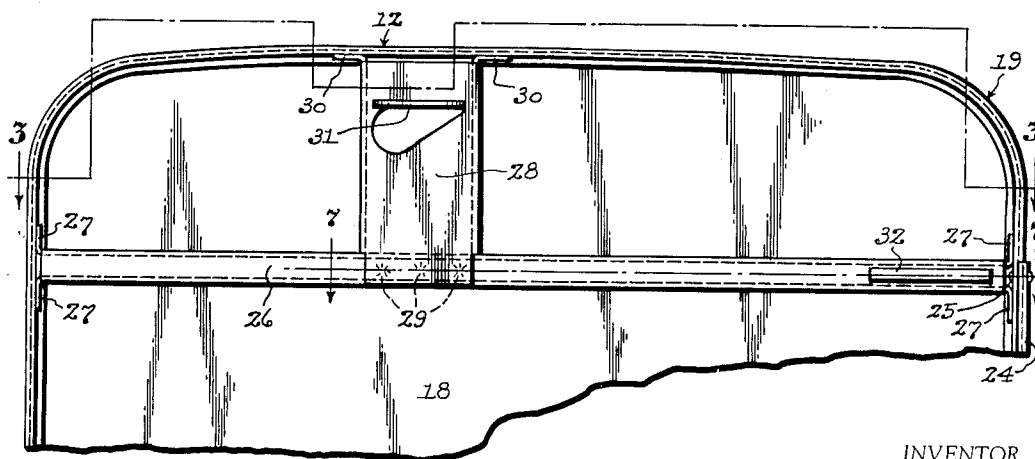


Fig. 4

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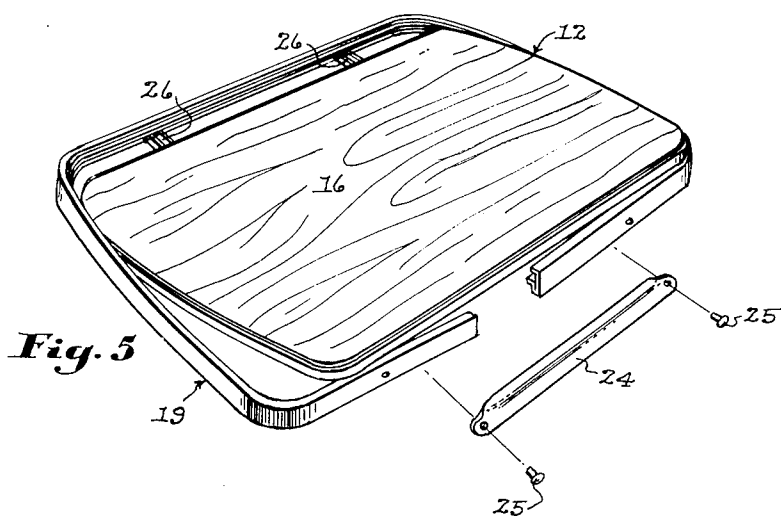
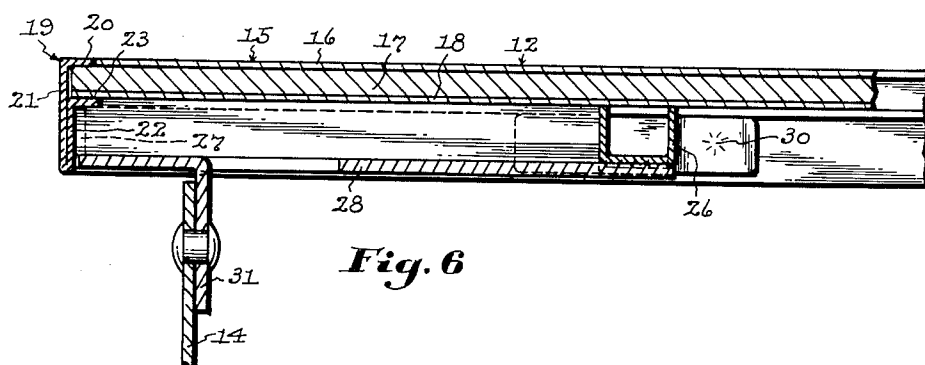
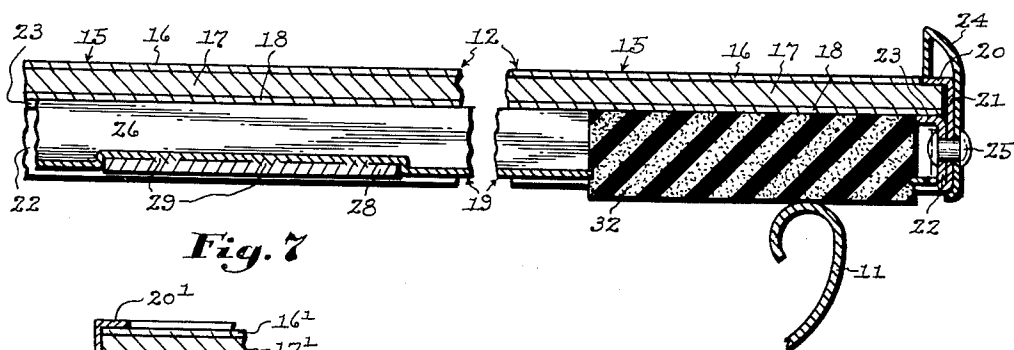
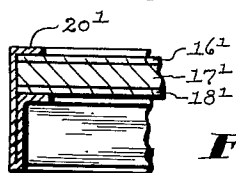
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EDGE BINDER FOR DESK TOP OR THE LIKE

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Fig. 9

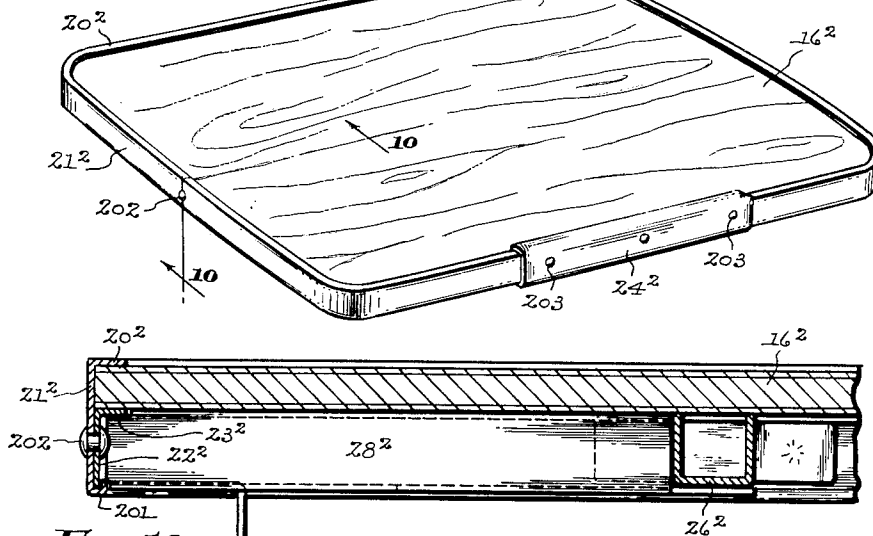


Fig. 10

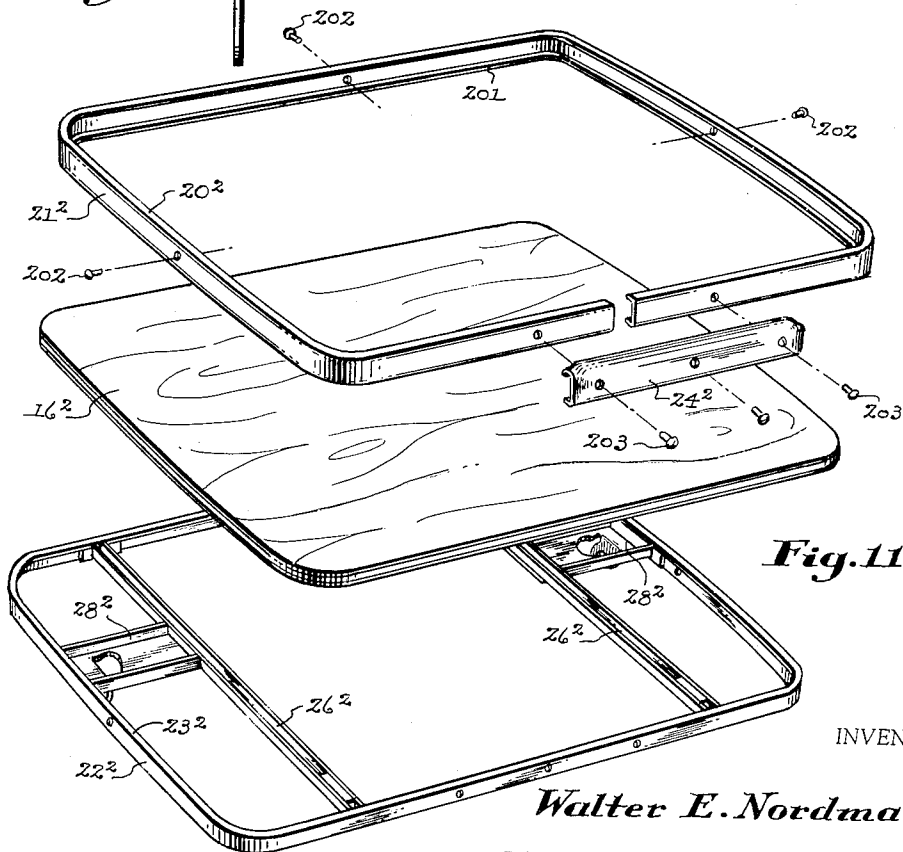


Fig. 11

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2,733,111

EDGE BINDER FOR DESK TOP OR THE LIKE

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Application February 21, 1955, Serial No. 489,449

10 Claims. (Cl. 311—107)

The present invention relates to desks or the like, and more particularly to an improved top for desks and tables of the type used in classrooms. This application is a continuation in part of my co-pending application Serial No. 339,353, filed February 27, 1953, now abandoned.

The primary objects of the invention are to provide a top for a desk or the like which is especially durable and resistant to disfigurement by accidents and vandalism which often occur in schools; to provide such a top which is exceptionally sturdy in construction; to provide such a top which lends itself well to production methods; and to provide such a top which is attractive in appearance.

Illustrative embodiments of the invention are shown in the accompanying drawings, wherein:

Figure 1 is a perspective view of a desk supporting column shown fragmentarily and having a desk box mounted on top of the column and a cover or top for the desk box constructed according to the present invention;

Figure 2 is a similar perspective view and showing the top in a raised position thus to illustrate in perspective the underside of the top;

Figure 3 is a left hand side elevational view of the top per se, shown partly in section taken on line 3—3 of Figure 4;

Figure 4 is a fragmentary bottom plan view of the left hand side of the top;

Figure 5 is a perspective view illustrating the method of assembling the several parts of the top;

Figure 6 is an enlarged fragmentary vertical sectional view of parts of the top taken on line 6—6 of Figure 2;

Figure 7 is an enlarged fragmentary vertical sectional view of parts of the top taken on line 7—7 of Figure 4;

Figure 8 is a fragmentary vertical sectional view showing a slightly modified construction of the top;

Figure 9 is a perspective view of a further modified form of top;

Figure 10 is a fragmentary vertical sectional view of the same taken on line 10—10 of Figure 9; and

Figure 11 is a perspective view of the modified form of top shown in Figures 9 and 10, the several parts of the top being here shown in disassembled relation.

Referring now in detail to these drawings wherein like parts are designated by the same numerals in the several views, and referring first particularly to Figures 1—7, the desk there illustrated has a vertical supporting column 10, here shown fragmentarily, which may be of any suitable height and which may have its lower end connected to any conventional type of supporting base (not shown). Mounted on the upper end of the support column 10 by suitable means is a desk box 11 of the type used in classrooms and adapted to contain books, supplies, etc.

The desk top is generally designated 12 and is hingedly connected at 13 to the upper front edge of the desk box (see Figure 2) so that the top may be lifted in the rear to give access to the desk box or lowered so that it closes the open top of the box and serves as a cover therefor. Other connections between the top 12 and the desk box 11 may be provided for cushioning the lowering move-

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ment of the top, such connections being generally designated 14 and not being described here in detail since they do not form a part of the present invention.

As here shown the desk top 12 comprises a flat panel 15 of generally rectangular shape and which is composed of three plied up sheets of material, the upper sheet 16 (see Figures 6 and 7) being of a plastic material and having its upper surface in simulation of natural wood, the middle sheet or core 17 being of a suitable composition such as resin-impregnated wood fibre, and the lower sheet 18 being also of a plastic material. The three sheets are bonded together by a suitable adhesive.

Extending around the peripheral edge of the panel 15 is a molding generally designated 19. This molding is formed of strip sheet metal stock which is bent longitudinally to form an inwardly extending upper flange 20 (see Figures 6 and 7) which engages the upper surface of the panel 15 along its marginal peripheral edge. The strip stock depends from the upper flange 20 to form an outer rim 21 extending well below the panel 15, is then bent upwardly to form an inner rim 22 flush against the outer rim 21 and secured thereto as by means of spot welding, and is finally bent inwardly from the upper edge of the inner rim 22 to form an inwardly extending lower flange 23 which engages the under surface of the panel 15 along its marginal peripheral edge.

The molding 19 extends across the front edge of the panel 15, rearwardly along the side edges of the panel, and the opposite end portions of the molding are then turned inwardly toward each other along the rearward edge of said panel 15. A connecting strip 24 has its opposite ends secured to said opposite end portions as by means of rivets 25 which extend through the strip 24 and through the inner rim 22 and outer rim 21 of the molding 19. The molding 19 is thus tightly secured in position on the panel 15. The connecting strip 24 extends above the upper rearward edge of the panel 15 and thus serves as a support for books or other articles as seen in Figure 1. This feature is particularly important in connection with desks having rearwardly-downwardly sloping tops.

Added rigidity is imparted to the desk top by means of a pair of parallel struts 26 of channel bar form, which have their opposite ends flanged outwardly to form tabs 27 which are secured as by means of spot welding to the opposite front and rear portions of the inner rim 22 of the molding 19. Brackets 28, likewise of channel bar form, each has its inner end secured to an intermediate portion of one of the struts 26 as by means of spot welding indicated at 29 in Figures 4 and 7. These brackets 28 extend laterally outwardly from the struts 26 and have their outer ends flanged to form tabs 30 which are secured as by means of spot welding to the opposite side portions of the inner rim 22 of the molding 19. The upper surfaces of the struts 26 and brackets 28 lie adjacent the underside of the panel 15 and thus these struts and brackets form a sturdy support for the panel. Lugs 31 are struck downwardly from the brackets 28 and are adapted for attachment to the connections 14 between the desk box and desk top.

Rubber bumpers 32 are inserted in openings through the struts 26 near the struts' rearward ends, and these bumpers contact the upper rearward edge of the desk box when the top is closed so as to deaden any noise which might occur when the top contacts the box at this point.

The desk top is assembled as illustrated in Figure 5. The frame comprising the molding 19, struts 26 and brackets 28 is prefabricated by spot welding, and is sufficiently springable to permit the rearward ends of the molding to be separated as shown. The panel 15 is then inserted into the molding's groove between the flanges 20 and 23, after which the connecting strip 24 is placed

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in position and the rivets 25 are set to complete the desk top.

As seen in Figures 1 through 7, the upper plastic sheet 16 of the panel 17 is of slightly smaller dimensions than the other sheets of the panel, so that the peripheral edge of the upper sheet 16 abuts the inner edge of the molding's upper flange 20 and the upper surfaces of said sheet 16 and flange 20 are thus in flush relation. In the slightly modified construction shown in Figure 8, the sheets 16¹, 17¹, and 18¹ are flush at the edges and the flange 20¹ overlaps the marginal edge of the upper sheet 16¹. Either construction presents a neat and attractive appearance.

In the modified form of the invention shown in Figures 9-11, the outer rim 21² and inner rim 22² are separate elements. The outer rim 21² has an inwardly extending peripheral flange 20² at its upper edge, while the inner rim 22² has a peripheral flange 23² at its upper edge which extends inwardly below the flange 20². The inner rim is preassembled to the parallel channel struts 26² and to the channel brackets 28² as by welding to form a steel supporting frame as best seen in Figure 11, with the struts 26² spanning the frame. In assembling the composite top, the laminated top panel 16² is placed over this steel frame after which the outer rim 21², which is desirably of decorative metal such as aluminum or stainless steel, is wrapped around the inner rim 22² and the marginal edge of the top panel 16², thus clamping the top panel between the spaced flanges 20² and 23² of the outer rim 21² and the inner rim 22² respectively. The lower edge 201 of the outer rim is then crimped around the lower edge of the inner rim as seen in Figure 10, and the outer rim and inner rim are then secured together as by means of rivets 202. The connecting strip 24² which forms a book support is finally secured in position overlying the juxtaposed ends of the outer rim, as by means of rivets 203.

It will thus be seen that the invention provides a sturdy, durable and handsome top for a desk or the like, and while but several specific embodiments of the invention have been herein shown and described, it will be understood that details of construction thereof may be altered or omitted without departing from the spirit of the invention as the same is defined by the following claims.

I claim:

1. A top for a desk or the like, comprising: a flat panel; a supporting frame for the panel comprising an inner rim having an inwardly extending flange at its upper edge in flush engagement with the under surface of said panel along its marginal peripheral edge, and a strut spanning the supporting frame and having its upper surface lying adjacent the underside of said panel; and an outer rim secured to the inner rim and having an inwardly extending flange at its upper edge in flush engagement with the upper surface of said panel along its marginal peripheral edge.

2. A top for a desk or the like, comprising: a flat panel having a sheet of plastic material simulating wood bonded to the upper surface thereof; a supporting frame for the panel comprising an inner rim having an inwardly extending flange at its upper edge in flush engagement with the under surface of said panel along its marginal peripheral edge, and a strut spanning the supporting frame and having its upper surface lying adjacent the underside of said panel; and an outer rim secured to the inner rim and having an inwardly extending flange at its upper edge in flush engagement with the upper surface of said panel along its marginal peripheral edge.

3. A top for a desk or the like, comprising: a flat panel; a supporting frame for the panel comprising an inner rim having an inwardly extending flange at its upper edge in flush engagement with the under surface of said panel along its marginal peripheral edge, and a strut spanning the supporting frame and having its upper

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surface lying adjacent the underside of said panel; and an outer rim secured to the inner rim and having an inwardly extending flange at its upper edge in flush engagement with the upper surface of said panel along its marginal peripheral edge and having its lower marginal edge curled around the lower peripheral edge of said inner rim.

4. A top for a desk or the like, comprising: a flat panel; a supporting frame for the panel comprising an inner rim having an inwardly extending flange at its upper edge in flush engagement with the under surface of said panel along its marginal peripheral edge, and a strut spanning the supporting frame and having its upper surface lying adjacent the underside of said panel; an outer rim wrapped around the inner rim and having an inwardly extending flange at its upper edge in flush engagement with the upper surface of said panel along its marginal peripheral edge; and a connecting strip overlying the juxtaposed ends of the outer rim and secured thereto.

5. A top for a desk or the like according to claim 4 characterized by having the ends of the outer rim brought into juxtaposition at the rear of the desk top and by having the overlying connecting strip extending above the upper surface of the panel for serving as a book-support.

6. A top for a desk or the like, comprising: a flat panel; a supporting frame for the panel comprising an inner rim having an inwardly extending flange at its upper edge in flush engagement with the under surface of said panel along its marginal peripheral edge, and a strut spanning the supporting frame and having its upper surface lying adjacent the underside of said panel; and an outer rim secured to the inner rim and having an inwardly extending flange at its upper edge in flush engagement with the upper surface of said panel along its marginal peripheral edge; said supporting frame being fabricated from steel parts welded together and said outer rim being of a decorative character.

7. A top for a desk or the like, comprising: a flat panel; an outer rim having an inwardly extending flange at its upper edge in flush engagement with the upper surface of said panel along its marginal peripheral edge; an inner rim flush against said outer rim and having an inwardly extending flange at its upper edge in flush engagement with the under surface of said panel along its marginal peripheral edge; a pair of parallel struts having their opposite ends secured to opposite portions of said inner rim; a pair of brackets each having its inner end secured to an intermediate portion of one of said struts and extending laterally outwardly therefrom and having its outer end secured to said inner rim, the upper surfaces of said struts and brackets lying adjacent the underside of said panel whereby the struts and brackets form a support for the panel.

8. A top for a desk or the like, comprising: a flat panel; an outer rim having an inwardly extending flange at its upper edge in flush engagement with the upper surface of said panel along its marginal peripheral edge; an inner rim flush against said outer rim and having an inwardly extending flange at its upper edge in flush engagement with the under surface of said panel along its marginal peripheral edge; a pair of parallel struts having their opposite ends secured to opposite portions of said inner rim; a pair of brackets each having its inner end secured to an intermediate portion of one of said struts and extending laterally outwardly therefrom and having its outer end secured to said inner rim, the upper surfaces of said struts and brackets lying adjacent the underside of said panel whereby the struts and brackets form a support for the panel; and means depending from said brackets adapted for connection to said desk or the like.

9. A top for a desk or the like, comprising: a flat panel; a molding disposed around the peripheral edge of said panel, said molding comprising strip stock bent longitudinally to form an inwardly extending upper flange in

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flush engagement with the upper surface of said panel along its marginal peripheral edge and an outer rim depending from said upper flange below said panel, said strip being bent upwardly from the lower edge of said outer rim to form an inner rim flush against said outer rim, and said strip being bent inwardly from the upper edge of said inner rim to form an inwardly extending lower flange in flush engagement with the under surface of said panel along its marginal peripheral edge; a pair of parallel struts having their opposite ends secured to opposite portions of said inner rim; a pair of brackets each having its inner end secured to an intermediate portion of one of said struts and extending laterally outwardly therefrom and having its outer end secured to said inner rim, the upper surfaces of said struts and said brackets lying adjacent the underside of said panel whereby the struts and brackets form a support for the panel.

10. A top for a desk or the like, comprising: a flat panel; a molding disposed around the peripheral edge of said panel, said molding comprising strip stock bent longitudinally to form an inwardly extending upper flange in flush engagement with the upper surface of said panel along its marginal peripheral edge and an outer rim depending from said upper flange below said panel, said strip being bent upwardly from the lower edge of said outer rim to form an inner rim flush against said outer rim, and said strip being bent inwardly from the upper

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edge of said inner rim to form an inwardly extending lower flange in flush engagement with the under surface of said panel along its marginal peripheral edge; a pair of parallel struts having their opposite ends secured to opposite portions of said inner rim; a pair of brackets each having its inner end secured to an intermediate portion of one of said struts and extending laterally outwardly therefrom and having its outer end secured to said inner rim, the upper surfaces of said struts and said brackets lying adjacent the underside of said panel whereby the struts and brackets form a support for the panel; and means depending from said brackets adapted for connection to said desk or the like.

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