

Sept. 9, 1958

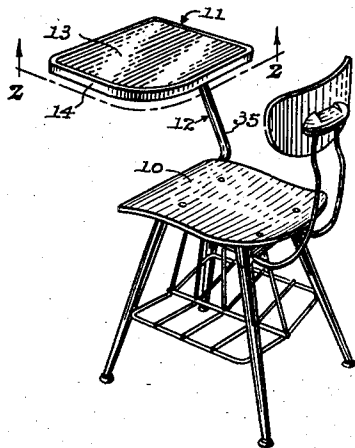
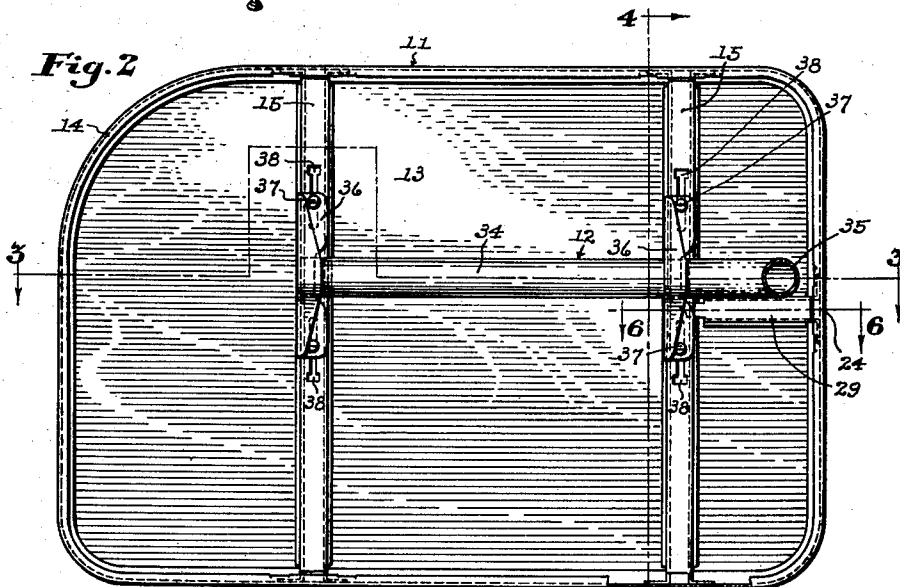
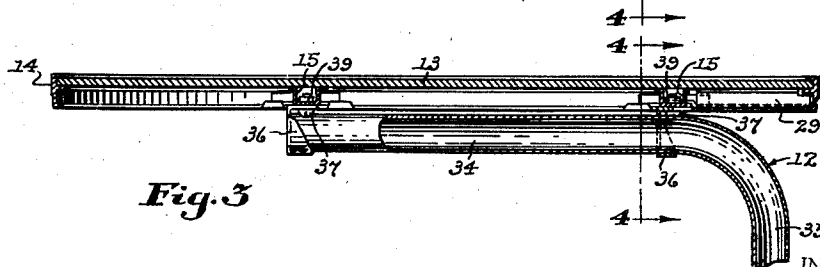
E. BRAAL ET AL

2,851,323

METAL BANDED TOP FOR A DESK OR THE LIKE

Filed Nov. 14, 1957

2 Sheets-Sheet 1



WITNESS

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2 Sheets-Sheet 2

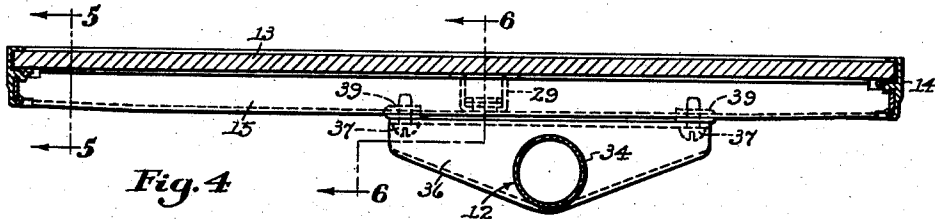


Fig. 4

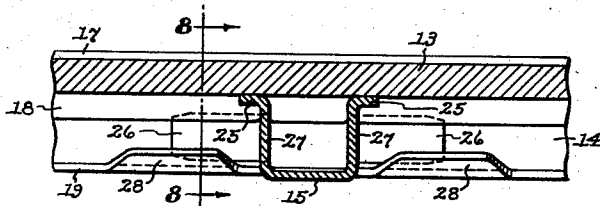


Fig. 5

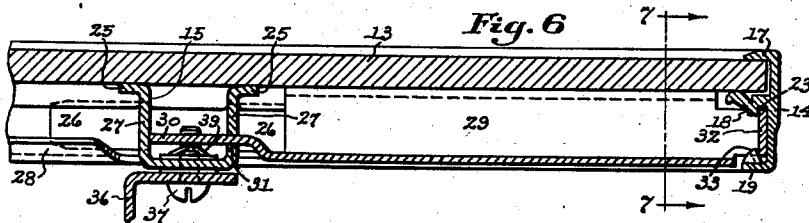


Fig. 6

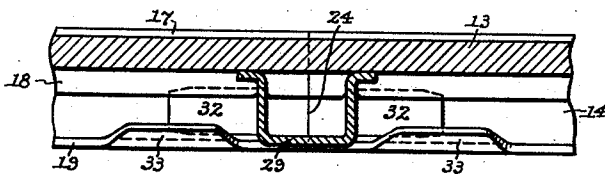


Fig. 7

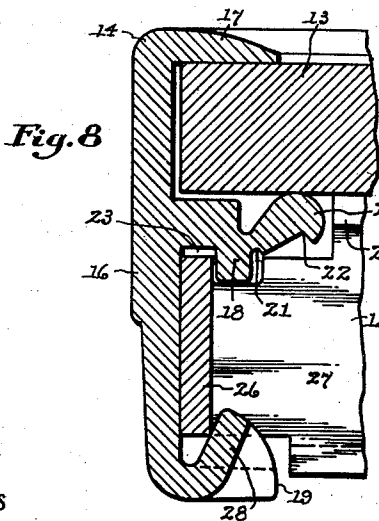


Fig. 8

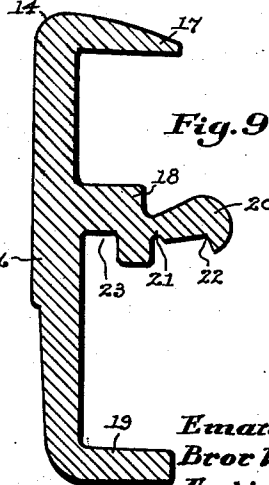


Fig. 9

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METAL BANDED TOP FOR A DESK OR THE LIKE

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12 Claims. (Cl. 311—107)

The present invention relates to a top construction for desks, tables and the like.

The primary objects of the invention are to provide a top construction in which a relatively thin, flat, plastic laminate panel provides the work surface for the desk top, the panel being banded by a molding or rim which serves both decorative and structural requirements; to provide such a top construction which is especially well adapted for use in connection with classroom units of the combination chair-desk type; and in general to provide such a top structure which is rugged and durable in use, reasonably economical in manufacture and attractive in appearance.

An illustrative embodiment of the invention is shown in the accompanying drawings, wherein:

Figure 1 is a side and rear perspective view of a combination chair-desk unit embodying the top construction of this invention;

Figure 2 is an enlarged horizontal sectional view, looking up, taken on line 2—2 of Figure 1 and showing the desk top in bottom plan;

Figure 3 is a fragmentary vertical sectional view of the same taken on line 3—3 of Figure 2;

Figure 4 is an enlarged vertical sectional view thereof taken on lines 4—4 of Figures 2 and 3;

Figure 5 is a further enlarged fragmentary vertical sectional view of parts thereof, taken on line 5—5 of Figure 4;

Figure 6 is a similarly enlarged fragmentary vertical sectional view of other parts, taken on line 6—6 of Figure 4;

Figure 7 is a fragmentary vertical sectional view taken on line 7—7 of Figure 6;

Figure 8 is a greatly enlarged fragmentary vertical sectional view taken on line 8—8 of Figure 5; and

Figure 9 is a sectional view of the extruded molding or rim of the structure prior to its assembly with the top panel.

Referring now in detail to these drawings, the combination chair-desk shown in Figure 1 generally comprises a chair 10 and a desk top 11 mounted on the chair by means of a tubular metal supporting arm 12 secured as by welding to the metal frame of the chair 10.

The top 11 generally comprises a flat top panel 13 which is desirably made of a plastic laminate and which provides a work surface for the unit, a rim 14 which is desirably made of extruded aluminum, and spaced parallel struts 15 spanning the rim 14 beneath the top panel 13 in supporting relation thereto.

The extruded edge molding or rim 14 is shown per se in greatly enlarged vertical section in Figure 9. This view shows the molding as it is initially extruded and prior to its assembly with the other parts of the top structure. It comprises an outer wall 16 and three inwardly extending flanges, a top flange 17, middle flange 18 and bottom flange 19. The top flange 17 is initially extruded with an inward-downward slope as seen in Fig-

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ure 9. The middle flange 18 has along its inner edge a bead 20 having a weakened connection 21 with the middle flange 18. A recess 22 is provided along the underside of the bead 20 for the insertion of a crimping tool. The middle flange 18 also has a downwardly opening groove 23 adjacent the rim's outer wall 16, the purpose of which is hereinafter fully described.

When the top is assembled, the rim 14 surrounds the top panel 13 as shown in Figure 2 with the ends of the rim abutting at 24. (See also Figure 7.) The marginal peripheral edge of the top panel 13 is engaged between the rim's top flange 17 and middle flange 18. The top flange 17 is sprung upwardly so that its inner edge snugly engages the upper surface of the top panel. To insure this snug fit and to compensate for inevitable slight variations in the thicknesses of top panels 13 for different units, the bead 20 is crimped upwardly at intervals into tight engagement with the under surface of the top panel 13 by means of a suitable crimping tool inserted in the bead's recess 22. The top panel 13 shown in Figure 8 is slightly under the optimum dimensional thickness, but it will be seen that the crimping of the bead 20 nevertheless insures a snug fit of the parts.

The spaced parallel struts 15 span the closed rim 14 from front to rear, the opposite ends of the struts being secured to the rim between the rim's middle flange 18 and bottom flange 19. The struts 15 are of inverted hat section and the outwardly extending horizontal upper flanges 25 of the struts engage the under surface of the top panel 13 in supporting relation thereto. (See Figure 6.) The opposite ends of the struts 15 have vertical tabs 26 extending outwardly from the side walls 27 of the struts. The upper edges of the tabs 26 are seated in the groove 23 of the rim 14, and the bottom flange 19 of the rim is crimped upwardly at 28 in the regions of the tabs thus to secure the lower edges of the tabs to the rim.

An auxiliary strut 29, likewise of inverted hat section, extends between one of the main struts 15 (the left-hand strut 15 as seen in Figures 2 and 3) and the ends of the rim 14 which abut at 24. The inner end of the auxiliary strut 29 has a tab 30 extending through a slot 31 in the side wall 27 of the adjacent strut 15 for securing this inner end of the auxiliary strut 29 to said strut 15. The outer end of the auxiliary strut 29 has vertical tabs 32 the upper edges of which are seated in the rim's groove 23 and the lower edges of which are secured to the rim 14 by crimping the rim's bottom flange 19 at 33 in the regions of the tabs 32. By this means the abutting ends of the rim 14 are securely anchored so that they cannot be pried loose from the top panel 13.

The desk top 11 is secured to a suitable supporting structure—in this case the frame of the chair 10—by means of the supporting arm 12 which is fabricated of metal tubing bent to provide a horizontal portion 34 and a vertical portion 35. The horizontal portion 34 extends between and is secured as by welding to hanger brackets 36 which are secured to the undersides of the struts 15 by means of bolts 37 which extend upwardly through T-slots 38 in the struts and have nuts 39 on their upper ends. The slots 38 are forwardly-rearwardly elongated so that the top 11 can be forwardly-rearwardly adjusted on the supporting structure prior to tightening of the bolts 37 and nuts 39. The top can thus be positioned relative to the chair 10 to suit varying requirements. The vertical portion 35 of the supporting arm 12 depends from the desk top at one side thereof and is adapted for attachment at its lower end to the frame of the chair 10.

It will thus be seen that the invention provides a top construction for a desk or the like which is sturdy, durable and attractive, and while but one specific embodiment of the invention has been herein shown and described it

will be understood that numerous details may be altered or omitted without departing from the spirit of the invention as defined by the following claims.

We claim:

1. A top for a desk or the like, comprising: a flat top panel; a rim having inwardly extending top, middle and bottom flanges, said rim surrounding said top panel with the marginal peripheral edge of the panel engaged between the top and middle flanges of the rim; and a strut spanning the rim beneath the top panel and engaging the under surface of the top panel in supporting relation thereto, the opposite ends of said strut being secured to the rim between the middle and bottom flanges of the rim.

2. A top for a desk or the like according to claim 1 in which the rim's top flange is initially provided with an inward-downward slope and is sprung upwardly in the assembled condition of the members so that its inner edge snugly engages the upper surface of the top panel.

3. A top for a desk or the like according to claim 1 in which the rim's middle flange has along its inner edge a bead crimped upwardly at intervals into tight engagement with the under surface of the top panel.

4. A top for a desk or the like according to claim 3 in which the bead's connection to the rim's middle flange is weakened to facilitate crimping of the bead.

5. A top for a desk or the like according to claim 4 in which the bead is provided with a recess along its underside for the insertion of a crimping tool.

6. A top for a desk or the like according to claim 1 in which the opposite ends of the strut have outwardly extending vertical tabs engaged between the middle and bottom flanges of the rim, the middle flange of the rim having a downwardly opening groove for the reception and retention of the upper edges of said tabs, and the bottom flange of the rim being crimped upwardly in the regions of the tabs to secure the lower edges of the tabs to the rim.

7. A top for a desk or the like, comprising: a flat top panel; a rim having inwardly extending top, middle and bottom flanges, said rim surrounding said top panel with the marginal peripheral edge of the panel engaged between the top and middle flanges of the rim; and spaced parallel struts spanning the rim beneath the top panel and engaging the under surface of the top panel in supporting relation thereto, the opposite ends of said struts being secured to the rim between the middle and bottom flanges of the rim.

8. A top for a desk or the like according to claim 7 in which the spaced parallel struts span the rim in a forwardly rearwardly direction and are provided on their undersides with laterally aligned hanger brackets, and a supporting arm having a horizontal portion extending between and secured to said hanger brackets and a vertical portion depending from the desk top at one side thereof

and adapted for attachment at its lower end to a suitable supporting structure.

9. A top for a desk or the like according to claim 8 in which the supporting arm comprises a length of metal tubing bent to provide the horizontal and vertical portions thereof.

10. A top for a desk or the like according to claim 8 in which the spaced parallel struts are forwardly-rearwardly adjustable on the hanger brackets so that the top can be adjusted forwardly-rearwardly relative to the supporting structure.

11. A top for a desk or the like, comprising: a flat top panel; an extruded rim having inwardly extending top, middle and bottom flanges, said rim surrounding said top panel with the marginal peripheral edge of the panel engaged between the top and middle flanges of the rim, said top flange being initially extruded with an inward-downward slope and being sprung upwardly in the assembled condition of the members so that its inner edge snugly engages the upper surface of the top panel, and said middle flange having along its inner edge a bead crimped upwardly at intervals into tight engagement with the under surface of the top panel; spaced struts of inverted hat section spanning the rim beneath the top panel with the outwardly extending horizontal upper flanges of the struts engaging the under surface of the top panel in supporting relation thereto, the opposite ends of said struts having vertical tabs extending outwardly from the side walls of the struts and engaged between the middle and bottom flanges of said rim, the middle flange of the rim having also a downwardly opening groove for the reception and retention of the upper edges of said tabs, and the bottom flange of the rim being crimped upwardly in the regions of the tabs to secure the lower edges of the tabs to the rim.

12. A top for a desk or the like according to claim 11 wherein an auxiliary strut of inverted hat section extends between one of the main struts and the abutting ends of said rim, the outer end of said auxiliary strut having vertical tabs extending outwardly adjacent said abutting ends respectively, the upper edges of said tabs being retained in said groove, and the rim's bottom flange being crimped upwardly in the regions of the tabs to secure the lower edges of the tabs to the rim.

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