March 12, 1929. E. J. CARD 1,705,152

BINDING MEANS FOR THE SURFACE COVERINGS OF FURNITURE

Filed Aug. 28, 1924

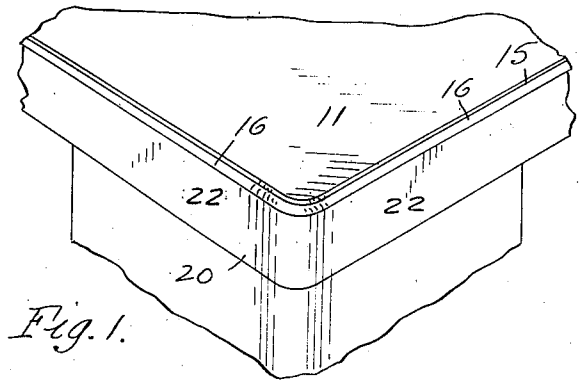


Fig. 1.

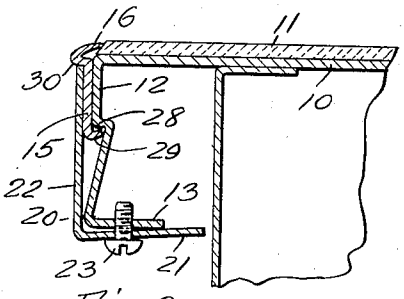


Fig. 2.

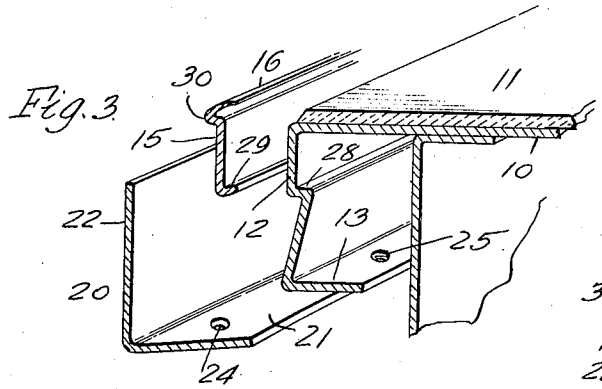


Fig. 3.

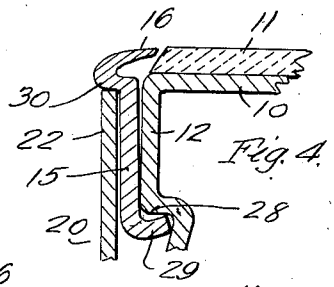


Fig. 4.

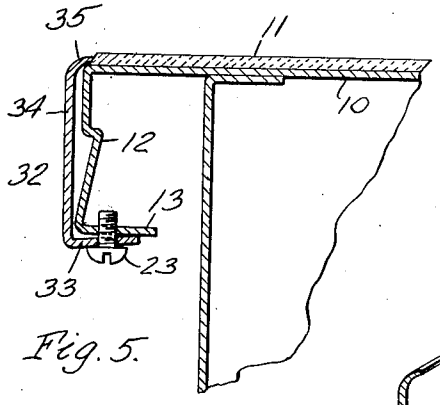


Fig. 5.

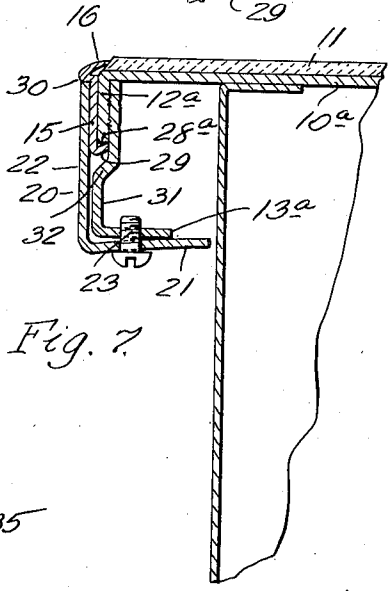


Fig. 7.

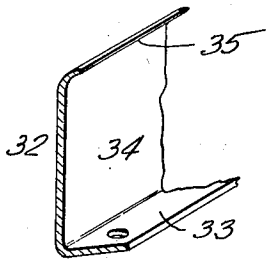


Fig. 6.

INVENTOR.
Earl J. Card,
by Parker, Prickett & Bean.
ATTORNEYS.

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UNITED STATES PATENT OFFICE.

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

BINDING MEANS FOR THE SURFACE COVERINGS OF FURNITURE.

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This invention relates to improvements in binding means which are used to protect and secure the edges of surface or cover sheets for desks, tables and other articles of furniture, such as the sheets of linoleum or the like commonly used to cover the tops of metal desks and tables. More particularly the invention relates to such binding means which are provided with a detachable or separate binding strip adapted to engage, secure and protect the edges of said cover sheet.

Some of the binding constructions heretofore proposed for this purpose have been more or less impractical, for instance in some cases one or more of the members of the article of furniture cooperating with the binding device or members was or were formed or connected in such manner as to make it difficult to apply or fit the binding device or members, requiring very exact work in production and if a slight imperfection or inaccuracy occurred, the structure could not be assembled, and no opportunity was allowed for slight adjustments to overcome such inaccuracies.

One of the objects of the present invention is to construct an improved binding structure for the surface covering sheets, of articles of furniture so that the binding strip or member may be readily and accurately fitted to suit the conditions of the article of furniture and cover sheet and so that the side portions or edges of the covered parts are exposed and accessible to enable this to be done before the binding device is completely assembled. Other objects are to provide a structure of this sort in which a fixed part of the article of furniture is provided with a holding portion cooperating with a holding part on the binding strip to retain the strip in place against unintentional displacement after the structure has been assembled; also to provide a detachable clamping and retaining member adapted to be attached to the rigid top member or part of the article of furniture in such a way that when secured in place it will engage and force the binding strip or member inwardly firmly against the edge of the cover sheet and at the same time securely clamp the strip between said clamping member and the edge of said top or part, and also to improve structures of this sort in the other respects hereinafter specified and claimed.

In the accompanying drawings,

Fig. 1 is a perspective view of a corner of a desk top and cover sheet therefor provided with binding means for securing and protecting the edges of the cover sheet, said means being constructed in accordance with one embodiment of this invention.

Fig. 2 is a transverse vertical section of the binding structure and top.

Fig. 3 is a perspective view showing the parts of the top, binding strip and securing member therefor in relative positions for assembling.

Fig. 4 is a sectional view similar to Fig. 2, showing the parts before the securing member has been tightened up to clamp the binding strip.

Fig. 5 is a transverse sectional elevation of a modified construction of the cover sheet binding means.

Fig. 6 is a sectional perspective view of the binding member shown in Fig. 5.

Fig. 7 is a transverse sectional elevation showing a slightly modified form of the top member.

A metal top plate of a desk or other article of furniture is shown at 10, and 11 represents a cover sheet or plate of linoleum or other suitable material which is secured thereon and forms the top surface of the desk or other top. The top plate 10 is provided at each exposed edge thereof with an integral depending marginal flange 12 and an inwardly directed horizontal flange 13 formed at the lower edge of the flange 12 and extending beneath the top plate 10. 15 represents a binding or securing and protecting strip or member preferably stamped from bronze or other suitable metal, and which is adapted to lie against or engage a portion of the outer face of the depending flange 12 of the top plate 10 and is provided at one edge with the inwardly extending overhanging lip 16 adapted to engage the edge of the cover sheet 11.

Except as disclosed in Figs. 5 and 6, a separate, detachable securing member 20 is provided which is adapted to be secured to the rigid marginal flange or part of the top plate 10 and engages the binding strip 15 and forces the lip 16 tightly against the edge of the cover sheet 11, and clamps the body of the strip firmly against the marginal flange 12 of the top plate. This securing member 20, in the two constructions shown in Figs. 1 to 4 and 7, is formed of a sheet metal section having a substantially horizontal attaching flange 21 adapted to engage and be removably

secured to the under side of the inturned flange 13 of the top, and a vertical flange 22 extending upwardly therefrom so as to engage the outer face of the binding strip. The member 20 may be releasably secured to the flange 13 in any suitable manner but is preferably secured by screws 23 which pass through holes 24 in the attaching flange 21 and enter threaded holes 25 in the flange 13.

As clearly shown in Figs. 2, 4 and 7 the angle between the attaching flange 21 and the vertical flange 22 of the securing member is slightly less than 90°, so that the flange 21, instead of extending parallel with the flange 13 engages it at a distance inwardly from the face of the flange 12. The securing member 20 thus fulcrums on the flange 13, so that, when the screws 23 are tightened, the top edge of the vertical flange 22 is moved inwardly towards the binding member 15. The member 20 will therefore be pressed or forced tightly against and clamp the binding strip 15 securely in place and provide a firm engagement of the lip 16 against the edge of the cover sheet 11. Figs. 2 and 4 clearly illustrate this action by the relative positions of the binding strip 15 and securing member 20.

Means are provided in the construction illustrated in Figs. 1—4, and 7 whereby the binding strip is maintained in fixed relation to the top plate and is prevented from edgewise movement between the flange 12 and securing member 20. For this purpose as shown in Figs. 2 to 4, the marginal flange 12 of the top plate is formed or provided between its upper and lower edges with an inwardly extending or undercut shoulder 28 and the binding strip 15 is provided with an integral narrow flange 29 which extends inwardly from its lower edge and is adapted to engage under the shoulder 28. The flange 29 preferably extends upwardly at a slight angle or at an acute angle to the body of the strip so that its outer edge only engages the shoulder 28 inwardly beyond the outer face of the flange 12, and the binding strip is further provided with an outwardly offset bead or portion integral with the upper lip 16 which forms a shoulder 30 adapted to overhang and be engaged by the top edge of the upright flange 22 of the securing member so that as the securing screws 23 are tightened up, the slight upward movement of the flange 22 raises the binding strip and draws its flange 29 tightly against the shoulder 28 and also tends to swing the upper edge or lip 16 inwardly, tight against the cover sheet 11. In the construction shown in Figs. 2 to 4, the shoulder 28 is pressed or rolled directly in the flange 12, while in the modified form illustrated in Fig. 7, the flange 12^a of the top 10^a terminates a short distance below the top and forms the shoulder 28^a and a separate angle strip 31 having an offset inclined portion 32 and a bottom flange 13^a is rigidly secured to the inner wall of the flange 12^a as by spot-welding or otherwise. In other respects this construction is similar to the first construction.

The described construction of the binding or securing and protecting means providing a separate binding strip with a lip adapted to interlock with a shoulder on the rigid top, and a separate detachable securing strip adapted to be secured to the rigid top and forced inwardly by its securing devices, provides a strong, durable and firm construction adapted to firmly engage and hold the edge of the cover sheet in place. Also the provision of the separate securing member enables the binding strip to be fitted and adjusted to the particular conditions of the top plate and cover sheet, as the side edges of the top are unobstructed and accessible. After the binding strip has been fitted, the securing member is positioned and attached by the screws to the lower flange 13 and by tightening these screws the securing member is pressed tightly and forcibly against the binding strip at the upper portions of the member and strip. The binding strip is then held firmly between the flanges 12 and 17 and is maintained from edgewise movement or disengagement by the engagement of the flange 29 with the shoulder 28 and the shoulder 30 with the upper edge of the flange 22.

While the securing member 20 is adapted to securely hold the binding strip 15 in place and maintain its lips 16 in firm engagement with the edge of the covering sheet 11 while the screws 23 are tightened, it nevertheless permits the ready removal of the binding strip when desired, by simply loosening the screws 23. The member 20 does not have to be detached from the flange 13 as the loosening of the screws permits the flange 22 of the member to fall away from the edge of the top member sufficiently to free the binding strip flange 29 from beneath the shoulder 28.

The modified construction shown in Figs. 5 and 6 provides an inexpensive but desirable structure. In this form instead of the separate binding strip 15 and clamping strip 20 before described, a single piece combined securing and binding strip or member is substituted, in the form of an angle bar 32 having a bottom securing flange 33 adapted to be attached to the flange 13 by screws 23 as before, and having an upright side flange 34 which is provided with an inturned lip 35 at its upper edge adapted to engage with the edge of the cover sheet 11.

The flange 33 extends upwardly and inwardly at a slight angle as in the other construction described, and the tightening of the screws 23 forces the lip 35 inwardly tightly against the edge of the cover sheet.

If, as shown in Fig. 1, the corners of the desk top or other surface are rounded, the

binding means is preferably formed of continuous strips for the parts 15 and 20 which are bent on arcs of short radius at the corners, and the two ends of each strip abut between two of the corners, for instance on the back edge of the desk top. Should the corners of the article be square the binding means would be applied in the form of separate strips for each edge, with the ends of the strips mitered and abutting.

I claim as my invention:

1. The combination with a wall of an article of furniture and a surface covering for the same, said article having a part extending inwardly from the edge of said wall, of a member adapted to extend along the edge of said wall and having an inwardly extending portion adapted to fulcrum against said part of the article at a distance inwardly from the edge of said wall, attaching means for securing said member to said article and adapted to move said member about said fulcrum to force said member inwardly towards the edge of said wall, and a binding part adapted to be pressed forcibly against the edge of said surface covering by said inward movement of said member.

2. The combination with a top member of an article of furniture and a surface covering for the same, said top having a downwardly facing part extending inwardly from its edge, of a member adapted to extend along the edge of said top and having an inwardly extending portion adapted to fulcrum against the face of said downwardly facing part at a distance inwardly from the edge of said top, attaching means for securing said inwardly extending portion to said part and adapted to move said member about said fulcrum to force said member inwardly towards the edge of said top, and a binding part extending along the edge of said top and adapted to be pressed forcibly against the edge of said surface covering by said inward movement of said member.

3. The combination with a sheet metal top plate of an article of furniture and a surface covering for the same, said top plate having a depending marginal flange from which extends an inwardly directed portion spaced a distance below the covered portion of said plate, of a member adapted to extend along the edge of said top plate and having an inwardly extending flange adapted to fulcrum on said inwardly directed portion of said marginal flange, attaching means for securing said flange of said member thereto and adapted to move said member about said fulcrum to force said member inwardly towards said marginal flange of said top plate, and a binding part extending along the edge of said top and adapted to be pressed forcibly against the edge of said surface covering by said inward movement of said member.

4. The combination with a top member of an article of furniture having an upright marginal edge, and a surface covering for said top member, of a shoulder on said marginal edge, a binding strip having a flange arranged to engage under said shoulder, and a lip arranged to engage the edge of said surface covering, a securing member carried by said top member, and clamping means disposed below and inwardly from said marginal edge and cooperating with said securing member, said securing member being moved by the actuation of said clamping means to engage said binding strip with said shoulder and force the binding strip against the edge of said surface covering.

5. In an article of furniture, the combination with a top plate and a surface covering therefor, of a depending marginal flange on said top plate having an inwardly extending flange at its lower edge, a separable binding strip having a lip adapted to engage and protect the edge of said surface covering and a portion adapted to engage said marginal flange, a securing member having a lateral flange and an upright flange, and attaching means for securing said lateral flange to said inwardly extending top flange and forcing said upright flange against said binding strip to engage said lip thereon with the edge of said covering by the tightening up of said attaching means.

6. The combination with a metal plate and a surface covering therefor, of a marginal edge wall on said plate having a lateral flange extending inwardly therefrom, a binding edge adapted to engage the edge of said surface covering to bind and protect the same, a member extending along said edge wall and having a lateral flange engaging said first mentioned lateral flange so as to leave a space between the outer portions of their adjacent faces, screw devices extending through said flanges across said space for attaching said member to said first mentioned flange, said screw devices when tightened being adapted to draw said flanges towards each other and move said member to force said binding edge against said edge of said surface covering.

7. The combination with a top member of an article of furniture having a depending marginal flange, and a surface covering for said top member, of a shoulder on said flange, a binding strip having an inwardly directed flange extending along one edge thereof and adapted to engage said shoulder, an outwardly directed shoulder and an inwardly extending lip at the other edge thereof, said lip adapted to engage the edge of said surface covering, a securing member, and means for detachably securing the same to a part of said top member, said securing member having a part adapted to engage said shoulder on said binding strip and draw said edge flange against said shoulder on said marginal

flange and force said lip against the edge of said surface covering.

8. The combination with a top member of an article of furniture having a depending marginal flange, and a surface covering for said top member, of a shoulder on said flange, a binding strip having an inwardly and upwardly directed flange extending along one edge thereof and an outwardly directed shoulder and an inwardly extending lip at the other edge thereof, a securing member removably attached to a part of said top member and having a part adapted to engage said shoulder of the binding strip to force said edge flange upwardly against said shoulder on said top member and said lip inwardly against the edge of said surface covering.

9. The combination with a wall of an article of furniture and a surface covering for the same, said wall having an inturned edge portion spaced from the covered portion thereof, of a binding strip having a part extending along the edge of said wall, a lip on said strip adapted to engage the edge of said surface covering, a securing member having an inwardly extending part which fulcrums on said inturned edge portion of said wall at a distance from the edge of the wall, said member also having a part extending at an angle to said other part thereof and adapted to engage said binding strip, and securing means adapted to connect said inwardly extending part of said member with said inturned edge portion of said wall, said securing means being located between said fulcrum and the angularly extending part of said member and adapted when tightened, to move said member about said fulcrum and press said last mentioned part forcibly against said binding strip.

EARL J. CARD.