Oct. 16, 1934. J. W. BEIGER 1,977,034

TABLE TOP STRUCTURE

Filed Jan. 3, 1933

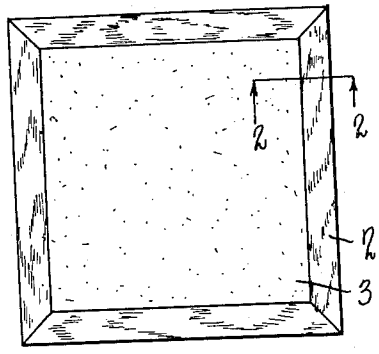


Fig. 1

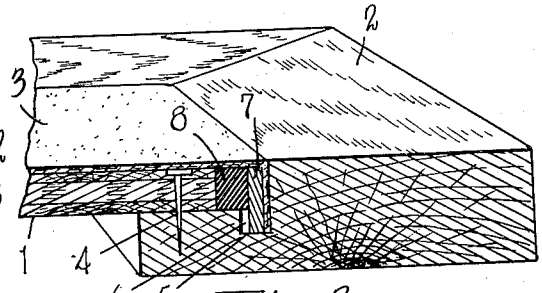


Fig. 2

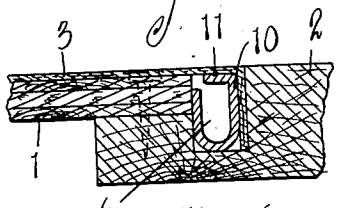


Fig. 6

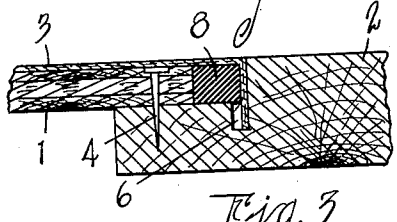


Fig. 3

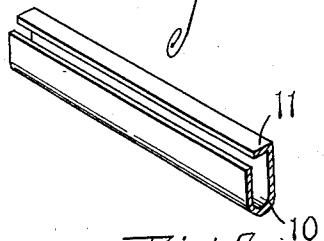


Fig. 7

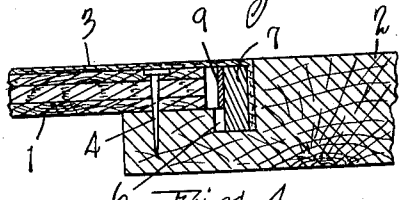


Fig. 4

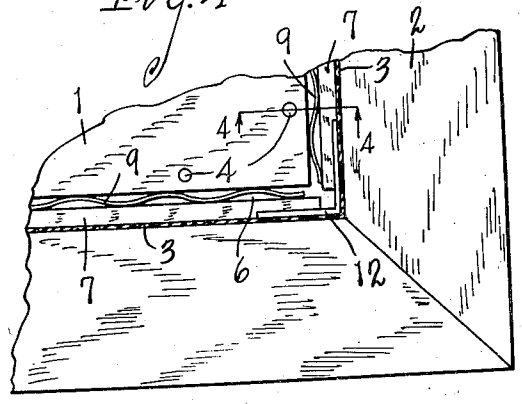


Fig. 5

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TABLE TOP STRUCTURE

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Application January 3, 1933, Serial No. 649,922

7 Claims. (Cl. 45—31)

This invention relates to the invention set forth in my application Serial No. 632,691, filed September 12, 1932, subsequently issued as Patent No. 1,926,079 September 12, 1933, and is directed to the same problem.

The objects of the invention are:

First, to provide a table top with a flexible cover in which the space between the cover and the frame to which it is clamped is closed tightly to prevent the accumulation of dust or debris.

Second, to provide such a table top in which resilient means are used to clamp firmly said cover in place.

Third, to provide such a table with resilient means to clamp the flexible cover in place, which means are of such nature that the flexible cover can be rolled into its position and will be clamped by the resilient means.

Fourth, to provide such a table with any resilient means and a clamping strip to clamp the flexible covering in place to permit easy insertion of the flexible cover.

Other objects and advantages pertaining to construction and operation will appear from the description to follow. Preferred embodiments of my invention are illustrated in the accompanying drawing, in which:

Fig. 1 is a plan view of a table top embodying my invention.

Fig. 2 is a fragmentary detail sectional view taken on line 2—2 of Fig. 1 showing one form of my invention.

Fig. 3 is a detail sectional view through the cover of a table embodying a modification of the structure shown in Figs. 1 and 2.

Fig. 4 is a detail sectional view through a table embodying a modified form of the invention in which metallic spring members are used.

Fig. 5 is a detail fragmentary sectional plan view of the structure shown in Fig. 4.

Fig. 6 is a detail sectional view through a table top with a still different form of my invention, in which a metallic spring is used.

Fig. 7 is a perspective view of the spring member illustrated in Fig. 6.

The parts will be identified by their numerals of reference which are the same in all the views.

1 is a table top panel which may be of wood, ply wood, press board, sheet metal, or any desired material. 2 is the frame preferably having mitered corners and 3 is a flexible covering of suitable material such as leather, canvas, leatherette or paper. The top panel 1 is disposed in a rabbet recess on the inner side of the frame and is preferably retained by nails 4, although it may be glued or secured in place in any other suitable manner and may be retained by the clamping of the covering, as will be understood.

When a thin top panel is used, as is illustrated here, a groove 5 is cut at the outer side of the rabbet in the frame forming a recess 6 around the panel and within the frame. If a thick panel is used, there is no need for such a recess, its purpose being merely to allow a sufficient clamping surface to engage the flexible cover and hold it against the frame, as will be set forth hereafter.

In the recess 6 around the panel and within the frame is placed a clamping strip 7 that may be of wood or any desired material. A resilient strip is then inserted between the top panel 1 and the clamping strip 7. In Fig. 1, this strip 8 is illustrated as composed of soft resilient rubber and is of such size that it forces the clamping strip 7 outwardly against the edge of the rabbet groove, as illustrated. Any suitable soft resilient strip could be used, although I have found that rubber has all of the necessary qualifications.

The edge of the flexible cover 3 is then rolled in between the clamping strip 7 and the frame. This rolling is done by the usual method and the edge of the cover is firmly clamped in place between the strip 7 and the frame 2 to completely eliminate any opening at that point. If desired, glue may be placed in the groove before the cover is rolled into place and this gives an added strength to the structure and more firmly holds the cover 3 in place.

The clamping strip 7 makes the rolling in of the cover 3 much easier because the cover will slide between the strip 7 and the frame much more easily than it slides down by the rubber strip 8. It also assures a nice edge at that point.

In the modification shown in Fig. 3, the clamping strip 7 is eliminated. This results in a saving of material and clamps the edge firmly in place, although it is more difficult to force the cover 3 between the strip 8 and the frame 2.

In the modification shown in Figs. 4 and 5, in place of the resilient soft rubber strip 8, I use a steel leaf spring 9 which is inserted between the top panel 1 and the clamping strip 7. The spring shown is a leaf spring substantially the shape of a sine curve. If desired, several single curved leaf springs could be used, or a leaf spring having a single curve for the length of the groove at one side could be used. Coil compression springs could likewise be used if desired. The fabric is rolled between the strip 7 and the frame 2 as above set forth and may be glued if it is desired.

In the modification shown in Figs. 6 and 7, in

place of retaining strip 7 and the resilient means 8 or 9, I insert a spring metallic member 10. This member is of a size to fill the groove 6 and is formed of spring metal bent longitudinally to form a spring member and having one edge bent at right angles as at 11 to form an edge that supports the material and at the same time assures a clamping face up to the top of the frame 2. The cover 3 is rolled in place as above described and may be glued, if desired.

I have shown the structure with the top panel 1 of thin construction. If the top panel is of sufficient thickness, the extension groove 5 need not be used. All that is necessary is that there be a sufficient clamping surface to hold the cover 3 firmly against the frame 2 and to leave sufficient room to roll down a margin on the cover 3 that will not easily pull out.

If desired to complete the corners, a piece of thin angle metal 12 of about thirty gauge can be inserted at the corner, as shown in Fig. 5. The fabric is rolled into the space outside of the metal and between the metal and the frame and as the resilient means forces the clamping strips outwardly the corners are completely filled in.

I have not shown the legs or table frame because my top is adapted to any table construction. It is especially adapted to folding tables because of its compactness but it will serve the purpose for any table wherein it is desired to secure a flexible top cover in place. I have described the structure particularly in tables to which it is especially adapted. It is capable of a great variety of uses and may be used for attaching chair backs or bottoms or covers therefor which can be secured in place by simply cutting a groove in the frame and inserting the resilient means and rolling the edges of the cover or seat in place.

A flexible covering may also be retained over a panel or any framework very effectively, whether it is supported by a panel or not.

The resilient means can be secured to the edge of the panel and, if desired, the resilient means can be secured to the compression strip. It would be possible also to harden the rubber on one side of the strip 8 to form a clamping surface while leaving the rest of the rubber or other material in a soft resilient state.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:

1. In a table top structure, a table top frame having a rabbeted groove to receive the top panel, a table top panel having its edges disposed in said groove and secured thereto in spaced relation to the frame forming a groove recess between the edges of said panel and frame, an extension of said groove formed in said frame, a clamping strip disposed in said groove recess and said extension, a resilient soft rubber strip compressed in said groove recess to smaller dimensions than its original dimensions between said clamping strip and said top panel whereby said strip is under compressive forces of expansion and a flexible top covering over said top panel and strips and clamped between said clamping strip and said frame.

2. In a table top structure, a table top frame having a rabbeted groove to receive the top panel, a table top panel having its edges disposed in said groove and secured thereto in spaced relation to the frame forming a groove recess between the edges of said panel and frame, a clamping strip disposed in said groove recess, a resilient soft rubber strip compressed in said groove recess to smaller dimensions than its original dimensions between said clamping strip and said top panel whereby said strip is under compressive forces of expansion and a flexible top covering over said top panel and strips clamped between said clamping strip and said frame.

3. In a table top structure, a table top frame having a rabbeted groove to receive the top panel, a table top panel having its edges disposed in said groove and secured thereto in spaced relation to the frame forming a groove recess between the edges of said panel and frame, a clamping strip disposed in said groove recess, a resilient strip in said groove recess compressed between said clamping strip and said top panel whereby said strip is exerting compressive forces between said panel and said frame, and a flexible top covering over said top panel and strips and clamped between said clamping strip and said frame.

4. In a table top structure, a table top frame having a rabbeted groove to receive the top panel, a table top panel having its edges disposed in said groove and secured thereto in spaced relation to the frame forming a groove recess between the edges of said panel and frame, a clamping strip disposed in said groove recess, resilient means compressed in said groove recess between said clamping strip and said top panel whereby said resilient means is exerting compressive forces between said panel and said frame, and a flexible top covering over said top panel and strips and clamped between said clamping strip and said frame.

5. In a table top structure, a table top frame having a rabbeted groove to receive the top panel, a table top panel having its edges disposed in said groove and secured thereto in spaced relation to the frame forming a groove recess between the edges of said panel and frame, an extension of said groove formed in said frame, a clamping strip disposed in said groove recess and said extension, spring means compressed between said clamping strip and said top panel whereby said spring means exerts compressive forces between said panel and said frame, and a flexible top covering over said top panel and strip clamped between said clamping strip and said frame.

6. In a table top structure, a table top frame having a rabbeted groove to receive the top panel, a table top panel having its edges disposed in said groove and secured thereto in spaced relation to the frame forming a groove recess between the edges of said panel and frame, a clamping strip disposed in said groove recess, spring means compressed between said clamping strip and said top panel whereby said spring means exerts compressive forces between said panel and said frame, and a flexible top covering over said top panel and strip clamped between said clamping strip and said frame.

7. In a furniture structure, a frame having a groove therein, a flexible covering the edge of which extends into the said groove, a clamping strip in said groove, resilient means compressed in said groove whereby said clamping strip is compressed against the wall of said groove and whereby said flexible covering is clamped between said clamping strip and the edge of said groove.

JOHN W. BEIGER.