June 15, 1937. A. M. BANK 2,083,810

UPHOLSTERY CONSTRUCTION

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FIG. 1.

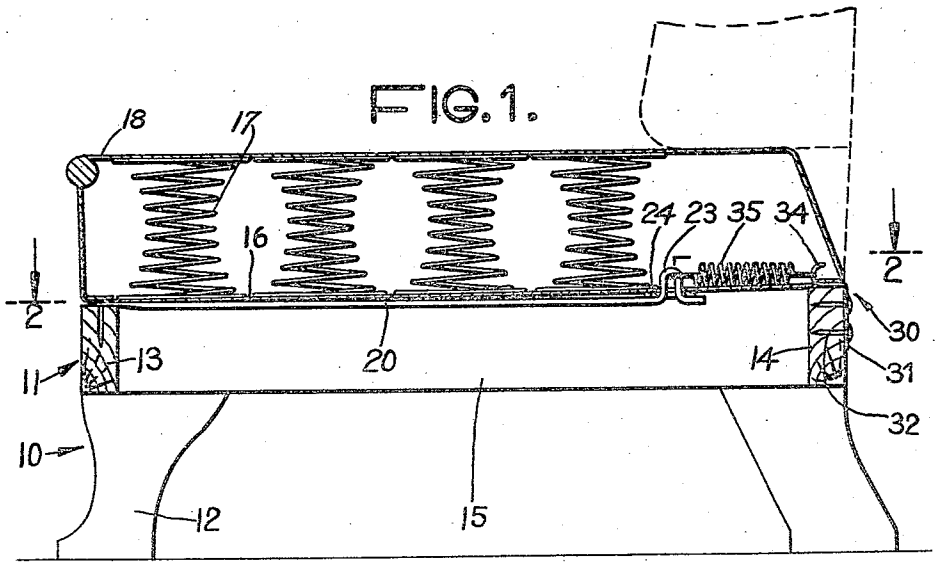


FIG. 2.

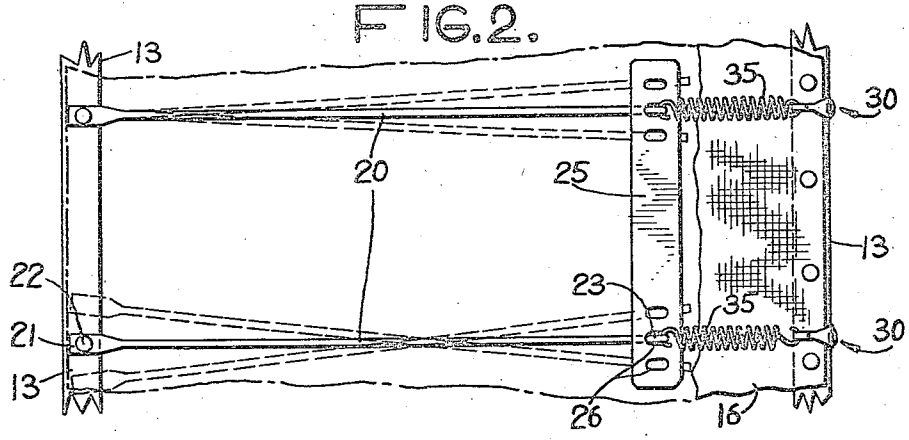


FIG. 3.

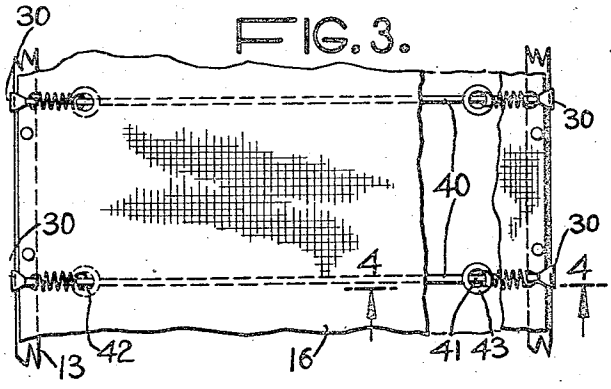
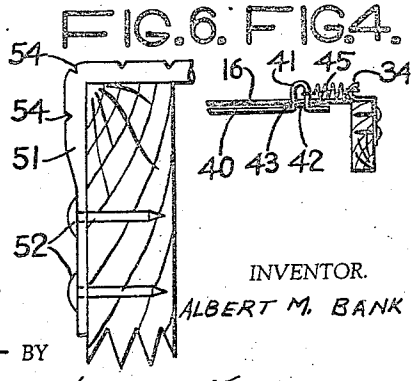


FIG. 6. FIG. 4.



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FIG. 5.

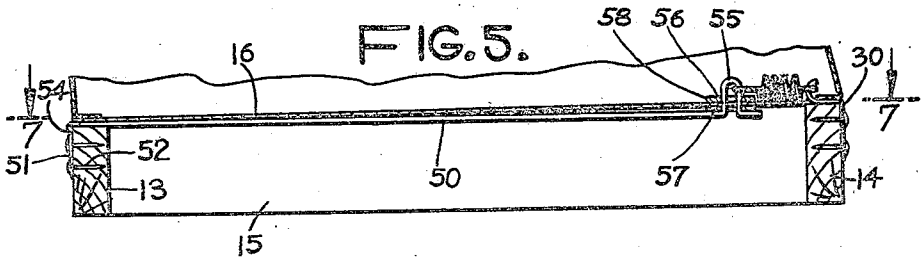


FIG. 7.

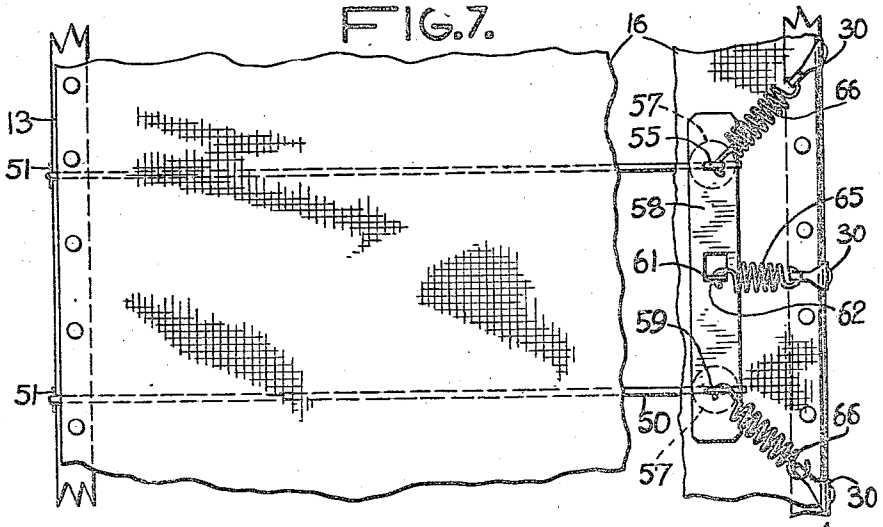
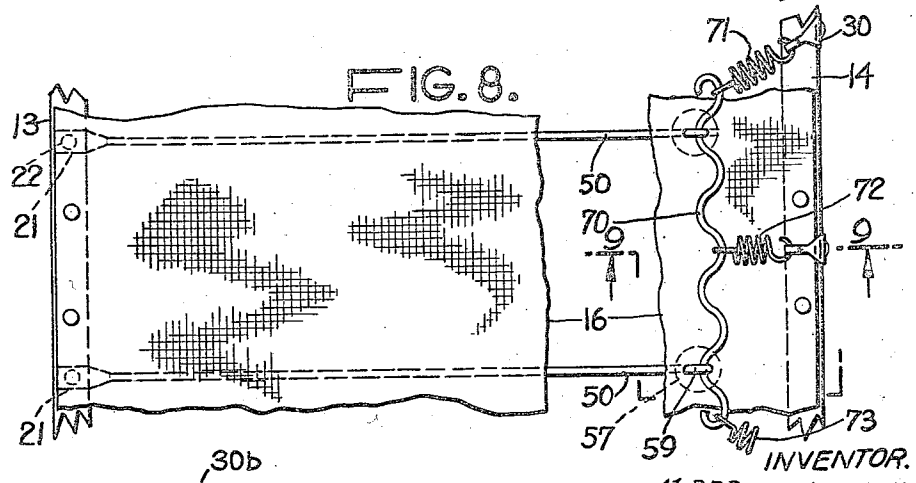


FIG. 8.



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FIG. 9a.

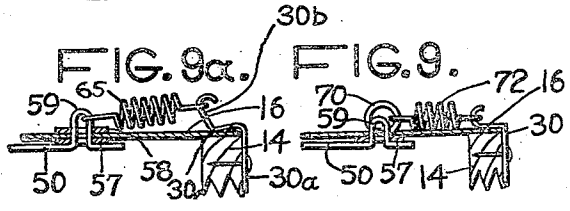


FIG. 9.

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Patented June 15, 1937 2,083,810

UNITED STATES PATENT OFFICE

2,083,810

UPHOLSTERY CONSTRUCTION

Albert M. Bank, Jersey City, N. J., assignor to Sylvia Bank, Jersey City, N. J.

Application February 8, 1935, Serial No. 5,525

14 Claims. (Cl. 155—179)

This invention relates to upholstery construction. It is particularly directed to seat structures for chairs, couches and the like articles.

An object of this invention is to provide a compact, strong and rugged construction of the character described including a resilient webbing support which shall comprise few and simple parts, be relatively inexpensive to manufacture and install, and withal practical and efficient to a high degree.

Other objects of this invention will in part be obvious and in part hereinafter pointed out.

The invention accordingly consists in the features of construction, combinations of elements, and arrangement of parts which will be exemplified in the construction hereinafter described, and of which the scope of application will be indicated in the following claims.

In the accompanying drawings, in which is shown one of the various possible illustrative embodiments of this invention,

Fig. 1 is an elevational, cross-sectional view of a chair provided with upholstery construction embodying the invention;

Fig. 2 is a cross-sectional view taken on line 2—2 of Fig. 1, with part of the webbing broken away;

Fig. 3 is a view similar to Fig. 2 but illustrating a modified construction;

Fig. 4 is a cross-sectional view taken on line 4—4 of Fig. 3;

Fig. 5 is an elevational, cross-sectional view of the frame provided with a modified form of upholstery construction embodying the invention;

Fig. 6 is an enlarged detail view of one end of the supporting rods;

Fig. 7 is a cross-sectional view taken on line 7—7 of Fig. 5;

Fig. 8 is a view similar to Fig. 7 but illustrating a still further modified construction;

Fig. 9 is a cross-sectional view taken on line 9—9 of Fig. 8; and

Fig. 9a is a detailed view of a further modified construction.

Referring now in detail to the drawings, 10 designates an article of furniture, such as a chair or couch, provided with upholstery construction embodying the invention. The article 10 may comprise a frame 11 supported by legs 12. The frame has a front vertical wall 13, a rear wall 14, and side walls 15. Attached at the margin thereof to the upper edge of the frame by tacks or in any other suitable manner, is a one piece webbing 16. Mounted on the webbing 16 are the usual foundation springs 17 tied down and attached together in the usual manner and having the usual covering 18.

To relieve strain upon fastening means which attaches the edges or margin of the webbing 16 to the upper edge of the frame 11, there is provided a pair of elongated members or rods 20, preferably underlying the webbing 16 and each having one end 21 contacting the upper edge of the front wall 13 and being attached thereto by a nail 22 or in any other suitable manner. Each of the rods 20 is preferably formed adjacent the outer end thereof with an upwardly extending humped or loop portion 23 extending through an opening 24 in the webbing 16. A flat transverse plate 25 underlying the webbing 16 is provided with slots or openings 26 adjacent the opposite ends thereof receiving said portions 23.

Attached to the upper end of the rear wall 14 of the frame 11 are a pair of brackets 30 each having an arm 31 contacting the rear surface of the wall 14 and formed with openings receiving nails 32 or the like fastening means for attaching the bracket to said wall. Each of said brackets is formed with an upwardly curved arm 34 extending through the webbing. The brackets 30 are preferably substantially aligned with the rods 20, as shown in Fig. 2. Interconnecting the loop portion 23 of each rod with the arm 34 of each bracket is a coil tension spring 35 disposed just above the webbing 16, and being in substantially horizontal position. Some of the foundation springs 17 preferably overlie the rods 20.

It will now be understood that the rods 20 resiliently supported at the outer ends, serve to take the strain off the marginal edges of the webbing 16. Although the springs 35, as shown in Figs. 1 and 2, as being in alignment with the rods 20, said rods may be made longer so that the transverse plate 25 is located closer to the rear wall 14 and the springs 35 may incline away from each other, the brackets 30 being spaced further apart for this purpose.

The plate 25 may have a plurality of openings 26 at each end to permit adjustment of the rods 20. The loop portion 23 of each rod may thus be inserted within any of the openings 26 whereby the position of the rods 20 is adjusted.

In Figs. 3 and 4, there is shown a modified construction for supporting a webbing 16 attached to the upper edges of the frame 11. Underlying the webbing 16 are a pair of parallel rods 40 each having upwardly extending loop or hump portions 41 adjacent the opposite ends thereof extending through openings 42 in the webbing. Washers 43 may receive the loop portions 41 and

contact the underside of the webbing 16. There may further be attached to the front wall 13 and rear wall 14 of the frame 11 a pair of brackets 30 aligned with each rod 40, said brackets 30 having arms 34 extending through the webbing interconnected to the loop portions 41 by coil tension springs 45.

In Figs. 5, 6 and 7, there is shown a still further modified construction for supporting webbing 16 attached at the marginal ends thereof to the upper edges of the frame 11. Contacting the underside of the webbing 16 as shown in Fig. 5 are a pair of spaced members or rods 50 each having one end contacting the upper edge of the front wall 13 of the frame and provided with a downwardly extending arm 51 contacting the front surface of said front wall. The arm 51 of each member 50 may be flattened at the lower end thereof and formed with openings, receiving nails 52 or the like fastening means for attaching said arm to the wall 13. The upper end of each arm 51 and the adjacent portion of the rod 50 may be formed, as shown in Fig. 6 of the drawings, with spaced notches 54 to facilitate bending of the arm 51 at different points depending upon the length of the rod 50 and the size of the frame.

Each arm 50 may be formed adjacent the outer end thereof with an upwardly extending loop portion 55 extending through a suitable opening 56 in the webbing 16. A washer 57 receiving the loop portion 55 of each rod 50 contacts the underside of the webbing 16. A transverse elongated plate 58 lying on the webbing 16 is formed with slots 59 adjacent the ends thereof receiving the loops 55. Said plate 58 may be formed adjacent the midportion thereof with an upwardly extending ear 61 preferably formed from the material of said plate and having an aperture 62 for the purpose hereinafter appearing. Attached to the rear wall 14 of the frame 11 is a central bracket 30 aligned with the ear 61 and a pair of brackets 30 preferably spaced further apart than are the loops 59. Interconnecting the bracket 30 with the ear 61 is a short coil tension spring 65 and interconnecting the pair of brackets 30 with the loops 59 are coil tension springs 66. It will be noted that the springs 65 and 66 lie on the webbing 16 and are substantially in horizontal position. The springs 66 incline inwardly toward each other from the brackets 30. With such construction, the rods 50 may be relatively long and the plate 58 disposed fairly close to the wall 14 so that the foundation springs mounted on the webbing 16 may be located relatively close to the rear wall 14 of the frame without interference from the springs 65 and 66. In other words, there is only a substantially narrow space on the upper side of the webbing and between the plate 58 and the rear wall of the frame which is occupied by the springs which connect the plate to the frame.

In Figs. 8 and 9, there is shown yet another modified construction substantially similar to the construction of Figs. 5, 6 and 7, except that the plate 58 is replaced by a sinuous-shaped or corrugated wire or member 70 extending through the loops 59. A plurality of coil springs 71, 73 disposed above the webbing are attached at one end by brackets 30 to the rear wall 14 and at the other end to spaced points of said corrugated wire. A spring 72 may also attach the corrugated wire 70 to a central bracket on the rear wall of the frame. The springs may be placed in any desired position and attached either to the rear or side walls of the frame. Furthermore, any suitable number of rods may be attached to said wire 70.

In Fig. 9*a* there is shown a modified construction including a bracket 30*a* attached to the rear wall 14 of the frame. Said bracket preferably has a V-shaped portion 30*c* contacting the upper side of the rear wall 14 of the webbing thereon and being formed with an upwardly extending arm 30*b* to which a coil spring 65 is connected, said spring engaging the loop 59 of the rod 50. It will be noted that the outer end of the spring 65 is higher than the inner end, said spring inclining upwardly and outwardly.

It will thus be seen that there is provided a device in which the several objects of this invention are achieved, and which is well adapted to meet the conditions of practical use.

As various possible embodiments might be made of the above invention, and as various changes might be made in the embodiments set forth, it is to be understood that all matter herein set forth or shown in the accompanying drawings is to be interpreted as illustrative and not in a limiting sense.

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

1. In upholstery construction, a frame, a one piece webbing secured at the margin thereof to the upper edge of said frame, a rod contacting the underside of said webbing attached at one end to said frame, and having a humped portion adjacent the outer end thereof extending through an opening in the webbing, and a coil spring disposed on the upper side of said webbing, attached at one end thereof to said frame and means connecting the other end thereof to said humped portion.

2. In upholstery construction, a frame, a one piece webbing secured at the margin thereof to the upper edge of said frame, a rod contacting the underside of said webbing attached at one end to said frame, and having a looped portion adjacent the outer end thereof extending through an opening in the webbing, and a coil spring attached at one end thereof to said frame and at the other end thereof to said looped portion and being disposed on the upper side of said webbing, and substantially parallel to said webbing.

3. In upholstery construction, a frame, a one piece webbing attached at the margin thereof to the upper edge of said frame, a pair of rods each attached at one end thereof to said frame, and underlying said webbing, said rods each having adjacent one end thereof a humped portion extending through an opening in the webbing, a transverse member formed with openings receiving the humped portions of said rods, and a plurality of springs attached to said frame and engaging said humped portions.

4. In upholstery construction, a frame having a one piece webbing attached at the margin thereof to the upper edge of said frame, a member connected to said frame engaging the underside of said webbing, and a coil tension spring lying above said webbing and disposed parallel thereto and attached at one end thereof to said frame and means at the other end thereof for connecting said spring to said member.

5. In upholstery construction, a frame having a one piece webbing attached at the margin thereof to the upper edge of said frame, a member engaging the underside of said webbing, a coil tension spring lying on said webbing and dis-

posed parallel thereto and attached at one end thereof to said frame and at the other end thereof to one end of said member, said member having the other end thereof formed with a plurality of notches to facilitate bending thereof and an end portion bent at one of said notches and engaging said frame and being fastened thereto.

6. In upholstery construction, a frame, a one piece webbing attached at the margin thereof to the upper edge of said frame, a pair of rods each attached at one end thereof to said frame, and underlying said webbing, said rods each having adjacent one end thereof a humped portion extending through an opening in the webbing, a transverse member formed with openings receiving the humped portions of said rods, and a plurality of springs attached to said frame and engaging said humped portions, said transverse member underlying said webbing.

7. In upholstery construction, a frame, a one piece webbing attached at the margin thereof to the upper edge of said frame, a pair of rods each attached at one end thereof to said frame, and underlying said webbing, said rods each having adjacent one end thereof a humped portion extending through an opening in the webbing, a transverse member formed with openings receiving the humped portions of said rods, a plurality of springs attached to said frame and engaging said humped portions, said transverse member overlying said webbing and being provided with an ear, and a spring engaging said ear and attached to said frame.

8. In upholstery construction, a frame, a webbing attached to said frame, a rod underlying said webbing and having a humped portion adjacent one end of said rod extending through an opening in said webbing, a member contacting said webbing and formed with an opening receiving said humped portion, a bracket attached to said frame, a spring interconnecting said bracket with said humped portion, and means for attaching the other end of the rod to said frame.

9. In upholstery construction, a frame, a webbing attached to said frame, a rod underlying said webbing and having a humped portion adjacent one end extending through an opening in said webbing, means for attaching the other end of said rod to said frame, a member contacting said webbing and formed with an opening receiving said humped portion, a bracket attached to said frame, and a spring interconnecting said bracket with said humped portion, said spring being disposed on the upper side of said webbing.

10. In upholstery construction, a frame, a webbing attached to said frame, a rod underlying said webbing and having a humped portion adjacent one end extending through an opening in said webbing, means for attaching the other end of said rod to said frame, a member contacting said webbing and formed with an opening receiving said humped portion, a bracket attached to said frame, a spring interconnecting said bracket with said humped portion, said spring being disposed on the upper side of said webbing, and said bracket having an upwardly extending arm to which the outer end of the spring is attached whereby said spring inclines upwardly.

11. In upholstery construction, a frame, a one piece webbing attached at the margin thereof to the upper edge of said frame, a plurality of rods attached at the ends thereof to said frame and having humped portions at the outer ends thereof extending through openings in said webbing, a corrugated wire on the upper side of said webbing extending through the humped portions of said rods, and springs connecting said corrugated wire with said frame.

12. In upholstery construction, a frame, a one piece webbing attached at the margin thereof to the upper edge of said frame, a pair of rods each attached at one end thereof to said frame and underlying said webbing, said rods each having adjacent one end thereof a humped portion extending through an opening in the webbing, a transverse member formed of wire having a plurality of corrugations therein, said corrugated portions being adapted to be received in the humped portions of said rods, and a plurality of springs attached to said frame and engaging said humped portions.

13. In upholstery construction, a frame, webbing secured to said frame, a pair of elongated members each attached at one end directly to said frame and underlying said webbing, said members each having a portion extending through an opening in the webbing, a transverse member engaging said portions, tension means interconnecting said portions with said frame, and tension means interconnecting said transverse member with said frame.

14. In upholstery construction, a frame, webbing attached at the margin thereof directly to said frame, a member engaging the underside of said webbing, a coil tension spring attached at one end thereof to said frame and at the other end thereof to one end of said member, said member having the other end thereof formed with a plurality of notches to facilitate bending thereof, and an end portion of said member being bent at one of the notches and engaging said frame and being fastened thereto.

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