Oct. 18, 1938. A. C. HUNTER 2,133,747

RESILIENT SAGLESS SUPPORT FOR UPHOLSTERED FURNITURE

Filed Sept. 21, 1936 3 Sheets-Sheet 1

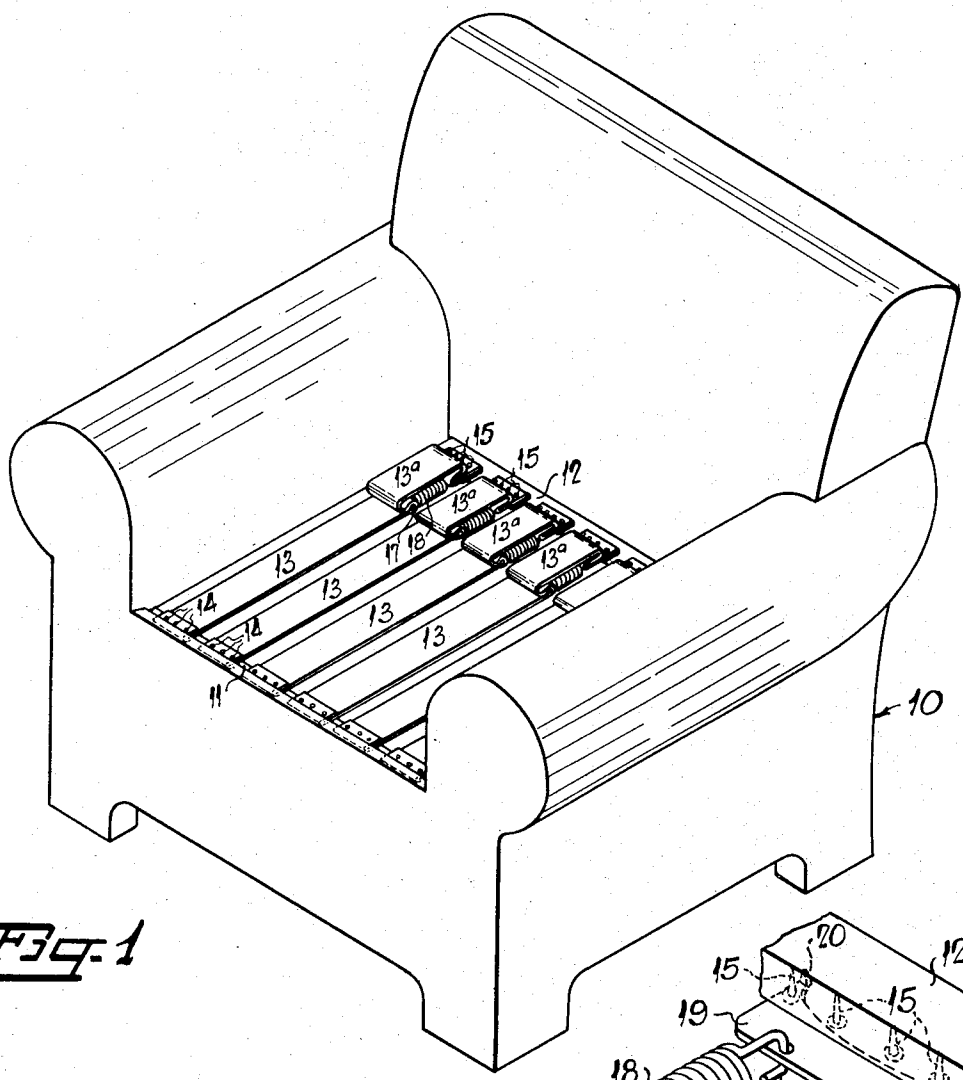


Fig. 1

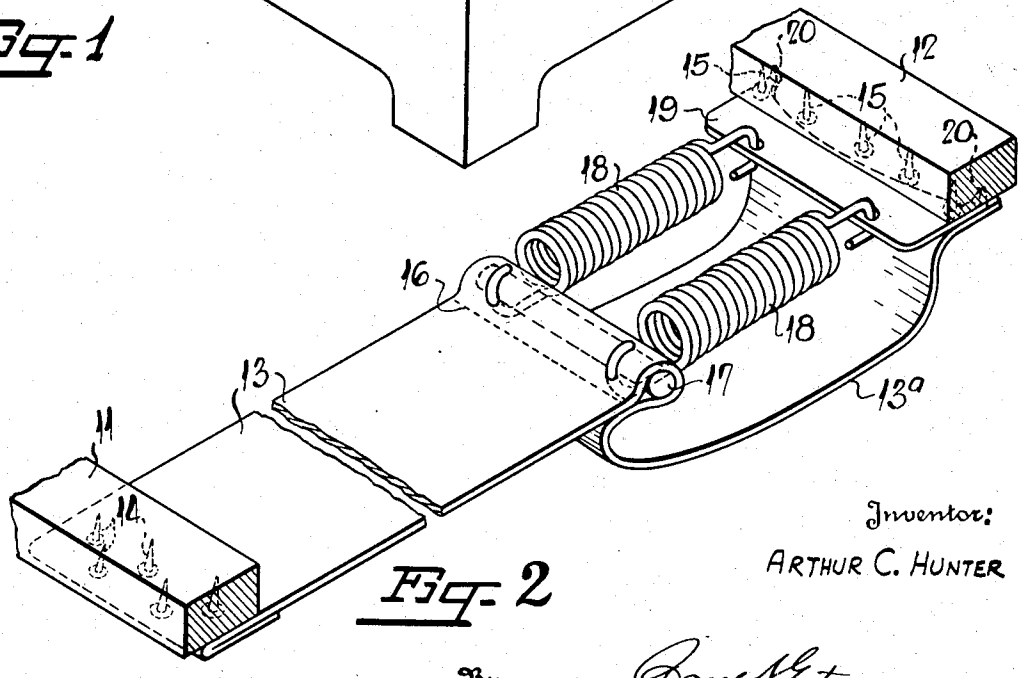


Fig. 2

Inventor:
ARTHUR C. HUNTER

By Paul & Eaton

Attorney

Oct. 18, 1938. A. C. HUNTER 2,133,747

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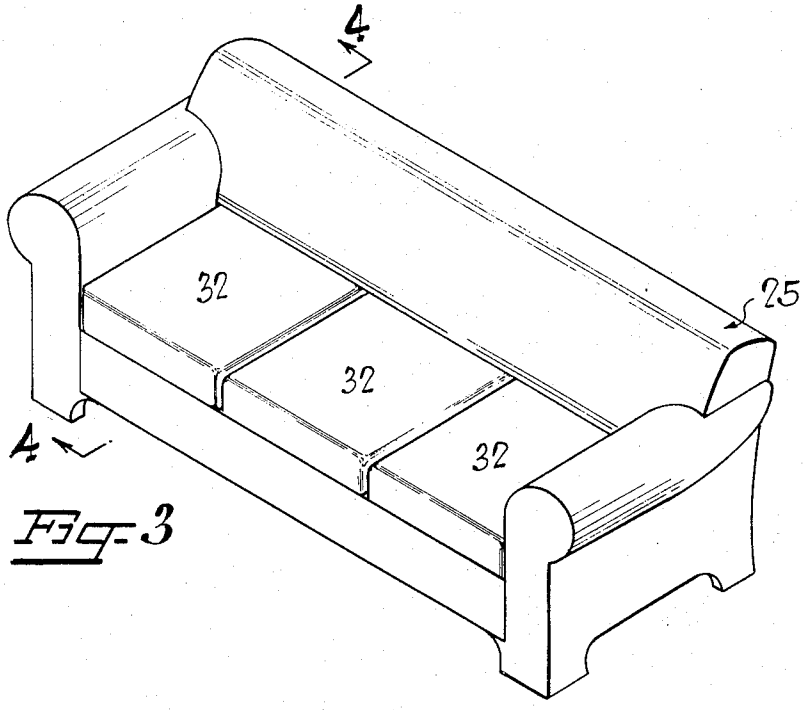


Fig. 3

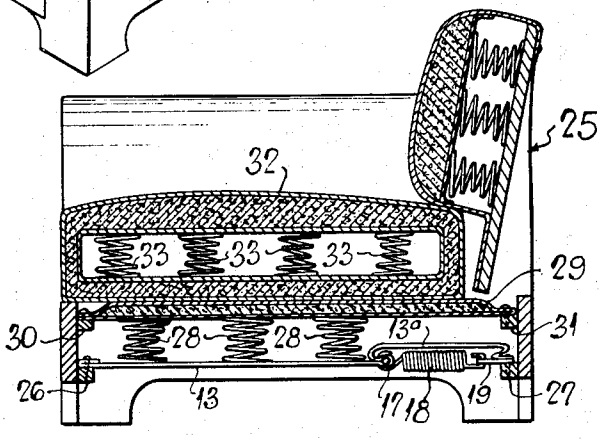


Fig. 4

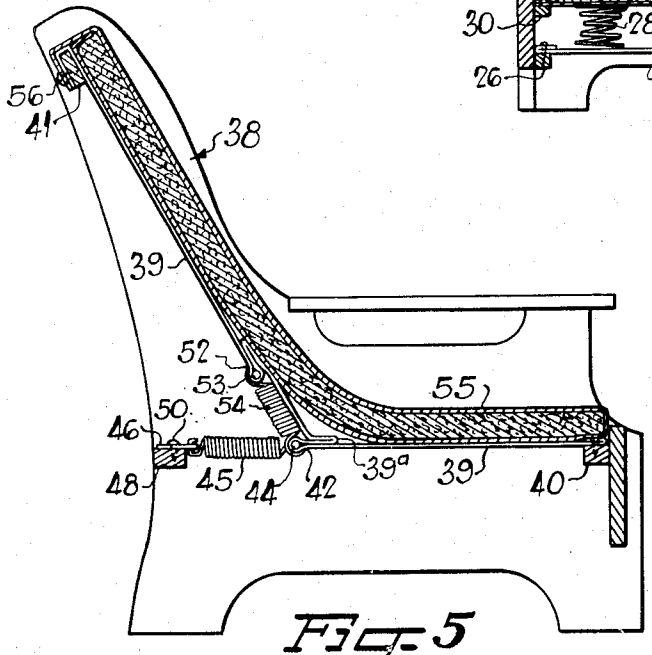


Fig. 5

ARTHUR C. HUNTER
Inventor

BY Paul S. Eaton
Attorney

Oct. 18, 1938. A. C. HUNTER 2,133,747

RESILIENT SAGLESS SUPPORT FOR UPHOLSTERED FURNITURE

Filed Sept. 21, 1936 3 Sheets-Sheet 3

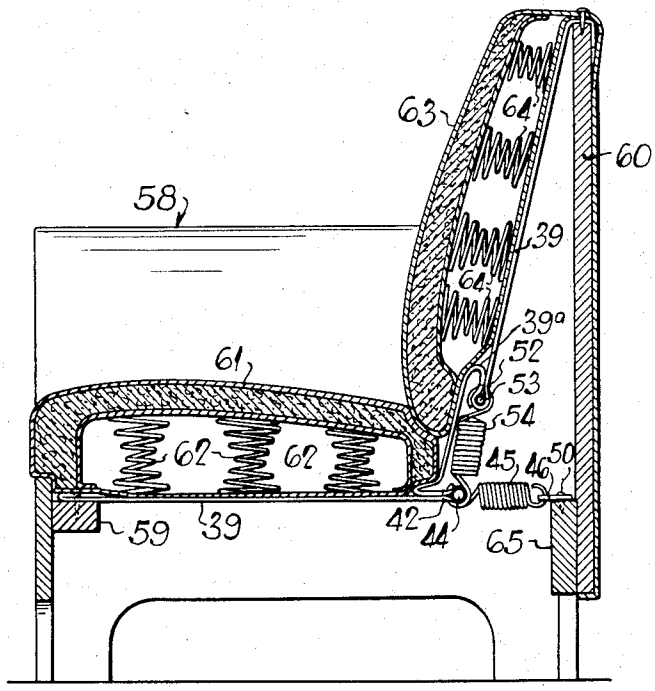


Fig. 6

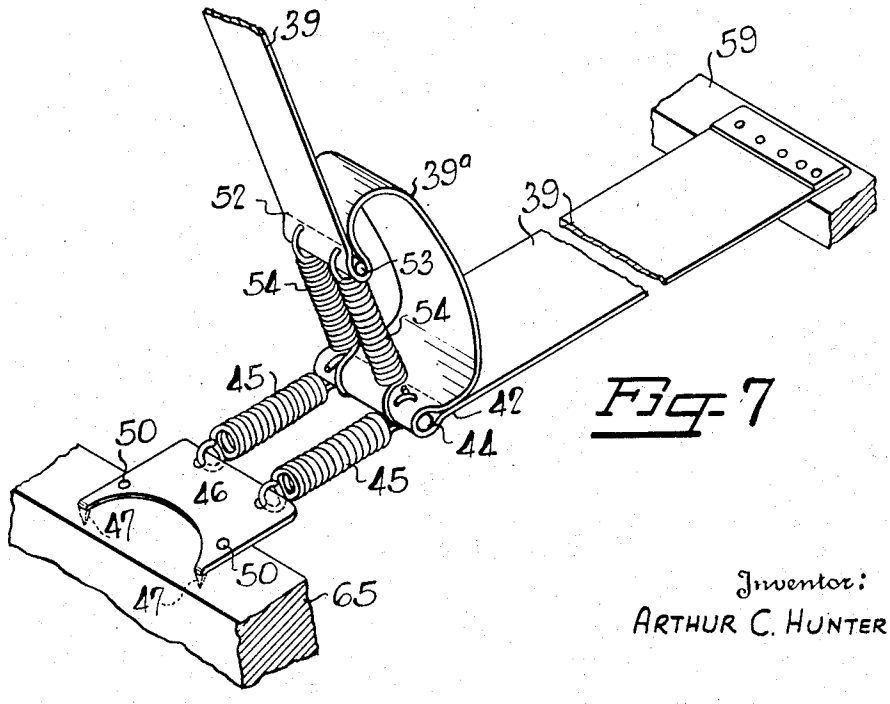


Fig. 7

Inventor:
ARTHUR C. HUNTER,

By James S. Eaton

Attorney

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UNITED STATES PATENT OFFICE

2,133,747

RESILIENT SAGLESS SUPPORT FOR UPHOLSTERED FURNITURE

Arthur C. Hunter, Hickory, N. C., assignor to Hickory Chair Manufacturing Company, Hickory, N. C.

Application September 21, 1936, Serial No. 101,811

1 Claim. (Cl. 155—179)

This invention relates to supporting means for upholstery of furniture such as settees, sofas, chairs and the like, and more especially to a plurality of webbing members spaced in parallel relation along the bottom and back portions of the furniture for supporting the upholstery. Each of the webbing members has a pair of resilient means such as springs connected thereto for normally giving resiliency to the supporting means and to also return the supporting means to normal position when pressure is not applied to the upholstery. It is quite evident by providing a supporting means of this type, that an added resiliency is given to the upholstery, which in turn, will give an added comfort to the user.

It is therefore, an object of this invention to provide a supporting means for the upholstery of couches, lounges, sofas, settees, chairs and the like, comprising a plurality of straps having one end thereof secured to the interior forward edge of the framework and beneath the seat portion and having the other end of said strap secured to the upper end of the back portion of the framework with resilient means disposed intermediate the ends of said strap members for rendering the supporting means resilient.

It is another object of the invention to provide a pair of resilient means for one end of webbing members in a chair or the like so the pads or upholstery in a chair or similar article will always return to normal position when unoccupied.

Some of the objects of the invention having been stated, other objects will appear as the description proceeds when taken in connection with the accompanying drawings, in which:—

Figure 1 is an isometric view of a chair showing one form of the invention applied thereto;

Figure 2 is an inverted isometric detail view of the type of support used in Figure 1;

Figure 3 is an isometric view of a settee in which the invention is adapted to operate;

Figure 4 is a transverse sectional view taken along line 4—4 in Figure 3;

Figure 5 is a vertical, sectional view through a lounge chair showing another form of the invention applied thereto;

Figure 6 is a vertical cross-sectional view through another type of chair showing the invention applied thereto;

Figure 7 is an isometric view of the type of support used in Figures 5 and 6 supporting the upholstery or pad in such structures.

Referring more specifically to the drawings, the numeral 10 indicates a suitable chair which has secured to the interior front portion of its framework a strip of material 11. Secured to the interior rear portion of the framework is another strip 12 similar to strip 11. To the strips 11 and 12, the ends of flexible webbing straps 13 are secured by any suitable means such as tacks 14 and 15. Each of the webbings or straps 13 is folded upon itself and stitched as at 16 to form a suitable loop in which a pin 17 is placed. The pin 17 forms a rigid stay which is engaged by the hooks on one end of a pair of tension springs 18. The other ends of tension springs 18 are secured to a plate or bracket 19 which has pointed projections 20 integral therewith which are adapted to engage the member 12 to hold the plate or bracket 19 in position. In addition to these pointed projections 20 some of the tacks 15 also penetrate the member 19 as well as the end of member 13 to hold the plate in proper position and to form a suitable stay for the other ends of springs 18. A suitable cushion, not shown, is adapted to be placed on top of webbing members 13 when the chair is ready for use. It is evident that when pressure is applied on the cushion that springs 18 will be elongated and furnish an added resiliency to the seat of the chair.

A looped portion 13a is provided which is normally in a slack position but if for any reason excessive tension should be exerted upon springs 18 this portion will become taut and furnish an ultimate stop to assist springs 18.

Figures 3 and 4 show this form of webbing support used in combination with a settee. A settee 25 has a strip 26 secured to the interior of the lower front portion of its framework and this strip 26 forms a stay for the webbing members 13. A similar member 27 is secured to the interior rear portion of the framework of the settee 25 and this member forms a stay to which the other end of the webbing is secured. Strip 27 also serves as a stay for the plates 19 to which springs 18 are secured.

Heretofore, in settees, it has been customary to secure a plurality of webbing members to the strips 26 and 27 in order to support the upholstery thereabove, but no pairs of means have been provided whereby the resilient member could be inserted in these webbing members intermediate their ends to cause them to normally assume a horizontal position when pressure was not applied. Consequently, the webbing member which has heretofore been placed between strip 26 and 27 had a tendency to sag or turn edgewise and create an unsightly appearance since the up-

holstering thereabove would likewise fail to return to its proper position after use.

The webbing members 13 in Figure 4 are shown supporting a plurality of coiled springs such as 28, said springs in turn having a pad 29 resting thereon. This pad 29 has its ends secured to strips 30 and 31 which strips are secured to the interior of the framework of the sofa.

Cushions 32 are placed on top of pad 29. Each cushion has a plurality of springs 33 therein to give the cushion the desired resiliency. It is here seen that a resilient means is not only provided in cushion 32 but other resilient means are also provided by means of springs 28 as well as by the springs 18 which are secured to webbing 13 and plates 19.

Figure 5 shows a different form of supporting means applied to a lounge chair 38. In this form the supporting means comprises a plurality of straps 39, each of which has one end thereof secured to a strip 40. Strip 40 is secured to the front edge of the interior portion of the framework of the chair. The other ends of webbing members 39 are secured to a transverse member 41 by means of tacks 56. Member 41 is disposed near the upper portion of the back of the chair. The webbing 39 is folded upon itself as at 42 and stitched to form a loop in which a pin 44 is adapted to be placed. This pin forms a suitable stay around which one end of horizontally disposed springs 45 are adapted to be secured. The other end of these springs 45 are hooked in a plate member 46 which member is identical in all respects to the plate member 19 just described. Likewise, this plate member 46 has downwardly extending projections 47 integral therewith which engages a transversely disposed member 48 of the chair 38. In addition to the downwardly extending projections, the plate 46 is additionally secured to the transverse member 48 by suitable means such as tacks or screws 50. These springs 45 and the horizontal portion of strap 39 form a support for the seat of the chair 38. The straps 39 are again folded upon themselves and stitched as at 52 to form a second loop in which a pin 53 is adapted to be placed. This pin forms a stay for one end of springs 54, the other end of said springs extending downwardly and having their other ends secured around the pin 44. The springs 54 normally hold the portions of the straps 39 which support the back of the chair in a taut position whereas, the springs 45 normally hold the horizontal portion of members 39 in a taut position to support the seat portion of the chair. A continuous pad 55 is placed over the strap or webbing members 39 and this pad is secured as at 56 to the transverse member 41. By observing Figure 5 it is seen that a looped portion 39a is provided which is normally in a slack position but if for any reason excessive pressure should be exerted upon springs 45 and 54, the portion 39 will provide an ultimate stop to assist the springs.

Figures 6 and 7 show this same supporting means applied to a different type of chair. Chair 58, to which it is applied, has a front strip 59 secured to the interior of its framework for supporting one end of straps 39 whereas the other end of the straps are secured to the upper portion of a back or member 60. This chair has a seat cushion 61 in which are disposed a plurality of springs 62. A back cushion 63 is formed separately from the seat cushion 61. This cushion 63 has a plurality of springs 64 disposed therein to give resiliency thereto. By providing a support of this type with two idependently supported cushions thereon it is seen that a greater resiliency is provided at the most desirable point, namely, at the point where the cushions 61 and 63 abut each other. The supporting means for these cushions is identical to the supporting means shown in Figure 5 and like reference characters will be given. However, it should be noted that a different result is obtained by using the chair shown in Figure 6 where two independent cushions are used from that which is obtained by using a lounge chair shown in Figure 5 in which a continuous cushion is used.

The plates 46 in the form shown in Figures 6 and 7, are secured to the transverse portion 65 of the chair 58 in order to furnish a stay for one end of springs 45 to normally maintain the horizontally disposed portion of strap 39 in a horizontal position when pressure is not applied thereto.

In the drawings and specification there has been set forth a preferred embodiment of the invention, and although specific terms are employed, they are used in a generic and descriptive sense only, and not for purposes of limitation, the scope of the invention being set forth in the appended claim.

I claim:

In an upholstered chair, sofa and the like, having a seat framework and a back framework, means for supporting the upholstery of the seat and back portions comprising a plurality of webbing members, each of the webbing members having its front end secured to the front portion of the seat framework, the upper end of each webbing member being secured to the upper portion of the back framework, a pair of spaced tucks in each webbing member each provided with a re-inforcing pin, a pair of tension springs having their forward ends secured to the lowermost of said pins in the lowermost tuck and having their rear ends secured to the rear portion of the seat framework, a pair of other tension springs having their lower ends secured to said lowermost pin and having their upper ends secured to the pin in the uppermost tuck, the portion of the webbing between the two tucks being loosely disposed in front of said other tension springs to prevent contact between the upholstery and said other springs.

ARTHUR C. HUNTER.