Sept. 20, 1932. H. RUETZ 1,878,253

CHAIR

Filed June 23, 1931

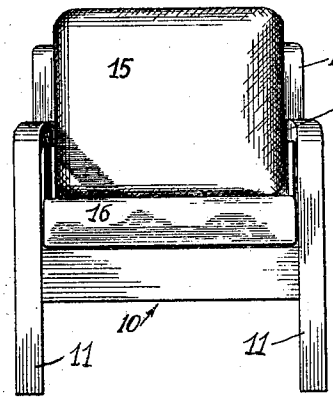


Fig. 2.

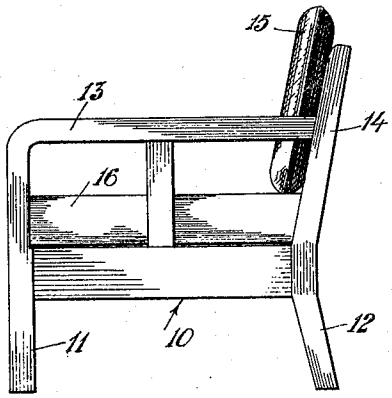


Fig. 3.

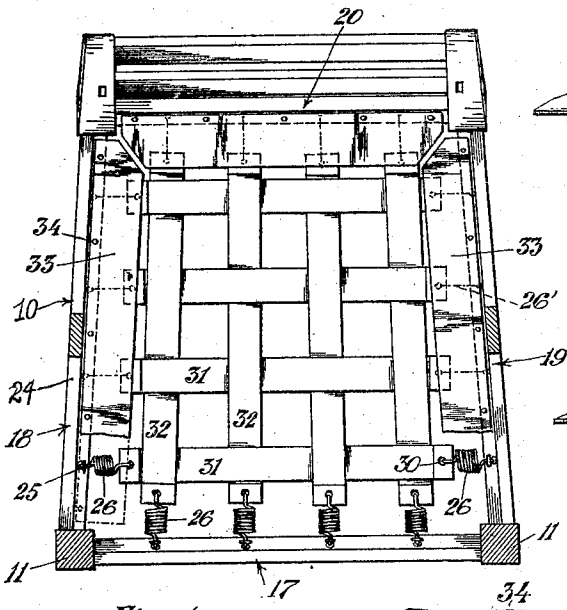


Fig. 1.

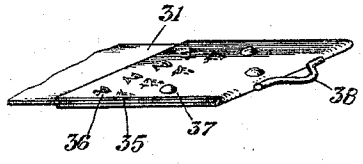


Fig. 5.

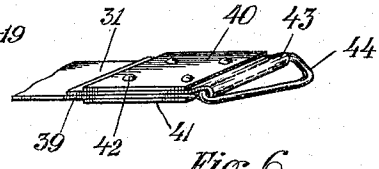


Fig. 6.

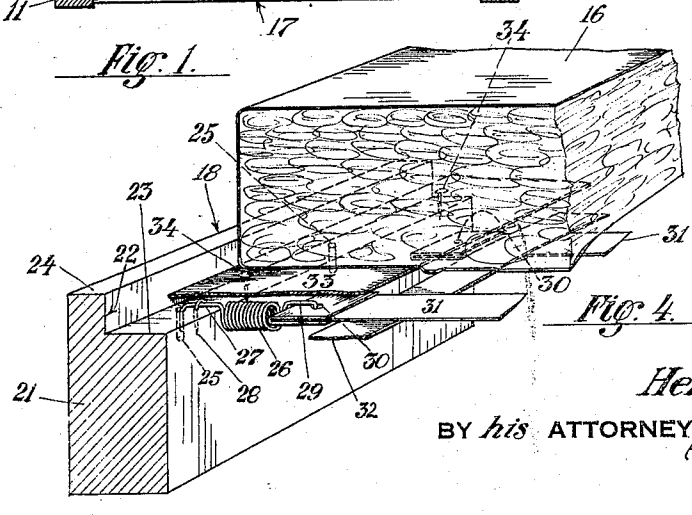


Fig. 4.

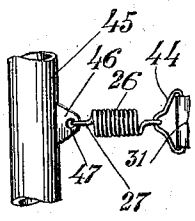


Fig. 7.

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UNITED STATES PATENT OFFICE

HERMANN RUETZ, OF GLENDALE, NEW YORK

CHAIR

Application filed June 23, 1931. Serial No. 546,178.

This invention relates to chairs and similar furniture and has for its main object to provide novel devices in the seats of such furniture which improve its cushioning, resilient and elastically yielding qualities.

Another object of my invention is to provide a device of the mentioned character which will be easily accessible for cleaning purposes and parts of which will be easily exchangeable.

Still further objects of this invention are to provide a device as characterized hereinbefore which will be simple in construction, inexpensive to manufacture and to attach to furniture, which will be adapted to be employed with the usual chair seat constructions at present in use, and which will be adapted for attractive seat constructions for furniture.

Other objects of this invention will be apparent as the specification of the same proceeds.

In the drawing forming a part of this specification and accompanying the same:

Fig. 1 is a plan view of a chair seat constructed according to my invention, parts of the same being in section,

Figs. 2 and 3 are front and side elevations, respectively, of a chair equipped with my seat construction;

Fig. 4 is a fractional perspective detail of a portion of my seat construction on an enlarged scale, while,

Figs. 5 and 6 are perspective details showing modified constructions for the fabric strap ends used in my device, and

Fig. 7 is a fragmentary detail showing one form of the application of my device to metal furniture.

Referring now more closely to the drawing by characters of reference, the preferred form of my chair equipped with my improved seat construction shows a seat frame indicated in general by the numeral 10, front legs 11, rear legs 12 secured to said frame, arm rests 13 and back 14. A back cushion or pillow 15 and a seat cushion or pillow 16 may be placed on the respective parts of my chair to give it an upholstered effect and usefullness.

In the preferred embodiment the seat frame 10 is composed of front member 17, left and right side members 18 and 19, respectively, and rear member 20, secured into the respective legs of the chair and each such frame member is of a rectangular upstanding wood piece 21, the upper end of which is recessed on the inside thereof to a comparatively short depth as at 22 forming a shoulder 23 and an upstanding outside rib or wall 24. A plurality of holes 25 are equidistantly drilled in the shoulder 23 and a spiral spring 26 having an outer hook portion 27 is set into each of such holes 25 by the downwardly turned end of said hook portion 27. A U tack 28 may be used in the simplest form of my device to further secure the hook portion 27 on the shoulder 23. The further or inner end of the spiral spring 26 shows a similar straight hook portion 29, the downwardly turned end of which is hooked into a hole 30 in the respective end of a preferably textile fabric strap 31. Said strap 31 crosses the distance between the two opposing frame members of the seat in the case illustrated being the two side members 18 and 19, and the other end thereof shows an exactly similar construction and is connected to the opposite frame member through a similar spiral spring 26. A plurality of spaced apart straps 31 are arranged between the two said members 18 and 19, and a second plurality of similarly constructed straps 32 are arranged across the front and rear members 17 and 20, respectively, said frame members having identical construction to the said first named members, and said second plurality of straps 32 being connected to said front and rear members by identically constructed spiral springs 26. A wider strip 33 of preferably flexible textile material may be placed over the shoulders 23 along the full length of each said member of the seat frame and may be removably secured thereto by tacks 34 or by any other suitable means. Said strips of material 33 are of sufficient width to extend beyond the inner edge of the shoulder 23 and cover the respective row of springs 26 with their associate devices up to and including a portion of the ends of the respective straps 31 or 32, respective-

ly. In Fig. 1, a portion of such covering strips 33 has been removed to better show the construction of the springs 26, said springs being indicated by the dot and dash lines 26' in the portions of the figure where said strips 33 are shown as covering them. A cushion or pillow 16 of any suitable construction may be placed on the seat structure described hereinbefore exactly fitting to its dimensions, but still being easily removable therefrom.

It will be seen that I provide a seat construction which is extremely comfortable, yielding, but still resilient and elastic to a high degree. Cushion 16 may be easily removed whereupon the whole structure of the seat will be exposed, and upon folding upwardly or temporarily removing the circumferential covering strips 33 the ends of the transversal straps 31 and 32 are at once accessible and every individual strap 31 or 32, or their springs, may be easily removed and replaced or exchanged.

It is also obvious that the cleaning of this seat construction can be done easily and efficiently, leading not only to ease and comfort in use of my chair, but also to a highly sanitary condition thereof.

In Fig. 5, I show a modification of the construction of the ends of the straps 31 or 32, said ends being here enclosed between the two sides of a doubled piece of sheet metal 35, the same being secured to said strap end by sharp teeth 36 being struck out of its material into said strap ends, and also by rivets or other fastening means 37. A metal hook 38 may be secured on the outer end of said double sheet metal piece 35 to receive the inner end of the respective spiral spring 26.

In Fig. 6, a further modification of the construction of the ends of straps 31 or 32 is illustrated and in this construction said strap end is doubled upon itself, as at 39, and two sheet metal plates 40 and 41 are placed above and below the same, respectively, and preferably secured thereto by the rivets 42. The end 43 of said doubled portion is left free so that it forms a loop through which is placed a wire ring 44, said wire ring to receive the mentioned end of the respective spiral spring 26, as has been described hereinbefore.

In Fig. 7, finally, I illustrate one form of the application of my device to metal furniture. The respective frame member is here shown as a metal tube 45 to which I preferably secure an ear piece 46 having an aperture 47 therein into which the outer end 27 of the respective spring 26 may be hooked.

It will be understood that changes and variations may be made in the parts and combinations of my invention and I hereby reserve all my rights to any and all such changes as are within the spirit of the invention and the scope of the appended claims.

What I claim as new, is:

1. In a chair or like furniture, in combination with a removable cushion and as a base for it, a seat frame having opposingly placed members; a plurality of straps placed transversely between said members; a spiral spring for each end of each strap, said spring having downwardly turned hook extensions at both ends, each of said frame members having a plurality of holes and each of said straps having a hole at each end, the downwardly turned ends of said springs being removably inserted in the respective holes.

2. In a chair as set forth in claim 1, rabbets formed in the frame members, said holes in the frame being on the horizontal surfaces of said rabbets, and said cushion partly resting on said horizontal surfaces enclosed by the vertical walls of said rabbets.

Signed this 15th day of June, A. D. 1931.

HERMANN RUETZ.