

E. PETERSON.
UPHOLSTERED FURNITURE.
APPLICATION FILED FEB. 18, 1911.

1,024,744.

Patented Apr. 30, 1912.

2 SHEETS—SHEET 1.

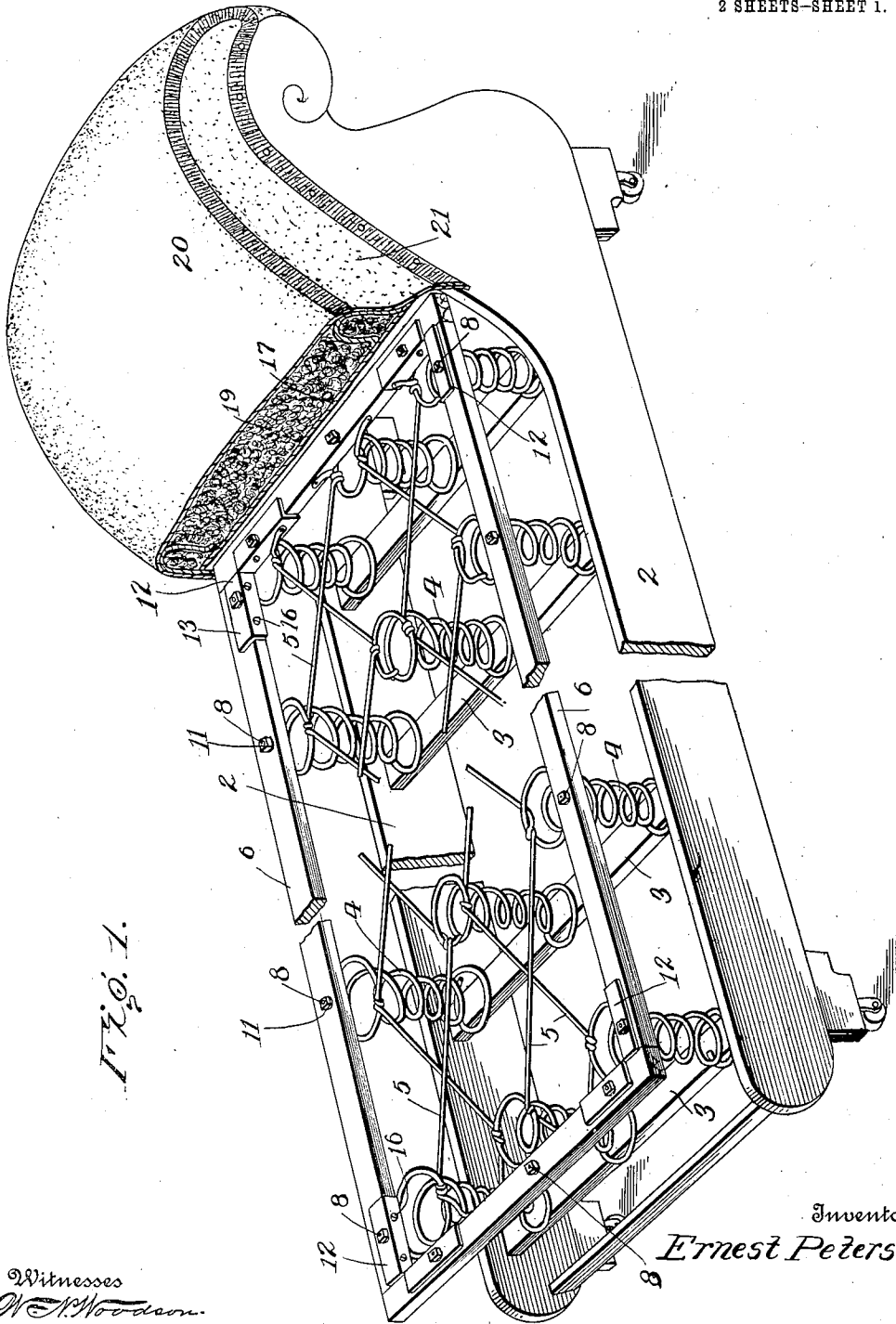


Fig. 1.

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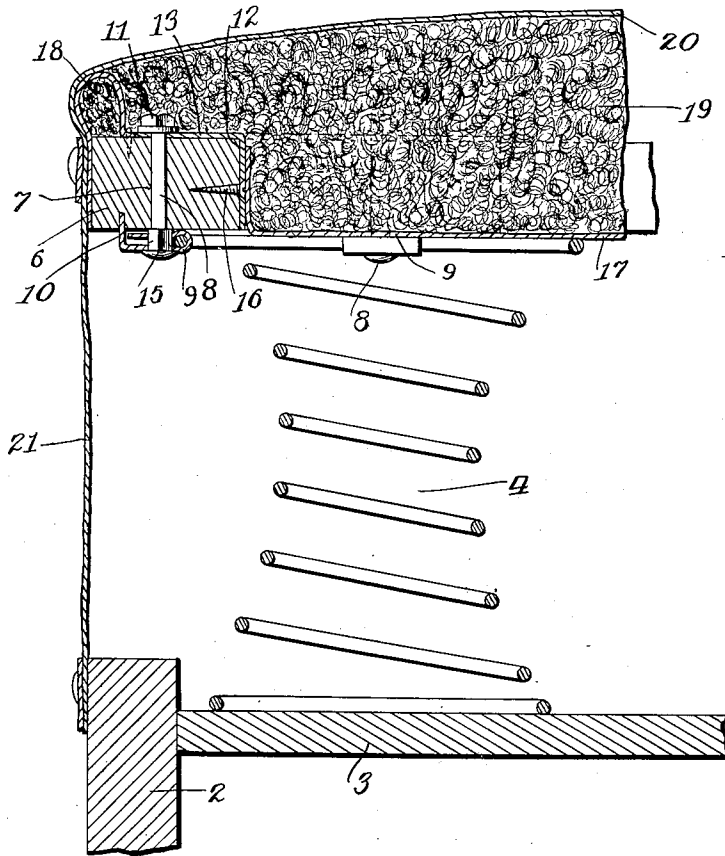


Fig. 2.

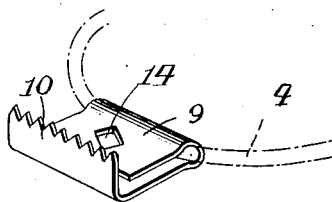


Fig. 3.

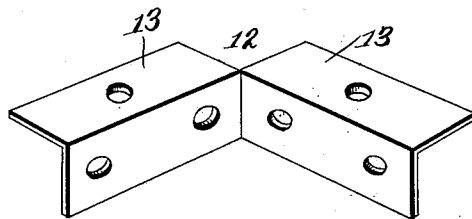


Fig. 4.

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UNITED STATES PATENT OFFICE.

ERNEST PETERSON, OF NEW HAVEN, CONNECTICUT.

UPHOLSTERED FURNITURE.

1,024,744.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, ERNEST PETERSON, citizen of the United States, residing at New Haven, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Upholstered Furniture, of which the following is a specification.

My invention relates to articles of furniture and particularly to upholstered furniture such as couches, chairs and the like where helical springs are used for supporting the padding and cover.

In the usual and ordinary mode of forming couches, sofas, chairs and the like having helically coiled springs for supporting the padding and cover, the springs being first set in place within the couch or other article and longitudinal supporting wires being attached to the springs and to the ends of the frame, a piece of duck or canvas is attached to the head of the couch and laid smoothly over the supporting wires and tacked all around the edge of the couch frame. Upon this canvas or duck is placed a piece of burlap in the same manner, and along the edges and foot of the couch is placed a quantity of tow twisted into a rope. The edges of the burlap are then folded up around this tow and stretched firmly to the longitudinal wires defining the edge of the couch and the end of the same, thus making a small roll along both edges and the foot end of the couch. The stuffing or padding is then placed on top of the duck and burlap and on top of the roll of tow and the outside cover is placed on and sewed down all along the edges and end. Then a "band" of cloth or the material forming the outside cover is stitched to the cover along the edge thereof and fastened at its lower edge to the frame of the couch.

The object of my invention primarily is to obviate the difficulties attendant upon the method of manufacturing above explained, and to so construct a piece of furniture that the seat or member forming the padding and cover may be easily, simply and expeditiously attached to the springs and to the main frame of the piece of furniture without the necessity of sewing the duck, canvas or other material used to form the webbing or the cover.

Another object is to provide a rigid, false frame in place of the longitudinal edge wires, which frame rests directly upon the

springs and is rigidly attached thereto, to which frame the cover and the "band" may be readily tacked.

Another object is to provide means for securely connecting the springs to the false frame so that the false frame and springs will have no relative motion.

Other objects of the invention will appear in the course of the following description.

My invention is illustrated in the accompanying drawings wherein:

Figure 1 is a perspective view of a couch, the padding of which has been removed from the seat so as to show the interior construction. Fig. 2 is a fragmentary vertical sectional view of one side of the couch. Fig. 3 is a perspective view of the clamp whereby the springs are attached to the false frame. Fig. 4 is a perspective detail view of the corner brace or angle iron used at the corners of the false frame.

Corresponding and like parts are referred to in the following description and indicated in all the views of the accompanying drawings by the same reference characters.

I have illustrated my invention as applied to a couch but I wish it understood that the principles of the invention might be easily applied to the manufacture of other articles of furniture.

The main or lower couch frame 2 is of any ordinary or usual construction and is provided as usual with the transverse cross pieces 3 upon which the helical springs 4 are set, the springs being attached to the cross pieces by means of clips or double pointed tacks as usual. The large ends of the springs are upward and the springs project above the couch frame 2. The number of sets of springs will depend upon the length of the couch and the number of springs for each set will depend upon the width of the couch. The springs are connected to each other by means of the zigzag wires 5. These zigzag wires are quite commonly used in the construction of couches, chairs, etc., and hence require no special description.

In place of connecting the outer springs to each other by longitudinal supporting wires upon which the canvas webbing or duck which rests immediately upon the springs is sewed, I provide an upper frame 6 as illustrated in Fig. 1 which is adapted to rest upon the outer row of springs and be supported thereby. This upper frame is rectangular in plan and is of the same size

as the lower or main couch frame 2. The upper frame is provided with a plurality of holes 7, there being as many holes as there are marginal springs.

5 Passing through the holes 7 are the bolts 8. The bolts are provided with heads 15 at their lower ends and pass through clips 9. The clips 9 as illustrated in Fig. 3 are formed of strips of metal, each strip being bent
10 upon itself and formed at one end with an upwardly extending flange 10 having a serrated edge intended to pierce and have a biting engagement with the under side of the wood forming the frame 6. The clip
15 engages around the wire forming the springs 4, as illustrated in Fig. 2, and the bolt passes through both wings of the clip. Thus when the nut 11 on the bolt 8 is tightened, the two wings of the clip are forced into gripping
20 engagement with the wire 4 and the flange 10 is forced into biting engagement with the wood. It will thus be seen that the upper frame is connected to all the outer springs and is so connected that the springs are held
25 rigidly to it.

Preferably, the corners of the upper frame 6 are held in rigid engagement with each other by angle pieces 12, the angle pieces being formed of angle iron so as to
30 provide flanges which engage with the upper face of the frame and with the inside face of the frame. The upper flange 13 is provided with holes through which the bolts 8 pass. Preferably the bolts 8 are formed
35 with a square head 15 which fits into the square openings 14 in the clip 9. Thus the bolts are held from any rotation. The angle pieces 12 are held to the frame 6 by means of screws 16 passing through the vertically
40 disposed flanges of the angle pieces. The bars forming the frame will thus be held rigidly at right angles to each other and the frame cannot easily become deformed.

45 Before the frame is attached to the springs as before described, it is covered with duck stretched from one side across to the other, this duck being designated 17, the duck being tacked at its edges to the
50 frame. The frame with the duck attached is then placed on top of the springs 4 and the springs attached by means of the clips 9, as previously described. A small roll of tow 18 is then tacked on the upper face of
55 the strips of wood forming the frame, the webbing which forms the covering of the roll being extended beneath the nut of the bolts and also making a smooth edge over which the outside cover may be drawn. By
60 this means the bolt 8 with its enlarged head and nut performs the twofold function as a means for holding the clip member and likewise holding the webbing of the roll and securing the parts firmly together.
65 This tow is preferably contained within a

casing of textile fabric. Stuffing or padding 19 is now placed on top of the duck or canvas and the outside cover 20 is placed on over the padding and tacked to the false frame all around, thus dispensing with the
70 necessity of sewing the cover to the longitudinal wires as previously described. After the cover is placed in position the "band" 21 is tacked, not sewed, to the false
75 frame and the loose lower edge of the band is then tacked along the molding of the main frame and gimp is put on and the sofa thus finished.

By the old method of manufacture, it required about four hours for a good upholsterer to sew on the roll and cover. With
80 the construction devised by me and heretofore described, all this sewing is done away with and the cover and the duck webbing are tacked onto the frame. The complete
85 operation can be performed in about one and a half hours. In the old manner of constructing these couches, the roll of tow had to be fastened along the edge of the springs and the burlap covering and the
90 roll of tow had to be sewed down tight so as to make a strong, fine edge all around the couch. The cover had to be securely fastened by sewing to this roll and inasmuch as this roll of burlap had to be sewed to
95 each and every spring along the edge of the couch, it was a matter of considerable trouble and required a good deal of time in order to upholster a couch in the old manner. By the use of the false frame
100 attached to the springs, I provide means whereby the roll of tow may be readily attached in place, and means whereby the cover and webbing may be readily attached, thus doing away with the necessity of sewing
105 these parts to the spring. While I do not wish to limit myself to the use of the specific clamps illustrated, I have found in practice that they afford a very rigid connection between the false frame and the
110 springs and prevent any disconnection between these parts. While I have illustrated the springs as being provided with longitudinal zigzag supporting wires and preferably use these supporting wires, it is obvious
115 that this invention might be used with "twine-tied" work as well as the zigzag wire work and that the principle of the invention may be applied to any piece of furniture having a spring edge.
120

Aside from the ease with which furniture may be made according to this invention, another advantage resides in the fact that
125 the edge of the couch when upholstered is perfectly straight and will remain so after years of use, whereas with the usual construction, the wire forming the edge of the couch is very liable to give and elongate after years of use. Thus the shape of the
130 couch gradually deteriorates.

What I claim is:

In an article of furniture, the combination with a coiled spring and a frame supported thereon, of a bolt passing through
5 the frame and having an enlarged many sided extremity formed with a head at its termination, and a spring clip for holding the bolt from rotation relative to the frame and engaging the bolt with the spring com-
10 prising a metal strip folded to provide parallel wings embracing the wire of the spring, one wing bearing against the face of the frame, the outer wing being longer than

the inner wing and being angularly bent over the end of the other wing, said angularly bent end being serrated, both of said wings
15 being formed with alining, many sided perforations through which the many sided enlarged portion of the bolt passes.

In testimony whereof, I affix my signature in presence of two witnesses.

ERNEST PETERSON. [L. s.]

Witnesses:

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ORLO P. WARD.