



H. N. PEDERSEN.
SPRING SEAT CONSTRUCTION.
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Fig. 1

UNITED STATES PATENT OFFICE.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, HAZEL N. PEDERSEN, a citizen of the United States, and resident of Racine, county of Racine, and State of Wisconsin, have invented certain new and useful Improvements in and Relating to Spring-Seat Constructions, of which the following is a specification.

This invention relates to certain improvements in and relating to spring seat constructions and more particularly to the means for binding or locking the upholstery or seat covering material thereto; and the objects and nature of the invention will be readily understood by those skilled in the art in the light of the following explanation of the accompanying drawings illustrating what I now believe to be the preferred embodiment and mechanical expression of my invention from among other forms and constructions within the spirit and scope thereof.

An object of the invention is to provide means for binding or locking upholstery or other seat coverings to the spring construction of spring seats.

A further object of the invention is to provide means for binding or locking upholstery or other seat coverings to seat constructions without the use of tacks, prongs, teeth, or the like, and which will form a secure binding or locking means of simple construction.

A further object of the invention is to provide means for binding or locking upholstery or other covering material to the spring construction of spring seats, which consists of a member adapted to be fastened to a frame of the spring construction and to receive the free or depending ends of the upholstery or other covering and a locking strip adapted to be applied to the receiving member and bind the ends of the upholstery or other covering therein and thereto.

A further object of the invention is to provide means for removably binding or locking the upholstery or seat covering material to the spring construction of spring seats, which means consists of a channel strip formed of a single piece of material so that its sides are resilient. This strip is adapted to receive the ends of the seat covering material, and a locking strip is forced into the channel strip to securely bind or lock the covering material therein.

Further objects, and objects relating to

structural details, will definitely appear from the detailed description appearing hereinafter.

The invention consists in certain novel features in construction and in combinations and arrangements as more fully and particularly set forth and specified hereinafter.

Referring to the accompanying drawings:

Figure 1, is a vertical section through a spring seat to which my invention is applied.

Fig. 2, is a detail perspective view.

Fig. 3, is a detail perspective view of a modified construction.

In the spring seats of the general type disclosed in the accompanying drawings, a suitable covering of facing material or upholstery is provided which extends over the top and sides of the spring construction and is customarily fastened to the lower frame thereof in any of a number of ways. This fastening is accomplished by providing frames of wood, or the like material and nailing or tacking the ends of the seat covering thereto, or, where metal frames are used by various complicated and other expensive arrangements and constructions which often require the use of machinery or special tools in fastening the covering thereto and which in a number of instances necessitate sewing or providing the ends of the covering with binding or reinforcing members. A prevailing arrangement in the art, where metal frames and cover fastening means are used, is the provision of various forms and constructions of teeth, prongs, and the like, which are forced through the covering material and bent over thereon or clenched. All of these methods and constructions for accomplishing the fastening of upholstery or seat covering material to the spring construction of spring seats, or other seat constructions, are more or less complicated and expensive and necessitate a number of operations to form the completed fastening. The invention embodied in my present application, by the arrangement and construction described and disclosed, overcomes the disadvantages of the devices of the art set up hereinbefore.

The invention specified relates particularly to the means adapted to bind or lock the upholstery or seat covering material to

the spring construction of spring seats. This binding or locking means consists of a member which is formed to receive the free or depending edges of the upholstery or covering material and a member which is applied to the receiving member to securely bind or lock the edges of the covering material therein and thereto. The member formed to receive the edges of the covering material is provided with means whereby it can be readily and rigidly fastened to a frame of the spring construction. The upholstery or seat covering is securely locked in and to this receiving member which is rigidly fastened to a frame of the spring construction, and in this manner, the upholstery or seat covering material is tightly maintained upon and in proper relation with respect to the spring seat construction, without the use of tacks, prongs, teeth, or the like, or the complicated or expensive arrangements and constructions heretofore used for this purpose.

Referring to the particular example illustrated by the accompanying drawings, I show a spring construction consisting of the frames 1 and 2, and a series of spiral springs 3 within the frames and fastened thereto. The springs 3 may be fastened together and braced in any of a number of well known ways and those springs adjacent the frames 1 and 2 are fastened thereto by metal clips, or the like, such as 4. Upholstery or seat covering material 5 is placed across and completely covers the top of the spring construction and depends down and covers the sides of the construction and extends a distance past the lower edges thereof. The upholstery 5 thus completely covers the top and sides of the spring construction.

The above description, of the specific example illustrated, is typical of the general type of spring seat construction, in which a series of spiral springs are mounted in and fixed with respect to metal or the like, frames at the opposite ends of the springs, and upholstery or covering material is placed upon one of the frames covering the space across said frame, depending across all of the sides, and fastened to the opposite or bottom frame.

Various devices and arrangements have been used to fasten the depending upholstery or covering to the lower frame, and my invention is directed particularly to such a device, although of course, it is not limited to use upon the specific arrangement of spring construction disclosed but is applicable to a variety of such constructions.

The device of my invention comprises two members, the upholstery or covering material receiving member A and the binding or locking member B which is applied to the member A and binds or locks the upholstery or covering material thereto and there-

in. The member A, in the particular example illustrated, is in the form of a channel or U shaped strip formed of a single piece of sheet material having the sides 6 and 7 and the rounded edge 8. Between the sides 6 and 7 the channel or space 9 is provided open at its ends and bottom.

A series of tongues or clips 10 are formed in the side 6 of the channel strip A by cutting the side a distance transversely thereof terminating above the open edge of the channel strip, and a distance longitudinally thereof at the edge 8. These tongues or clips 10 are the means which fasten the channel strip A to the frame of the spring construction by being bent tightly therearound, as clearly shown in the accompanying drawings.

The binding or locking member B is formed of a strip or ribbon of sheet material in thickness less than the internal width of the space or channel in the member A and approximately equal in width to the depth of the said space or channel. This locking member B is adapted to be forced into the channel strip for the purposes and in the manner appearing hereinafter.

A spring seat being provided with the binding or locking member A in the form of a channel or U shaped member, fastened thereto by means of the tongues or clips 10 as explained, the operation and method by which the upholstery or seat covering material is bound or locked therein and thereto and is maintained in position upon the spring seat, is as follows:

The depending ends or edges of the upholstery or covering material 5 are cut off so that they extend or depend a distance beyond the lower or outermost edge of the channel strip A, approximately a distance equal to the depth of the channel or space in the strip. However, as shown in the drawings, the depending ends of the material 5 may be of such length to permit curling over and depending a distance downwardly in the top of the strip A. The upholstery or covering material is then stretched tightly on and over the spring construction and its free or depending ends forced or thrust into the channel or space in the channel strip A, formed between the sides 6 and 7, thereof. As soon as the ends of the material are in this position the binding or locking member B formed of the strip or ribbon of sheet material having been bent into the shape or outline of the channel in the member A, is forced into this channel 9 parallel to the ends of the material 5 therein and between these ends and the inner wall 6 of the channel strip. As pointed out the sides 6 and 7 of the channel strip are resilient and as the thickness of the material and the binding or locking strip B together are greater than the width of the channel 9, the sides 6 and 7 will be forced outwardly but will tend to

return to their normal positions, thus exerting a pressure against the material and the strip therebetween and securely locking them therein, and where the end of the material is curled over in the top of the channel strip the member B will bear thereagainst and securely hold the ends of the material 5 therein. This locking effect is aided further and increased by the fact that the material 5 is compressed, to a certain extent, by the action above pointed out and also exerts pressure against the members between which it lies. In this manner the upholstery or covering material 5 is firmly and securely maintained in position upon the spring seat.

In Fig. 3, I have shown a modified construction of my invention in which the receiving member or channel strip A is formed with an interior longitudinal groove 11 in the side 7. In this arrangement the locking strip takes the form of a wire or rod as B' which is adapted to be forced into the channel 9 between the sides 6 and 7 of the member A and to seat in the longitudinal groove 11. The ends of the covering material 5 are inserted in the channel strip A and the wire or rod locking member B' is forced into the channel strip A, between the covering material 5 and the inner side 6 of the member A, until it seats in the groove 11. As the material 5 is between member B' and groove 11, it is forced into the groove by the wire or rod B' and is locked or bound in and to the receiving strip A. The spring or resiliency in the sides 6 and 7 maintains the wire or rod B' in the groove 11, thus securely locking the ends of the covering material in the channel strip.

The binding or locking strips B or B' may be readily removed from the channel strip A to release the seat covering material ends therefrom. That is, my invention provides an arrangement whereby the upholstery or seat covering material may be fastened to a spring seat construction in such a manner that it may be easily removed therefrom, and without in any manner mutilating or defacing the material.

A spring seat provided with the upholstery binding or locking means of my invention presents a finished, neat appearance, as the lower edges of the seat are covered by the material turned over the lower edge of the outer side 7 of the channel strip A, thus forming a smooth rounded edge at the bottom of the seat, as shown in the drawings.

My invention may take other forms and constructions than the specific channel strip and locking member of the drawings and other arrangements can be provided for fastening the receiving member A to the lower frame of the spring construction without departing from the spirit and scope of the invention. I also do not wish to limit my-

self to the particular location of the receiving member A upon the spring seat as it is obvious that the same results and advantages would be secured at other points on a spring seat. My invention resides in the use of two members, one adapted to receive the material and the other lock the same therein and thereto, the receiving member formed with means whereby it can be securely and rigidly fastened to a spring seat, and the above results obtained without the use of the complicated and expensive arrangements and constructions of the art.

What I claim is:—

1. A spring seat comprising springs having a lower frame, flexible material depending at the edges of the spring seat, a downwardly facing channel strip having its flanges disposed in a plane substantially parallel to the plane of the depending flexible material, means carried by said strip for attachment to the spring frame, the lower edge portion of said flexible material passing down at the outer side of said strip and upwardly into the channel thereof, and a locking member forced into said strip and binding said flexible material therein and thereto.

2. A device of the character substantially as described, comprising a channel strip adapted to receive the depending ends of seat upholstery, means for fastening said strip to a seat comprising tongues formed from a side of said channel strip, and a locking member applied to said channel strip to bind the depending upholstery ends thereto.

3. A device of the character substantially as described, comprising a channel strip having resilient sides and adapted to receive the ends of seat upholstery therebetween, means integral with said channel member for fastening the same to a seat, and a locking strip forced between the sides of said channel strip whereby the upholstery ends therein are bound thereto.

4. A spring seat comprising springs having a lower frame, a channel strip, comparatively narrow with respect to its depth, fastened in a vertical position around the outside of the lower frame with the channel thereof opening downwardly, upholstery on said seat, the depending ends of said upholstery inserted upwardly into said channel member, and a locking strip forced into said channel strip, and binding said upholstery ends therein and thereto.

5. A device of the character substantially as described adapted to be fastened around the outside of the lower frame of a spring seat construction and to receive the depending ends of the upholstery on said construction, comprising, a channel strip formed of sheet material and having resilient sides and a locking member forced into said channel

strip whereby the sides thereof bear against the depending upholstery ends and bind the same therein and thereto.

5 6. A spring seat comprising springs having a lower frame, flexible material depending at the edges of the seat, and means for securing the lower edge portion of said material, said means being secured to said frame and depending below the same to
10 form a support for the seat, said means comprising a channel strip receiving the edge portion of said material and a locking member forced into said channel and wedging said material therein, the strip and member
15 being so arranged that the weight of the

seat tends to maintain the locking relation of the strip and member with respect to said material.

7. A spring seat comprising springs having a frame connecting their lower ends, 20 flexible material depending at the edges of the seat, and means forming a bottom depending supporting rim for said seat and securing the lower edge of said material and comprising a channel strip having vertically 25 disposed flanges between which said material is clamped and a locking member forced vertically between said flanges to clamp and secure said material therebetween.

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