Aug. 9, 1938. S. BRAUN 2,125,987

UPHOLSTERER'S SPRING

Filed March 2, 1938

Fig. 1

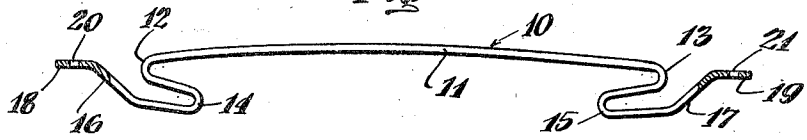


Fig. 2

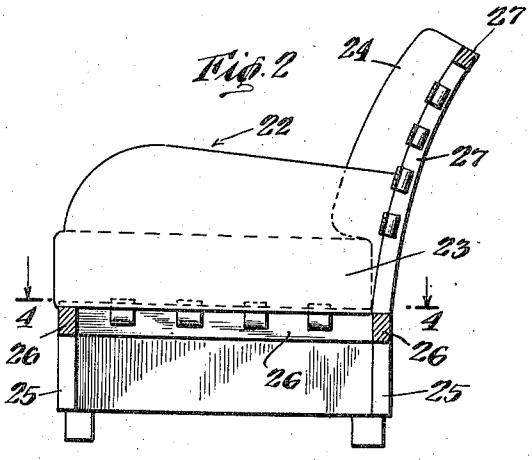


Fig. 3

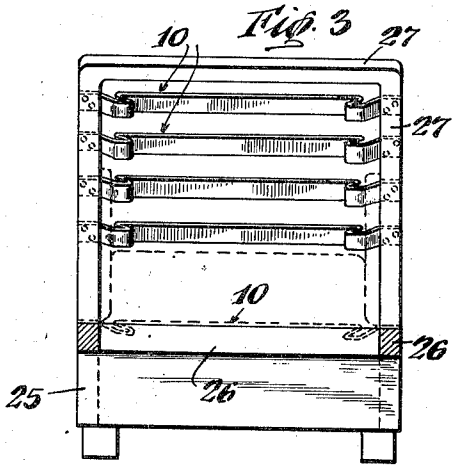


Fig. 4

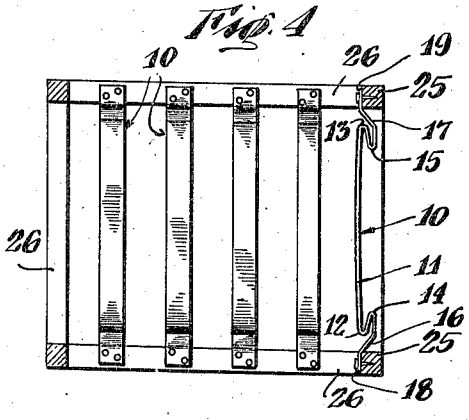


Fig. 5

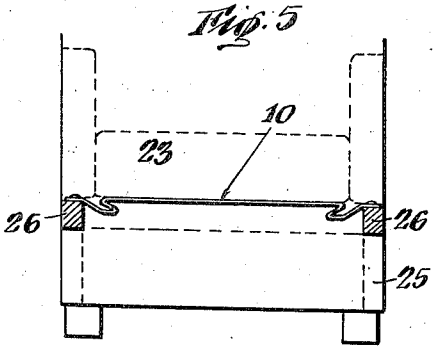
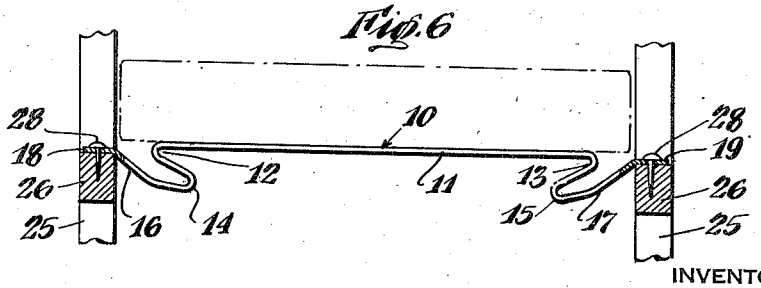


Fig. 6



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UPHOLSTERER'S SPRING

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Application March 2, 1938, Serial No. 193,429

2 Claims. (Cl. 135—179)

This invention relates to an upholsterer's spring and is particularly adapted for use in upholstering chairs, settees and similar articles.

One object of this invention is an upholstering spring which can be attached directly to the framework of a chair or like article without the use of special blocks.

Another object is an upholstering spring that can be applied directly to the framework of any chair or like article, regardless of the depth of the frame.

Another object is to materially increase and strengthen the means for anchoring the springs without sacrificing the cushion comfort of the ultimate article.

Other objects are economy of time, labor and material.

Further objects will appear from the detailed description.

In the drawing comprising but a single sheet of six figures numbered Figs. 1 to 6 inclusive:

Fig. 1 is a front elevation of the spring.

Fig. 2 is a side view of an upholstered chair partly in section indicating how said spring may be used in both seat and back.

Fig. 3 is a skeleton view of the chair frame of Fig. 2 looking from the back.

Fig. 4 is a top plan view of the frame of the chair of Fig. 2.

Fig. 5 is a front elevation of the chair seat; and

Fig. 6 is a fragmentary view.

Like reference characters designate corresponding parts throughout the several figures of the drawing.

Referring first generally to Fig. 1, the spring 10 made of flat spring steel consists of a crown portion 11 having its opposite ends downwardly and inwardly bent as indicated at 12 and 13, to form extension pieces in continuation of the crown portion and to render the same resilient. The extension pieces and the crown portion in conjunction form hairpin curves extending partially beneath crown portion 11. Each extension piece is thereafter outwardly bent as indicated at 14 and 15 and thereafter upwardly and outwardly extended as indicated at 16 and 17, to form a reverse hairpin curve, the crown portion and the extension pieces in conjunction presenting the appearance of a substantially flat spring terminating in two oppositely disposed S shaped curved sections, with their respective tail pieces extending outwardly. The tail pieces of the S shaped curved section are thereafter outwardly bent to form the outwardly extending laterally projecting flanges 18 and 19, which may be provided with a suitable form of opening 20 and 21 adapted to receive the nails, screws, or other means for anchoring flanges 18 and 19 to the frame of the article to be upholstered. For some purposes the crown portion 11 is preferably cambered (Fig. 1), while for other uses a substantially flat crown portion (Fig. 6) may be preferred.

The advantages of my improved form of upholstery spring would be best understood with reference to the remaining figures of the drawing, disclosing said invention as applied to the seat and back of an upholstered chair. Several of the springs 10 may be inserted in the framework of the back of the chair (Fig. 3), or in the framework of the bottom of the chair (Fig. 4). The overall length of a spring 10 including the crown portion 11, the S shaped extensions and the anchoring flanges 18 and 19 is substantially equal to the overall width of a section of the frame of the article to be upholstered, while the overall length of the crown portion 10 and of the two S shaped extension pieces is substantially equal to the width of the opening between the side pieces 27—27 of the framework of the back of the chair, or the side pieces 26—26 of the bottom of the chair as the case may be. The anchoring flanges 18 and 19 may be formed so as to lie substantially in the plane of the crown portion 11 or in a plane substantially parallel thereto, so that when spring 10 is placed in proper position to be supported by the side pieces 27—27 of the back or 26—26 of the bottom, of the chair the crown portion 11 and the anchoring flanges 18 and 19 lie substantially in the plane of the top of the framework, and the S shaped extension pieces are positioned inside the box-like opening formed by the frame members 26—26 or 27—27 as the case may be, 26—26 or 27—27 with the anchoring flanges 18 and 19 supported upon the side pieces. This is a great advantage because spring 10 can thus be anchored directly to the top of the frame members 26—26 or 27—27 by means of suitable nails, screws or other anchoring devices driven through the openings 20 and 21 of the flanges 18 and 19, instead of building up a foundation for anchoring the springs upon wooden blocks secured inside the frame members 26—26 or 27—27 as the case may be, and entirely regardless of the depth of the frame thereby also eliminating the need for using the webbing, burlap covering and twine or cable cord heretofore employed. By anchoring the flanges 18 and 19 to the top of the frame mem-

bers 26—26 or 27—27, the entire spring load is carried upon the top of the frame, rather than upon wooden blocks attached to the frame or upon the head of the anchoring means when the spring is attached from below, according to the present practice.

Any given length of spring may be applied to any opening of appropriate width or length regardless of the depth or shallowness of the framework. By supporting the springs between the front and rear frame members (instead of between the side frame members 26—26 as shown in Fig. 4), all of the springs 10—10 may be effectively used to support the weight of the user, whereas when the springs are supported between the side frame members the weight of the user is principally supported by the forward springs, the rearmost spring receiving but a small fraction of the user's weight.

What is claimed is:

1. A spring steel upholstery spring substantially equal in overall length to the length of a cross section of a framework to be upholstered, said spring including a crown portion and oppositely disposed resilient S shaped extension pieces in continuation of the ends of the crown portion, the inner ends of said S shaped extension pieces projecting downwardly and inwardly beneath the ends of the crown portion, the tail ends of said S shaped extension pieces extending upwardly and outwardly, the overall length of said crown portion and said S shaped extension pieces measured from tail end to tail end thereof being substantially equal to the length of a cross section of the opening to be upholstered and adapted to be positioned within said opening, and said tail end extension pieces being outwardly bent substantially in the plane of the crown portion to form laterally projecting outwardly extending flanges for anchoring said spring to the framework of the frame to be upholstered.

2. A flat spring steel upholstery spring comprising a cambered crown portion, the ends of said crown portion being bent to form a pair of oppositely disposed S shaped extensions in continuation of and extending beneath the crown portion, and outwardly extending tail members in continuation of said S shaped extensions, said tail members being outwardly bent to constitute supporting and anchoring flanges for said spring, said flanges lying substantially in an extension of the base plane of the crown portion.

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