

J. HEITZENREDER, JR.
UPHOLSTERING.

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1,353,340.

Patented Sept. 21, 1920.

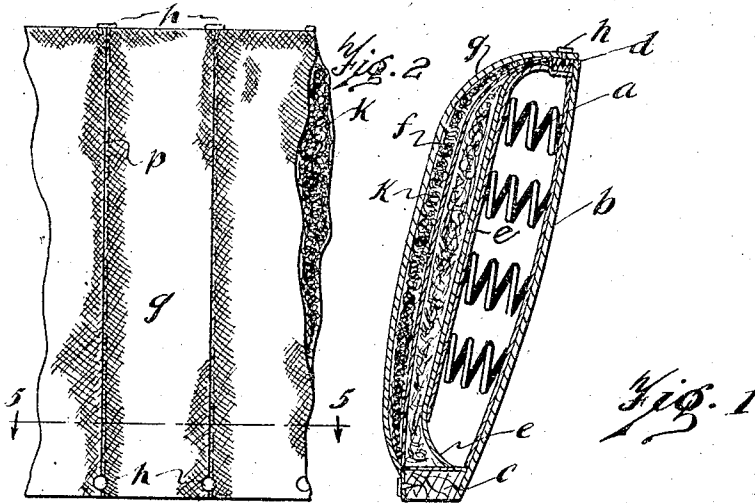
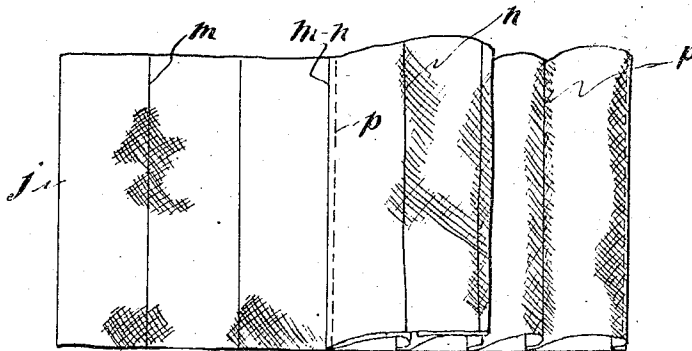


Fig. 3

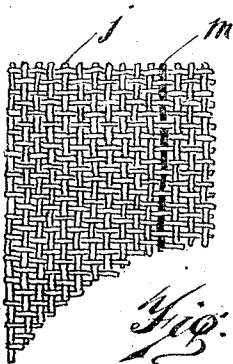


Fig. 4

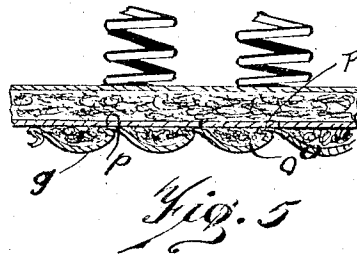


Fig. 5

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UPHOLSTERING.

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To all whom it may concern:

Be it known that I, JACOB HEITZENREDER, Jr., citizen of the United States, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Upholstering, of which the following is a specification.

This invention relates to upholstering and has for its object a new method of constructing cushions with coverings with straight piping or so-called French plaits. The invention also results in a new and better cushion for it can be tacked and drawn taut on the same thread of the cloth so that it does not pull on the bias and get the covering cloth, either the foundation or facing, out of shape and wrinkled. Furthermore, it enables the piecing together of odd pieces of expensive upholstering cloth that would otherwise be waste. These and other objects will better appear when the prior practice and this improvement is described.

In the drawings,—

Figure 1 is a cross section of an automobile seat back.

Fig. 2 is a front elevation of the same, fragmentary in character.

Fig. 3 is a perspective showing how the upholstering facing is sewed to the foundation cloth.

Fig. 4 is a fragmentary enlarged view showing a warp thread of contrasting color.

Fig. 5 is a section on the line 5—5 of Fig. 2.

The ordinary automobile seat is upholstered by placing a set of springs *a*, which may be of various constructions, against the back seat panel *b* between the upper trim rail *d* and the lower trim rail *c*. The springs are usually covered with burlap or other cloth *e* and then a layer of curled hair *f* laid over the springs. Over this is drawn an upholstering cover designated generally *g* and which is tacked at *h* to the upper trim rail and at *i* to the lower trim rail. This upholstering covering has in the past generally been tufted. Now the so-called French plaits or straight piping has come into vogue.

These straight pipes or French plaits are made by taking the foundation cloth *j*, usually burlap or some other rough material, and sewing to this the leather, imitation leather, cloth or other facing that is to be the outside material for the upholstering. The seams are made in parallel upright lines

forming pockets in which is stuffed usually cotton wadding *k*.

Heretofore it has been customary to mark out vertical lines on the foundation cloth and on the inside of the facing of the upholstering for the purpose of guiding the operator in sewing the facing and foundation cloth together. This marking has been done with the aid of a pattern in the form of a plurality of spaced cleats fastened together by cross pieces. This pattern is placed over the foundation cloth and over the inside of the facing and the marker rapidly rules the vertical lines on both the foundation cloth and on the facing that are to be used as guides in making the seams. The trouble with this method is that it requires a separate operation in production and results in a very uneven spacing and irregularity of the lines for the reason that no matter how much care is used the cloth or other material shifts when the pattern is put on it and the pencil or other marker is drawn across it. In some places the lines may be $3\frac{1}{2}$ " apart while at others they may be $3\frac{1}{4}$ " or 4" apart, depending upon how much the shift has been.

Fig. 3 gives a good idea of how the facing material which is designated *l* is sewed to the foundation cloth *j*. *m* designates the guide lines for the foundation cloth; *n* the guide lines for the facing material. The guide lines for the facing material are spaced to give such fullness as is shown at *o* in Fig. 5, for it is the facing material that bulges to give the pipe or plaiting effect. To form these pockets the operator lays the upper facing material upon the foundation cloth, matching the guide lines *m* and *n* with that portion of the upper facing that has not yet been used for pockets turned back to the right, as shown in Fig. 3. A seam is then made by the lines of stitches *p*. After this seam is made the operator brings the next guide line *n* in registry with the next guide line *m* and the operation is repeated, and so on until the whole line of pockets is formed. As already explained, with the old way of forming the guide lines these pockets were often quite irregular, resulting in irregularity of appearance. Furthermore, these guide lines are never placed on a line with the threads except accidentally, that is to say, the guide line might run somewhat obliquely over the threads. The consequence is, when the tacks are put in to nail the up-

holstering to the top and bottom trim rail and the stretching is done, very often the goods is pulled on the bias, the result being to wrinkle the foundation cloth and the facing, and these wrinkles are hard to eliminate by pulling out at right angles to the line of the bias stretch. It is desirable to do the stretching on the line of a single thread where there is never any wrinkling or puckering to have to get out.

My improvement consists in utilizing a guide line that is manufactured into the foundation cloth or into the facing cloth wherever the facing is of a substance such as whip cord, velour, or other fabric material which has a thread construction or part thread construction—as imitation leather that has a thread backing. When manufactured into the cloth the same may be put on before it leaves the loom, preferably by weaving a different colored thread into the warp threads or it might be put on by an inking roller as the material leaves the loom. This enables the guide lines to be put directly on a warp thread. This has a very manifest advantage in that it insures equal spacing of the guide lines, it furnishes a guide in stretching and tacking the upholstering cover which enables the stretching to be done directly on the thread line and not on the bias, and it results in a very material saving in labor cost and the heretofore useless operation of marking the guide lines on the material before it is put on the job. It will readily be understood that this warp thread of color may be introduced into the material in weaving it without any additional cost whatever—simply some of the spools in the loom will be a colored thread, preferably black, spaced the requisite distance. The guide threads will hence be woven accurately into the material itself.

With a foundation cloth this can always be done as it is almost without fail of such fabric as burlap or other similar material. With a facing material, where this is a fabric such as velour, whip cord or similar cloth material, used in closed body trimming, the thread may be woven in the back of the material and will not show in the face of the material. The same is true with imitation leather which usually has a fabric foundation. Of course, where leather is used this

cannot be done, and the marking has to be done on the back of the leather by an impression. The leather does not present the same difficulty in the way of shifting the material under the pattern. When the upholstering covering is tacked to the trim rails the tacks can be put in on the line of the guide lines and the material pulled tight along these lines. The trimmer can do this without any fear of wrinkling or puckering the goods because he can be sure he is not pulling on the bias over the foundation cloth or the facing. When the guide lines are irregular the lines of stitches become irregular and often show when the plaits are complete and the job will be rejected.

Another very useful and valuable feature of the guide lines manufactured into the material is that odd pieces of expensive upholstering material that would otherwise be waste can be pieced together on the guide lines and used. When stitched together on the guide lines, the trimmer knows that the otherwise objectionable seams will always fall under the plaits where they will be unobjectionable.

What I claim is:

1. An upholstering covering, comprising a foundation cloth and a facing material, one of these being provided with stitch guide lines manufactured into the material and the other being also provided with guide lines, the said facing material and foundation cloth being matched together along these guide lines and sewed together to form plaits or straight pipes.

2. An upholstering covering, comprising a relatively heavy and strong fabric with lines having definite spacings and a color contrasting with the main body of the fabric manufactured into the fabric along single threads to act as stitch guide lines in making plaits or straight pipes and to act as stretching lines in tacking.

3. An upholstering cloth, comprising a relatively heavy and strong fabric with threads of contrasting color woven into the fabric with the other threads at determined intervals to act as stitch guide lines in making plaits or straight pipes and to act as stretching lines in tacking.

In testimony whereof I affix my signature.

JACOB WEITZENREDER, JR.