P. KRAKAUER.

SPRING PAD AND METHOD OF MAKING SAME.

APPLICATION FILED JULY 14, 1917.

1,247,971. Patented Nov. 27, 1917.

Fig. 1.

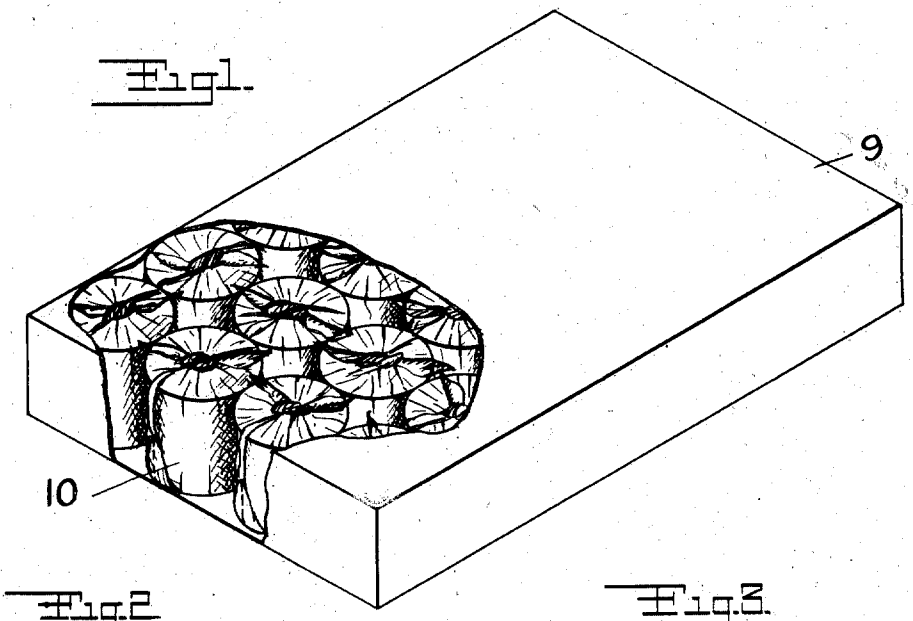


Fig. 2.

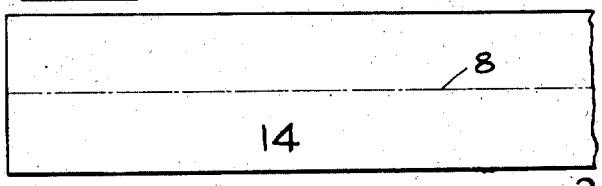


Fig. 3.

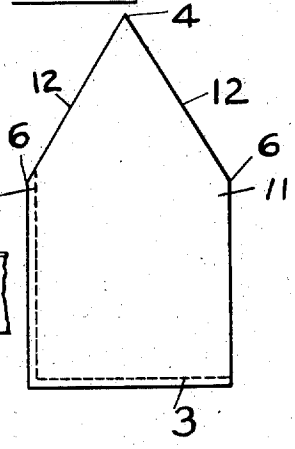


Fig. 6.

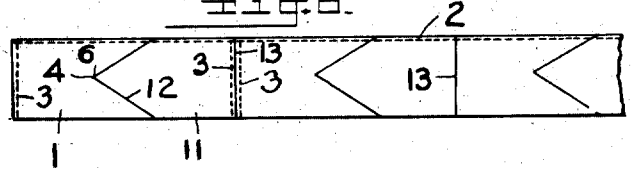


Fig. 4.

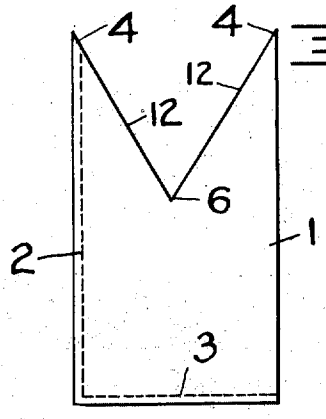
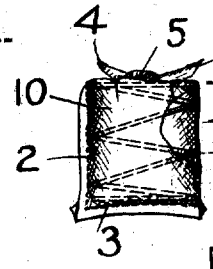


Fig. 5.



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UNITED STATES PATENT OFFICE.

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SPRING-PAD AND METHOD OF MAKING SAME.

1,247,971. Specification of Letters Patent. Patented Nov. 27, 1917.

Application filed July 14, 1917. Serial No. 180,539.

To all whom it may concern:

Be it known that I, PHILLIP KRAKAUER, a citizen of the United States, and resident of the city of New York, in the county of Kings and State of New York, have invented certain new and useful Improvements in Spring-Pads and Methods of Making Same, of which the following is a specification.

This invention relates to improvements in spring pads, such as seats, cushions, mattresses and the like, and is especially applicable to spring units for spring pads, and the method for making said units.

One of the objects of this invention is the provision of a rapidly constructible spring pocket by means of which each of the springs in the pad is completely inclosed, and the final closure of which may be accomplished manually.

A further object of this invention is the provision of a rapid and inexpensive method for producing said spring pockets.

A further object of this invention is the provision of a cheap, durable and easily constructed spring pad comprising individual, independent units.

A further object of this invention is the provision of a spring pocket in which the spring can be compressed a predetermined amount and positively held against expansion.

To attain these objects, I employ the method described hereinafter and the devices shown in their preferred forms in the accompanying drawings, in which,

Figure 1 is a perspective view partly broken away, of a cushion in which my improved spring unit is used, showing one way of arranging the various spring units.

Fig. 2 is a plan view of the blank from which the pockets are made.

Figs. 3 and 4 are front views of the finished pockets before the knots are formed and Fig. 5 is a front view of a complete spring unit.

Fig. 6 is a plan view of the strip from which the pockets are made showing how it appears after the strip has been folded in half and seamed and showing the lines along which the cuts are made to form the pockets.

In the practical embodiment of my invention, my improved spring unit comprises the usual coil spring 7, inclosed in a flexible casing as 1 or 11 preferably of textile material. The method of making said casing is as follows:

Blank 14, which is preferably a long rectangular strip of cloth, is folded longitudinally along its middle line 8 and seamed along the edge by seam 2. Transverse cuts 13 are then made cutting strip 14 into rectangular strips seamed on one side, V-cuts 12 meeting at the center being made to separate the cut strips into pockets 1 and 11, said V-cuts forming two triangular notches and two triangular projections at one end of each pocket. Seams 3 at the straight end of each pocket forms a casing closed on three sides.

It is obvious that the order of operation may be changed to some extent without departing from the scope of my invention. For instance, seams 3 may be made adjacent to each other (Fig. 6) before cuts 12 or 13 are made in the seamed and folded strip; or cuts 12 may be made before cuts 13, or said cuts may be made alternately, as desired.

It is also obvious that casing 11 differs from casing 1 only in having side seam 2 reach up to bottom 6 of cut 12, instead of extremity 4 of cut 12, (Figs. 3 and 4) and that the said casings 1 and 11 are otherwise identical and are knotted in exactly the same manner.

To complete the spring unit and to form the closure at the unseamed end of pocket 1 or 11, a spring 7 is inserted into said pocket, and extremities 4 are brought together over the top of said spring and tied together into a single knot as tightly as possible thereby compressing spring 7 to a point where the extremities 4 engage at the bottom of cuts 12, in which case the knot can be tied no tighter, and the second or securing knot is made. The bottom 6 of the notched end of the casing being cut down to a predetermined depth, knot 5, when tied, will be formed at 6, and the spring will therefore be compressed the predetermined amount.

The pocket thus formed completely incloses the spring on all sides and prevents expansion of the spring to a length greater than that of the pocket, no material whatever being wasted in the formation of said pockets.

The method of forming the closure at the unseamed end by knotting is rapidly and

cheaply done and avoids the expensive operation of seaming the bulky and unhandy unit after the spring is inserted.

The usual casing 9 may be provided for inclosing a series of complete individual units 10 to form a spring pad. Derangement of the units in casing 9 may be prevented by any of the usual means such as loose lines of thread, not shown, for connecting the units without destroying their independence.

It is obvious that since the units are completely inclosed and equally strong at both ends, the knotted end of the unit may be placed at the top or bottom of the pad as desired.

What I claim is:

1. An individual spring unit independent of similar units comprising a coiled spring and a pocket of textile material, independent of similar pockets, seamed at one end and one side and knotted at the other end for inclosing said spring.

2. A spring pocket comprising a piece of textile material folded in half, seams at one end and one side, and angular extremities at the other end adapted to be knotted together.

3. A spring unit comprising a coiled spring and a pocket completely inclosing said spring, said pocket comprising a piece of flexible material folded in half and seamed at one end and one side, the other end having double notches therein for forming angular extremities in said unseamed end, said extremities being knotted together at the bottom of the notches and over one end of said spring.

4. In a spring pad, a series of separate, independent spring units, each comprising a spring and a pocket for said spring closed on all sides, one side and one end of said pocket being held by seams, the other side closure being a fold in the material and the other end closure being formed by knotting the upper corners of said pocket together over one end of said spring.

5. A spring unit comprising a coil spring and a piece of cloth formed into a pocket for said spring by being folded in half and seamed at one end and one side and notched at the other end, the corners of the unseamed notched end of said pocket being brought together over the top of the spring and tied at the bottom of the notched portion, whereby the spring is compressed a predetermined amount and held positively against expansion.

6. The method of making a pocket for a spring, comprising the provision of a strip of textile material, folding said strip in half longitudinally, seaming the edges of the folded strip together longitudinally, making V-cuts at regular intervals in said strip, making transverse cuts in the cut pieces to form two pockets from each cut piece and making a transverse seam at the straight end of each pocket.

7. The method of making a pocket for a spring comprising the provision of a strip of textile material, folding said strip in half longitudinally, seaming the edges of the folded strip together longitudinally, making a pair of adjacent transverse seams at regular intervals in said strip, making a V-cut in said strip in the greater space between the transverse seams and making a transverse severing cut between the pair of adjacent transverse seams.

8. The method of making a spring unit for a spring pad, comprising the provision of a spring and a strip of cloth, folding the strip in half longitudinally, seaming the edges of the folded strip together longitudinally, making V-cuts at regular intervals in said strip, making transverse cuts in the cut pieces to form two pockets from each cut piece, making a transverse seam at the straight end of each pocket, inserting said spring in said pocket, and knotting the unseamed ends of said pocket over the end of the spring.

Signed at New York, in the county of Kings and State of New York, this 13 day of July, A. D. 1917.

PHILLIP KRAKAUER.