April 6, 1943. P. KRAKAUER 2,315,968

EDGE ROLL FOR MATTRESSES

Filed May 11, 1938

Fig. 1.

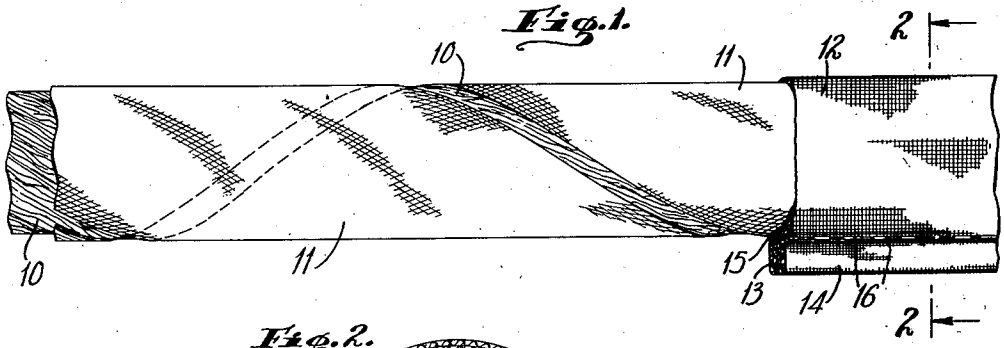


Fig. 2.

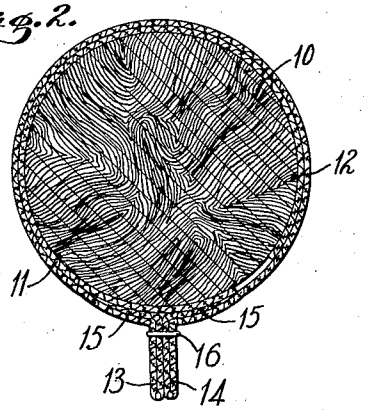
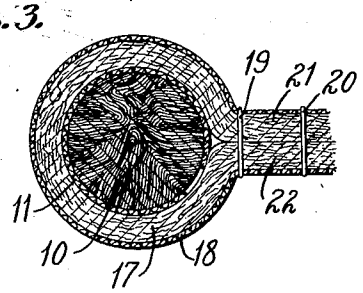


Fig. 3.



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EDGE ROLL FOR MATTRESSES

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5 Claims. (Cl. 5—360)

This invention relates to the edging of upholstered furniture and mattresses and particularly to the preformed so-called "roll edge" used at certain edges of such articles.

Such roll edging is preformed in advance of its application to the article and is manufactured and sold in completed form to be later incorporated with and covered as by the mattress ticking or casing, the roll edging consisting of a cylindrical interior or core covered by a fabric member stitched in position around the cylindrical core and later attached to the edge of the article. It has been customary to make the core of the roll edge of various materials, it being desirable that the roll edge be comparatively hard and resistant to deformation to preserve its cylindrical shape and good appearance.

I have found that it is possible to utilize sheets of comparatively thin and cheap paper for the core of the roll edging by twisting said paper into a compact cylindrical shape and thereby making it hard and firm, if the paper is protected by suitable means against rupturing which would otherwise occur under the twisting stresses applied thereto during the process of manufacture of the edging.

My invention, therefore, contemplates the provision of a roll edging of comparatively thin and inexpensive paper covered and protected by a strip of burlap or the like fabric wound about the initially twisted paper and twisted with the final twisting of the paper, thereby preventing the paper from tearing, breaking, or rupturing during the twisting operation by taking up the greater part of the final high twisting stress and adequately holding the paper in the cylindrical form into which it is twisted.

My invention further contemplates the provision of twisted thin paper roll edging in continuous form and spirally wrapped with a first layer of fabric and covered with a second layer, and adapted to be cut up into suitable lengths as required by the user.

The various objects of the invention will be clear from the description which follows and from the drawing, in which,

Fig. 1 is a fragmentary elevational view of a strip of roll edging embodying my invention, part of said edging being shown covered by the second layer of fabric and in the form in which it is ready to be attached to an article of furniture or a mattress.

Fig. 2 is a vertical section of the same taken on the line 2—2 of Fig. 1.

Fig. 3 is a similiar view of the same, showing a modified form of the covering.

In the practical embodiment of my invention which I have shown by way of example, a plurality of continuous strips of paper are continuously fed in various directions as from a plurality of rolls of such paper toward a common point as into a suitable funnel in heterogeneous relation to reduce the width thereof without reducing the length. The strips are arranged in helter-skelter converging relation and on emerging from the funnel are twisted by suitable means into a cylindrical form as 10. During the twisting of the paper into such form and prior to the final part of the twisting, a strip 11 of burlap or the like strong fabric of substantial width, preferably greater than that of the diameter of the roll, is wound helically around the roll and twisted with it until the twisting operation is completed.

The convolutions of the burlap strip become arranged quite closely together during the final part of the twisting operation, and may be made as close as may be found desirable to leave as little of the surface of the roll unprotected as may be necessary. In other words, the thinner and more easily tearable are the strips of paper, the closer the final twisted convolutions of the burlap are wound. The stronger or thicker is the paper, the greater may be the spacing between the convolutions of the protecting strip 11. Said strip serves as a reinforcing, protecting and shaping means for the inner paper core, taking the major portion of the stresses upon the roll or core resulting from the twisting operation. The fabric strip further serves to confine, in the proper cylindrical form, the edges of any of the paper strips which may tend to protrude beyond the roll. The strip further permits greater stresses to be put upon the paper during the twisting operation than would otherwise be possible, whereby the roll is compacted and twisted into a much harder cylinder than would otherwise be possible.

After the roll or core has been thus formed, it is covered by a suitable covering sheet as 12, also of burlap or other strong and suitable fabric. The covering 12 is preferably infolded at its edges 13 and 14 to provide flaps as 15 adjacent the roll or core and between the core and the inner face of the outer covering. Said edges 13 and 14 project slightly beyond the remainder of the core and are stitched together by means of suitable stitching 16 close to the roll to stretch the remainder of the outer covering tightly over the roll and to from and complete the hard roll edging.

In that form of the invention shown in Fig. 3,

the covering 17 may be substituted for the covering 12, said covering 17 being of substantially thick felt covered with a burlap sheet 18, though it will be understood that said covering sheet 18 may be omitted and only the felt used, if desired. The stitching 19 and 20 serve to secure the edges 21 and 22 of the felt covering 17 in place and to hold the roll 10 in its compacted cylindrical form.

The edging may thus be produced continuously in any desired lengths or in one continuous length, later to be cut into separate lengths of the proper size.

It will be seen that by supplying the helically wound protecting strip 11, thin and therefore comparatively inexpensive paper may be used for the roll 10 without, in any way, detracting from the efficiency of the edging or its resistance to deformation or its hardness, and in fact, increasing the tightness to which the paper roll may be efficiently twisted.

While I have shown and described certain specific embodiments of my invention, I do not wish to be understood as limiting myself thereto, but intend to claim the invention as broadly as may be permitted by the state of the prior art and the scope of the appended claims.

I claim:

1. In a roll edging for furniture and mattresses, a cylindrical core comprising a plurality of strips of paper twisted into a hard compact roll, an elongated fabric strip helically wound around and twisted with the roll and substantially covering said roll, the adjacent helical edges of the strip being slightly spaced apart, said strip having a tendency to unwind from the roll and being unsecured thereto except by the means hereinafter mentioned, and means for retaining the twisted strip in place on the roll and for covering the roll comprising solely a narrow covering sheet of woven fabric of slightly greater width than the circumference of the roll and having edge portions projecting beyond the roll and bent back on themselves to form two thicknesses of material on each of said edge portions, and stitching passing through the edge portions closely adjacent the roll and securing said portions together and tensioning said covering sheet about the roll sufficiently to prevent the helically wound strip from unwinding.

2. In a roll edging for furniture and the like, a core of a plurality of thin paper strips twisted into elongated cylindrical form, a covering burlap strip for the core, said burlap strip being helically wound around the core and twisted therewith and taking the greater part of the stresses therein, said strip having its edges in spaced relation and thereby leaving part of the core uncovered, and a narrow covering sheet of woven fabric having a width slightly greater than the circumference of the core to provide edge portions thereon extending past the core, said sheet covering the parts of the core not covered by the strip, and stitching passing through the edge portions and holding the covering sheet around the strip and the core.

3. In a separately constructed roll edging adapted to be applied to furniture and the like and provided with a core of twisted thin paper and with an outer casing, that improvement consisting of an intermediate layer between the surface of the core and the outer casing, said layer comprising a burlap strip of greater width than the diameter of the core helically wound around but otherwise unsecured to the core with the adjacent helical edges of the strip in sufficiently spaced relation to expose the surface of the core therebetween, the distance between the helical edges being greater than the thickness of the strip and less than the width of the strip, said edges moving apart and relatively to the core on the convex side when the edging is bent into an arc and moving together on the concave side thereby resisting creasing of the strip when the edging is bent.

4. In an edge roll for furniture and the like articles, an approximately cylindrical core of thin twisted paper, a thin woven fabric strip helically wound around the core with the adjacent edges of the strip in spaced relation to expose the core therebetween, said strip having a width greater than its thickness and greater than the diameter of the core and being unsecured to and covering the core, and a thin woven fabric casing sheet enclosing the core and strip and covering the otherwise exposed portions of the core, said casing sheet being of the same length as the core covered thereby and being of greater width than the circumference of the core, and means passing through the edges of the sheet adjacent to the core and holding the sheet in place around the core and strip, said strip moving relatively to the core and sheet to close or open the gaps between the edges of the strip when the edge roll is bent sharply and thereby resisting excessive creasing of said strip.

5. In a roll edging for furniture and the like, a core of a plurality of thin, narrow elongated paper strips arranged in heterogeneous relation and twisted, a thin strip of woven fabric of greater width than the diameter of the core, said strip being wound helically around the core with the edges thereof normally in spaced relation and being otherwise unsecured to the core, the spaces between the edges being less than the width of the strip, said edges moving toward each other on the concave side of an arc into which the edging may be bent and moving away from each other on the convex side of said arc thereby minimizing creasing of the strip when the edging is bent, and a substantially cylindrical casing comprising a sheet of woven fabric wrapped throughout its length about the same length of the core and having edge portions projecting beyond the core, and means securing said edge portions together.

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