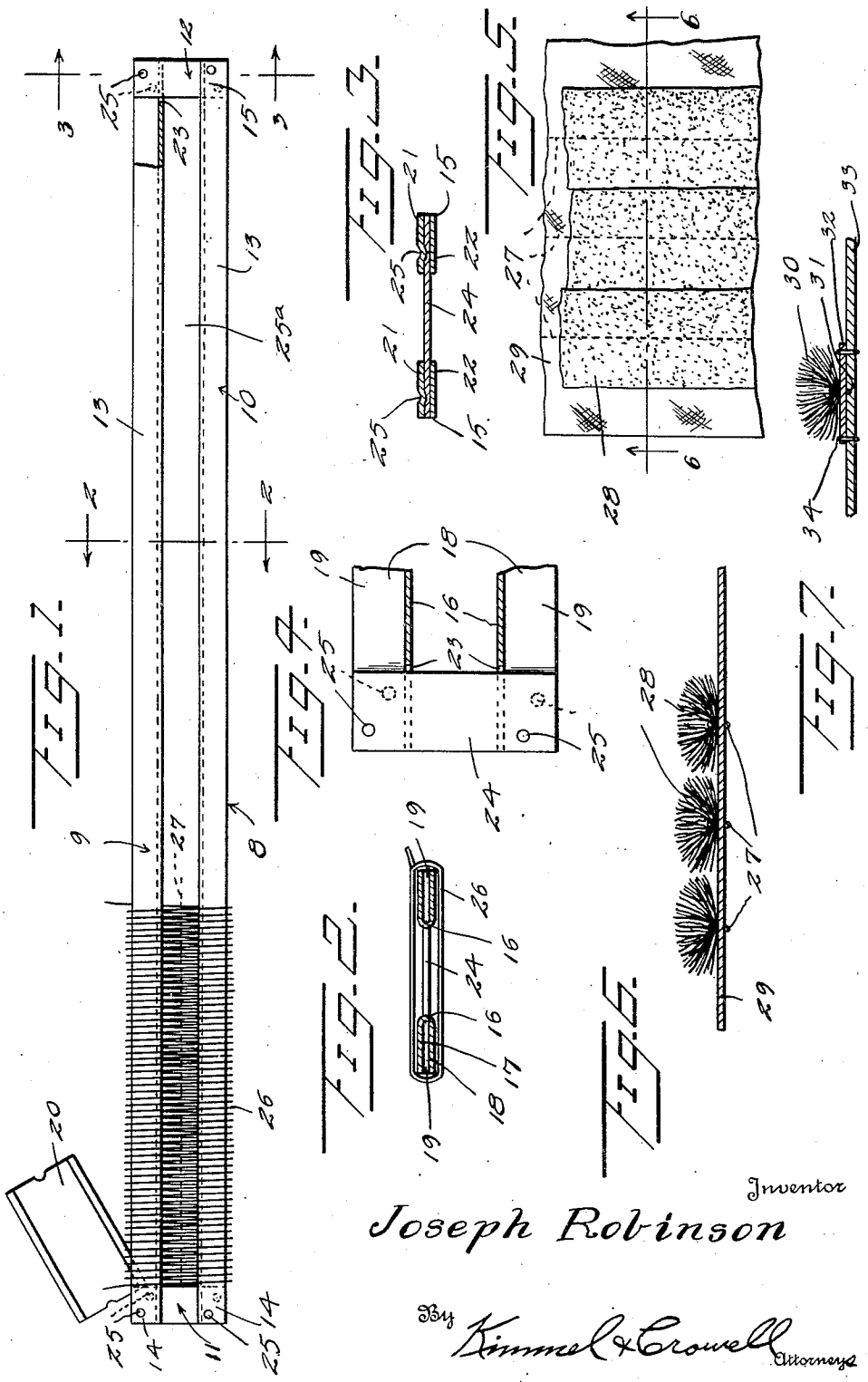
Feb. 16, 1943. J. ROBINSON 2,311,575

WINDER IMPLEMENT

Filed April 28, 1941



Inventor

Joseph Robinson

By Kimmel & Crowell Attorneys

Patented Feb. 16, 1943 2,311,575

UNITED STATES PATENT OFFICE

2,311,575

WINDER IMPLEMENT

Joseph Robinson, Chicago, Ill.

Application April 28, 1941, Serial No. 390,855

3 Claims. (Cl. 112—9)

This invention relates to a winder implement designed primarily for use in connection with the production of rugs, but it is to be understood that a winder in accordance with this invention is applicable for the production of other articles, such as seat pads, seat covers, pot holders, bedspreads, table cloths, cot covers, blankets, drapes, curtains and dresser, bureau and sideboard scarfs.

The invention aims to provide, in a manner as hereinafter set forth, a new and novel winder element for yarn employed in the production of rugs.

The invention further aims to provide, in a manner as hereinafter set forth, a winder element upon which yarn may be wound with the windings in the desired spaced relation, the element including means for guiding a cutter in a manner whereby the windings are severed at their sides uniformly.

The invention further aims to provide, in a manner as hereinafter set forth, a winder element in the form of a rectangular frame having its lengthwise edges grooved to form guides for the cutter employed for severing the windings of the yarn disposed about said element.

The invention further aims to provide, in a manner as hereinafter set forth, a winder element for use in the forming of a pile or tuft of strands of yarn of the desired length for connection to a base or foundation to produce an article, such as a rug which is pleasing to the eye.

The invention further aims to provide, in a manner as hereinafter set forth, a winder element for the purpose referred to which is simple in its construction and arrangement, strong, durable, compact, thoroughly efficient in its use, light in weight, conveniently handled and inexpensive to manufacture.

Embodying the aims aforesaid and others which may hereinafter appear, the invention consists of the novel construction, combination and arrangement of parts as will be more specifically referred to, and illustrated in the accompanying drawing, wherein is shown an embodiment of the invention, but it is to be understood that changes, variations and modifications may be resorted to which fall within the scope of the invention as claimed.

In the drawing:

Figure 1 is a top plan view, partly broken away, of a winder element, in accordance with this invention, having wound thereabout for a portion of its length strands of yarn and further illustrating a cutter in position to sever the strands, and in dotted lines the stitching for securing the strands to a foundation,

Figure 2 is a section on line 2—2, Figure 1,

Figure 3 is a section on line 3—3 Figure 1,

Figure 4 is a fragmentary view in sectional plan,

Figure 5 is a fragmentary view in top plan of a rug formed with piles or tufts produced from a winder element, in accordance with this invention,

Figure 6 is a section on line 6—6, Figure 5, and

Figure 7 is a sectional detail illustrating a pile or tuft anchored to a modified form of foundation.

The winder implement or element, generally indicated at 8, is in the form of a rectangular frame of the desired length and width. The element 8 includes a pair of side bars 9 and 10, of like form and a pair of end bars 11 and 12 of materially less length than the bars 9, 10. The bars 9, 10 are oppositely disposed and each in transverse section for the major portion of its length is of outwardly opening channel-shaped contour. The remaining portion of the length of each side bar is formed with an opening extending from the outer to the inner edge of such bar. Each side bar consists of what may be termed an intermediate portion 13 of channel-shaped cross section and a pair of split end terminal portions 14, 15 which are of materially less length than and merge into the ends of the sides of said intermediate portion.

The intermediate portion 13 of each side bar consists of an arcuate inner wall forming part 16 and a pair of spaced parallel side wall forming parts 17, 18 which merge into the wall forming part 16. The parts 16, 17 and 18 are correlated in a manner to form a narrow guide groove 19 for the cutter 20. The mouth of the groove 19 is arranged at the outer edge of a side bar. The width of each groove 19 is to be slightly greater than the thickness of the cutter.

The end terminal portions 14, 15 are of like form and each consists of a pair of flat parallel spaced extensions 21, 22 forming continuations of the side wall forming parts 17, 18, but such extensions are free of an inner wall forming part 16 whereby the ends of the latter will form shoulders 23.

The ends bars 11, 12 are of like form and each consists of a flat rectangular strip 24. An end bar has its terminal portions disposed within corresponding end terminal portions of a pair of side bars, and the ends of such end bar are flush with the outer side edges of the side bars. The

outer side edges of the end bars are flush with the end edges of the side bars. The end bars and the side bars are secured together by spot welding as indicated at 25. The end bars 11, 12 close the ends of the grooves 19 in the side bars 9, 10. When the bars 9, 10, 11 and 12 are secured together, they form the element 8 with an enlarged rectangular slot 25a.

With reference to Figure 1, the winder element 8 is shown as having wound thereon a group of strands 26 of a yarn and from such group a pile or a tuft is formed which is to be secured to the foundation or base of an article, such as a rug. Figure 1 also discloses in dotted lines the stitching 27 which is employed to secure the strands to the foundation.

Figures 5 and 6 illustrate a series of piles or tufts 28 produced from the wound strands and secured to a foundation 29.

With reference to Figure 7, it discloses a pile or tuft 30 secured by stitching 31 to a strip 32 and with the strip 32 secured by the stitching 34 to the foundation 33.

The manner of setting up the guide grooves 19 in the element 8 provides for the cutter 20 to uniformly sever the strands 26 at the side portions of the latter.

The winder may be made of any kind of material of any size and is for use particularly with sewing machines of various types, although it is possible to sew in by hand. Any type of cotton or wool yarn and even silk stockings or other materials can be used with this winder to make a great variety of articles, including rugs, seat pads, seat covers, pot holders, bedspreads, table cloths, blankets, drapes, curtain and dresser and sideboard scarfs. The primary intended use is with cotton yarn or wool yarn by which the use of this winder makes an article which in appearance is similar to candlewicking or chenille, although much heavier and richer in appearance and much stronger and longer lasting in wear. The method used in making the article desired is as follows:

The yarn or other material is wound around the winder in any desired closeness. After which the winder is placed on the material to be used for the backing or foundation and stitched on to this material in the center of the groove or slot provided for that purpose in the winder. A sewing machine of any of the standard makes is very handy with which to sew this down quickly and firmly, although it is not impractical to stitch this down by hand, in which event a stronger stitch is possible, although this involves a little more time. Then a razor blade or any other sharp cutting implement, such as a sharp knife is inserted in the grooves provided therefor at each side of the winder and the material wound around the winder is cut. The guides at the sides of the winder are made narrow for two reasons: so that the material can be cut evenly and quickly and so that the cutter will not wobble or waver during the cutting. The material is fluffed out either by shaking, washing or steaming, so that the desired appearance is given to the finished article. The length of the rows are easily measured before stitching down onto the material used for the foundation. Many varied and beautiful effects can be obtained by using different lengths and arranging them in various directions and color combinations.

Another use of this winder is as follows: The yarn is wound around the winder and then a small strip of material is placed on the winder and sewed onto it. This material can either be strips of cloth or even strands of yarn themselves. The yarn is then cut as mentioned before and the resultant piece is taken out of the winder. This piece can then be twisted or turned into desired arcs, circles and angles without difficulty and then sewed onto the desired foundation to conform to any pattern desired.

The winder is exceedingly simple in its use and with a standard sewing machine and the use of a canvas foundation and candlewick cotton yarn, a 24" x 36" rug can be made in less than seven hours which is at least one-half the time necessary for the manufacture of other similar rugs.

What I claim is:

1. A winder comprising a pair of parallel bars, each bar being U-shaped in transverse section and the open sides of said bars being outwardly directed and the bights thereof in confronting relation, each bar having a pair of slots through the bight thereof, one adjacent each end, a pair of end bars disposed one at each end of said parallel bars through adjacent slots in the latter and between the opposite legs of said parallel bars, and means securing said end bars between the legs of said parallel bars.

2. A winder comprising a pair of parallel bars, each bar being U-shaped in transverse section and the open sides of said bars being outwardly directed and the bights thereof in confronting relation, each bar having a pair of slots through the bight thereof, one adjacent each end, a pair of end bars disposed one at each end of said parallel bars through adjacent slots in the latter and between the opposite legs of said parallel bars, and means securing said end bars between the legs of said parallel bars, said end bars having the outer edges thereof flush with the adjacent ends of said parallel bars.

3. A winder comprising a pair of parallel bars, each bar being U-shaped in transverse section and the open sides of said bars being outwardly directed and the bights thereof in confronting relation, each bar having a pair of slots through the bight thereof, one adjacent each end, and means securing said bars in spaced apart relation.

JOSEPH ROBINSON.