

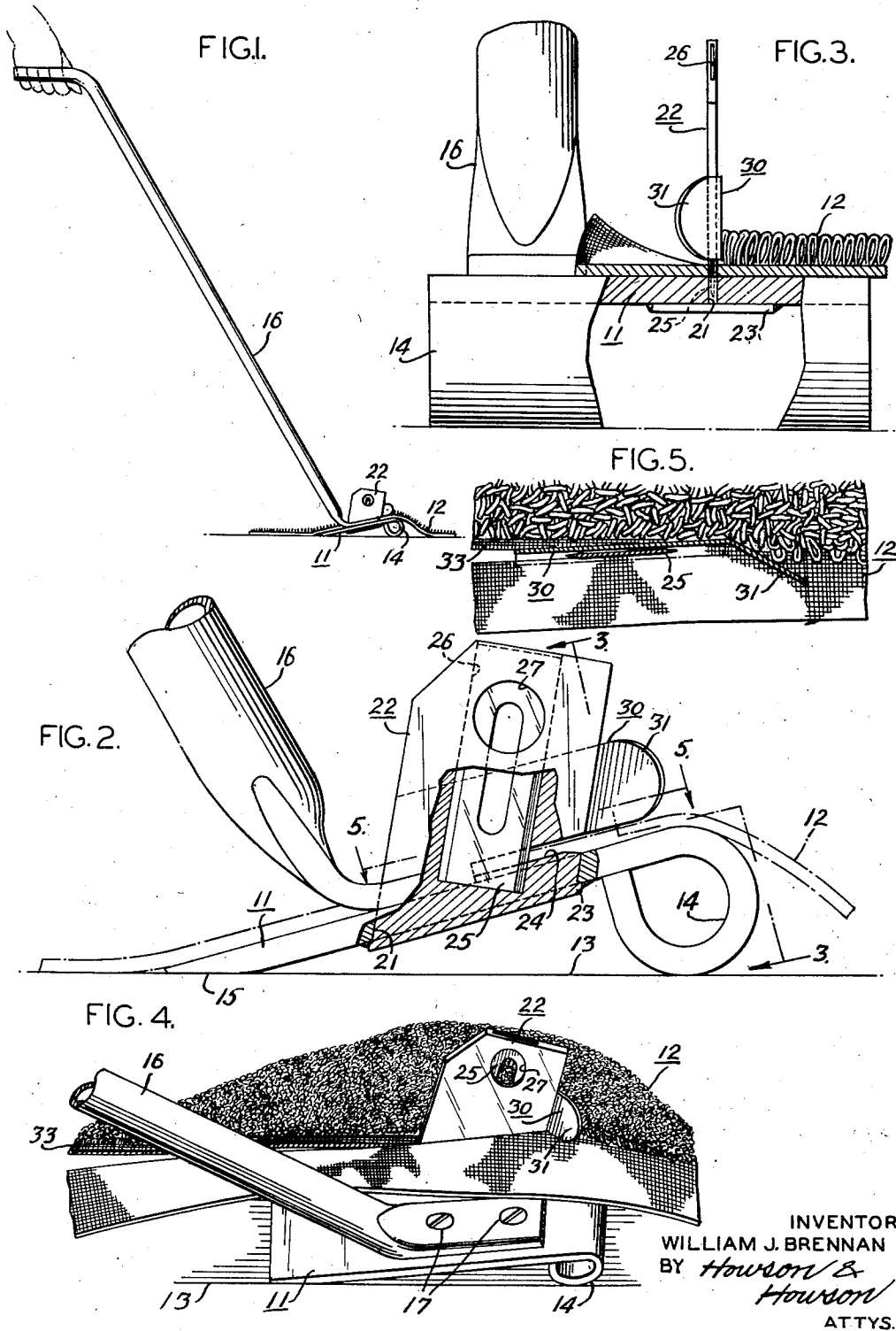
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W. J. BRENNAN

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PILE FABRIC TRIMMING DEVICE

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PILE FABRIC TRIMMING DEVICE

William J. Brennan, Swedesburg, Pa., assignor to James Lees and Sons Company, Bridgeport, Pa., a corporation of Pennsylvania

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The present invention relates to apparatus for trimming carpets and like pile fabrics, and more particularly to apparatus for trimming the selvage or other pileless portion of the fabric from the remainder.

In the manufacture of carpet fabrics, and especially tufted pile fabrics in which the pile surface is formed by a bank of needles which oscillate in a plane normal to the fabric to form a series of rows of pile loops, the pile area does not extend the full width of the base or ground fabric, thereby leaving a pileless area along the selvage of the base or ground fabric. This pileless area must be trimmed off the finished product before it is ready for use. A conventional manner of trimming the pileless area consists of simply shearing the fabric along the border of the pile area by shears or scissors. This is a tedious and time-consuming task.

With the foregoing in mind, a primary object of the present invention is to provide a device which may be passed along the marginal edge of the pile area to sever the pileless area of the fabric therefrom.

More particularly, the invention comprises a device having a slot to receive the base or ground fabric, means being provided in the trailing end of the slot to sever the fabric, and means being provided at the forward or leading end of the slot to deflect the pile from entering the slot, thereby insuring it against severance by the means at the trailing end of the slot.

Another object of the present invention is to provide a device of the stated character of improved structural characteristics which is fully effective in operation and use.

These and other objects of the invention and the various features and details of the construction and operation thereof are more fully set forth hereinafter with reference to the accompanying drawing in which:

Fig. 1 is a side elevational view of the invention;

Fig. 2 is an enlarged side elevational view, with portions broken away to illustrate the construction of the embodiment shown in Fig. 1;

Fig. 3 is a sectional view taken on the line 3—3 of Fig. 2;

Fig. 4 is a perspective view showing the invention in use; and,

Fig. 5 is a sectional view taken on the line 5—5 of Fig. 2.

In the manufacture of pile fabrics, for example, tufted pile carpets, in which the pile surface does not extend the full width of the base fabric, the pileless selvage must be trimmed. The trimming is conventionally performed when the fabric is stretched out on a floor or other work surface for inspection and the like. The present invention provides a device which may be advanced along the work surface to trim the selvage closely adjacent the edge of the pile area.

The trimming device of the present invention comprises a bed plate 11 which is adapted to underlie the fabric between the fabric and the floor or other work surface 13. The bed plate is inclined relative to the work sur-

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face and to this end, the bed plate is formed at its leading edge with an underturned portion 14 to provide a rounded surface to slide along the work surface 13. As shown, the trailing edge of the bed plate 11 is beveled as indicated at 15. An elongated handle 16 is mounted on the bed plate as indicated at 17 to advance the same along the work surface.

The bed plate is apertured as indicated at 21 to receive an upright 22 having a transverse base portion 23 which is secured to the under-surface of the bed plate 11 as indicated in Figs. 2 and 3. A slot or throat 24 is formed in the upright parallel to the bed plate 11 and open at its forward end to receive the base fabric 12. The slot 24 has a vertical depth substantially corresponding to the thickness of the base fabric 12 to slidably receive the same as the trimming device is advanced along the work surface 13. By reason of the mounting of the upright 22 in an aperture 21 of the bed plate, the lower edge of the slot 24 may be positioned flush with the bed plate without severely weakening the structure. A blade 25 is positioned at the trailing end of the slot 24 to sever the fabric. The blade 25 is mounted in an upright recess 26 in the upright member 22, access being provided to the blade in the recess for removal and replacement thereof by an aperture 27. The blade 25 is of the conventional double edge type, so that when the edge becomes dull, the blade may be simply reversed by removing it from the recess 26 through the top opening thereof.

In accordance with the invention, a guard 30 is mounted flush against the upright 22 on the surface which confronts the pile area of the fabric 12. As shown, the guard has an outturned lip 31 which extends across the leading edge of the upright 22 adjacent the top of the slotted opening 24. As shown in Figs. 4 and 5, the lip 31 operates to erect the pile portions which are overhanging the pileless selvage of the fabric 12. Thus, as the device is advanced, the guard lip 31 displaces the pile portions out of the path of the upright 22, so that the pile does not enter the slot 24 and become severed. The guard member 30 serves another function. It serves to guide the device along the edge of the pileless area. To this end, the guard bears against the raised pile area and maintains the upright 22 closely adjacent thereto.

In operation, the device is disposed at a slight angle to the edge of the pile area, as shown in Fig. 5, so that it has a tendency to bear against the pile. Since the slot 24 is of reduced vertical dimension, the guard does not permit the pile to enter the slot and maintains the upright closely adjacent the edge of the pile area. As the device is advanced along the selvage of the material, the slot 24 snugly embraces the base fabric and prevents it from puckering or gathering. This insures that the blade 25 neatly severs the base fabric.

As shown, the thickness of the upright 22 prevents the blade 25 from severing the base fabric at the precise edge of the pile area, a margin 33 remaining after the device is passed along the selvage. In practice, this margin is approximately $\frac{1}{32}$ " in width, and the pile portions have sufficient resiliency to follow the guard member 30 as it passes along the edge of the pile area to thereby overlie the marginal strip 33 to conceal the same. Thus, in the finished fabric, the marginal strip 33 is hidden by the pile portions which bend outwardly over it. It should be noted that the marginal strip serves to guard against raveling of the pile from the fabric 12, the backing fabric itself being prevented from raveling by the application of a back size thereto.

Thus, the present invention provides a device for trimming the pileless selvage from the pile fabric. The device is of simple construction and is fully effective in operation and use, leaving a marginal portion on the base

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fabric which prevents raveling of the pile portions and provides a proper finished edge to the fabric.

While a particular embodiment of the present invention has been herein illustrated and described, it is not intended to limit the invention to such disclosures, but changes and modifications may be made therein and thereto within the scope of the following claims.

I claim:

1. In a device for trimming the marginal edge from the raised pile area of a pile fabric, a bed plate adapted to underlie said pile fabric, an upright member extending upwardly from said bed plate, means on said upright member defining a throat adjacent said bed plate to receive the marginal edge of said pile fabric, cutting means mounted in the upright member and extending across said throat adjacent its rearward terminus to trim the marginal edge, and a guard above said throat to confront and engage the raised pile area of said fabric, said guard being formed with a lip projecting forwardly from said upright member and extending laterally with respect to the plane of said member across the leading edge of said upright member and above the marginal edge of said fabric and operable upon advance of said device along

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the edge of said raised pile area to engage any pile projections from the pile area of said fabric which overlie the marginal edge and deflect them laterally to the one side of said upright member and out of path of said throat.

2. A device according to claim 1 wherein said bed plate is provided with an underturned rounded surface at its leading edge to incline said bed plate forwardly.

3. A device according to claim 1 including an elongated handle mounted on said bed plate laterally spaced from said upright member whereby a severed strip of said fabric passes between said upright and said handle.

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