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J. E. COOK

2,567,102

FABRIC CUTTER

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Fig. 1

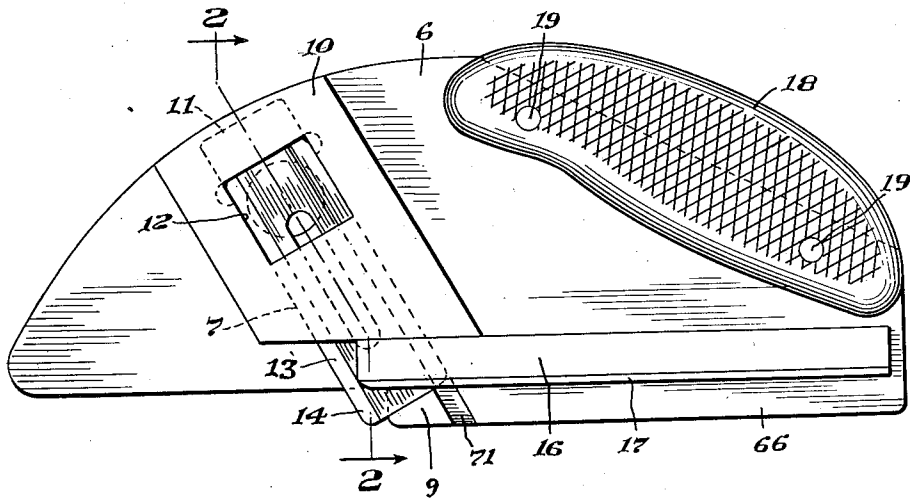
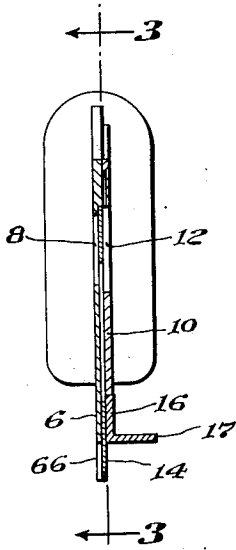


Fig. 2

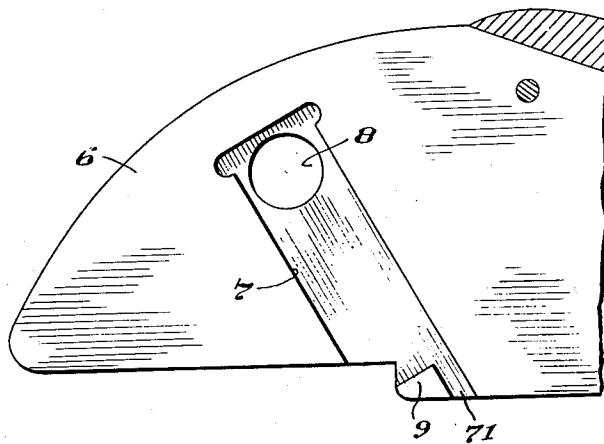


Fig. 3

INVENTOR.

Jerome E. Cook
BY *E. J. LeVato*
ATTORNEY

UNITED STATES PATENT OFFICE

2,567,102

FABRIC CUTTER

Jerome E. Cook, Larchmont, N. Y., assignor to
Bigelow-Sanford Carpet Co., Inc., Thompson-
ville, Conn., a corporation of Massachusetts

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1 Claim. (Cl. 30—294)

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My invention relates to a cutter for pile fabrics and its principal object is to enable the operator to cut a pile fabric from the back rapidly and accurately.

In the drawing, Fig. 1 is a side elevation, Fig. 2 is a sectional view on line 2—2 of Fig. 1, and Fig. 3 is a sectional view on the line 3—3 of Fig. 2.

The vertical plate 6 has a shallow recess 7 in which the cutting blade 13 is supported with its bottom edge resting on an abutment 9 which is a part of plate 6. The recess 7 has an outlet 71 for the discharge of foreign matter in the recess. The outlet also provides access to broken blades so that they can be pushed up for removal. The cutting blade 13 is held in the recess with the lower cutting corner 14 of the blade extending down sufficiently to cut through the back of the fabric. The plate 6 has a hole 8 in its upper part. The plate 6 extends forward closely in line with the blade 13 and thereby serves to aid the operator in maintaining the line of the cut and prevents the cutter from tipping up, if the blade should strike an obstacle, and disengaging the blade from the fabric.

A plate 10, permanently fixed to the plate 6 as by welding, covers the recess 7 except that it has a square hole 12 which registers with and is slightly larger than the hole 8. The plate 10 has a recess 11 so that the blade 13 may be bent and moved up by the operator in the recess 7, out of cutting position. The square hole in plate 10 is sufficiently wide to permit insertion of the lower end of a blade into the recess 7 so that it can be pushed down between plates 6 and 10 to abut against the abutment 9. The blade is held from upward movement by the upper edge of recess 7. A grip 18 is affixed to plate 6 by bolts 19.

I provide means, both horizontal and vertical, to guide the cutter which consist of a horizontal plate 17 to bear on the back of the fabric being cut and a downwardly projecting vertical plate 66, which is a downward extension of the plate 6 to bear against one of the cut edges of the fabric.

The plate 17 has a vertical flange 16 which is fixed, as by welding, to the lower part of plate 6. The plate 17 extends from the cutting edge of the blade to the rear of plate 6. The top of the forward part of the flange 16 abuts the lower edge of plate 10. In operation the underside of plate 17 rests on the back of the carpet being cut to support the cutter and to control the depth of the cut. The portion of the blade extending below the plate 17 is sufficient to cut through the back of the fabric without projecting into the pile of the fabric to an appreciable degree.

The plate 66 extends below plate 17, Fig. 2 and is in alignment with the cutting blade. The plate 66 follows the blade through the fabric as it is being cut and bears against one side of the cut fabric so that it acts as a lateral guide for the

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cutter. The vertical plate 66 and the horizontal plate 17 form a right angle, 66 riding against a cut edge and 17 riding on the back of the fabric, so that the operator is enabled to make a quick cut of a definite limited depth while keeping the cutter in a straight line. The forward part of plate 66 and the forward part of the flange 16 laterally form a support close to that portion 14 of the blade 13 which extends below plate 10.

In operation the operator pushes the cutter forward while maintaining the vertical plate 66 and the horizontal plate 17 against a cut edge and the surface of the back of the fabric respectively so that the cutter does not deviate from its course. As a result, the back of the pile fabric may be cut accurately and rapidly to the predetermined depth.

I claim:

A fabric cutter for cutting the back of a pile fabric comprising a cutting blade, a main vertical plate having a recess therein to receive said cutting blade and having a portion extending into said recess at its bottom and forming an abutment to support said cutting blade, said main plate having a portion extending forwardly of said abutment, said forwardly extending portion having a bottom surface in a horizontal plane above said abutment to ride on the back of the fabric being cut, means to guide the cutter vertically consisting of a horizontal plate secured to and extending laterally from the lower portion of said main plate and extending rearwardly from said recess, the bottom surface of said horizontal plate being in the same horizontal plane as the bottom surface of the forwardly extending portion of said main plate, means to guide the cutter horizontally consisting of a portion of said main plate extending rearwardly of said abutment and having its lower edge below the bottom of the forwardly extending portion of said main plate, and a second vertical plate attached to said main plate and partially covering the recess in said plate, a portion of said second vertical plate extending forwardly of said recess wholly above the bottom surface of the forwardly extending portion of the main plate, whereby the portions of the horizontal plate and the main plate to the rear of the recess guide the cutter both vertically and laterally.

JEROME E. COOK.

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The following references are of record in the file of this patent:

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