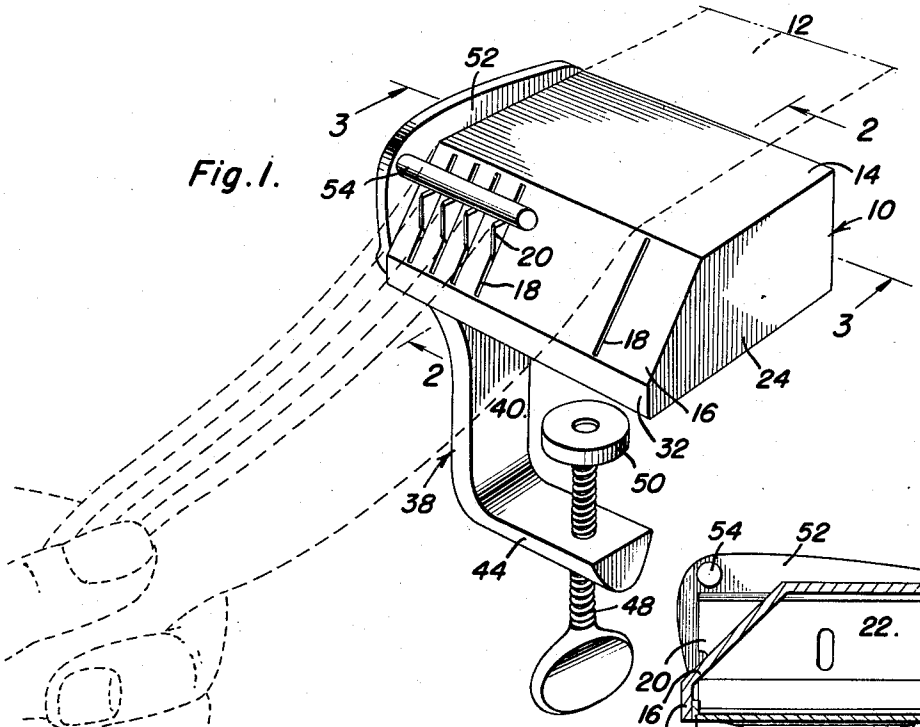
April 3, 1951 R. E. BELL 2,547,249

STRIP CUTTER

Filed Jan. 3, 1950

Fig. 1.



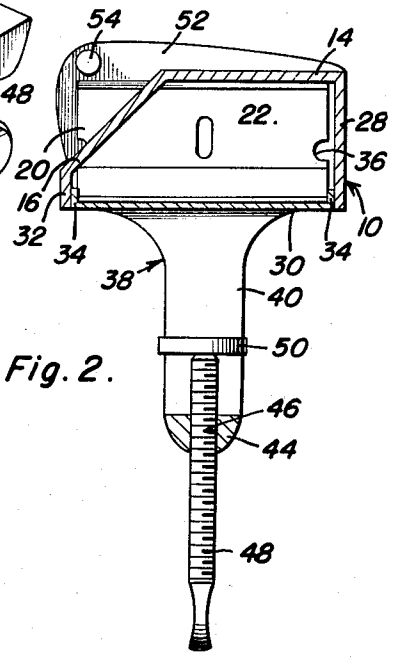


Fig. 2.

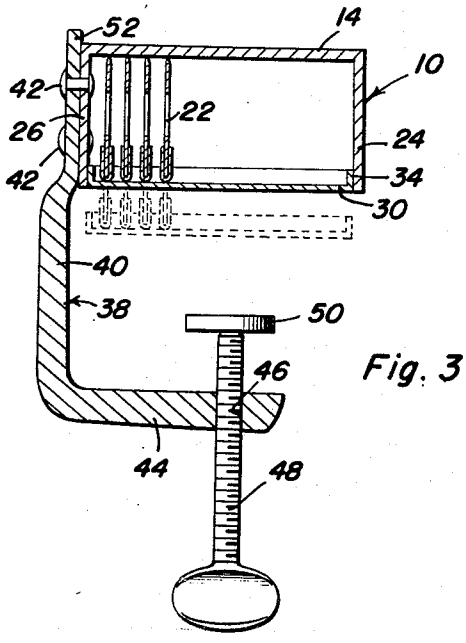


Fig. 3.

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STRIP CUTTER

Roger E. Bell, Natick, Mass.

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3 Claims. (Cl. 164—36)

1

This invention comprises novel and useful improvements in cutting devices, and more particularly pertains to a device for cutting strips from a web of material which is drawn thereover.

Various important objects of this invention reside in the provision for a strip cutting device which will selectively guide and cut strips of varying widths and depths from a web of material; which will cut the strips by drawing the web over stationary blades; which will guidingly retain the web in contact with the blades, while guiding it laterally thereof; and which is of simple construction yet durable and highly efficient for the purposes intended.

Various important features of this invention by which the above objects are attained and by which this invention is characterized reside in the provision for a strip cutting device in which the top wall, the front wall, and the bottom wall form the sole means for supporting the cutter blades in their operative position; which has a guide overlying the projecting cutter blades to shield the user therefrom and guide the web into contact with the cutter blades, and which has means for attaching it to a fixed object so that the bottom will be urged in a direction to press the blades against the top, to thereby lock them therebetween.

These, together with various ancillary objects and features are attained by this device, a preferred embodiment of which has been illustrated by way of example only in the accompanying drawings, wherein:

Figure 1 is a perspective view of the strip cutting device, a web shown in dotted lines being drawn over the cutting blades.

Figure 2 is a vertical longitudinal sectional view of the device taken substantially on the plane 2—2 of Figure 1.

Figure 3 is a vertical transverse sectional view of a strip cutting device taken on the plane 3—3 of Figure 1.

Referring now more specifically to the accompanying drawings, wherein like numerals designate similar parts throughout the various views, it will be seen that there is provided a strip cutting device indicated generally by the numeral 10 which may efficaciously be used to cut a web 12 into strips of varying widths, such as are necessary in the making of hooked and braided rugs, and the like.

As will be appreciated from a consideration of the accompanying drawings, the cutting device 10 consists of a top wall 14 and a front wall 16, of either planar or arcuate contour, the front

2

wall having transversely extending slots 18 therein. Extending through the slots 18, and into the path of travel of the web 12 are the externally projecting ends 20 of the blade 22, which blades can obviously efficaciously consist of conventional razor blades. Attached to the top wall 14 and the front wall 16 are end walls 24 and 26, and the rear wall 28, which walls may be so proportioned as to form an enclosure which is substantially rectangular in form. For purposes which will later become apparent, the front wall 16 may have an angularly inclined portion 32 depending therefrom, which portion may conveniently be parallel to the rear wall 28. A bottom wall 30, preferably having a flanged edge 34 attached thereto, or formed as part thereof, is detachably received within the confines of the side, front and rear walls, thereby completing the enclosure.

As is believed readily apparent from a consideration of Figure 2, the spacing between the rear wall 28, and the downwardly depending flange 32 of the front wall may be such that it is greater than the length of a razor blade 22 which is placed therebetween, so that the razor blade may be adjusted longitudinally of the casing so as to selectively expose the unused edge of the razor blade as the exposed edge becomes dull. An alternate means of adjustment may be provided by so dimensioning the flanges 34 so that vertical reciprocatory movement of the blade within the casing is possible. However, if the latter construction is used, it will obviously be desirable to continue the rear flanged portion of the bottom wall upwardly a sufficient distance so that a lug which is attached thereto may either overlie the top edge of the blade or be received in the notch 36 which is provided in most conventional razor blades, so that the blade will be locked relative to the casing, even though it is not in contact with the upper wall 14.

Any means may be provided for attaching the casing to a fixed support, one such means being shown as an L-shaped yoke 38, the vertical leg 40 being fastened, as by rivets 42 or welding or the like, to the side wall 26 of the casing. The horizontal leg 44 of the yoke 38 has a screw-threaded bore 36 therein, which bore receives the thumb screw 48, a washer 50 or the like being attached to the upper end of the thumb screw 48 so as to prevent marring of the surface into which the thumb screw comes in contact. As in readily apparent, upward adjustment of the thumb screw 48 will cause the bottom 30 to be urged upwardly, through the medium of the fixed object which lies between the washer 50 and the bottom 30, so

that the bottom will retain the blade 22 in locking engagement with the top 14.

The vertical leg 40 of the yoke 38 may conveniently extend beyond the top and front walls 14 and 16, respectively, of the casing so as to provide a longitudinal guide 52 for the web 12. In order to retain the web 12 in contact with the exposed portion 20 of the cutting blade 22, a transversely extending guide 54 may be provided, the guide 54 lying substantially parallel to the inclined front wall 16 of the casing, and in spaced relation to the cutting edges of the blade 22. It is to be understood, however, that the guide 54 may have transverse slots provided therein, which slots will receive the exposed portions 20 of the blade 22 so as to laterally space and reinforce the blades 22. Further, the guide 54 may either be rigidly secured to the vertical leg 40 of the yoke 38, or may be adjustably mounted thereon.

In operation, blades 22 are positioned in the slots 18 in the front wall 16, which correspond to the width of strips it is desired to have cut, and the web 12 is then drawn downwardly over the exposed portions 20 of the blades 22, and under the guide 54, to thereby cut the web 12 into strips of the desired width. As the blades 22 become dull, they may either be replaced, or if the casing is made so that the blades are adjustable relative thereto, the blades may be adjusted so as to expose a sharp unused edge.

When not in use, the blades 22 may be removed from their positions in the slots, and placed wholly within the confines of the wells so that the casing will thereby provide a container for the blades of such a nature that no sharp edges are exposed.

From the foregoing, it is believed that the construction and operation of the device will be readily understood, and further discussion is therefore believed to be unnecessary. However, since numerous modifications will readily occur to those skilled in the art after a consideration of the foregoing specification and accompanying drawings, it is not desired to limit the invention to that shown and described, but all suitable modifications may be resorted to, falling within the scope of the appended claims.

Having described the invention, what is claimed as new is:

1. A strip cutting device comprising a casing having a top wall, a downwardly and outwardly extending front wall attached thereto and having transversely extending slots therein, cutter blades extending through said slots and underlying said upper wall, means attaching said casing to a fixed support, said blades extending below said casing and engaging said fixed support to be thereby locked between the support and said top wall when said casing is locked to the support.

2. A strip cutting device comprising a casing having a top wall, a downwardly and outwardly extending front wall attached thereto and having transversely extending slots therein, cutter blades extending through said slots and engaging the under surface of said upper wall, a bottom wall attached to said casing and engaging the under edge of said blades selectively locking said blades in said casing, means attaching said casing to a fixed support, means extending parallel to said slots for guiding a strip relative to said blades.

3. A strip cutting device comprising a casing having a top wall, a downwardly and outwardly extending front wall attached thereto and having transversely extending slots therein, cutter blades extending through said slots and engaging the under surface of said upper wall, a bottom wall attached to said casing and engaging the under edge of said blades selectively locking said blades in said casing, means attaching said casing to a fixed support, means extending parallel to said slots for guiding a strip relative to said blades, means extending parallel to said front wall and overlying the projecting ends of said blades to guidably retain a strip in contact with said blades.

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No references cited.