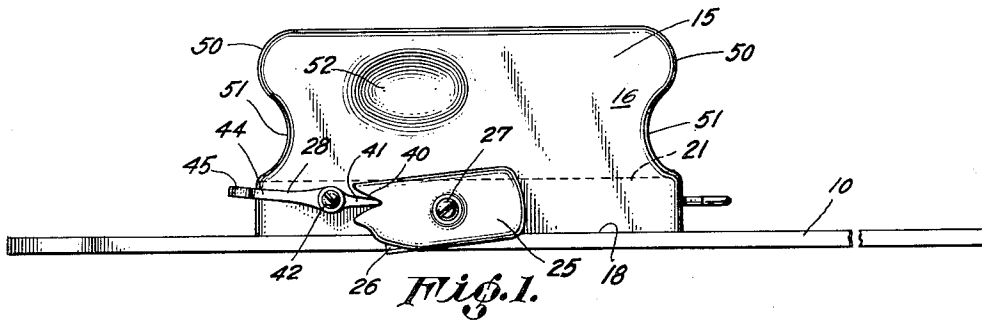
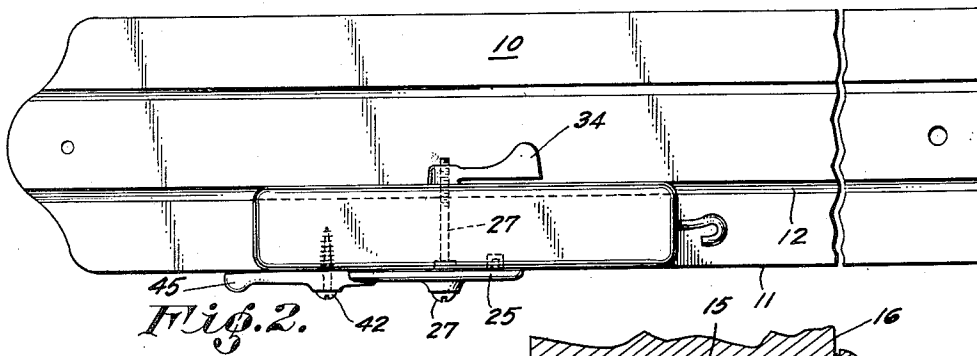
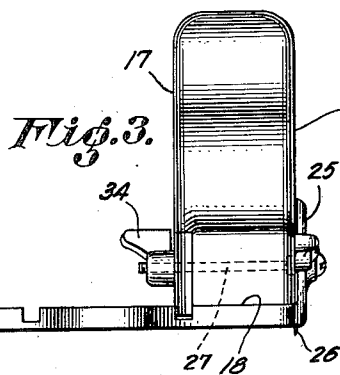
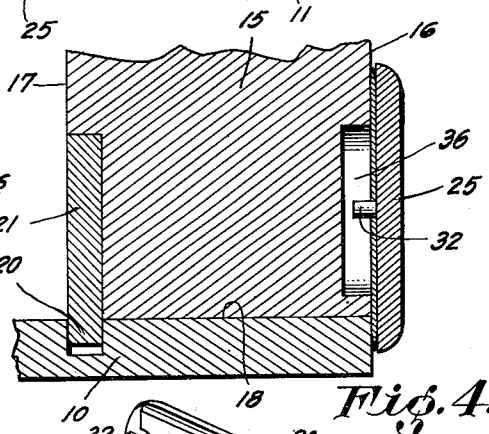
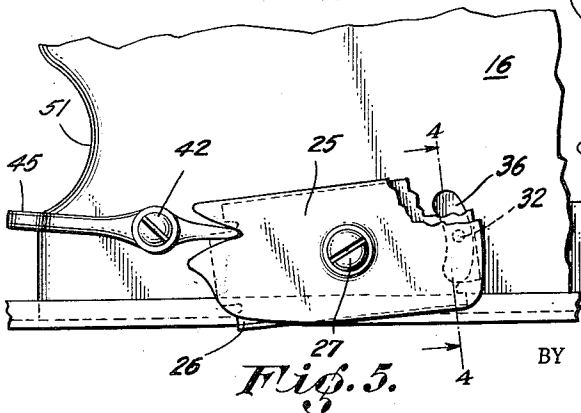
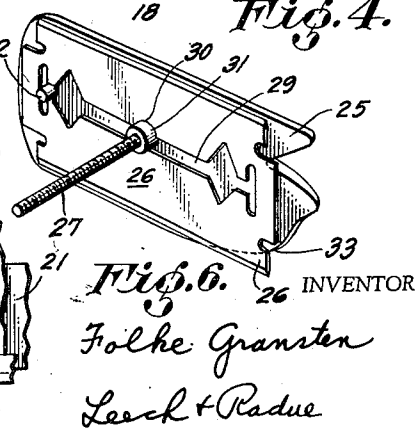


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STRAIGHT EDGE GUIDED MANUAL TRIMMING
DEVICE FOR SHEET MATERIAL
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STRAIGHT EDGE GUIDED MANUAL TRIMMING DEVICE FOR SHEET MATERIAL

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1 Claim. (Cl. 164—73)

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This invention relates to a trimming device for sheet or web material and is particularly illustrated in connection with a wall paper edge trimming apparatus, although capable of many other uses.

It is a general object of the present invention to provide a novel and improved trimming device for sheet or web material adapted to be used with a combined guide and web holder.

More particularly it is an object of the invention to provide a novel and improved trimming device of the type described adapted to make use of a wafer type razor blade in which such blade is clamped between a handle block and a backing plate and has one edge overhanging and one corner exposed for cutting alongside of a straight edge and guide device.

An important feature of the invention comprises the novel mounting arrangement for the blade and its backing plate, whereby it is firmly clamped, easily replaced and simply adjusted for depth of cut.

Another important feature comprises the clamping of the blade between the handle block and a backing plate which is attached to the block by a combined pivot and mounting screw passing through an aperture in the blade and forming a fulcrum for the latter, together with a stud on the backing plate engaging the walls of an opening in the blade to maintain registration between the blade and backing plate whereby the blade edges are entirely protected except for a small exposed corner which does the actual cutting.

Another important feature of the invention comprises a lever pivoted to the handle block adjacent the blade backing plate and cooperating with this plate for adjusting it and the blade a desired depth of cut.

Other and further features and objects of the invention will be more apparent to those skilled in the art upon a consideration of the accompanying drawing and following specification wherein is disclosed a single exemplary embodiment of the invention, with the understanding that such modifications may be made therein as fall within the scope of the appended claim without departing from the spirit of the invention.

In said drawings:

Fig. 1 is a side elevation of the trimming device of the present invention shown in position on a combined guide and material holder.

Fig. 2 is a top plan view of the apparatus of Fig. 1;

Fig. 3 is an end elevation thereof;

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Fig. 4 is a fragmentary transverse section, taken on line 4—4 of Fig. 5 and on an enlarged scale, showing the blade mounting and the guide flange;

Fig. 5 is a fragmentary enlarged side elevation with portions of the blade and blade backing plate broken away; and

Fig. 6 is a perspective view of the blade, blade backing plate and clamping screw in assembled relation.

Many types of paper and similar web or sheet materials require trimming or cutting to desired size, and in particular wall paper which is supplied with margins to protect the printed or finer usable portions from damage in handling and which must be cut off before use. In connection with wall paper this is usually accomplished by the use of a long metal straight edge and an open bladed or rotary wheeled knife. This type of device requires a considerable amount of skill on the part of the user and always offers the opportunity of injury by cutting. Furthermore it is hard to guide the knife against the straight edge and also it is difficult to maintain it at a proper degree of sharpness.

The present invention overcomes the objections of the conventional method by providing a guide and paper holder having a groove spaced inward from the edge and a cutting device having means running in said groove and being adapted to support a conventional razor blade of the wafer type with one edge exposed and overhanging but closely adjacent the edge of the guide, which is positioned at the desired line of cut and serves to hold the paper in position as the tool is run along to remove the superfluous margin. The cutting device is so arranged that all four corners of the blade may be successively used for maximum service and wherein simple means is provided for positioning the blade and adjusting the depth of cut which it takes. Used razor blades make the cost of operation substantially zero.

For a better understanding of the invention reference should be had to the drawings wherein the substitute for the conventional straight edge is illustrated at 10 as comprising a long relatively narrow strip of material such as "Masonite" having at least one straight edge 11 and a groove 12 parallel to this edge and spaced a predetermined distance therefrom as shown. The edge and groove may be duplicated at the other side of the strip if desired. The material used for this guide and paper holder is dense,

hard and has a desirable rough under surface to prevent it from slipping on the paper.

The tool or trimming device of the present invention for use with this guide member comprises a suitable block or handle part 15 conveniently made from hard wood or molded from a desirable plastic. It preferably has parallel sides 16 and 17 and a flat bottom 18 adapted to slide along the surface of the part 10 in the area between one edge and the adjacent groove therein. For guiding the block there is provided a flange 20 overhanging the bottom adjacent the face 17. This can be integral with the block but as shown is formed by fastening a metal strip 21 in a rabbet in the face 17. The flange closely fits the walls of the groove but clears the bottom thereof, as seen in Fig. 4, to guide the tool accurately along the paper holder.

Positioned intermediate the ends of the handle block 15 is the cutting blade assembly, seen in Fig. 1 to comprise blade backing plate 25, blade 26, pivot screw 27 and depth adjusting lever 28. As viewed in Fig. 6 blade 26 is any wafer type razor blade, preferably of double edge style having irregular center slot 29 including circular center opening 30. Such a blade is fitted against backing plate 25 of slightly larger overall dimensions so as to protect the edges thereof and prevent the user from being cut. This backing plate has on its inner face an integral boss 31, which closely fits the circular opening 30 in the blade, and a spaced integral pin or stud 32 extending through the blade and engaging the walls of slot 29 near one end. The lower corner of the backing plate opposite the stud end is cut away as at 33 to expose a small portion of the lower corner of the blade, which portion does the cutting. It will be seen that each corner of the blade may be exposed in turn for use as the others become dulled.

A combined mounting screw and pivot 27 passes through the backing plate and boss 31 and through an opening in the handle block and receives on its opposite end a suitable thumb screw 34 which when tightened against the back face of the block draws the blade and its backing plate down against the front face to clamp it in any adjusted angular position. As seen in Figs. 4 and 5 the front face of the block is provided with an arcuate channel 36 to provide clearance for the stud 32. The end walls of this channel cooperate with the stud to limit the amount of angular adjustment of the backing plate and blade about the axis screw. The screw 27 passes through the block intermediate its ends and at such a spacing above its bottom 18 that when the lower edge of the blade is parallel to this bottom 18 it reaches below it a distance just slightly less than the thickness of the guide member 10. Under these conditions it is seen that any lowering of the corner 26 of the blade will cause it to project an adjusted amount below the lower face of the guide member to cut whatever material is held by it. The amount of adjustment should be just slightly greater than the thickness of the material to be cut to prevent undesired scoring of the surface on which the material is supported. The described arrange-

ment gives the desired acute angle between the cutting edge and the material cut to obtain the best results.

To effect minute adjustment of the angularity of the backing plate and blade to determine the depth of cut, the left end of the backing plate is extended, above the cut-away portion, to include the V notch 40 which receives the sharpened end 41 of lever 28 which is pivoted on fulcrum screw 42. The arm 41 is much shorter than the arm 44 which extends out beyond the end of the handle block, and is fitted with a widened thumb portion 45. Movement of the part 45 will be much greater than that imparted to the blade itself so that fine adjustment can be effected. At the time of making adjustment the thumb nut 34 can be loosened and when completed a suitable tightening of this nut assures the adjustment remaining intact.

The handle block 15 can be made to any desired shape convenient to suit the hand and as shown has rounded upper ends 50 with the curved indentations 51 beneath them as well as a thumb depression 52 in the front face.

I claim:

A trimming device for sheet material for use with a combined guide and paper holder having a longitudinal guide groove therein parallel to and spaced a substantial distance from one edge thereof and having an under surface for engaging the paper, comprising in combination, a block of sufficient thickness, width and length to be comfortably grasped by the whole hand and having a flat bottom for moving over said guide between said edge and groove, a flange extending below one edge of said bottom to run in said groove and being of a thickness to fill the width of the groove, the face of the block remote from the flange being in substantial vertical alignment with the said edge of the guide to position a wafer type razor blade beyond said edge, a backing plate for and covering all of said blade except one lower corner; a clamping and fulcrum screw passing through said plate, through a central opening in the blade and through said block, cooperating means on the plate and the blade interengaging at spaced positions for causing simultaneous movement of these parts in unison about the fulcrum screw, a two armed lever pivoted to said block with a long arm extending beyond one end of the block and a short arm engaging a notch on one end of said plate for adjustment of the amount of blade dependence below the surface of said guide.

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