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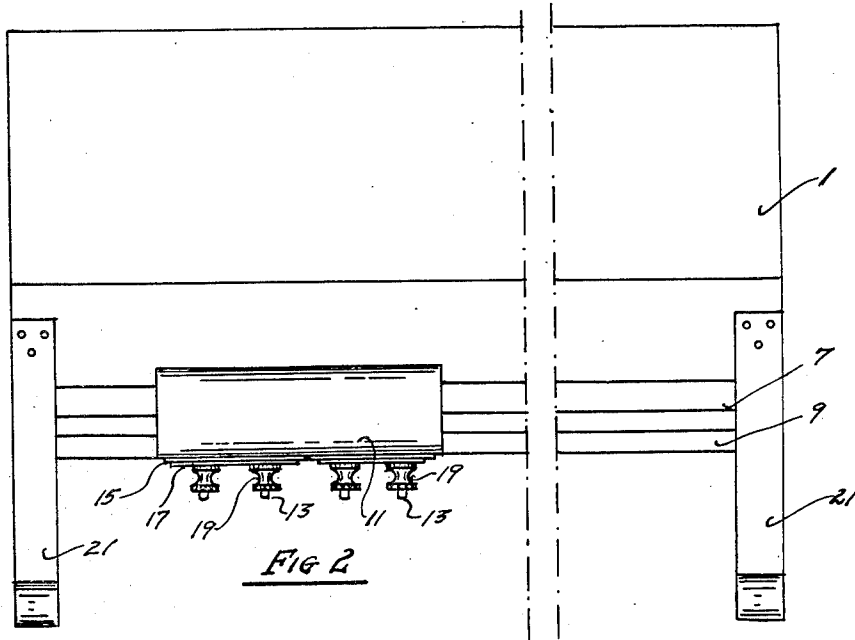
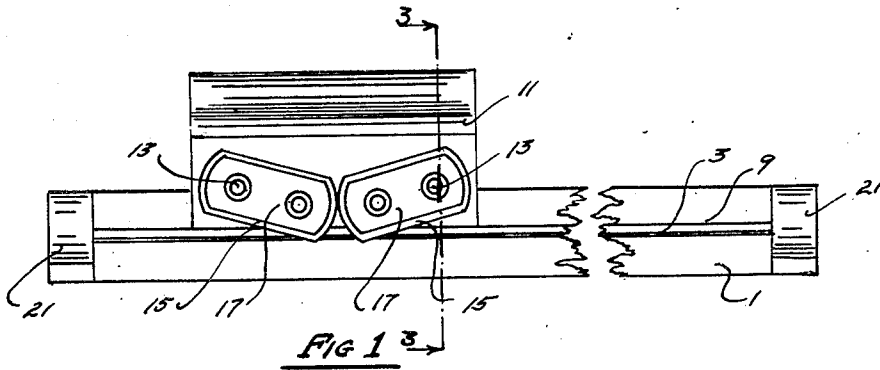
N. EVANGUELIDI

1,978,787

TRIMMING APPARATUS

Filed April 26, 1932

2 Sheets-Sheet 1



Witness  
P. Skjoff

INVENTOR  
NICOLAS EVANGUELIDI

BY Edward Brosler  
ATTORNEY

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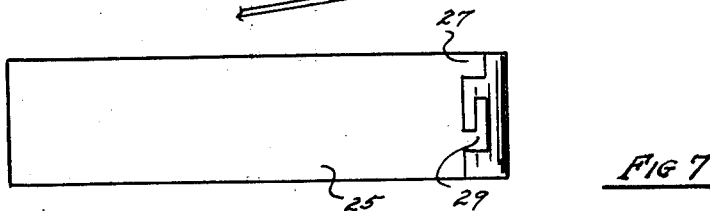
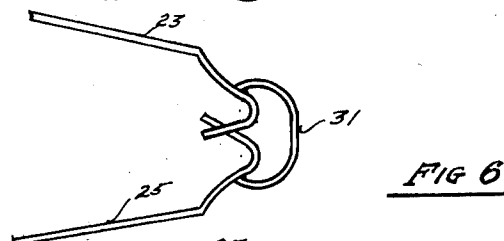
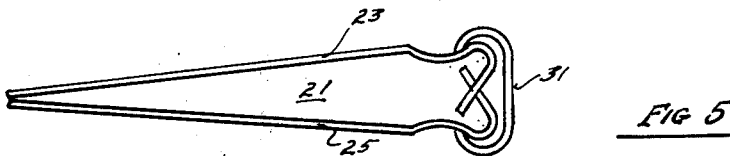
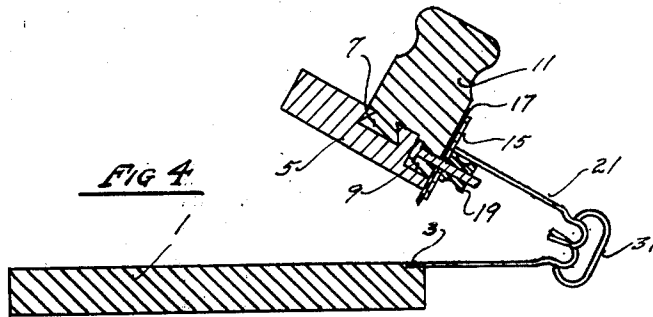
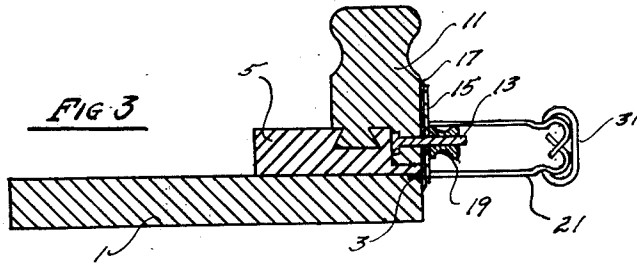
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INVENTOR  
NICOLAS EVANGUELIDI  
BY Edward Brosler  
ATTORNEY

## UNITED STATES PATENT OFFICE

1,978,787

## TRIMMING APPARATUS

Nicolas Evanguelidi, Marseille, France

Application April 26, 1932, Serial No. 607,522  
In France April 28, 1931

2 Claims. (Cl. 164—79)

My invention relates to trimming apparatus, more particularly to apparatus of the type employed in the trimming of sheet material such as paper, leather, etc.

5 It is an object of my invention to provide apparatus for trimming sheet material which apparatus shall be very efficient in operation, and one which can be manipulated with ease without the exercise of skill on the part of the operator.

10 Another object of my invention is to provide apparatus of the type referred to which shall be simple in construction, portable and rugged in structure.

15 Another object of my invention is to provide an apparatus which shall permit the trimming of material of any desired length.

Another object of my invention is to provide apparatus for the trimming of material which is adapted to employ as cutting edges old or discarded safety razor blades.

20 Additional objects of my invention will be disclosed in the following description of my invention taken in conjunction with the accompanying drawings, wherein I have illustrated in a number of views the principal features of my invention.

25 Figure 1 is a front view of my trimming apparatus illustrating the manner in which the cutting elements are mounted for operation in the apparatus.

30 Figure 2 is a plan view of my apparatus.

Figure 3 is a view in cross section taken along the plane 3—3 of Figure 1.

Figure 4 is a view similar to that of Figure 3, the apparatus being in open position ready to receive material which is to be operated on.

Figures 5, 6 and 7 are views showing the construction of the hinges employed in my apparatus and illustrate the manner in which these hinges function.

40 Referring to Figures 1 to 4, my apparatus comprises in the main two portions suitably held together by means of hinges designed to function in a special manner in my apparatus. One of the above mentioned portions comprises a base or support (1) preferably rectangular in shape, made of wood or other suitable material for supporting the material to be trimmed. This support is of such dimensions as to give stability to the apparatus and need not necessarily be of such size as to support the whole sheet of material which is to be operated upon.

55 In the upper front edge of the base and flush with the adjacent surfaces thereof, I have provided a strip of metal (3) extending the entire length of the base. This strip at its extremities

may be bevelled or recessed from the front edge of the base or otherwise inclined slightly away from this front edge for a purpose hereinafter described.

The other portion of my apparatus comprises 60 a clamping or pressure bar (5) of material similar to that from which the base is constructed. This clamping bar is of a length preferably equal to that of the longest dimension of the base and is positioned on the base with its front edge flush 65 with that of the base. Its upper surface is formed with a dovetail groove (7) and a shoulder (9), both extending the full length of the clamping bar. Mounted on and slidably engaging the clamping bar, in the grooved portion thereof and along the 70 shoulder, is provided a carriage (11), the upper portion of which is suitably shaped to be comfortably gripped by the hand for manipulating the same along the clamping bar. On the front vertical surface of the carriage are mounted suitable 75 bolts, machine screws or the like (13) which are so positioned and located as to enable a blade or other knife element to be mounted thereon against said vertical surface, at an angle with the horizontal and with the cutting edge extending 80 slightly below the front upper edge of the base formed by the metal strip (3), and adjacent thereto. Preferably sufficient machine screws are provided for mounting a pair of knife elements (15) in the above mentioned position, the position 85 of one making the same angle with the horizontal in a clock-wise direction as the other does in a counter clock-wise direction.

The knife elements are maintained in position on the mounting bolts (13) by means of mounting 90 plates (17) and nuts (19) which are adapted to bring pressure to bear against the knife elements to hold them rigidly in position against the front adjacent edges of the base (1) and clamping bar (5). The carriage as described is adapted to be 95 shifted along the entire length of the clamping bar by reason of the frictional dove tail connection therewith. In its movement along the clamping bar, the knife elements obviously will be carried along therewith and by reason of the 100 angular position of both blades, a cutting action will be obtained, regardless of the direction in which the carriage is shifted.

As illustrated in the drawings, the machine 105 screws for mounting the knife elements are so located as to accommodate cutting elements such as old and discarded razor blades of the double edge type. Thus, should one edge become dull through use, the blades may easily be removed and 110

reversed to present a good edge for further active service.

The above referred to hinges (21) which maintain the base and the clamping bar in operative relationship to each other are located, one at each end of the apparatus.

Each hinge comprises a pair of spring members (23 and 25), one end of each being bent back upon itself and provided with cut out portions (27 and 29) permitting the two members to be engaged in an interlocking relationship, thereby providing a hinging movement at this point of engagement to constitute the axis of the hinge.

A spring clamping member (31) is caused to embrace the hinged end of the interlocking elements at predetermined points of contact. These points of contact are so determined that with the hinge in its normally closed position, the clamping member will exert pressure to the left of the hinge axis as illustrated in Figure 5, whereas with the hinge in open position, the pressure due to the clamping member will be applied to the right of the hinge axis as clearly illustrated in Figure 6. The clamping element, therefore, will give to the hinge a snap or toggle action as the position of the hinge is changed from that of a closed position to that of an open position or vice-versa, and it will also function to maintain the hinge in either the open or closed position under pressure until such position is altered by some external force.

The embracing member (31) may be soldered or otherwise fixed to the interlocking elements (23 and 25) at points of contact to prevent the embracing member from disengaging itself from the interlocking elements when such elements are spread to obtain an open position of the hinge.

In mounting the hinges to the apparatus, the free ends are fixed, one to the base preferably at its upper surface and the other to the clamping bar, also preferably at its upper surface leaving the interlocking or hinging end at a substantial distance from the front edges of the apparatus.

In the operation of my device, the clamping bar is raised from the support by means of the carriage to an open position such as disclosed in Figure 4, which open position will be maintained by the toggle hinges used. Having shifted the carriage to one extremity of the bar, the paper or other material which is to be trimmed is then placed in position on the base with the proper amount of the material extending over the edge thereof. The bar (5) is then returned to its normal position on the base, to clamp the material in position, both by reason of the weight of the bar and carriage, and the action of the hinges. Additional pressure may be brought to bear resting one hand upon the bar. The carriage is then grasped with the other hand and drawn across the full length of the bar, which operation will cause the knife elements to slice or trim the material.

The metallic strip established in the upper edge of the base provides a rigid and dense support for the material at the point of severance and thus will assure efficient operation of the knife elements in the production of clean cut edges on the material.

By bevelling, recessing or inclining the extremities of this metallic strip as described above, any danger of breaking or dulling the knife elements during the operation of lifting and replacing the

carriage and bar to insert material in the apparatus will be overcome.

In the construction of my apparatus it is important to note that there is no obstruction at either side of the apparatus which will prevent movement of material. In other words, the construction is such that material of any length may be trimmed. In order to accomplish this result, the material may be drawn through the apparatus from the side thereof or may be inserted in the usual manner from the rear, in either case in lengths equal to or less than the length of the apparatus. Thus if the material for example should be materially longer than the length of my apparatus, I merely place enough of the material into the device, which can be trimmed by movement of the carriage from one end of the bar to the other. After this step, additional material may be placed in the position formerly occupied by the first section of material and this is accordingly trimmed in like manner. This operation may be repeated as long as there is material to be trimmed.

Should it be desired to trim sheet material to certain dimensions, suitable stops, markings, other dimension gaging means or combinations thereof may be provided on the base. These stops or other dimension gaging means may take any form well known in the art and should be capable of variation so that if material is to be cut on the bias or at a definite angle, these guiding means may be made to guide the material in the desired position.

It should be apparent from the above description that I have provided an apparatus capable of fulfilling the objects of my invention. The above described apparatus, however, constitutes but one embodiment of my invention. Various changes, therein, may occur to those skilled in the art without departing from the scope of my invention. I, therefore, do not desire to be limited in my protection to the details disclosed therein, except as is necessitated by the prior art and the appended claims.

I claim:—

1. Apparatus for trimming sheet material comprising means for supporting material, material clamping means hingedly supported thereby, hinge means adapted to maintain said clamping means in raised position to permit of the positioning of the material to be operated upon and to maintain said clamping means under pressure in its closed trimming position, and a trimming means slidably mounted on said clamping means having a cutting element adapted to coact with the edge of the material supporting means to sever the material.

2. Apparatus for trimming sheet material comprising means for supporting material, material clamping means hingedly supported thereby, hinge means adapted to maintain said clamping means in raised position to permit of the positioning of the material to be operated upon and to maintain said clamping means under pressure in its closed trimming position, a trimming means slidably mounted on said clamping means having a cutting element adapted to coact with the edge of the material supporting means to sever the material and a metallic strip mounted in said edge against which the severing action occurs.

NICOLAS EVANGUELIDI.