

Aug. 19, 1941.

E. L. SHAFFER

2,253,099

PAPER TRIMMER

Filed May 20, 1940

2 Sheets-Sheet 1

Fig. 1.

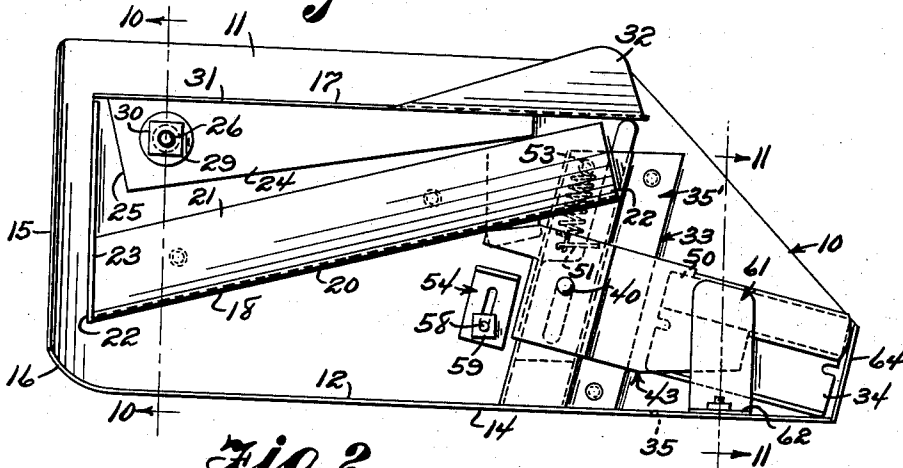


Fig. 2.

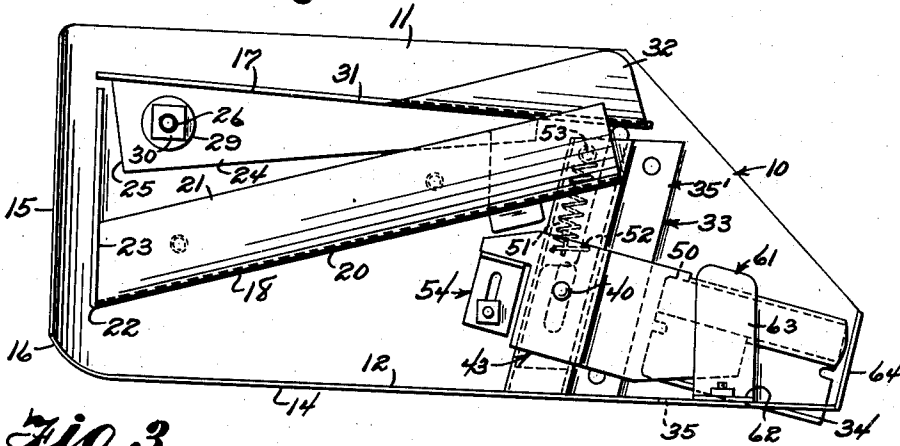
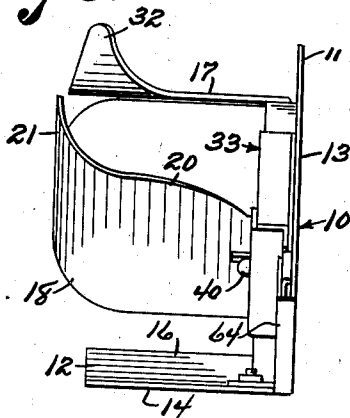
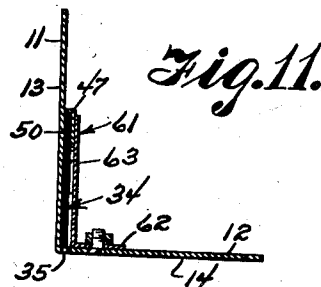


Fig. 3.



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Fig. 4.

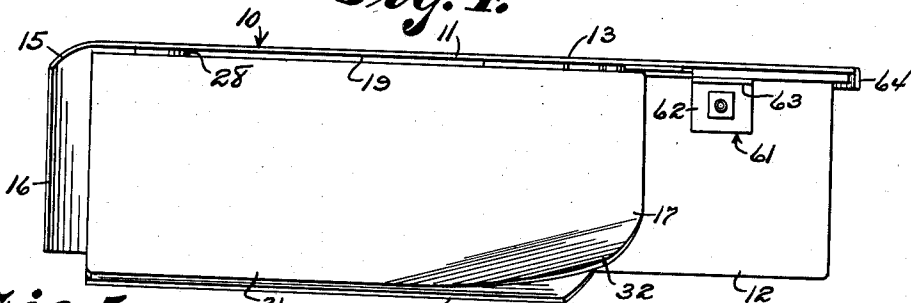


Fig. 5.

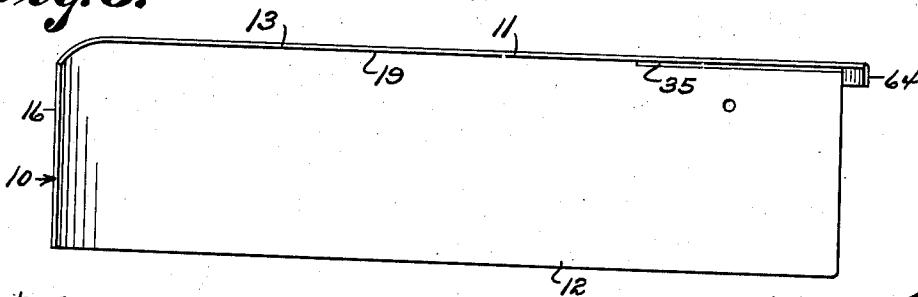


Fig. 6.

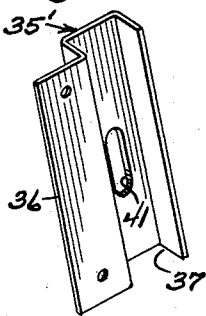


Fig. 7.

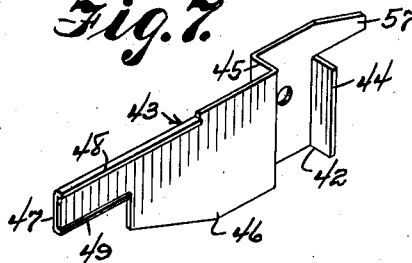


Fig. 8.

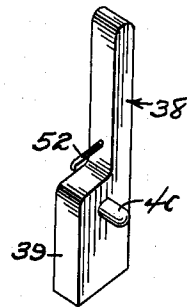


Fig. 10.

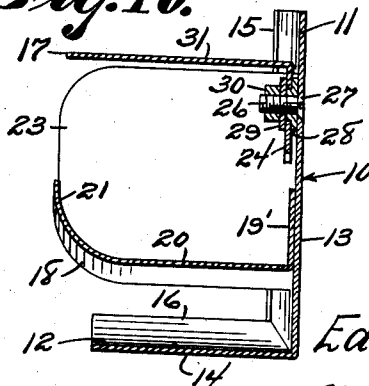
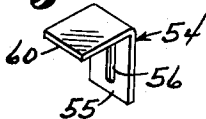


Fig. 9.



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WITNESS

UNITED STATES PATENT OFFICE

2,253,099

PAPER TRIMMER

Edward L. Shaffer, Twin Falls, Idaho

Application May 20, 1940, Serial No. 336,255

10 Claims. (Cl. 30—294)

My invention relates to new and useful improvements in cutting tools.

An important object of my invention is to provide a tool for cutting paper and like materials that is particularly and uniquely, though not exclusively, adapted for use by paper hangers, painters, and persons engaged in like trades.

Another object of my invention is to provide a tool of the above-mentioned character that is uniquely constructed to utilize a razor blade as the cutting means, thus permitting frequent replacement of the said means at a minimum expense, and as each blade becomes broken or dulled, the same may be easily removed and discarded and a new blade substituted therefor.

Still another object of my invention is to provide a tool of the above-mentioned character that includes means to normally hold the cutting edge of the blade in a retracted or sheathed position to protect the same and to permit the user to handle the device at such times, with impunity and without fear of being cut.

Yet another object of my invention is to provide a tool of the above-mentioned character that includes a means cooperatively associated with the razor blade to permit the blade to be moved to an operative position, said means being arranged to permit the above operation to be performed with one hand, thereby permitting the user to have the other hand free to hold a straight edge or to smooth the paper in advance of the cutting edge of the blade.

Other objects and advantages of my invention, will be apparent during the course of the following description:

In the drawings, forming a part of this specification, and wherein like numerals are employed to designate like parts throughout the same—

Figure 1 is a side elevation of a device embodying my invention, and showing the cutting edge of the same in an inoperative or sheathed position,

Figure 2 is a view similar to Figure 1 but showing the cutting edge of the blade in an advanced or cutting position,

Figure 3 is a front elevation of my device,

Figure 4 is a top plan view thereof,

Figure 5 is a top plan view of the body member embodying a part of my invention,

Figure 6 is a perspective view of the channeled support comprising a part of the blade supporting carriage embodying a part of my invention,

Figure 7 is a perspective view of a blade carrier comprising a part of the blade supporting carriage,

Figure 8 is a perspective view of a sliding bar member comprising a part of the carriage,

Figure 9 is a perspective view of an adjustable stop member embodying a part of my invention,

Figure 10 is a vertical sectional view taken on the line 10—10 of Figure 1, and

Figure 11 is a vertical sectional view taken on the line 11—11 of Figure 1.

In the accompanying drawings, wherein for the purpose of illustration, is shown a preferred embodiment of my invention, the numeral 10 designates a body adapted to support the working parts of the tool. The body is preferably formed from metal plate, or the like, and comprises a substantially rectangular supporting wall 11 the lower edge of which is integrally connected with a laterally extending work engaging flange 12. The present tool is particularly adapted, though in no wise restricted, to the operation of trimming wall paper at baseboards, window casings, and like places. The outer surface 13 of the supporting wall is normally held in a vertical position and in appressed relation with the surface of the papered wall, and the bottom face 14 of the work engaging flange is positioned to extend outwardly of the papered wall and in engagement with the upper edge of the baseboard or casing. The forward end 15 of the supporting wall 11 is curved inwardly and the forward end 16 of the work engaging flange 12 is curved upwardly, whereby the body may be slidably moved along the papered wall and the leading edges thereof will present no sharp or projecting edges or corners to catch and tear the paper.

The body is manually held by the pair of cooperatively associated handle members 17 and 18, both of which members are mounted on the inner surface 19 of the supporting wall 11. The lower member 18 is fixedly associated with the supporting wall and extends in an upwardly inclined position from a point adjacent the forward edge 15 to a point adjacent the rearward edge thereof.

The lower handle includes a vertical flange 19' which is riveted, spot welded, or otherwise secured to the supporting wall and a laterally extending flange 20 the outer edge of which is curved upwardly, as at 21. The forward end 22 of the flange 20 extends substantially beyond the flange 19' and the extending end is bent upwardly to define the rear wall 23, the lower peripheral edge of which is coincidental with the leading edge 22 of the bottom flange 20 to permit the parts to be welded, or otherwise secured,

together to form an essentially rigid construction.

The upper handle 17 is provided with a vertical flange 24, the forward end 25 of which is pivotally connected to the supporting wall of the body by the bolt 26 in vertically spaced relation with the lower handle 18. As clearly illustrated in Figure 10, the bolt 26 is preferably provided with a fillister head 27 which head is counter-sunk within the wall 11 to preserve the smooth outer surface of the wall. The flange 24 of the handle 17 is spaced slightly from the inner face of the wall by the bushing 28 and the washer 29 and nut 30 are carried by the bolt at the inner side of the flange to fixedly hold the same in pivotal relation with the wall 11. The upper edge of the flange 24 is integrally connected with a laterally extending flange 31 which is coextensive with the lateral flange 20 of the lower handle 18. The rearward end of the handle 17 extends slightly beyond the rearward end of the lower handle 18 and the upper handle is freely swingable about the bolt 26. The outer corner 32 of the flange 31 is bent upwardly, as clearly illustrated in the drawings, to permit the flange 31 to be accommodated within the upturned edge 21 of the lower flange during such times as the upper handle is moved downwardly in the direction of the said lower handle.

A blade supporting carriage, designated generally by the numeral 33, is mounted on the supporting wall of the body and parts of the carriage are engaged by the extending rearward end of the upper handle, whereby movement of the handle about the pivot 26 will slidably actuate the carriage to move the razor blade 34, supported by the carriage, through the slot 35 located at the rearward end of the body and at the juncture of the supporting wall 11 and the work engaging flange 12.

The carriage includes a channeled support 35', which support includes a laterally extending flange 36 and which flange is riveted, or otherwise secured, to the supporting wall 11 below the extending rearward end of the upper handle 17. The support is inclined upwardly and rearwardly and the channeled portion of the support opens against the inner face of the wall 11 to define a passage 37.

A sliding bar member 38 is formed with an enlarged lower portion 39 which is snugly but slidably received by the passage 37. A shank 40 extends outwardly from the lower portion of the bar member and through the longitudinally extending slot 41 in the support 35' to receive the channeled portion 42 of the razor blade carrier 43. The side flanges 44 and 45 of the channeled portion of the razor blade carrier slidably engage the channeled portion of the support 35' and a web portion 46 extends laterally from the flange 42 and in superposed, overlapping relation with the flange 36 of the support, as illustrated in Figures 1 and 2. The carrier extends at right angles to the support 35' and is, therefore, arranged in rearwardly and downwardly inclined relation to the body. The portion 46 is provided with an extending tip 47 and the upper and lower edges of the tip are formed with inturned flanges 48 and 49 which engage with the inner face of the supporting wall 11 and grip the beaded upper edge 50 of the razor blade 34.

The helical spring 51 is arranged within the channel 37 laterally of the upper portion of the bar member 38. The lower end of the spring is connected to a pin 52 extending from the

bar and the upper end thereof is connected to a pin 53 extending from the wall 11. The resilient action of the spring 51 holds the upper end of the bar 38 in engagement with the rearwardly extending end of the upper handle and the action of the spring is sufficiently great to normally hold the pin 40 in the upper end of the slot 41 and the handle 17 in an elevated position.

The manner in which the handles 17 and 18 are angularly associated with each other provides a comfortable hand grip for the user of the device, the fingers being normally curled around the flange 20 of the lower handle and the thumb pressing downwardly on the flange 31 of the upper handle. A squeezing action by the hand of the user will cause the rearward end of the upper handle to swing downwardly and about the pivot 26. The above action will move the sliding bar member 38 downwardly within the passage 37 in the channel support against the resilient action of the spring 51.

A stop member 54 is arranged below the forwardly extending finger 57 of the blade carrier and the stop comprises an angle clip the flange 55 of which is provided with an elongated slot 56 which receives the stud bolt 58 extending inwardly from the side wall 11. The nut 59 is threadedly received by the bolt and cooperates with the angle clip to hold the same in a selected vertically adjusted position. The laterally extending flange 60 of the stop is contacted by the finger 57 of the blade carrier upon actuation of the same by the upper handle member 17 and the said stop member may be adjustably positioned relative thereto to selectively limit the travel of the carrier and to permit the user to adjust the distance that the cutting edge of the razor blade will be moved through the slot 35.

The support 61 comprises an angle clip the flange 62 of which is bolted, or otherwise secured, to the lower flange 14 of the body adjacent the tip 47 of the blade carrier. The flange 63 of the support extends upwardly and in slight pressed engagement with the tip of the blade carrier to hold the flanges 48 and 49 in frictional engagement with the inner face of the wall 11 in a manner to prevent the blade 34 from being inadvertently disengaged from the flanges 48 and 49. The rearward end of the body is provided with a narrow inturned flange 64, which flange is arranged at the outer end of the tip 47 and parallel with the direction of travel of the carrier to prevent the razor blade from being longitudinally displaced relative to the carrier when pressure is being brought to bear against the cutting edge of the blade.

The present invention finds particular utility as a paper cutting tool, which tool is uniquely suited to trim wall paper when the same is being applied to the wall of a room. In operation, the person engaged in applying the paper may smooth the paper with one hand and hold the cutting tool by the handles 17 and 18 with the other hand. The supporting wall 11 of the body is placed against the wall of the room and the bottom flange 14 is positioned in engagement with the casing or baseboard. When the body is thus associated with the wall and baseboard or casing, the slot 35 will be positioned at the juncture of the wall with the upper edge of the baseboard or casing and squeezing of the handles 17 and 18 by the user will cause the cutting edge of the razor blade 34 to be projected through the

slot 35 in the manner hereinbefore described. The tool may then be slidably moved along the baseboard and wall and the projecting edge of the razor blade will cut the paper evenly and smoothly and at the juncture of the wall with the baseboard.

It is obvious that the utility of the tool is not restricted to the above operation and that the same may be used with or without a straight edge to cut paper, or like material, under a variety of conditions and circumstances. The coil spring 51 will effect the immediate retraction of the blade through the slot 35 upon release of the pivoted handle 17 so that the operator may handle the tool with impunity and without fear of contacting the cutting edge of the blade. The above operation is automatic in its action and assures the sheathing of the blade at all times when not in use. The operation of advancing the cutting edge of the blade through the slot 35 is easily and expeditiously accomplished by a single flexing of the hand and, in the event that the blade becomes dulled or broken, the support 61 may be loosened to permit the tip 47 of the blade carrier to be flexed away from the supporting wall 11 to permit the old blade to drop from between the flanges 48 and 49. A new blade may then be easily and expeditiously inserted between the flanges in place of the old blade and the support 61 moved to its normal operative position.

It is to be understood that the form of my invention, herewith shown and described, is to be taken as a preferred example of the same, and that various changes in the size, shape and arrangement of parts may be resorted to without departing from the spirit of my invention, or scope of the appended claims.

Having thus described my invention, I claim:

1. A cutting tool comprising a body, a blade supporting carriage slidably mounted on the body, and a lever pivoted to the body and bearing against the said carriage, actuation of the said lever effecting movement of the carriage into a cutting position.

2. A cutting tool comprising a body, a blade supporting carriage slidably mounted on the body, resilient means normally holding the carriage in a retracted position, and a lever pivoted to the body and bearing against the said carriage, actuation of the said lever effecting movement of the carriage into a cutting position against the action of the said resilient means.

3. A cutting tool comprising a body, a blade supporting carriage slidably mounted on the body, resilient means normally holding the carriage in a retracted position, a lever pivoted to the body and bearing against the said carriage, actuation of the said lever effecting movement of the carriage into a cutting position against the action of the resilient means, and stop means adjustably positioned within the path of travel of the carriage to limit the movement thereof by the said lever.

4. A paper cutter comprising a body, a pair of cooperatively arranged handle members carried by the body, one of said handles being fixed and the other of the handles being mounted for pivotal movement, and a blade supporting carriage mounted for limited sliding movement on the body, parts of said carriage being held in spring pressed engagement with the free end of the pivoted handle member whereby squeezing of the said handle members will move the carriage to an operative cutting position.

5. A paper cutter comprising a body, a pair of cooperatively arranged handle members carried by the body, one of said handles being fixed and the other of the handles being mounted for pivotal movement, a blade supporting carriage mounted for limited sliding movement on the body, parts of said carriage being held in spring pressed engagement with the free end of the pivoted handle member, whereby squeezing of the said handle members will move the carriage to an operative cutting position, and an adjustable stop member engageable by the carriage to adjustably limit the movement of the carriage by the said pivoted handle member.

6. A paper cutter comprising a body having a supporting wall formed with a laterally extending work engaging flange, a pair of cooperatively arranged handle members carried by the supporting wall of the body, one of said handles being fixed and the other of the said handles being pivotally mounted for swinging movement about the pivot, a razor blade carrier slidably mounted on the supporting wall and having a part engaged by the swinging end of the pivoted member, and spring means normally holding the carrier in a retracted position and in pressed engagement with the handle whereby squeezing of the handles will slidably actuate the carrier to move a blade carried thereby through a slit in the work engaging flange of the body for cutting action.

7. A paper cutter comprising a body having a supporting wall formed with a laterally extending work engaging flange, a pair of cooperatively arranged handle members carried by the supporting wall of the body, one of said handles being fixed and the other of the said handles being pivotally mounted for swinging movement about the pivot, a razor blade carrier slidably mounted on the supporting wall and having a part engaged by the swinging end of the pivoted handle member, spring means normally holding the carrier in a retracted position and in pressed engagement with the handle, whereby squeezing of the handles will slidably actuate the carrier to move a blade carried thereby through a slit in the work engaging flange of the body for cutting action, and adjustable means to limit the travel of the said blade carrier.

8. A paper cutter comprising a body having a supporting wall formed with a laterally extending work engaging flange, a pair of cooperatively arranged handle members carried by the supporting wall of the body, one of said handles being fixed and the other of the said handles being pivotally mounted for swinging movement about the pivot, a support carried by the supporting wall in vertically inclined relation to the free end of the pivoted handle, said support having a longitudinal slot, and a blade supporting carriage slidably associated with the support and having a pin extending through the longitudinal slot, parts of said carriage being spring urged into engagement with the swinging end of the pivoted handle, whereby squeezing of the said handles will slidably actuate the carriage within limits defined by the slot to move the blade supporting part thereof into an operative cutting position.

9. A paper cutter comprising a body having a supporting wall formed with a laterally extending work engaging flange, a pair of cooperatively arranged handle members carried by the supporting wall of the body, one of said handles being fixed and the other of the said handles be-

ing pivotally mounted for swinging movement about the pivot, a support carried by the supporting wall in vertically inclined relation to the free end of the pivoted handle, said support having a longitudinal slot, a blade supporting carriage slidably associated with the support and having a pin extending through the longitudinal slot, parts of said carriage being spring urged into engagement with the swinging end of the pivoted handle and the blade supporting part of the carriage being arranged to move the blade carried thereby through a slit in the work engaging flange of the body for cutting action, and an adjustable means engageable with parts of the carriage to adjustably limit its sliding movement relative to the said support.

10. A paper cutter comprising a body having a supporting wall formed with a laterally extending work engaging flange, a pair of cooperatively arranged handle members carried by the

supporting wall of the body, one of said handles being fixed and the other of the said handles being pivotally mounted for swinging movement about the pivot, a channeled support carried by the supporting wall in upwardly inclined relation to the free end of the pivoted handle, a spring actuated member slidable in the channel of the support, said member engaging the free end of the pivoted handle and having a shank extending through a longitudinal slot in the support, a blade carrier carried by the extending shank of the said member and having parts slidably associated with the support, parts of said carrier being adapted to releasably grip a razor blade and to move the cutting edge thereof through a slit in the work engaging flange of the body for cutting action upon movement of the said member relative to the support by manual squeezing of the said handles.

EDWARD L. SHAFFER.