

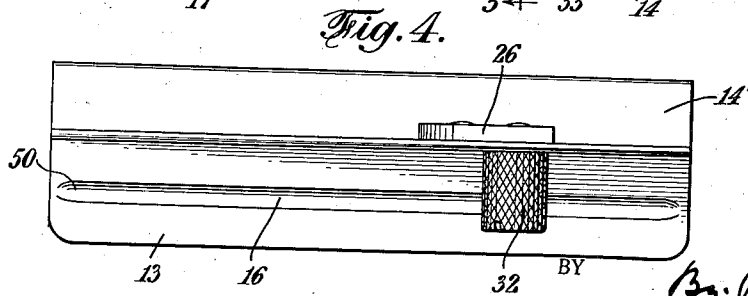
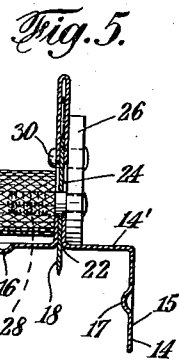
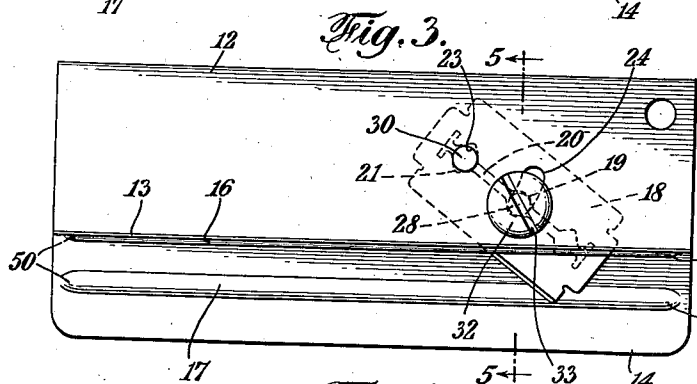
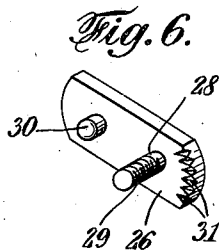
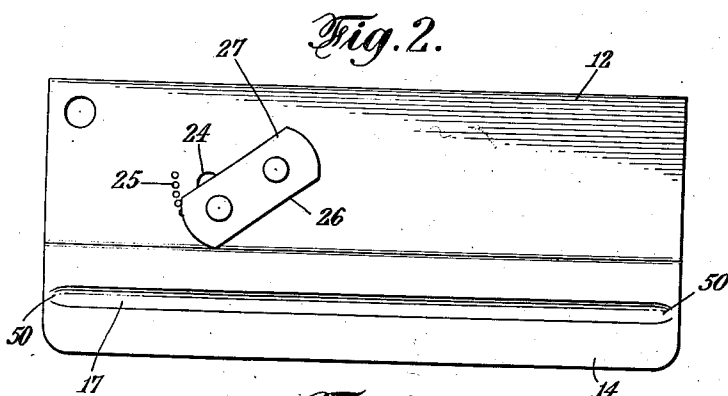
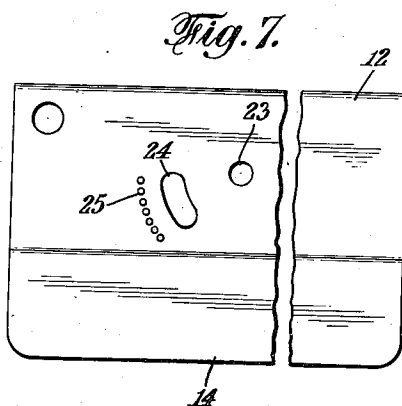
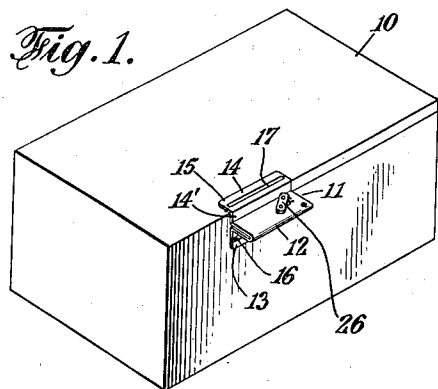
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S. VINTON

2,264,960

INSTRUMENT FOR OPENING PAPER BOXES AND CARTONS

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INSTRUMENT FOR OPENING PAPER BOXES
AND CARTONS

Stallo Vinton, Weehawken, N. J.

Application January 16, 1940, Serial No. 314,029

1 Claim. (Cl. 30—2)

This invention relates to new and useful improvements in implements, and more particularly to instruments, or means for opening paper boxes, or cartons used for packing purposes.

Thus, an object of my invention is to provide an instrument, or article, which may be manufactured at a very small cost.

Another object of my invention is to provide an instrument of the above described character, wherein the body and handle is in one piece.

Another object is to provide an instrument of the character described, which will permit an easy, quick and cheap replacement of the cutting blade thereof, in case the original blade becomes broken, nicked or dull.

A further object is to produce an instrument of the above described character, which will provide for the quick and easy regulating of the cutting blade, and incidentally the depth of cut, so as to adjust said instrument to the opening of boxes and cartons of different thicknesses of side walls of the box or carton.

In order to accomplish the latter object the present device, through a special construction, permits of a minute adjustment of the cutting blade, while at the same time a great latitude is obtained as to the distance the cutting blade may protrude. Further, while the means for adjusting the blade will lend itself to quick operation, such adjustment is of a most rigid nature, as two serrated counterparts of said adjusting means will form an inseparable unit once adjusted and tightened together.

Another object of my invention is to provide a cutting instrument, which, in placing the latter against the edge of a box to be opened, will operate with but a minimum of friction due to ridges arranged upon the flanges of the cutting instrument, while at the same time, through a special construction of said ridges, the approach of the cutting instrument with respect to said box, will be smooth.

The said ridges may, however, if desired, be omitted.

A still further object of my invention is to provide an article, as described, wherein the cutting blade may consist of an ordinary razor blade, such as the double-edged Gillette, or similar blade, of a flexible type.

With the above and other objects in view, this invention consists of the novel features of construction, combination and arrangement of parts, hereinafter fully described, claimed and illustrated in the accompanying drawing, forming part of this application, and in which similar

characters of reference indicate corresponding parts in all views, and in which:

Figure 1 is a perspective view of a carton box, showing my device applied thereto.

Figure 2 is a side elevational view of my device, as shown in Figure 1, but with the handle in upright position.

Figure 3 is a similar view of my device, as Figure 2, but seen from the opposite side.

Figure 4 is an elevational top plan view of my device.

Figure 5 is a transverse sectional view, taken on the line 5—5 in Figure 3.

Figure 6 is a perspective detail view, showing the rotatable adjusting member.

Figure 7 is a side elevational view, with a part broken off, and showing the slot and raised beads, or serrations cooperating with the adjusting member illustrated in Figure 6; and showing, also, a flange without a ridge formed thereon.

Referring more particularly to the drawing, Figure 1 shows a carton box 10 to which my opening device 11 has been applied.

My said device consists of a single blank or sheet of a suitable material, bent upon itself to form a handle 12 and guiding flanges 13 and 14.

Said guiding flanges, of which the one 14 may be of greater width than the other 13, are bent upon the handle portion 12 at a substantially right angle to the latter; while the one flange 14, of the greater width, is bent upon itself at a right angle to form, as may be noted in Figure 1, an upper portion 15 adapted to slide along the top of the carton to be opened; a lower or in this position vertical portion 14', of the flange 14, will with the lower flange 13 thus slide along the side of the carton.

The flanges 13 and 14 are of a suitable width to prevent the device from slipping off the edge of the carton when in cutting position. Said flanges may be made with horizontally disposed ridges 16 and 17 formed by slightly curving the former, as shown in Figures 2, 3 and 4; while said ridges may be placed in any suitable position on the flanges, it is preferred to arrange them at or near the center thereof. The ridges will, when the opening device is cutting a corner edge of a carton, slide along the top and adjacent edge of the carton, thereby reducing the friction between the flanges and said carton; at the same time said ridges will, when applied in the construction of my device, impart rigidity to said flanges.

The said ridges are, however, at each end thereof made with upwardly slanting portions

50, so that said ridges at their very ends actually become flush with the flanges, or disappear entirely. This arrangement serves the purpose of permitting the cutting device to approach the box to be opened in a smooth manner, without tearing the wall of the box, which might otherwise happen, when the cutting device is not carefully applied.

Whenever desired, the said ridges may, however, be omitted altogether.

My opening device may be of any suitable or convenient length.

As may be noted especially in Figure 3, the cutting member 18 of my device consists of a blade, preferably a double-edge safety razor blade of the flexible type, which blade has a hole 19 in the center thereof, in addition to oblong openings 20 upon each side of said blade; said latter openings terminate at their ends and near the ends of the blade in somewhat enlarged holes 21.

The blade is inserted in a recess 22 formed by the portion of the sheet bent upon itself to provide the handle 12, that is the blade is inserted between the two adjacent interior faces of the bent portion of the sheet, which constitutes the handle, as may be seen especially in the Figures 3 and 5.

The blade 18 is in the device disposed at a suitable distance below the flange 14 so as to produce a cut in the carton at the appropriate distance below the top of the latter; it is, however, obvious that said distance may be varied in construction, according to the object to which it may be desired to apply my device.

The handle 12 of my device is provided with a hole 23 and a slot 24 therein, as may be seen, especially in Figure 7. Said handle is upon one side thereof formed with a plurality of raised beads or serrations 25, arranged somewhat in the form of a curve. It may in this connection be stated that depressions in the surface of the handle, corresponding to said serrations, may as well be used for the purpose intended.

An adjusting member 26 is formed with a substantially flush outer surface 27, as may be seen in Figure 2. Said member 26 has formed integrally therewith a screw, or bolt 28 threaded upon its end portion, as shown at 29, and, also, integrally therewith a short stud 30.

The member 26 is upon one end of its inner portion formed with a serrated portion 31, as may be seen in Figure 6.

In assembling my device, the blade 18 is inserted in the recess 22, that is between the bent sheet portions forming the handle. When, thus, assembled, the adjusting member 26 is placed in position on the handle in such a manner that

the serrated portion of the adjusting member 26 may engage the serrated, or beaded portion on the handle 12, while the short stud 30 enters one of the holes 21 in the razor blade, and the threaded bolt 28 engages the center hole 19 of said blade.

A knob 32 is next mounted on the threaded bolt 28 and tightened on to the latter so as to secure the razor blade 18 in a selected position. It will be obvious that an adjustment as to the length of the protruding blade may easily be made by loosening the knob 32 and moving the bolt 28 along in the slot 24 of the handle, as the razor blade pivoted on the stud 30 will follow the movement of the bolt 28 inserted through the center hole 19 of said blade.

When, thus, adjusted, the knob 32 is again tightened securely upon the bolt 28. The knob 32 is formed with a slit 33 in its top surface to facilitate the tightening of said knob.

In adjusting the blade, this may be done either by manipulating the member 26, or the knob 32, after loosening the latter.

It is obvious that minor changes may be made in the form, construction and arrangement of the several parts as shown, within the scope of the appended claim, without departing from the spirit of the invention, and I do not, therefore, wish to limit myself to the exact construction and arrangement shown and described herein.

What I claim as new, and desire to secure by Letters Patent of the United States, is:

A cutting device comprising, in combination, a member bent upon itself to form a recess between its two bent portions, the flanges of the latter being bent again at a right angle to the recess, said flanges being of an unequal length, and the longer one of these being again formed with a rectangular bend adapted to engage the edge-portion of an object and steady the device in operation, the said member having a hole and a substantially oval-shaped slot therein, relatively arranged at a predetermined distance, serrations arranged upon one side of said member and symmetrical with the oval-shaped slot, a cutting blade having holes therein and being inserted in the recess of said member, an adjusting member having a short and a long bolt formed integral therewith and adapted for insertion through the respective cooperating holes in the cutting blade, and hole and slot in the said member, the adjusting member being at one end thereof formed with serrations adapted to cooperate with the serrations on the member, and a nut threaded upon the end of the long bolt, whereby to secure the device in a compact and operable position.

STALLO VINTON.