May 7, 1935. W. J. ANDERSON 2,000,432

ROLL PAPER CUTTER

Filed Dec. 3, 1934

FIG. 1

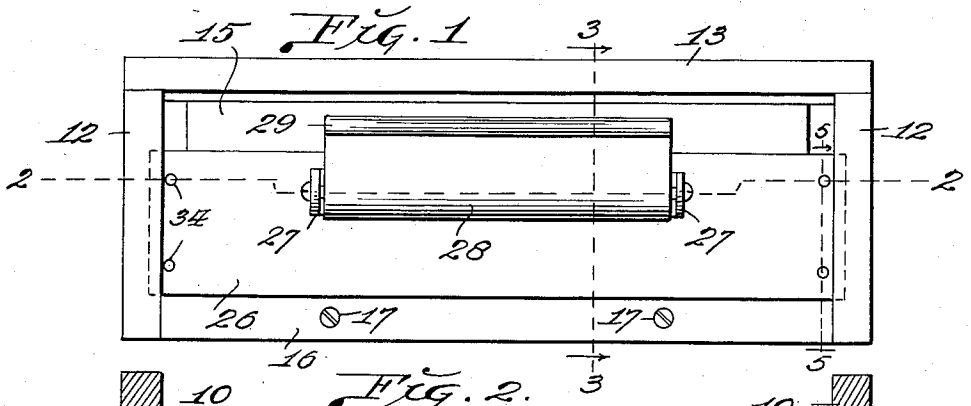


FIG. 2.

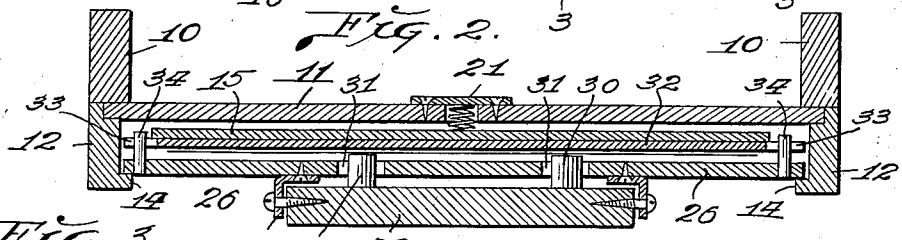


FIG. 3

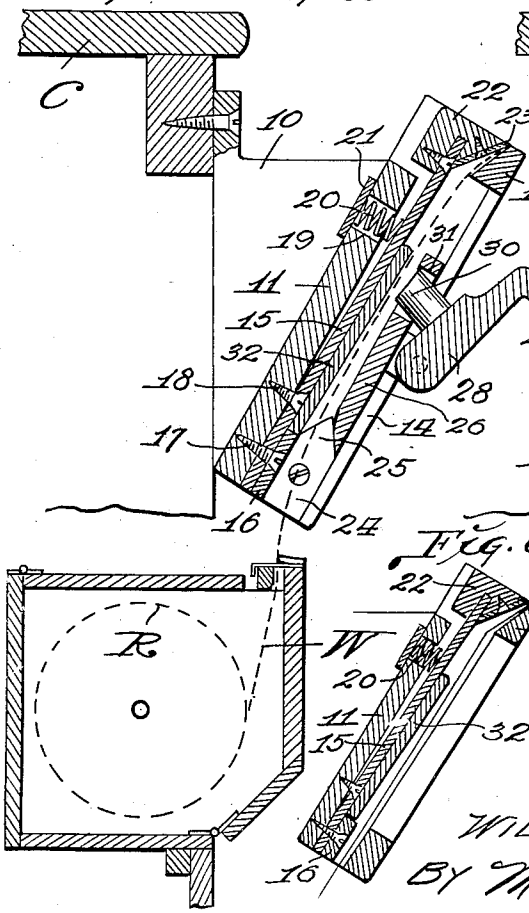


FIG. 4.

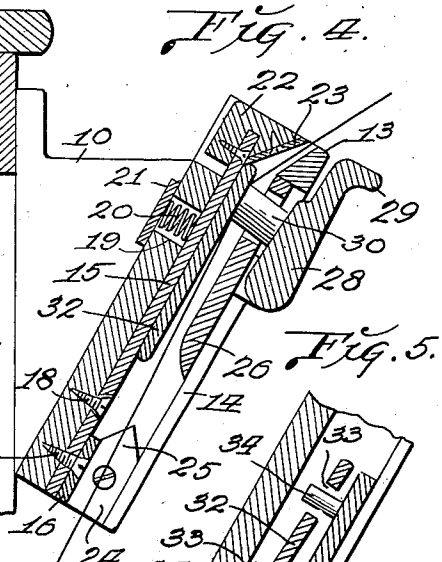


FIG. 5.

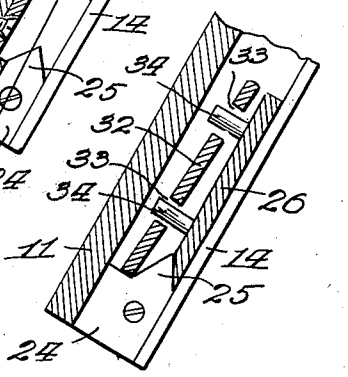


FIG. 6.

INVENTOR,
WILLIAM J. ANDERSON.
BY Martin P. Smith, ATTY.

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ROLL PAPER CUTTER

William J. Anderson, Los Angeles, Calif., assignor of three-fourths to James W. McClintock, Los Angeles, Calif.

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8 Claims. (Cl. 242—55.5)

My invention relates to a roll paper cutter and has for its principal object, the provision of a relatively simple, practical and inexpensive device that is applied to the rear portion of a merchandising counter or the like for clamping the end portion of the web of wrapping paper as it comes from a roll and feeding the end of said web of paper upwardly a short distance until it may be conveniently engaged between the thumb and fingers to be pulled upward and then torn off along a tearing edge.

Further objects of my invention are, to generally improve upon and simplify the constructions of the existing forms of paper feeding and cutting devices, further, to provide a device having means that automatically grips the web of paper when the feeding means is engaged by the thumb or fingers of the operator and further, to provide a device of the character referred to that will enable the web of paper as it unwinds from a roll, to be easily and conveniently threaded through the gripping and cutting means.

With the foregoing and other objects in view my invention consists in certain novel features of construction and arrangements of parts that will be hereinafter more fully described and claimed and illustrated in the accompanying drawing in which:

Fig. 1 is a front elevational view of a roll paper cutter constructed in accordance with my invention.

Fig. 2 is a horizontal section taken approximately on the line 2—2 of Fig. 1.

Fig. 3 is an enlarged cross section taken approximately on the line 3—3 of Fig. 1 and showing the cutter positioned on the rear side of a merchandising counter above the holder for a roll of paper.

Fig. 4 is a sectional view similar to Fig. 3 and showing the position of the operating parts of the holder when the same is elongated to feed the end of the web of paper to a position where it may be engaged between the thumb and fingers.

Fig. 5 is an enlarged cross section taken on the line 5—5 of Fig. 1.

Fig. 6 is a vertical section through the center of the paper cutter and showing a modified construction.

Referring by numerals to the accompanying drawing which illustrates a preferred embodiment of my invention, 10, 10 designate brackets of either wood or metal that are suitably secured in upright position on a support, for instance, the rear surface of a merchandising counter C at a point just below the top thereof as illustrated in Fig. 3.

The front faces of these brackets occupy inclined positions of approximately twenty or thirty degrees relative to a vertical plane and secured to said inclined faces, are the ends of a horizontally disposed substantially rectangular panel 11.

Secured to the ends of this panel on the front face thereof, are end pieces 12, the upper portions of which project a short distance above the upper edge of panel 11.

Disposed between the upper front corners of the end pieces 10, is a horizontally disposed rail 13 and formed on the inner faces of the end pieces 12 adjacent their front edges and extending downward from the rail 13, are retaining lips or flanges 14.

Positioned immediately in front of panel 11, is a relatively thin panel 15, having a certain degree of resiliency and overlying the front face of the lower portion of this panel 15, is a horizontally disposed strip 16.

Screws 17 pass through strip 16 and through the lower portion of panel 15, said screws being seated in the lower portion of panel 11.

Panel 15 is slightly shorter in length than panel 11 so that its ends terminate at points inset from the end pieces 12.

Passing through the lower portion of panel 15, just above the strip 16 and seated in panel 11, are screws 18 which, after being tightened, are backed off approximately a half turn so that they do not firmly clamp the panel 15 to panel 11.

Occupying an aperture 19 that is formed in the upper central portion of panel 11, is expansive spring 20, the rear end of which bears against a plate 21 that is secured to the rear side of panel 11 and the front end of this spring presses outwardly against the upper rear portion of panel 15, thereby normally holding said panel in a slightly inclined position with respect to panel 11, as illustrated in Fig. 3.

Suitably secured to the upper end of panel 15, is a rail 22 and secured to the front face of this rail is a longitudinally disposed strip of metal 23 that occupies an inclined position and the upper edge of this strip is beveled to form a tearing edge against which the paper is pressed and torn off after the sufficient amount of paper has been pulled upwardly through the device.

The tearing strip 23 occupies a position directly to the rear of rail 13.

Secured to the inner faces of the end pieces 12 at the lower ends thereof, are blocks 24 and projecting upwardly from the forward portions

thereof are lugs 25 having oppositely inclined front and rear faces.

Arranged to slide freely between the end pieces 11 to the rear of the retaining flanges 14 and between the front inclined faces of lugs 25 and the underside of rail 13, is a panel 26.

Arranged on the front face of this panel, are brackets 27, to which is pivoted the lower portion of a hand rail 28, the latter being provided at its upper end with an outwardly projecting flange 29 for the convenient engagement of the thumb or fingers.

Secured to and projecting rearwardly from hand rail 28 adjacent its ends, are short fingers 30 that project through openings 31 that are formed in the upper portion of sliding panel 26.

Arranged to slide freely between the end pieces 12 and disposed between panel 26 and panel 15, is a panel 32.

Formed in the ends of this sliding panel, are short longitudinally disposed slots 33, through which project pins 34 which are seated in and project rearwardly from the end portions of panel 26.

The roll of paper that is cut by my improved device and which is designated by the letter R, Fig. 3, occupies a suitable container, preferably of the construction illustrated in Fig. 3 and which container is positioned a suitable distance below the top of the counter and the cutting device that is mounted thereon.

The web W of paper passes upwardly from the roll container between the panels 36 and 32 and thence upwardly between the tearing strip 23 and rail 13, as shown by dotted line in Fig. 3.

Under normal conditions, the sliding panels 26 and 32, by gravity, remain at their lowermost limit of movement, with the lower ends of said panels resting on the oppositely disposed inclined faces of the lugs 25. When so positioned the hand rail 28, by gravity, swings outward due to limit of movement and the spring 20 presses panel 15 forwardly to its limit of movement, as illustrated in Fig. 3.

The pressure of the upper edge of strip 23 on the upper end of the web of paper grips and holds said paper against the upper edge of rail 13.

To feed the end of the paper upward a short distance to enable said end to be grasped between the thumb and fingers, the operator places the thumb or fingers beneath the flange 29 of hand rail 28 and applies upward and inward pressure to said hand rail.

As a result of this pressure, the hand rail is swung inwardly toward panel 26, with the result that the rear faces of the fingers 30 press the web of paper against the upper portion of sliding panel 32 and as the resistance offered by spring 20 is overcome, the panel 15 will flex rearwardly a short distance until it engages the front face of panel 11.

This movement of panel 15 carries the upper edge of the tearing strip 23 away from strip 13 and simultaneous with this manipulation of the hand rail, the same is drawn upward to its limit of movement or until the upper edge of panel 26 engages the underside of rail 13, as illustrated in Fig. 4.

The movements just described grips the web of paper between the fingers 30 and panel 32 and draws said web of paper upwardly so that a short portion thereof projects a substantial distance above the strip 13 and tearing strip 23.

The projecting end of the web of paper is directly in position between the thumb and fingers of the operator's hand and the thumb and fingers are now disengaged from the hand rail 29 and the upper portion of panel 11 and the projecting end of the paper is grasped and drawn upward so as to unwind the desired amount of paper from the roll R.

When the desired amount of paper has been withdrawn from the device, a quick movement of the withdrawn portion of the paper toward the counter, will engage the edge of tearing strip 23 so that the withdrawn portion of the paper is torn off.

Immediately after the thumb or fingers are removed from the hand rail, the sliding panels 26 and 32 will, by gravity, move downward to their limit of movement and as the lower ends of said panels engage the inclined faces of lugs 25, the panels will be spread apart so as to permit the web of paper to be drawn freely upward as the operator withdraws the desired amount of paper.

As the panels 26 and 32 move downward to their limit of movement, spring 20, which was previously compressed, will expand and move panel 15 forwardly a short distance until the upper edge of the tearing strip engages the web of paper to clamp the end thereof against the upper edge of strip 13.

Thus it will be seen that I have provided a roll paper cutter that is relatively simple in construction, inexpensive of manufacture and very effective in performing the functions for which it is intended.

The device while not in use grips the end of the web of paper, thereby holding the same without any of the paper projecting beyond the cutting edge and the initial operation of the cutter by the thumb and fingers ejects a short portion of the end of the web of paper so that it is ejected and may be conveniently grasped between the thumb and fingers and the desired amount of paper may then be withdrawn and cut off with practically one movement of the hand and arm of the operator.

Under normal conditions with the panels 26 and 32 spaced apart as illustrated in Fig. 3, it is a comparatively easy matter to thread the end of the web of paper upwardly through the cutter to a point where the end of said web may be grasped between the rail 13 and tearing strip 23, which gripping action is due to the pressure exerted by spring 20.

Under normal conditions or with the parts in position as illustrated in Fig. 3, the space between the panels 26 and 32 tapers in width toward the upper ends of said panels and thus the fingers 30 move only a short distance before they engage and press the web of paper against the panel 32. This arrangement tends to reduce the tendency of the web of paper to buckle within the tapered space and results in a proper feed and movement of the paper when the panels 36 and 32 are drawn upward.

In the modified construction illustrated in Fig. 6, the sliding panel 26 and the pivoted hand rail 28 are dispensed with and the paper passes upwardly through the device in front of the sliding panel 32^a. When this form of device is used, the thumb or fingers of the operator's hand press the web of paper against the sliding panel 32^a and the web of paper and panel are then drawn upwardly by upward pressure and movement of the thumb or fingers so as to feed the upper end of the web of paper upwardly past the tearing edge so that the projecting end of the paper may be engaged between the thumb and fingers

and drawn upwardly from the device and then torn off along the tearing edge.

It will be understood that minor changes in the size, form and construction of the various parts of my improved roll paper cutter may be made and substituted for those herein shown and described without departing from the spirit of my invention, the scope of which is set forth in the appended claims.

I claim as my invention:

1. A roll paper cutter, comprising a frame, a panel secured to said frame, a tearing strip carried by the upper edge of said panel, a rail positioned in the frame in front of said tearing strip, a pair of cooperating panels arranged for sliding movement in the frame in front of said first mentioned panel, a hand rail mounted for swinging movement on the front face of the front one of said sliding panels and paper engaging fingers carried by said hand rail and projecting through the front one of said sliding panels.

2. A roll paper cutter as set forth in claim 1, and with means in the lower portion of the frame for spreading said sliding panels apart as they approach their lower limits of movement.

3. In a roll paper cutter, a frame, a transversely disposed rail in the upper front portion of said frame, a panel having its lower portion secured to the lower portion of said frame so that its upper portion may move toward and away from said rail, a spring for normally forcing the upper portion of said panel toward said rail, a tearing strip carried by the upper portion of said panel and normally positioned to the rear of said rail and means arranged for sliding movement in the frame in front of said panel and below said rail for gripping a web of paper and moving the same upwardly between said rail and tearing strip.

4. In a roll paper cutter, a frame, a transversely disposed rail in the upper front portion of said frame, a panel having its lower portion secured to the lower portion of said frame so that its upper portion may move toward and away from said rail, a spring for normally forcing the upper portion of said panel toward said rail, a tearing strip carried by the upper portion of said panel and normally positioned to the rear of said rail, a pair of cooperating panels arranged for sliding movement in the frame in front of said first mentioned panel and below said rail and means carried by the front one of said sliding panels for engaging and gripping a web of paper against the rear sliding panels.

5. A roll paper cutter as set forth in claim 4, and with means on the lower portions of the ends of said frame for spreading said sliding panels apart as they approach their lower limits of movement.

6. In a roll paper cutter, a frame, a transversely disposed rail in the upper portion of said frame, a member mounted in the upper portion of the frame to move toward and away from said rail, a tearing strip carried by said member, a spring for yieldingly resisting the movement of said tearing strip carrying member away from said rail and manually operable means arranged for sliding movement in the frame below said rail for gripping a web of paper and moving same upwardly between said rail and tearing strip.

7. In a roll paper cutter, a frame, a transversely disposed rail in the upper portion of said frame, a member mounted in the upper portion of the frame to move toward and away from said rail, a tearing strip carried by said member, a spring for yieldingly resisting the movement of said tearing strip carrying member away from said rail, a pair of cooperating panels arranged for sliding movement in the frame below said rail and manually operable means mounted on the front one of said sliding panels for engaging and clamping a web of paper against the rear one of said sliding panels.

8. A roll paper cutter, as set forth in claim 7 and with means in the lower portions of the ends of said frame for spreading said sliding panels apart as they approach the lower end of their travel.

WILLIAM J. ANDERSON.