

Sept. 7, 1965

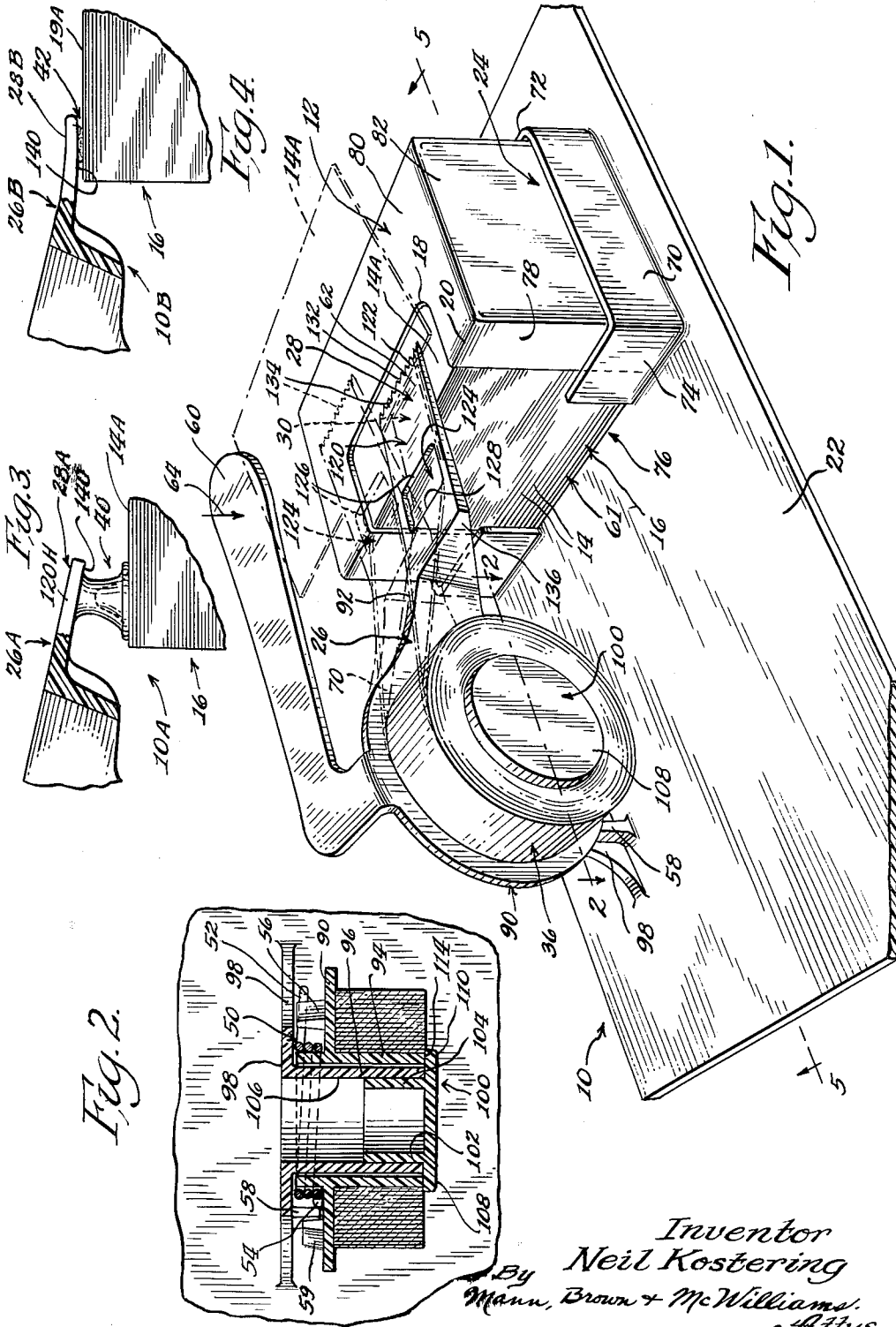
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3,204,817

DEVICE FOR DISPENSING END PAPERS FOR HAIR CURLERS

Filed Feb. 25, 1963

2 Sheets-Sheet 1



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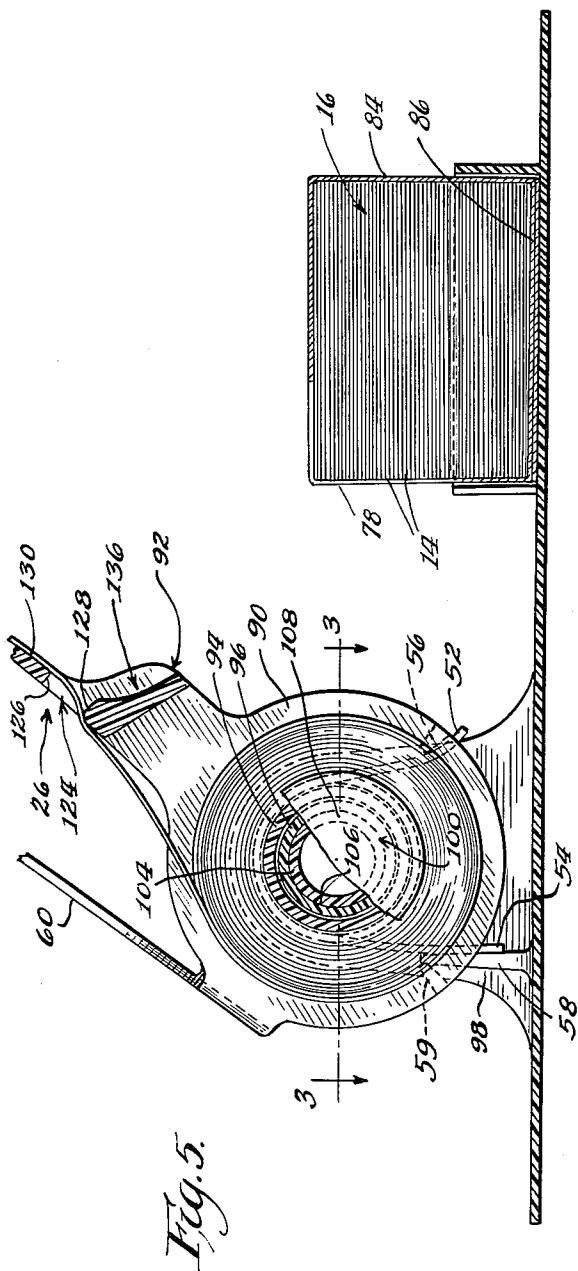


Fig. 5.

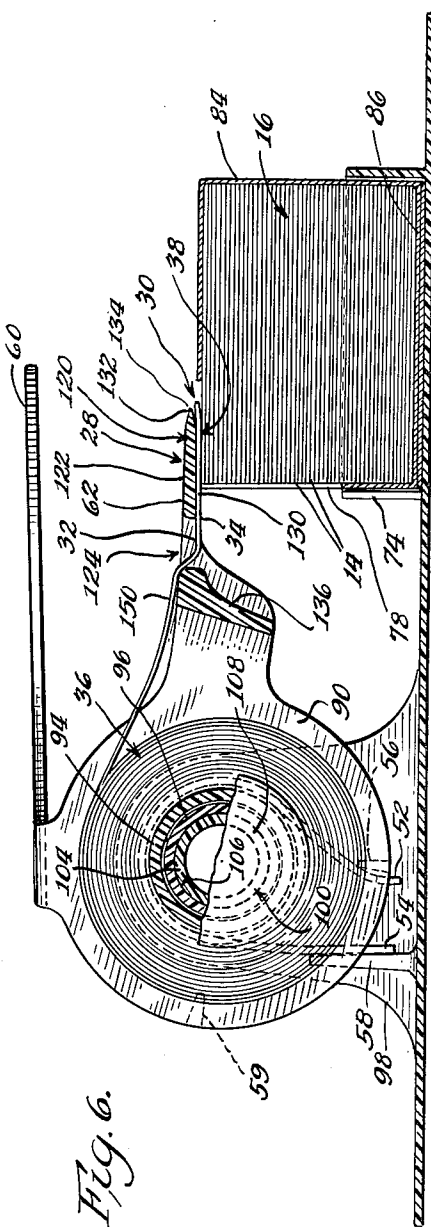


Fig. 6.

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DEVICE FOR DISPENSING END PAPERS FOR HAIR CURLERS

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2 Claims. (Cl. 221—210)

My invention relates to a device for dispensing hair curler end papers, and more particularly, to a device for removing such papers one by one from a container that insures that the dispensing action is convenient and reliable.

These so-called "end papers" are commonly used in connection with hair curlers and are small sheets of thin tissue (one common size being approximately $3\frac{1}{8}$ inches long and $2\frac{1}{4}$ inches wide), which are ordinarily supplied in a short stack packaged in a paperboard or cardboard container having one longitudinal edge open for the purpose of permitting one to remove the tissues by grasping one edge of the top sheet in the stack and drawing same out of the container opening.

The tissue sheets that form end papers are so thin that it is difficult to remove only one sheet at a time from the end paper container, even through a single sheet is ordinarily used in connection with any one hair curler. Thus, when a beautician is at work applying hair curlers and requires an end paper, in withdrawing the top paper of the stack he ordinarily also inadvertently and unavoidably grasps the next two or three sheets in the stack. This leads to irritation and waste as the extra sheets must be dropped or placed somewhere, and it usually is not convenient or desirable to retrieve the extra sheets for use as end papers once they have been removed from the end paper container.

This dispensing difficulty has resulted in a general decline in the use of end papers in spite of the useful purpose they serve and the nominal cost to the ultimate user of the manufactured product.

A principal object of my invention is to provide a device for readily dispensing end papers one at a time, and only one at a time, from their container.

Another principal object of the invention is to provide a device for dispensing end papers which effects removal of a single end paper from its container and holds it in a position to be readily grasped by the user.

Further objects of the invention are to provide a dispensing device for end papers that consistently dispenses only a single end paper at a time from this container, and disposes the paper at a position to be readily grasped by the user, that thereby eliminates a long standing difficulty in the art of merchandising end papers, and that provides a dispensing device that is economical of manufacture, convenient in use, and susceptible of a wide variety of embodiments and applications.

Other objects, uses, and advantages will be obvious or become apparent from a consideration of the following detailed description and the application drawings.

In the drawings:

FIGURE 1 is a diagrammatic perspective view of one embodiment of my invention, showing same in the process of selecting and withdrawing a single end paper from the top of a stack of packaged end papers;

FIGURE 2 is a diagrammatic cross-sectional view sub-

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stantially along line 2—2 of FIGURE 1 and looking in the direction of the arrows;

FIGURES 3 and 4 are diagrammatic fragmental views illustrating variations of the invention;

FIGURE 5 is a cross-sectional view substantially along line 5—5 of FIGURE 1 and looking in the direction of the arrows and showing the device in the position in which it holds the end paper for ready grasping for the user; and

FIGURE 6 is a view similar to that of FIGURE 5, but showing the device being applied to the top paper of the stack of end papers for purposes of withdrawing same from the end paper container.

However, it is to be distinctly understood that the specific form of the invention shown in the drawings is provided primarily to comply with the requirements of 35 U.S.C. 112, and that the invention may take numerous other forms, as will be obvious to those skilled in the art. Consequently, the appended claims are to be construed as broadly as the relevant prior art will permit.

General description

Reference numeral 10 of FIGURE 1 indicates one embodiment of my invention, which is arranged for dispensing from a container 12 the top sheet 14A of a plurality of sheets 14 packaged as a stack 16 within the container 12.

As already mentioned, the sheets 14 comprise thin sheets of tissue, which in the form shown are generally rectangular in configuration, and are ordinarily used by beauticians and the like, one at a time, to hold the ends of a lock of hair in place when it is to be applied to a hair curler.

The end papers 14 heretofore have been supplied in a container similar to that indicated at 12, which is opened as at 18 along one edge 20 thereof to expose the end papers for grasping by the user.

However, the thinness of the individual end papers 14 makes it difficult for a hurrying beautician to readily grasp only the top end paper 14A, and the result is that the beautician in attempting to get the single end paper 14A out of container 12 will also draw out the next two or three end papers, with the waste and irritation that have been referred to above.

In accordance with my invention, the end papers 14 are dispensed from container 12 by utilizing a device equivalent to that indicated at 10 in FIGURE 1.

The device 10 generally comprises a pallet 22 of any desired configuration which is provided with a receptacle 24 in which the container 12 is seated.

Positioned adjacent the receptacle 24 is a rotatably or rockably mounted dispensing arm 26 provided with a projecting end portion 28 that is disposed to engage the top paper 14A of the stack 16 when a container 12 is present in receptacle 24.

Associated with the dispensing arm 26, and particularly with its end portion 28, is a device of a tacky or adherent nature that, in accordance with my invention, is brought into engagement with the top end paper 14A. Thereafter, the arm 26 is disposed to position the end paper 14A for ready grasping by the operator, somewhat as suggested in the dashed-line showing of FIGURE 1.

In the form of the invention shown in FIGURES 1, 2, 5, and 6, the tacky or adherent means comprises a length or strip of tape 30, which may be similar or equivalent to the familiar tacky cellophane tape now commonly available which comprises a length of cellophane 32 having a

film in the form of substance that is tacky at room temperature (say 78 degrees F.) applied to its undersurface 34. In the device 10, the strip 30 is provided in the form of a roll 36 that is operatively associated with dispensing arm 26 to present an end portion 38 of the strip 30 underneath the end portion 28 of the arm 26 for operative engagement with the top end paper sheet 14A.

However, the tacky or adherent means may take other forms. In the device 10A of FIGURE 3, the end portion 28A of the dispensing arm 26A has secured thereto an appropriate form of suction cup, generally indicated at 40, which is positioned for operating engagement with the top sheet 14A of the stack 16.

And in the embodiment 10B of FIGURE 4, the arm end portion 28B of dispensing arm 26B has applied thereto a dab of a suitable compound having tacky characteristics, with the dab being generally indicated at 42 and applied to the arm end portion 26B for operating engagement with the top sheet 14A of the stack 16.

In addition to the foregoing, the device 10 also preferably includes a device for resiliently biasing same from the position of FIGURE 6 to the position of FIGURE 5, and in the embodiment 10, this is shown as a torsion spring 50 having its ends 52 and 54 appropriately applied to the respective lugs 56 and 58, fixed with respect to the operating arm 26 and the pallet 22, respectively, for purposes of biasing the operating arm in the direction indicated. The operating arm 26 also preferably has associated therewith a device for limiting its movement away from the stack 16, such as the stop lug 59 shown in FIGURES 2, 5 and 6.

The embodiments 10A and 10B of FIGURES 3 and 4 are arranged in the manner shown in FIGURES 1, 2, 5 and 6 except for the specific tacky or adherent means that are shown in FIGURES 3 and 4.

Device 10 also may be provided with an operating arm or lever 60 for purposes of actuating dispensing arm 26 against the action of spring 50, but this is considered an optional feature.

In addition to the foregoing, the container 12 for the end papers should be modified to extend the opening 18 to the bottom of the container, as indicated in FIGURE 1 so that the arm 26 may have access to all of the end papers 14 in the stack 16. The receptacle 24 should be open, as at 61, on the side thereof that faces arm 26, for the same reason.

In operating the devices 10, 10A or 10B, a stack 16 of end papers 14, as packaged in a container 12, is positioned in the receptacle 24 substantially in the manner indicated in FIGURE 1 to dispose the container opening 18 in the illustrated operative relation to the dispensing arm 26.

The dispensing arm 26 is then moved downwardly against the top end paper 14A to bring the tacky or adherent means into engagement with such end paper, after which the dispensing arm 26 is released, and the biasing action of spring 50 withdraws the top end paper 14A from the container 12 and disposes it substantially in the position indicated in dashed lines in FIGURE 1, whereby the operator may readily grasp the end paper.

This automatically positions the dispensing device for the next dispensing action.

The indicated downward movement of the dispensing arm 26 may be effected either by pressing one's finger against the top surface 62 of the dispensing arm, or by moving operating arm or lever 60 downwardly in the direction of the arrow 64 of FIGURE 1. This downward movement is continued until the end portion 28 of the dispensing arm 26 is pressed firmly against the top end paper 14A, after which the dispensing arm 26 is released.

Specific description

As already indicated, the specific devices shown in the drawings are provided to illustrate principles only, and to show several operative forms of the invention.

In the forms illustrated, the receptacle 24 is defined by upstanding end walls or flanges 70 and side walls or flanges 72 and 74, with the wall 74 being interrupted as at 76 to fully expose the stack of end papers 16 to the dispensing arm 26.

The container 12 may take the form of the usual paper or cardboard container in which end papers are packaged, except that the opening 18 should extend the full height of the side wall 78, and extend inwardly somewhat across the width of the top wall 80. Thus, the end walls 82 and the side wall 84 and the bottom wall 86 may be conventionally formed.

The dispensing arm 26 of the device 10 comprises a disc member 90 formed with an extension or projection 92 that defines the operating arm configuration shown in the drawings, with the disc member 90 being fixed with respect to a sleeve member 94 (see FIGURE 2) which is journaled on a sleeve 96 that is fixed to an upstanding supporting wall structure 98 carried by the pallet 22 or tray 22.

In the specific arrangements shown in the drawings, the pallet 22, its walls 70, 72 and 74, its wall structure 98 and the sleeve 96 that is affixed thereto, and stop lug 58 are all integrally united in a one-piece element formed from a suitable plastic substance, although obviously all the elements indicated could be separately formed and united in any convenient manner.

Likewise the dispensing lever 26 and its lugs 56 and 59, as well as sleeve 94, may be made in the form of a single component formed from appropriate plastic substance.

In the embodiments illustrated, after the torsion spring 50 and the dispensing arm 26 have been applied to the journalling sleeve 96, and the torsion spring 50 applied to lugs 56 and 58 in substantially the manner indicated in the drawings, a cap 100 is applied to the open end 102 of sleeve 96. The cap 100 comprises a sleeve member 104 proportioned to frictionally engage the internal surface 106 of the support sleeve 96 and is integrally united with a disc-like cover 108 having a rim portion 110 proportioned to extend over the end 114 of dispensing arm sleeve 94 (see FIGURE 2), for purposes of holding the dispensing arm 26 in its operative position on mounting sleeve 96. Rim portion 110 is also proportioned to hold roll 36 in place in the form shown in FIGURE 1, but this is considered optional.

In the embodiment of FIGURES 1, 2, 5 and 6, the extension or projection 92 that provides dispensing arm 26 is formed to define a tab-like end portion 120 in the form of a generally flat wall structure 122 that forms surface 62 and is integrally united with arm 26 and is formed to define a generally quadrilaterally shaped opening 124 through which the strip 30 is brought through from roll 36. The opening 124 is preferably defined by sides 126 and 128 that extend generally parallel to the axis of rotation of the dispensing arm 26, with the opening 124 being proportioned to receive the full width of the strip 30 for the purpose of smoothly disposing the strip in abutting relationship with the undersurface 130 of the tab portion 120. The end 132 of the tab portion may be serrated as shown at 134 in FIGURE 1 to permit one to readily tear off a length of the strip 30 in the manner now customary with the well known commercially available forms of tacky cellophane tape.

The tab portion 120 of arm 26 is shown as braced by an appropriate transversely extending web 136.

In the embodiment of FIGURE 3, the dispensing arm 26A may be essentially the same as that shown in FIGURE 1 except that the opening 124 and the serrations 134 are omitted. The suction cup 40 may be of any appropriate type and is bonded to the undersurface 140 of the dispensing arm tab portion 120A in any appropriate manner.

In the embodiment of FIGURE 4, the dispensing arm 26B is essentially the same as that shown in FIGURE 3,

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although the suction cup is omitted. The dab 42 of the tacky substance is applied instead to the undersurface 140. The tacky substance 42 may be of any suitable type that is tacky, but sufficiently viscous so that none of it adheres to the end papers. An appropriate form of highly viscous glue would be an example, but many resins if properly treated would be suitable for the purpose.

In the embodiment of FIGURES 1, 2, 5 and 6, the strip of tape 30 is initially positioned in operating relation with the dispensing arm 26 by first applying the roll 36 to sleeve 94 (which requires removal and replacement of cap 100) and then drawing the end of the strip 30 through the opening 124 and then under the tab portion 120 to approximately its end 132. While the upper surface 150 of the strip 30 is not intended to be coated, it will be found that when the strip 30 is positioned substantially as shown in FIGURES 1 and 6, it will remain disposed to have its filmed surface 34 brought into engagement with the top end paper 14A. This is because once the strip 30 is drawn away from its roll 36, it tends to hold its withdrawn position even though the strip 30 is obviously quite flexible. It is thus preferred that the strip 30 be made of the substance that is sufficiently resilient to hold its shape adjacent the tab portion 120 of the dispensing arm 26, rather than droop in a depending manner from opening 124. A resilience on the order of that of cellophane will be satisfactory for purposes of my invention.

After the device 10 has been used to the point that the portion of the strip 30 that contacts the end papers loses its tackiness, the used portion of the strip 30 may be torn off by drawing it past the serrations 134 and then tearing off the used end of the strip, which automatically positions an unused tacky portion of the strip 30 for use in connection with the practice of my invention.

It will therefore be seen that I have provided a very simplified, yet highly useful and efficient device for mechanically dispensing, one by one, end papers from their container, with complete assurance that only one end paper will be dispensed and positioned for ready grasping by the operator regardless of the relative thinness of the stock employed for the end papers.

The foregoing description and the drawings are given merely to explain and illustrate my invention and the invention is not to be limited thereto, except insofar as the appended claims are so limited, since those skilled in the art who have my disclosure before them will be able to make modifications and variations therein without departing from the scope of the invention.

I claim:

1. A device for dispensing hair curler end papers one at a time from the top of a stack of such papers, said device comprising:

a generally planar pallet defining a generally quadrilaterally shaped open topped receptacle for the stack comprising a pair of spaced upstanding end walls and a pair of spaced upstanding side walls, with one of said side walls being interrupted down to the level of said pallet to expose the adjacent side of the stack when the stack is placed in said receptacle, an end paper dispensing member pivotally mounted on said pallet adjacent to but spaced from said receptacle and in front of said one side wall interruption for movement in a plane that is substantially perpendicular to that of said pallet and said side walls and that is aligned with said one side wall interruption,

said member including an arm projecting toward said receptacle and said arm including a projecting end portion proportioned to extend through said one side wall interruption and into said receptacle when said member is pivoted to dispose same within said interruption whereby said arm end portion is positioned for engagement with the top of a stack of said end papers when the stack is placed in said receptacle,

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resilient means for biasing said arm away from the receptacle to an upwardly projecting position, stop means carried by said dispensing member and said pallet for limiting the movement of said arm away from said receptacle under the action of said resilient means to a position wherein said arm end portion is disposed forwardly of said one side wall,

a roll of tape carried by said member, said roll being disposed in said plane of movement of said arm and being rotatably mounted for rotational movement about an axis that is coincident with the pivotal axis of said dispensing member, said tape having its undersurface coated with a tacky substance,

said arm projecting end portion comprising a generally planar wall structure formed with a serrated edge portion at the terminus thereof and an opening spaced from said edge portion in the direction of said axes, with the end of said tape extending through said opening and under said serrated edge portion with the tape underface facing said receptacle,

whereby, when the stack is placed in said receptacle, said member may be moved toward the receptacle against the action of said resilient means to bring the tape end undersurface into engagement with the top of the stack, and said resilient means on release of said member is effective to move the top end paper of the stack upwardly and away from the stack and thereby dispose same for ready grasping.

2. A device for dispensing hair curler end papers one at a time from the top of a stack of such papers, said device comprising:

a generally planar pallet defining a generally quadrilaterally shaped open topped receptacle for the stack comprising a pair of spaced upstanding end walls and a pair of spaced upstanding side walls, with one of said side walls being interrupted down to the level of said pallet to expose the adjacent side of the stack when the stack is placed in said receptacle,

an end paper dispensing member pivotally mounted on said pallet adjacent to but spaced from said receptacle and in front of said one side wall interruption for movement in a plane that is substantially perpendicular to that of said pallet and said side walls and that is aligned with said one side wall interruption,

said member including an arm projecting toward said receptacle and said arm including a projecting end portion proportioned to extend through said one side wall interruption and into said receptacle when said member is pivoted to dispose same within said interruption whereby said arm end portion is positioned for engagement with the top of a stack of said end papers when the stack is placed in said receptacle,

resilient means for biasing said arm away from the receptacle to an upwardly projecting position, stop means carried by said dispensing member and said pallet for limiting the movement of said arm away from said receptacle under the action of said resilient means to a position wherein said arm end portion is disposed forwardly of said one side wall,

said member being formed to define a sleeve portion thereon,

said sleeve portion having its central axis coincident with the pivotal axis of said member and adapted to receive thereon a roll of tape having its undersurface coated with a tacky substance,

said arm projecting end portion comprising a generally planar wall structure formed with a serrated edge portion at the terminus thereof and an opening spaced from said edge portion in the direction of said axes,

said planar wall structure and said sleeve being aligned transversely of said axes,

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and the plane of said wall structure extending normally of said plane, whereby, when a roll of the tape is received on said sleeve in the position wherein the tape may be drawn off the roll with the undersurface thereof facing the pallet, the end of the tape may be extended over the top portion of said wall structure to and through said opening and thence forwardly under said wall structure to said edge portion, and when the stack is placed in said receptacle, said member may be moved toward the receptacle against the action of said resilient means to bring the tape end undersurface into engagement with the top of the stack, whereupon

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said resilient means on release of said member is effective to move the top end paper of the stack upwardly and away from the stack and thereby dispose same for ready grasping.

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