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1,810,156

PACKAGE WRAPPING DEVICE

Filed March 26, 1930

2 Sheets-Sheet 1

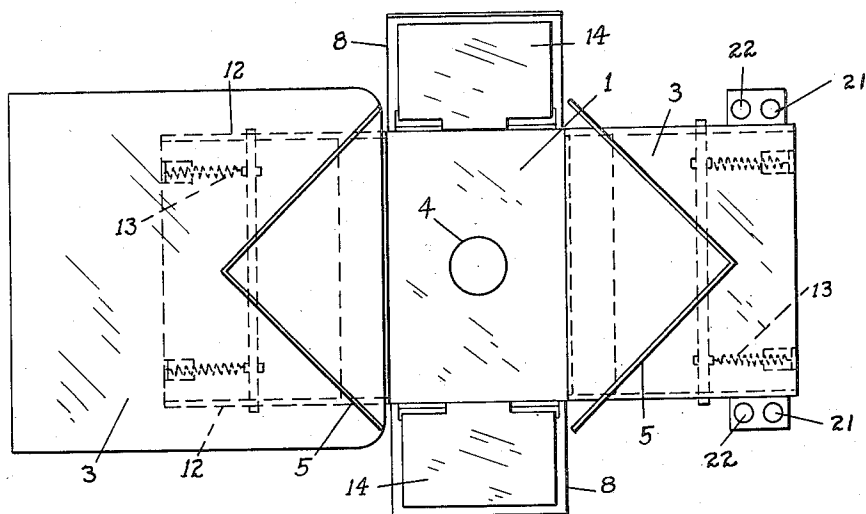


FIG. 1

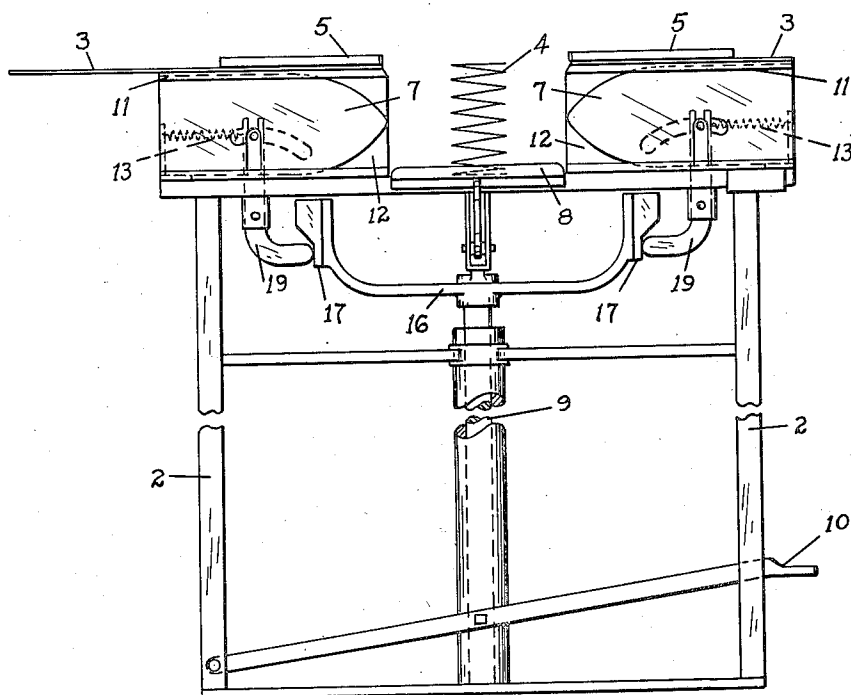


FIG. 2

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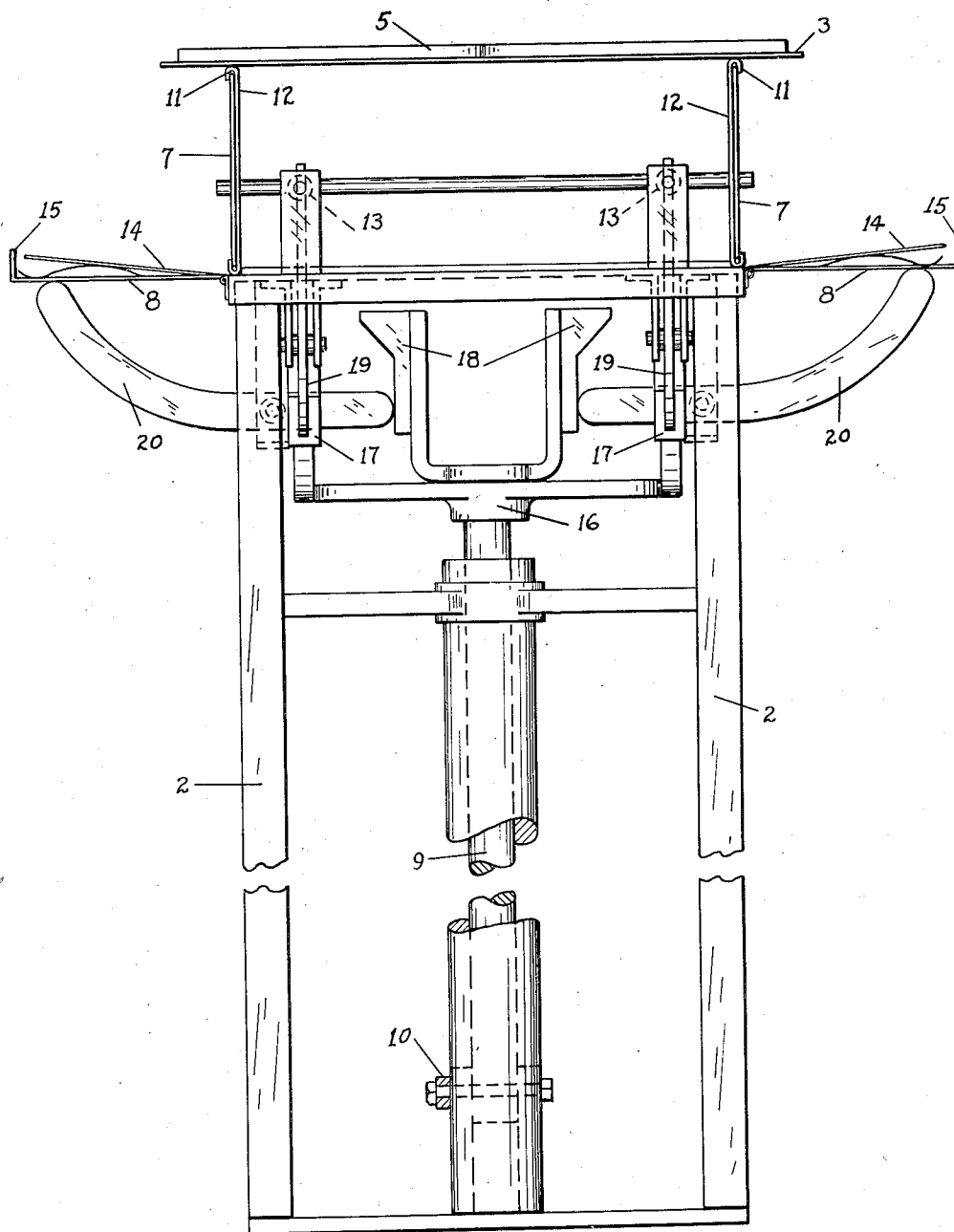


FIG. 3

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PACKAGE WRAPPING DEVICE

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This invention relates to improvements in devices for wrapping packages and more particularly to a device of this type for wrapping boxes, such as boxes containing candy with the thin transparent flexible glasslike substance called "cellophane."

To wrap a rectangular box with this thin flexible substance by hand more care is required and more time consumed than wrapping the same package with ordinary paper on account of the nature of the material. It is an object of this invention to provide a table so constructed and equipped with a treadle operated mechanism to allow an operator to wrap a rectangular box partly by hand assisted by the mechanism, in a more uniform manner and in much less time than if the wrapping were done entirely by hand.

With these and other objects in view reference is made to the accompanying sheet of drawings which illustrates a preferred form of this invention with the understanding that minor detail changes may be made without departing from the scope thereof.

In the drawings:

Figure 1 is a top plan view of an embodiment of this invention.

Figure 2 is a view in side elevation of Figure 1.

Figure 3 is a view in end elevation of Figure 1.

While the drawings illustrate the application of this invention as applied to wrapping rectangular boxes of candy, it is to be understood that it is not restricted to this use alone. While candy boxes are usually rectangular in shape and vary in size in accordance with their capacity, a manufacturer or dealer usually employs uniform sizes and shapes of boxes, that is, a standard length and width varying in depth in accordance with the desired capacity. This invention contemplates the provision of a device which may be employed for wrapping such boxes of varying capacities irrespective of their depth.

The embodiment of this invention as illustrated includes a table 1 supported upon legs 2 and mounting above the table surface two spaced apart wrapper supports 3 lying

in the same plane and parallel to the table surface extend transversely of the table an equal distance on each side of the transverse center line thereof and are spaced apart a sufficient distance to allow the width of the box to be wrapped between them and the transverse dimension of the table is preferably slightly greater than the length of the box to be wrapped, with the outer edges of the wrapper supports 3 lying in the same vertical planes with the edges of the table 1.

As heretofore stated the material called "cellophane" is very thin and flexible as well as being of glasslike transparency and if a sheet of cellophane were laid upon the wrapping surfaces 3 it would sink down between them and to prevent this occurring a light coil spring 4 is preferably mounted upon the transverse center of the table, or a plurality of such springs if desired are provided which will be engaged by the under side of the sheet and be supported in the same plane with the wrapper supports 3. For the efficient wrapping of the boxes upon this device, it is preferable to fold the diagonally opposite corners of the sheet about the width of the box and to insure a uniform wrapping in this manner, each table surface 3 is provided with a corner guide 5, as shown in Figure 1.

When a sheet of cellophane is placed upon the wrapping supports 3 with its corners lying over the longitudinal and transverse center lines of the table and its center supported upon the spring 4, the operator grasps the box to be wrapped, places it over the center of the sheet and depresses it between the wrapper supports 3 which, as the sheet passes over the edges of the supports 3, imparts an upward movement to the corners of the sheet resting upon the supports 3. The operator grasps first one of these corners and then the other and wraps the body of the sheet about the width of the box, moistening the under surface of the outer corner and firmly pressing the moistened portion down upon the portion of the sheet thereunder to which it will adhere.

To fold over the portions of the sheet extending in prolongation of each side of the

box about the opposite ends, and then fold over the triangular portions of the sheet extending in prolongation of the bottom of the box mechanical slides and folding devices are provided and, as illustrated, include the four blunt nosed reciprocating members 7 preferably mounted in tracks upon the outer edges of the respective wrapper supports 3 and corresponding edges of the table surface 1 thereunder and the two end folding members 8 each hinged to the table surface 1 below the opening between the spaced apart wrapper supports 3.

A treadle operated shaft 9 is mounted for vertical reciprocation below the center of the table 1 having a treadle 10 arranged to be easily engaged and depressed by the operator's foot to impart a downward movement to the shaft 9. The upper portion of the shaft 9 is provided with means which acts upon the depression of the treadle 10 to coact with the slides 7 and folders 8 to first cause the oppositely disposed slides to move toward each other engaging the portions of the wrapping sheet extending in prolongation of the sides of the box and fold them inward toward the end of the box and then cause the folders 8 to move upward about their hinges to fold the triangular portions of the wrapping sheet to fold these portions over the ends of the box outside the side folds.

In the embodiment of this invention illustrated each sliding member 7 is shown mounted to reciprocate over tracks or bearings 11 provided by bending over the longitudinal edges of plate 12 mounted between the supports 3 and table 1 on each side of the opening between the supports 3. Each member 7 is normally maintained with its engaging nose withdrawn from the opening between the supports 3, as by a spring 13 secured to its exterior end and an extension from the table 1. The hinged end folding members 8 are preferably each provided with a spring pressed plate or fingers 14 mounted upon the same hinge and adapted to first engage the outer surface of the triangular wrapper and the outer free ends of each member are preferably provided with a right angular extension 15 which as the member assumes a vertical position will engage the outer free triangular portion and impart a movement to its corner in the direction of the center of the box.

While any desired means may be employed to impart the above described movements to the sliding member 7 and end folding members 8 the drawings illustrate a rectangular frame 16 mounted upon the shaft 9 adjacent the under side of the table 1 provided with oppositely disposed sets of cams 17 and 18, one set 17 adapted to cooperate with pivotally mounted arms 19 adapted upon depression of the shaft 9 to reciprocate the sliding member 7 toward the trans-

verse center line of the table and the other set 18 adapted to cooperate with the pivotally mounted arms 20 adapted to rotate the end folding members 8 upon their hinges upon the depression of the shaft 9, the cams 18 so arranged as to allow the cams 17 to begin the folding action of the sliding members 7 before the ends are folded up and over by the end folding members 8, as shown.

The operator having placed the box to be wrapped upon the table and secured the corners of the sheet wrapped about the sides of the box, then depresses the foot treadle 10 which first folds in the sides and then the triangular ends of the sheet. The operator then completes the fold of the triangular ends by grasping a corner and folding it down upon the top of the box and preferably securing the same by the application of a gummed sticker which may be taken from a receptacle 21 carried on the table support 3 and moistened by a sponge likewise carried in a receptacle 22 adjacent receptacle 21. Having secured each of the triangular end folds, the foot treadle 10 is released, the side and end folding members are retracted, the box removed, and the spring 4 extends to normal with its upper end in the same plane with that of the wrapper supports 3. It might be said here that the spring or springs 4 are only of sufficient power or strength to support the center of the light sheet of cellophane wrapper.

It has been found that by the use of this device a single operator is able to wrap four times as many boxes during a given time than can be wrapped by hand.

What I claim is:

1. A device for wrapping packages with cellophane including a table, spaced apart wrapper supports thereabove, means between the supports to maintain the body of the wrapper when placed thereon in the same plane and allows the package to be wrapped to be depressed upon the wrapper between the supports to the table surface, and manually operated means adapted to be actuated after the operator has folded the sides of the wrapper about the top of the package to fold in the portions of the wrapper extending in prolongation of the sides of the package and then the portion extending in prolongation of the bottom of the package about the ends thereof to be manually secured by the operator.

2. A device for wrapping rectangular packages with thin transparent flexible glass-like rectangular sheets including a table, means for supporting the wrapper sheet in the same plane including spaced apart fixed wrapper supports and a contractible central support therebetween all mounted on the

table surface, means upon the wrapper supports for centering the wrapper sheets thereon, whereby the manual depression of the package to be wrapped upon the wrapper sheet between the spaced apart wrapper supports imparts an upward movement to the corners of the sheet as the opposite sides of the sheet are drawn over the adjacent edges of the supports to be manually wrapped about the top of the package, and manually operated means adapted to engage the portions of the wrapper sheet extending in prolongation of the sides and bottom of the package to first fold in the sides and thereafter the bottom portions about each end of the package whereby the bottom folded up portions may be manually folded over the top of the package and secured.

3. A device for wrapping rectangular packages with thin transparent flexible glass-like rectangular sheets including a table, spaced apart wrapper supports arranged in the same plane above the table, a contractible member mounted on the table therebetween adapted to support the body of a wrapper sheet in the same plane with the wrapper supports, means upon the supports adapted to position a wrapper sheet with its diagonals above the longitudinal center line of the table and the transverse center line between the spaced apart supports, whereby upon the manual depression of the package upon the center of the wrapper sheet the corners lying on the supports will be given an upward movement as the body thereof passes over the adjacent edges of the support to be readily folded over the top of the package and the triangular portions including the other corners being in prolongation of the bottom of the package, and manually operated means for simultaneously first folding in the portions of the wrapper extending in prolongation of the sides of the package and then folding up the triangular portions over each end.

4. A device for wrapping rectangular packages with thin transparent flexible glass-like rectangular sheets including a table, spaced apart wrapper supports arranged in the same plane above the table, a contractible member mounted on the table therebetween adapted to support the body of a wrapper sheet in the same plane with the wrapper supports, means upon the supports adapted to position a wrapper sheet with its diagonals above the longitudinal center line of the table and the transverse center line between the spaced apart supports, whereby upon the manual depression of the package upon the center of the wrapper sheet the corners lying on the supports will be given an upward movement as the body thereof passes over the adjacent edges of the support to be readily folded

ed over the top of the package and the triangular portions including the other corners being in prolongation of the bottom of the package, and manually operated means for simultaneously first folding in the portions of the wrapper extending in prolongation of the sides of the package and then folding up the triangular portions over each end, said means including reciprocating slides mounted between the table and wrapper supports on each side of the opening between the supports, members hinged to the table below the opening between the wrapper supports, and manually actuated means for first moving the slides simultaneously toward the center of the opening between the supports and then simultaneously rotating the end members upwardly about their hinges.

5. A device for wrapping rectangular packages with thin transparent flexible glass-like rectangular sheets including a table, spaced apart wrapper supports arranged in the same plane above the table, a contractible member mounted on the table therebetween adapted to support the body of a wrapper sheet in the same plane with the wrapper supports, means upon the supports adapted to position a wrapper sheet with its diagonals above the longitudinal center line of the table and the transverse center line between the spaced apart supports, whereby upon the manual depression of the package upon the center of the wrapper sheet the corners lying on the supports will be given an upward movement as the body thereof passes over the adjacent edges of the support to be readily folded over the top of the package and the triangular portions including the other corners being in prolongation of the bottom of the package, and manually operated means for simultaneously first folding in the portions of the wrapper extending in prolongation of the sides of the package and then folding up the triangular portions over each end, said means including reciprocating slides mounted between the table and wrapper supports on each side of the opening between the supports, members hinged to the table below the opening between the wrapper supports, and manually actuated means for first moving the slides simultaneously toward the center of the opening between the supports and then simultaneously rotating the end members upwardly about their hinges, said latter means including a treadle operated vertical shaft mounted for reciprocation under the table having cams mounted thereon adapted to operate pivoted levers to move the respective slides and hinged members.

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