

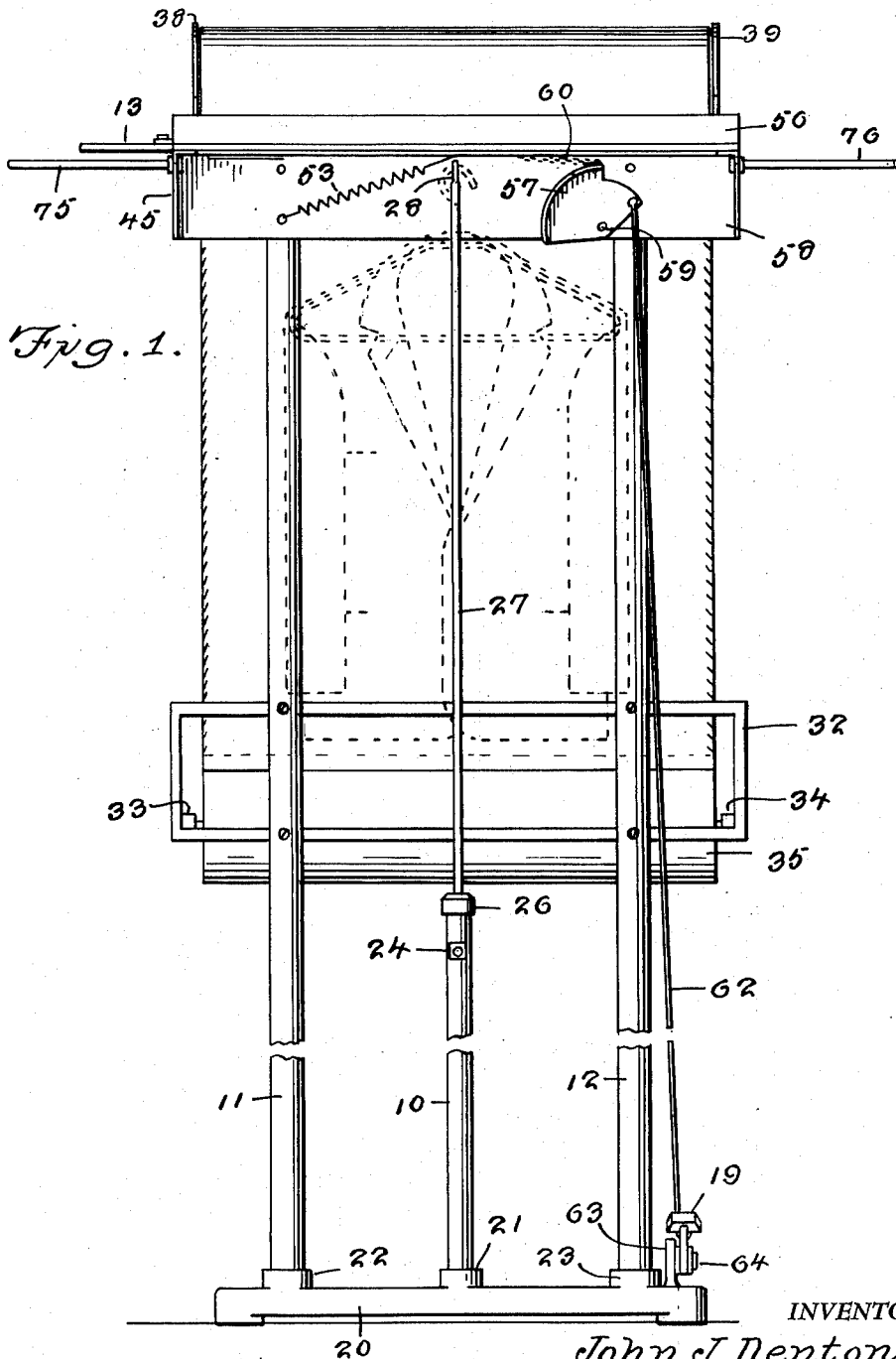
Sept. 9, 1952

J. J. DENTON
GARMENT BAGGING MACHINE WITH CUTTING
MECHANISM FOR TUBULAR MATERIAL

2,609,983

Filed Oct. 26, 1949

4 Sheets-Sheet 1



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ATTORNEYS

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GARMENT BAGGING MACHINE WITH CUTTING
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4 Sheets-Sheet 2



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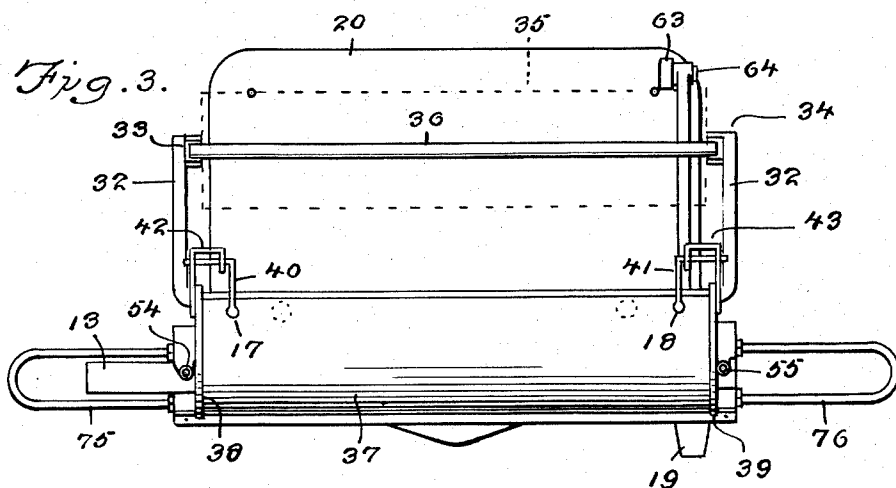
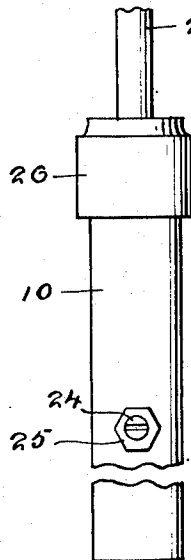
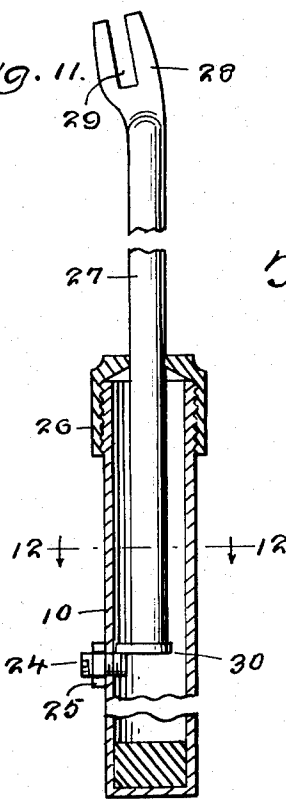
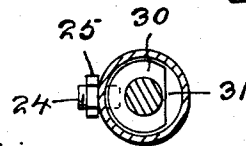
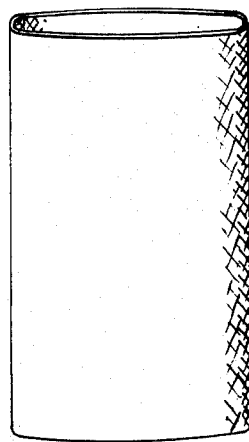
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4 Sheets-Sheet 3



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4 Sheets-Sheet 4

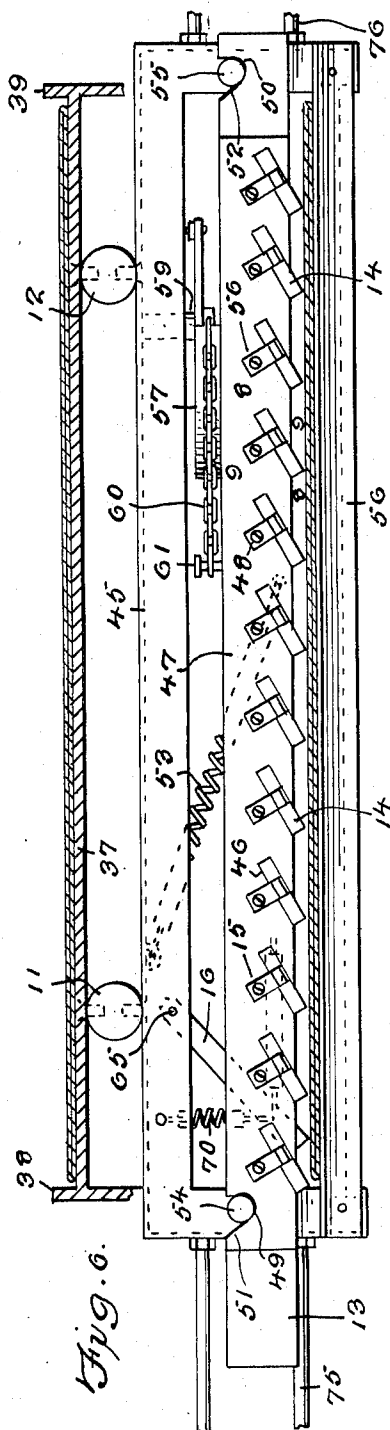


Fig. 8.

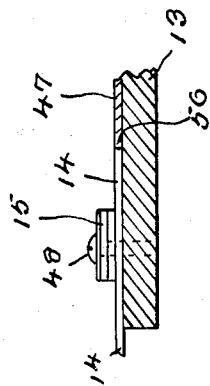


Fig. 9.

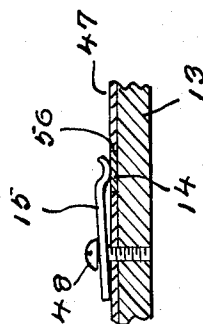
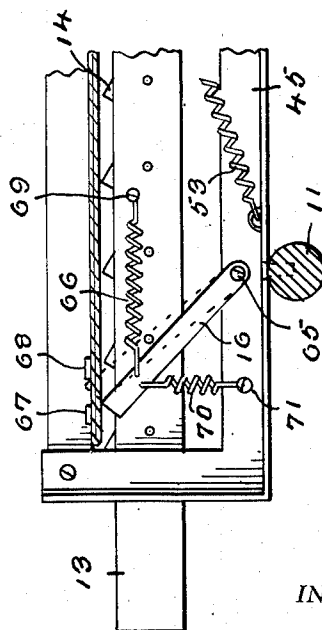


Fig. 7.



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UNITED STATES PATENT OFFICE

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GARMENT BAGGING MACHINE WITH CUTTING MECHANISM FOR TUBULAR MATERIAL

John J. Denton, Morganfield, Ky.

Application October 26, 1949, Serial No. 123,670

5 Claims. (Cl. 226—18)

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This machine relates to devices for placing paper bags on garments in laundry and dry cleaning establishments, and in particular a machine using a roll of paper tubing wherein with a garment suspended on a hanger the tubing is drawn downwardly with the hands, positioned over the garment, cut with a knife operated by a foot treadle and the sides of the upper end folded and stapled over the shoulders of the garment.

The purpose of this invention is to provide means for forming paper bags over garments from tubing material wherein the material is cut to correspond with the length of the garment and the upper end closed over each garment.

In the conventional garment bagging equipment paper bags are provided in four lengths but as garments are of numerous lengths the material waste is considerable. Storing and using bags of different lengths is also inconvenient and results in loss of time. Furthermore short bags are often selected by mistake and soiling of the lower ends of garments often results.

With these thoughts in mind this invention contemplates a garment bagging machine having a pedestal upon which garments are suspended by hangers, with a roll of paper tubing positioned whereby the tubing may be drawn downwardly over the garment, and knives for cutting the tubing so that the upper end may be formed over the shoulders of the garment.

The object of this invention is, therefore, to provide a garment bagging machine that uses a roll of tubing material with a knife for cutting the material to correspond with the length of a garment and with means for supporting the garment as the tubing is placed thereover and the upper end formed over the shoulders.

Another object of the invention is to provide a garment bagging machine in which bags are formed on garments from tubing material in which the area around the garment is substantially open to facilitate forming bags thereon.

A further object of the invention is to provide a machine for forming paper bags from tubing material with the bags formed around the garments by hand and in which the machine is of a comparatively simple and economical construction.

With these and other objects and advantages in view the invention embodies an adjustable garment supporting pedestal positioned in front of a frame with means for supporting a roll of paper tubing on the frame, with a knife positioned at the upper end of the frame for cutting the tubing, and with means for frictionally holding the

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paper tubing between bag forming operations thereof.

Other features and advantages of the invention will appear from the following description taken in connection with the drawings wherein:

Figure 1 is a view showing a front elevation of the garment bag forming machine.

Fig. 2 is a view showing a side elevation of the machine.

Figure 3 is a plan view of the machine.

Figure 4 is a view similar to that shown in Figure 2 showing the upper end of the machine on an enlarged scale with the lower part of the machine broken away.

Figure 5 is a similar view showing a cross section through the upper end of the machine with the parts also shown on an enlarged scale.

Figure 6 is a sectional plan through the upper end of the machine taken on line 6—6 of Figure 4 showing the cutting knives and the mounting and operating means therefor.

Figure 7 is a detail showing a section somewhat similar to the section shown in Figure 6 looking upwardly toward the under side of the knife bar and showing a paper gripping latch actuated by the bar.

Figure 8 is a detail taken on line 8—8 of Figure 6 showing a section through the knife bar with one of the knives thereon shown in elevation.

Figure 9 is a similar section taken on line 9—9 of Figure 6.

Figure 10 is a detail showing the garment supporting pedestal of the machine.

Figure 11 is a similar view taken at right angles to the view shown in Figure 10 showing the lower part of the pedestal in section.

Figure 12 is a cross section through the lower part of the pedestal shown in Figure 11 taken on line 12—12 of Figure 11.

Figure 13 is a detail illustrating a section of the paper tubing used for forming the garment bag.

Referring now to the drawings wherein like reference characters denote corresponding parts the garment bag forming machine of this invention includes a garment supporting pedestal 10, a frame formed with posts 11 and 12, a knife bar 13 having knives 14 secured thereon by clamps 15, a paper gripping latch bar 16, paper grippers 17 and 18, and a foot treadle 19.

The machine is supported on a base 20 with the pedestal 10 mounted in a boss 21 and with the posts 11 and 12 mounted in bosses 22 and 23, respectively. The pedestal 10 is formed as

illustrated in Figures 10 and 11 with a set screw 24 having a lock nut 25 thereon, threaded in the wall thereof, and with a cap 26 threaded on the upper end through which a rod 27 extends, as shown. The rod 27 is provided with an offset fork 28 at the upper end having a slot 29 therein for receiving the hook of a garment hanger, and the lower end is provided with a flange 30 having a flat side 31 thereon. With the flat side 31 positioned toward the set screw 24 the rod may be dropped downwardly in the pedestal and after a garment is placed in the fork 28 thereof with the hook of a garment hanger in the slot 29 the rod is moved upwardly and turned with the flat side of the flange in the position shown in Figures 11 and 12 whereby the flange will rest upon the set screw 24 supporting the rod in the upper position.

The posts 11 and 12 are provided with a bracket 32 which is provided with open bearings 33 and 34, as shown in Figure 2, in which a roll of tubular material, as indicated by the numeral 35 is rotatably supported with a shaft 36.

From the roll the tubular material extends upwardly as shown in Figures 2 and 5, and shown particularly in Figure 5, the tubular material passes over a semi-circular shoe or head 37 having flanges 38 and 39 at the ends and after passing over the shoe the free end of the material extends downwardly where it may be gripped by hand and drawn, with one hand on each side of the material, downwardly over a garment on a hanger suspended in the upper end of the rod 27. The material is frictionally held in position by the grippers 17 and 18 which are positioned as shown in Figures 3 and 5 with the gripping elements carried by arms 40 and 41 which are pivotally mounted in brackets 42 and 43 which extend outwardly from the ends or flanges 38 and 39 of the shoe on the upper end of the machine. The shoe 37 is attached to the upper ends of the posts 11 and 12 by screws 34, as shown in Figure 5.

The cutter bar 13 is slidably mounted on a frame 45 carried by the posts 11 and 12 and, as illustrated in Figure 6 the small blades, such as safety razor blades, as indicated by the numeral 14 are positioned in slots 46 in a plate 47 positioned on the bar 13 and the blades are held by the spring clamps 15 which are mounted by screws 48 which extend through the plates 47 and into the bar 13, as shown in Figure 9. The cutter bar 13 is provided with notches 49 and 50 which are formed with sloping cam surfaces 51 and 52, respectively and with the knife bar resiliently held by the spring 53 against the studs 54 and 55 the knives will be held away from the paper so that the strip may be drawn downwardly against the angle iron 56.

The knife bar 13 is actuated by the treadle 19 through the segment 57 which is pivotally mounted on the plate 58 of the frame 45 by a pin 59 and connected to the bar 13 by a chain 60 through a pin 61, the segment being connected to the treadle 19 by a rod 62. The treadle 19 is pivotally mounted on a lug 63 on the base by a pin 64.

As the treadle 19 is pressed downwardly the segment 57 moves over about the pivot 59 and the chain 60 draws the knife bar with the sloping surfaces 51 and 52 sliding against the studs 54 and 55 whereby the knives 14 are moved into and across the paper thereby completely cutting the paper.

As the knife bar 13 is actuated in the cutting

movement the latch bar 16 which is pivotally mounted in the frame by a pin 65 is drawn by a spring 66 from the position shown in Figure 7 in full lines to the position indicated in dotted lines whereby the end of the latch bar presses the paper between lugs 67 and 68 to hold the edge of the paper against the cutting action of the knives. The spring 66 is connected to the bar 13 by a stud 69, and a spring 70, which is also connected to the latch bar 16 and to the frame by a stud 71, draws the latch bar away from the paper and lugs 67 and 68 as the cutter bar 13 returns from the cutting operation.

The angle iron 56 is mounted on a supporting bar 72 with spacers 73 holding the angle iron above the bar and providing a space between the angle iron and bar for receiving the blade 14, as shown in Figure 5. The bar 72 is supported from the posts 11 and 12 of the frame by brackets 74.

The frame may be provided with outwardly extended brackets 75 and 76 for supporting coat hangers with or without garments thereon, as may be desired.

With the parts arranged in this manner, paper of the type used for garment bags or covers is supplied in tubular form on rolls and the rolls are placed in the bracket 32 with the paper trained upwardly over the shoe and with the end threaded through the knife supporting bracket. The garment is positioned on the pedestal with the hook of a hanger on which the garment is supported in the fork at the upper end of the pedestal, and with the garment in position the tubular form of paper is gripped at both corners of the free end and drawn downwardly by hand over the garment. As the lower end of the paper reaches the lower end of the garment the foot treadle is actuated and the knife bar is operated by the treadle so that the paper is cut directly above the garment. At the same time the paper gripping means grips the end of the tubular paper form so that the remaining end of the paper is retained on the shoe.

After the paper is cut triangular shaped sections of the paper form are folded over the shoulders and stapled in the folded by hand position with a wire stapling machine or the like. The garment with the paper cover or bag thereon is then removed from the pedestal of the machine.

It will be understood that modifications may be made in the design and arrangement of the parts without departing from the spirit of the invention.

What is claimed is:

1. In a garment bag machine, the combination which comprises a vertically disposed stand, a tubular pedestal mounted on the stand, a telescoping rod having a garment hanger carrying fork on the upper end vertically slidable in the tubular pedestal, means retaining the rod in an upwardly extended position, a frame including a pair of posts extended upwardly from the base of the stand and positioned behind the pedestal, cutting means slidably mounted on the upper ends of the posts, an arcuate shoe carried by the upper ends of the posts, means mounting a roll of tubular paper material on the posts with the tubular material positioned to travel over the shoe, downwardly in the path of the cutting means and over a garment carried by a hanger suspended in the fork at the upper end of the rod of the pedestal, a foot treadle carried by the lower end of the stand, a rod extended from

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the treadle to the cutting means for actuating the cutting means.

2. In a garment bag machine, the combination which comprises a vertically disposed stand, a tubular pedestal mounted on the stand, a telescoping rod having a garment hanger carrying fork on the upper end vertically slidable in the tubular pedestal, means retaining the rod in an upwardly extended position, a frame including a pair of posts extended upwardly from the base of the stand and positioned behind the pedestal, cutting means slidably mounted on the upper ends of the posts, an arcuate shoe carried by the upper ends of the posts, means mounting a roll of tubular paper material on the posts with the tubular material positioned to travel over the shoe, downwardly adjacent the cutting means and over a garment carried by a hanger suspended in the fork at the upper end of the rod of the pedestal, a foot treadle carried by the lower end of the stand, and a rod extended from the treadle to the cutting means for actuating the cutting means, and mechanically actuated gripping means for holding the tubular material in the cutting operation.

3. In a garment bag machine, the combination which comprises a vertically disposed stand, a tubular pedestal mounted on the stand, a telescoping rod having a garment hanger carrying fork on the upper end vertically slidable in the tubular pedestal, means retaining the rod in an upwardly extended position, a frame including a pair of posts extended upwardly from the base of the stand and positioned behind the pedestal, cutting means slidably mounted on the upper ends of the posts, an arcuate shoe carried by the upper ends of the posts, means mounting a roll of tubular paper material on the posts with the tubular material positioned to travel over the shoe, downwardly adjacent the cutting means and over a garment carried by a hanger suspended in the fork at the upper end of the rod of the pedestal, a foot treadle carried by the lower end of the stand, and a rod extended from the foot treadle to the cutting means for actuating the cutting means, mechanically actuated gripping means for holding the paper in the cutting operation, and a plurality of grippers coacting with the shoe to retain the tubular material on the shoe after the cutting operation.

4. In a garment bagging machine, the combination which comprises a vertically disposed stand, a tubular pedestal mounted on the stand, a telescoping rod having a garment hanger carrying fork on the upper end vertically slidable in the tubular pedestal, means retaining the rod in an upwardly extended position, a frame including a pair of posts extended upwardly from the base of the stand and positioned in a plane

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spaced to the rear of the pedestal, a cutter bar slidably mounted on the upper ends of the posts, an arcuate shoe carried by the upper ends of the posts and extended upwardly above the cutter bar, means mounting a roll of tubular material on the posts with the tubular material positioned to travel over the shoe, downwardly in the path of the cutter bar and over a garment carried by a hanger suspended in the fork at the upper end of the rod of the pedestal, a plurality of cutting blades carried by the cutter bar, a foot treadle carried by the lower end of the stand, and a rod extended from the treadle to the cutter bar for actuating the cutter bar whereby the cutter bar carries the cutting knives into engagement with the tubular material.

5. In a garment bagging machine, the combination which comprises a vertically disposed stand, a frame including a pair of posts extended upwardly from the lower part of the stand and positioned in a plane positioned to the rear of the pedestal, a head carried by the upper ends of the posts, a cutter bar slidably mounted in the head, an arcuate shoe positioned in the head and extended above the cutter bar, a plurality of cutting knives mounted on the cutter bar and extended from one side thereof, means for mounting a roll of tubular material on the posts with the tubular material positioned to travel over the shoe, downwardly in the path of the knives of the cutter bar and over a garment carried by a hanger positioned on the stand, a foot treadle pivotally mounted on the lower end of the stand, a rod extended from the foot treadle to the head of the machine, a cam pivotally mounted in the head of the machine and connected to the upper end of the rod extended from the treadle and means connecting the cam to the cutter bar for sliding the cutter bar whereby the cutting knives move into cutting engagement with the tubular material extended from the shoe.

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REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
2,041,224	Brown	May 19, 1936
2,069,690	Wells et al.	Feb. 2, 1937
2,136,703	Miller	Nov. 15, 1938
2,479,552	Blessing	Aug. 23, 1949

OTHER REFERENCES

"Packing and Shipping" publication, June 1936.