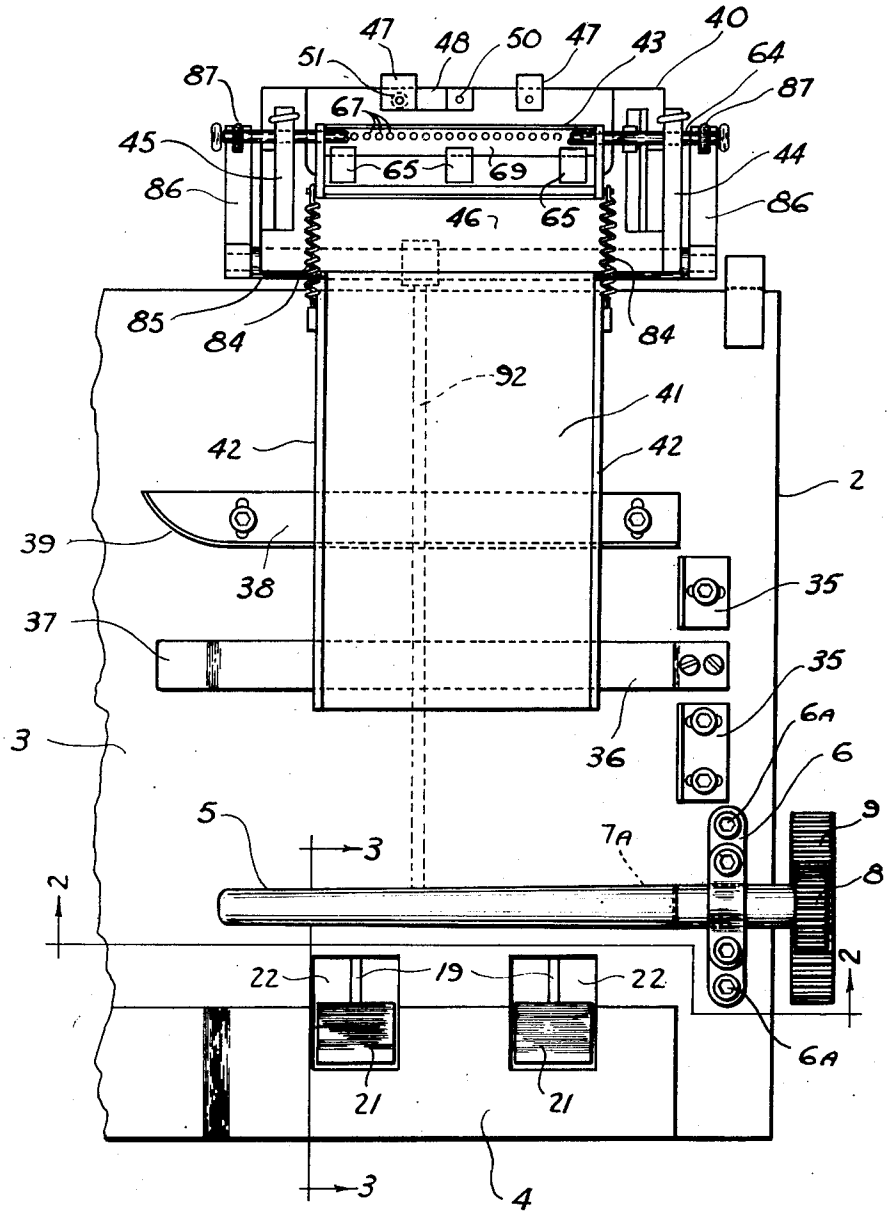
Dec. 6, 1949 G. L. BOLARD 2,490,407

DEVICE FOR WRAPPING NEWSPAPERS AND THE LIKE

Filed May 25, 1945 4 Sheets-Sheet 1

FIG. 1.




INVENTOR.
GEORGE L. BOLARD
BY R. E. Mueller
ATTORNEY.

Dec. 6, 1949 G. L. BOLARD 2,490,407

DEVICE FOR WRAPPING NEWSPAPERS AND THE LIKE

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FIG. 2.

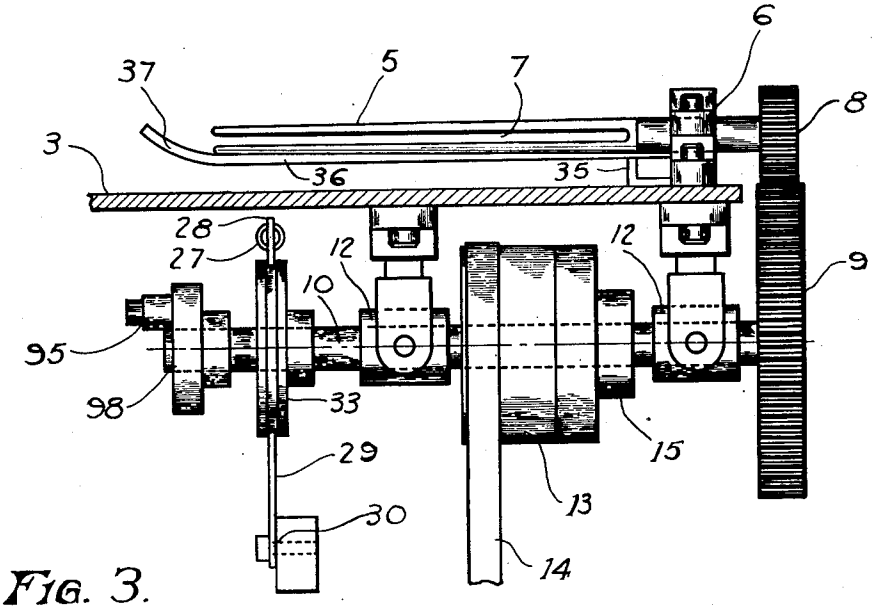



FIG. 3.

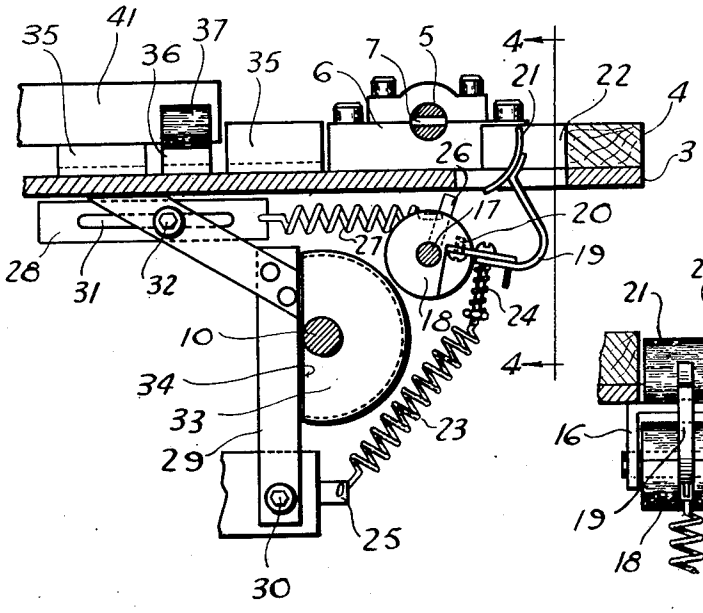
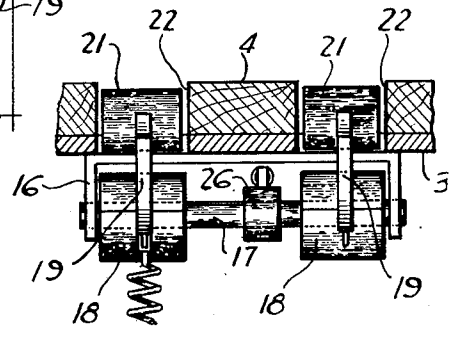



FIG. 4.




INVENTOR.
GEORGE L. BOLARD
BY R. E. Mecch
ATTORNEY.

Dec. 6, 1949 G. L. BOLARD 2,490,407

DEVICE FOR WRAPPING NEWSPAPERS AND THE LIKE

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FIG. 5.

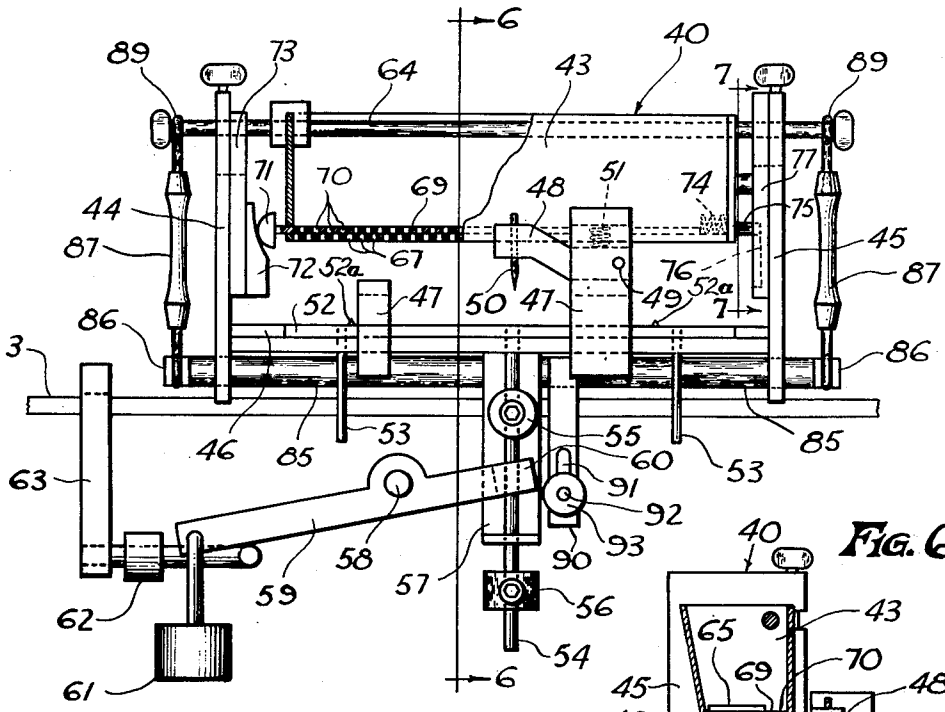



FIG. 6.

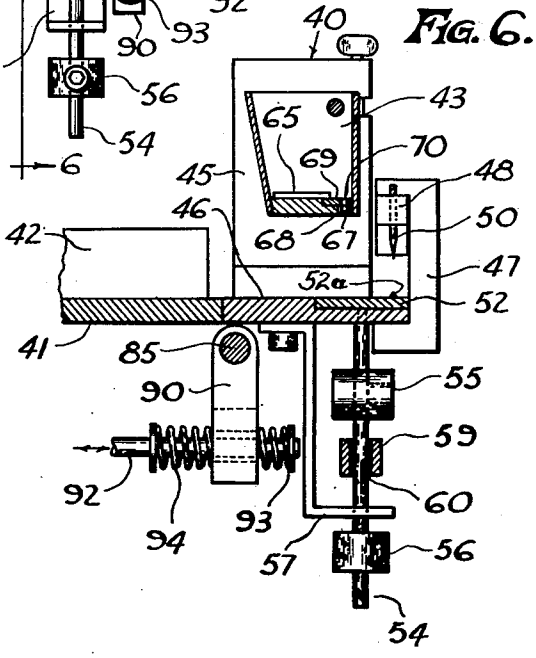
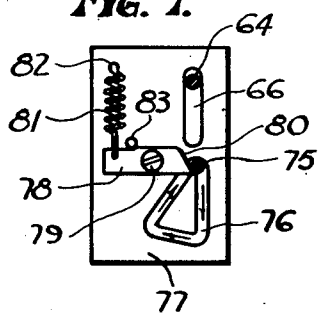



FIG. 7.




INVENTOR.
GEORGE L. BOLARD
BY R. E. Meech
ATTORNEY.

Dec. 6, 1949 G. L. BOLARD 2,490,407

DEVICE FOR WRAPPING NEWSPAPERS AND THE LIKE

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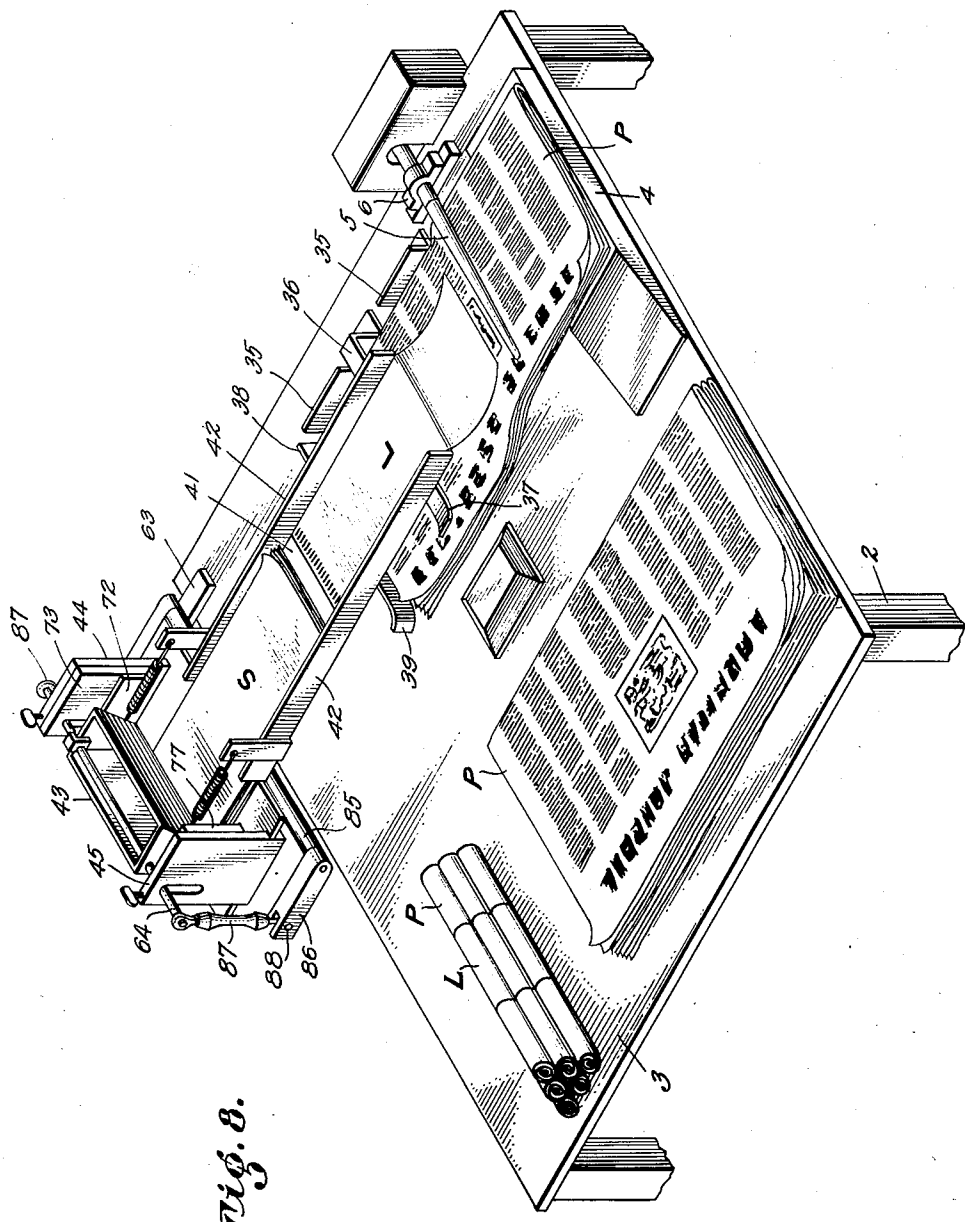



Fig. 8.

Inventor
George L. Bolard
By P. E. Yeech
Attorney

Patented Dec. 6, 1949 2,490,407

# UNITED STATES PATENT OFFICE

2,490,407

## DEVICE FOR WRAPPING NEWSPAPERS AND THE LIKE

George L. Bolard, Meadville, Pa.

Application May 25, 1945, Serial No. 595,760

6 Claims. (Cl. 270—27)

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This invention relates to wrapping devices and, particularly, to a new and novel device or machine for wrapping newspapers, magazines and the like.

It is the general practice to wrap newspapers for mailing purposes by rolling the newspaper into a tight bundle and placing a pasted label therearound bearing the name of the subscriber or addressee to whom the paper is to be sent, which label securely holds the newspaper in its roll-wrapped condition. Generally, such newspapers are rolled manually with the label being placed therearound either during the rolling operation or after the paper has been completely rolled. Such hand rolling and wrapping of newspapers is not only tedious and difficult, but a considerable amount of time is consumed in such wrapping, particularly if the publication has a mailing list of several thousand subscribers. Also, in rolling by hand, it is practically impossible to obtain consistently a tightly rolled paper and, consequently, oftentimes, papers which are not tightly rolled become unwrapped during subsequent handling and transit, thereby resulting in the label becoming either mutilated or displaced therefrom so that the newspapers from which the labels are lost or mutilated are never delivered to the particular subscribers intended.

Accordingly, it is the general object of the present invention to provide a device or machine for roll-wrapping newspapers and the like thereby eliminating the above mentioned disadvantages experienced by manual wrapping.

It is another object of the invention to provide a device or machine for roll-wrapping newspapers and the like for mailing purposes which rolls the newspaper into a bundle and simultaneously rolls or places a label therearound whereby a tightly and securely wrapped newspaper is provided ready for mailing.

It is a further object of this invention to provide an improved device or machine for roll-wrapping newspapers and the like which is simple and inexpensive in its construction and at the same time, efficient and effective in its use whereby a newspaper can be roll-wrapped in a minimum amount of time with the least amount of effort.

It is still another object of the present invention to provide an improved device or machine for roll-wrapping newspapers and the like, having arranged therewith means for automatically applying paste, mucilage or other suitable adhesive to the labels during the roll-wrapping operation in readiness to be wrapped around the newspaper for securing the same in its roll-wrapped condition.

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Various other objects and advantages of this invention will be more apparent in the course of the following specification and will be particularly pointed out in the appended claims.

In the accompanying drawings, there is shown for the purpose of illustration, one embodiment which my invention may assume in practice.

In these drawings:

Fig. 1 is a plan view of the improved wrapping machine or device of my invention;

Fig. 2 is a sectional view taken on line 2—2 of Fig. 1;

Fig. 3 is a sectional view taken on line 3—3 of Fig. 1;

Fig. 4 is a sectional view taken on line 4—4 of Fig. 3;

Fig. 5 is a rear elevational view partly in section of my improved wrapping machine;

Fig. 6 is a sectional view taken on line 6—6 of Fig. 5;

Fig. 7 is a sectional view taken on line 7—7 of Fig. 5; and

Fig. 8 is an isometric view of my improved wrapping machine.

Referring more particularly to the drawings, the improved wrapping machine of my invention comprises a table or frame 2 having a planar top surface 3 on which there is mounted, an elongated guide block 4 along the front edge thereof. Immediately rearwardly of the block 4 there is arranged above the table top at a spaced distance therefrom, an elongated tapered spindle 5 which is rotatably mounted adjacent one end thereof in a suitable bearing 6 secured to the top of the table adjacent the edge thereof by means of screws 6a, with the free end of this spindle extending inwardly toward the center of the table top. This spindle 5 is split diametrically so as to provide an elongated open-ended slot or recess 7 extending from the inner or free end to a point intermediate the length thereof, as at 7a adjacent the bearing 6, for a purpose hereinafter to be described.

On the extreme outer end of the spindle 5 beyond the bearing 6 and the outer edge of the table top, there is securely arranged thereon a gear 8 which meshes with a larger gear 9 secured to the end of a drive shaft 10 journalled in a pair of bearings 12 mounted on the under side of the table top. There is arranged on this drive shaft 10, centrally thereof, a freely rotatable pulley 13 around which there is disposed a belt 14 connected to a suitable source of power such as a motor (not shown). Directly next to the pulley 13 and the shaft 10, there is arranged preferably

a clutch 15 of the single revolution type, that is, a clutch which disengages after the shaft has been rotated one revolution.

Forwardly of the drive shaft 10 on the under side of the table top, there is suitably journalled in a bracket 16 secured to the bottom thereof at a point below the spindle 5, a relatively short shaft 17 on which there is securely arranged a pair of spaced apart collar-like members 18. There is carried by each of these collar-like members 18, a substantially U-shaped inherently resilient arm-like member 19, one end of which is secured to the member 18 by means of a screw 20 with an arcuated retractable guide member or shoe 21 arranged on the opposite end thereof. Each of these guide members 21 is disposed in or directly opposite a rectangular shaped recess 22 in the table top 3 and the guide block 4, with the arcuate shaped members 21 together with a portion of the arm-like members 19 adapted to pass through the respective recesses 22 for a purpose to be described.

There is arranged below the shaft 17, preferably a tension spring 23 having one end thereof connected to the lower leg of one of the arm-like members 19 by means of an adjustable screw 24. The opposite end of the spring 23 is connected to a stationary part of the frame as at 25. It is the purpose of this tension spring to rotate the shaft 17 in one direction and to maintain the arm-like members 19 together with the arcuated guide members 21, in their retracted positions in the opening 22 below the top surface of the table, as shown in Figs. 3 and 4 of the drawings.

There is also securely arranged on the shaft 17 a lever 26 to which one end of another tension spring 27 is attached. The opposite end of the spring 27 is attached to the end of an adjusting bar 28 which, in turn, is secured to the upper end of a cam follower in the form of a lever 29, which is attached pivotally to the table or frame at 30, at a point rearwardly of the shaft 10. There is provided in the bar 28, an elongated slot 31 in which a bolt 32 is disposed for connecting the bar 28 to the end of the lever 29, permitting longitudinal adjustment of the bar relative thereto so as to adjust the effect and yieldableness of the spring 27, which is attached thereto. Directly opposite the cam lever 29 there is securely arranged on the shaft 10, a cam 33, having a flat side 34, which cam cooperates with the cam lever 29 to oscillate the shaft 17 together with the arm-like members 19 and the arcuate guide members 21 carried thereby in a manner and for a purpose later to be described.

On top of the table at a point rearwardly of the spindle 5 and substantially in alignment with the end 7a of the slot 7 therein, there is mounted a pair of adjustable edge guide members 35 in the form of angle irons. Secured to the table top between these guide members and extending substantially parallel to the spindle 5, there is arranged another elongated guide member 36 with the body and free end thereof spaced a slight distance from the top of the table. The extreme outer or free end of the guide member is preferably turned or arcuated upwardly as at 37. Rearwardly of the guide members 35 and 36, there is mounted on top of the table, still another adjustable elongated end guide member 38 also in the form of an angle iron, which extends substantially parallel to the spindle 5. The outer end of this guide member is preferably arcuated as at 39.

There is positioned at the rear side of the table 2 and suitably secured thereto, a label supply and pasting mechanism generally designated 40



and which is disposed substantially centrally of the spindle 5. This mechanism comprises an elongated tray 41 in the form of a trough so as to provide side walls 42. This tray is spaced preferably a slight distance above the table top so as to extend over both the guide members 36 and 38 which support the forward end thereof, to a point adjacent the spindle 5. It is the purpose of this tray to hold a supply of elongated rectangular-shaped labels, preferably addressed, for mailing purposes, with one label disposed or piled on top of the other.

As more clearly shown in Figs. 5 through 8 of the drawings, the pasting mechanism comprises a movable rectangular-shaped container 43, which acts as a reservoir for holding a supply of liquid paste or other suitable adhesive. This container is mounted between a pair of stationary brackets 44 and 45 which, in turn are suitably attached to the rear side of the frame or table. Extending between brackets 44 and 45 and supported thereby there is a horizontal plate member 46 on which there is movably mounted in a recess in the rear end thereof, a horizontal anvil-like member 52 in the form of a bar which is positioned a spaced distance from the bottom of the container 43 and upon which one end of the stack of labels is adapted to rest. At the back side of this member 46, there is mounted a pair of spaced apart hook-shaped guide members 47 against which the end of the stack of labels and the topmost label of the stack abuts so as to maintain them in an evenly stacked arrangement. Adjacent the top of one of the guide members 47, there is mounted thereon, an arm-like member 48 having one end thereof pivotally attached thereto, as at 49. On the opposite end of the arm-like member 48 there is arranged a vertically disposed pin 50 with the point thereof adapted to penetrate a series of the top-most labels of the stack, so as to prevent unintentional movement of the labels positioned immediately below the top-most label when this label is being pasted and removed from the pile. Adjacent the inner end of this arm-like member 48, there is provided a compression spring 51 for moving the arm-like member about its pivotal connection at 49 so as to force and maintain the point of the pin 50 in penetration of the top-most labels of the stack.

On the top surface of the plate 52 adjacent the rear edge thereof and at a point directly below the pin 50, there is arranged a pair of spaced-apart upwardly projecting teat-like portions 52a. It is the purpose of these portions to tend to penetrate and tightly grip, in cooperation with the stops 47 and the pin 50, the end portion of the stack of labels positioned on the plate 52 when the machine is in operation.

On the bottom side of the anvil 52, there is carried thereby a pair of spaced-apart downwardly extending pin-like guide members 53 which extend through corresponding holes in the plate member 46 for guiding the anvil bar 52 in its vertical movement. Centrally of the anvil bar 52 there is attached thereto, a downwardly extending stud-like member 54 on which there is mounted a pair of spaced-apart adjustable stops 55 and 56. This stud-like member 54 extends through the plate 45 and through a hole in a guide bracket 57 positioned therebelow with one of the stops 55 positioned at a spaced distance above the hole in the bracket 57 and with the other stop 56 positioned therebelow adjacent the free end of the member 54.

Below the plate 46, there is pivotally attached

to the table or frame as at 58, intermediate the length thereof, a lever 59 with one end thereof bifurcated as at 60 so as to fit around and straddle the stud-like member 54 at a point between the stops 55 and 56 and above the hole in the bracket 57. On the opposite or free end of the lever 59, there is suspended a counterweight 61 for moving the lever 59 about its pivotal connection at 58 and in turn the anvil bar upwardly for a purpose to be described. Adjacent the free end of the lever 59 there is arranged in a suitable bearing 62 mounted on the frame or table, another lever arrangement 63, which in one position is adapted to support the outer or free end of the lever 59 together with the counterweight 61 carried thereby, so as to make the counterweight ineffective. One end of the lever arrangement 63 merely hooks over the edge of the table and is held in position by any suitable latch arrangement (not shown), when it is desired to maintain the counterweight ineffective.

There is arranged at the top of the container 43 adjacent the back wall thereof, an elongated shaft 64 which extends through either end of the container and through a vertically slotted hole 66 in each of the brackets 44 and 45, so that the container is suspended between these brackets and permitted to oscillate therebetween. In the bottom of the container adjacent the back wall thereof, there is arranged a row of spaced apart apertures 67 which row extends throughout the length of the container. There is arranged in a channel 68 in the bottom of the container 43 adjacent the back wall thereof, a reciprocable plate-like member 69 extending throughout the length of the container and having a row of spaced-apart apertures 70 arranged therethrough similar in number and spacing to the apertures 67 in the bottom of the container with which they cooperate to provide a valve arrangement through which the liquid paste or adhesive escapes from the container as will be explained. The member 69 is held slidably in the channel 68 preferably by means of a plurality of finger-like members 65.

On one end of the member 69 on the outer side of the adjacent end wall of the container 43, there is arranged a cam member 72 which cooperates with a stationary cam follower 71 carried by a plate 73 suitably mounted on the inner side of the bracket 44 for moving the member 69 relative to the container 43 when the container is moved vertically, in a manner to be described, for aligning the apertures 67 and 70 in the bottom of the container and in the plate-like member 69, respectively. In the container at the opposite end of the member 69, there is suitably arranged a compression coil spring 74 which is positioned between the end of the member 69 and the inner side of the end wall of the container for moving the member 69 in a direction opposite to that to which the cam 72 moves it and for maintaining the cam in contact at all times with its cam follower 71.

On the outer side of the end wall opposite that end from which the cam 72 is positioned, as shown in Fig. 7, there is mounted an outwardly extending horizontal stud-like member 75 in the form of a short pin with the free end thereof disposed in a triangular-shaped closed slot 76 formed in a plate 77 suitably mounted on the inner side of the bracket 45 with the apex of the triangular slot positioned directly below the slotted openings 66 in the brackets 44 and 45. To one side of the triangular slot 76 directly opposite the apex thereof, there is arranged a horizontal finger-like member or pawl 78 which is pivotally attached to the plate 77 as at 79. One end of this pawl is preferably bevelled, as at 80, which end cooperates with the stud-like member 75 for a purpose to be described. There is connected to the opposite end of the pawl 78, a tension coil spring 81 with the opposite end of the spring attached to the plate 77, as at 82. Directly above the pawl 78 rearwardly of its pivotal connection 79, there is mounted in the plate 77, a stop 83 in the form of a pin for limiting the action of the spring 81 and to position and maintain the bevelled end 80 of the pawl 78 opposite the apex of the triangular slot 76.

To either side of the container 43, there is provided preferably a tension coil spring 84 having one end thereof attached to the outer side of the end wall of the container adjacent the bottom thereof with the opposite end attached to a stationary part of the table or frame, preferably to the end of the side wall 42 of the tray 41, as shown in Fig. 1 of the drawings.

Forwardly of the plate 46 of the pasting mechanism and at a point therebelow, there is arranged an elongated shaft 85 journalled in extensions of the brackets 44 and 45 and disposed substantially parallel to the container 43. There is securely arranged on this shaft at each end thereof, a rearwardly extending arm 86 to the free end of which one end of a lever in the form of a turnbuckle 87 is pivotally attached, as at 88. The opposite or upper end of each of the turnbuckles 87 is pivotally attached to the outer ends of the shaft 64, as at 89. Centrally of the shaft 85 there is securely attached thereto, a downwardly extending arm-like member 90 having a slotted hole 91 arranged adjacent the lower end in which one end of a rod-like member 92 is positioned having a nut 93 and spring 94 arranged on the extreme end thereof beyond the member 90 for adjusting the active length thereof. This rod 92 is positioned beneath the table top and extends forwardly to a position adjacent the drive shaft 10 at the front of the machine. On the extreme outer end of the shaft 10, there is securely connected thereto a crank 98 to which the forward end of the rod 92 is pivotally connected, as at 95.

The wrapping machine or device of my invention operates as follows: As shown in Figs. 5 and 6, the lever arrangement 63 of the pasting mechanism 40 is arranged so that the counterweight 61 is held up thereby making it ineffective with respect to the lever 59 to which it is attached. In such position, it will be seen that the bar anvil 52 is disposed in its lowermost or retracted position in the channel of the plate 46. A stack S of rectangular-shaped labels L each preferably addressed for mailing, is placed on the tray 41 with the inner ends in stacked alignment over the bar anvil 52 and abutting the hook-shaped stops 47. After the stack of labels has been so positioned on the tray, the latch (not shown) for holding the lever arrangement 63 in its upper position is released thereby permitting the counterweight 61 to act to rotate the lever 59 about its pivotal connection 58, thereby moving the bifurcated end 60 thereof upwardly into contact with the upper stop 55 on the stud member 54. Upon further rotation of the lever 59, it will be seen that the bar anvil 52 is moved upwardly which, in turn, moves the stack of labels upwardly into contact with the overhanging

ledges of the hook-shaped stops 47 with the pin 50 carried by one of these stops penetrating the topmost labels of the stack against the action of the spring 51, thereby securely holding the outer end of the stack of labels against unintentional displacement. A supply of liquid paste or any other suitable adhesive is then deposited in the container or reservoir 43 and the machine is now in readiness for the wrapping operation.

The power is then turned on so as to cause the pulley 13 to rotate, due to the action of the belt 14. A newspaper P or other flexible article adapted to be wrapped, is then moved laterally in under the guide bar 36 and into the end slot 7 of the spindle 5 in a manner shown in Fig. 8 of the drawings, until one edge or preferably the folded edge of the newspaper abuts the guide members 35 and the end 7a of the slot 7 and so that the edges extending perpendicularly thereto at the extreme edge of the paper abut the guide member 38 in under the end of the tray 41. It is the purpose of the guides 36 and 38 together with the respective arcuated ends 37 and 39 thereof, to aid in guiding the paper into the slot 7 of the spindle and it is the purpose of the guides 35 together with the guide 38, to position the paper therein after it has been placed in the slot preparatory to the wrapping thereof. A label L which has already been pasted during a previous cycle of the machine in a manner which will hereinafter be described, is then removed manually from the top of the stack S and placed upon the paper P centrally thereof with the inner end of the label positioned adjacent the spindle 5 or preferably extending a slight distance into and through the slot 7 thereof and with the opposite end of the label extending a slight distance beyond the back edge of the paper as positioned in the machine.

The clutch 15 is then engaged preferably by means of a foot or leg control (not shown) so as to permit the hands of the operator to be free for manipulating the paper before, during and after the wrapping operation. When the clutch has been engaged, it will be seen that the shaft 10 is rotated one revolution, the clutch being preferably of the single acting type. As the shaft rotates, the spindle 5 is also rotated through the action of the gears 8 and 9. As the spindle rotates, it will be seen that the paper P, together with the label L is caused to be roll-wrapped therearound due to the fact that both the paper and label are positioned in the transverse slot 7 of the spindle.

Simultaneously with the rotation of the spindle and the rolling of the paper therearound, the U-shaped arm-like members 19 are caused to move upwardly through the respective openings 22 in the table top, due to the action of the cam 33 on the shaft 10, the lever cam follower 29, which is actuated thereby, the member 28, the spring 27, the arm 26 and the shaft 17, to which the U-shaped arms 19 are attached. Upon movement of the arms 19, it will be seen that the arcuated members 21 carried thereby which conform substantially to the outer periphery of the paper being rolled, contact and confine the outer convolutions of the rolled paper thereby applying a slight pressure to the outer periphery of the rolled paper so as to aid in tightly wrapping the paper around the spindle. These arcuated guide members 21 are yieldable due to the action of the spring 27, so as to be moved outwardly by the rolled paper as the diameter thereof increases during the rolling. After the paper has been completely rolled, it will be understood that a portion of the label is wrapped therearound, as shown by the completely wrapped papers disposed on the table in Fig. 8, and it will be understood that the arcuated members 21 also serve to secure the pasted end of the label to the outer periphery of a portion of the label wrapped around the paper after both the paper and label have been completely rolled together.

After the paper has been rolled and the label secured therearound as above described, the roll-wrapped paper is removed manually from the end of the spindle 5, thereby passing out of the slot 7 thereof and the spindle is tapered so as to aid in such removal. It is one purpose of the flat side 34 of the cam 33 throughout the action of the lever 29 which is held throughout by the spring 27, to position the spindle 5 so that the slot 7 therein is positioned substantially horizontally in readiness to receive a paper for the next wrapping operation. It is another function of the flat side 34 of the cam 33 to permit the guide members or shoes 21 to move to a retracted position away from the spindle due to the action of the spring 23 after a single revolution of the shaft 10 and a predetermined number of revolutions of the spindle 5 which rotates at a greater speed than the shaft 10 due to the difference in size of the gears 8 and 9.

As the shaft 10 is rotated, it will be seen that the shaft 85 of the pasting mechanism 40 is caused to rotate due to the action of the rod 92, the lever 90 and the crank 98 mounted on the shaft 10. When the shaft 85 rotates it moves the container 43 downwardly toward the stack of labels S due to the action of the arms 86, the turnbuckles 87, and the shaft 64, which is disposed in the slotted holes 66 of the brackets 44 and 45. Upon such downward movement of the container 43, it will be seen that the cam 72 carried by the member 69 will strike the cam follower 71 thereby moving the member 69 to the right against the action of the spring 74 at the opposite end thereof, as shown in Fig. 5, and relative to the container so as to cause the apertures 70 in the bottom of the container and the aperture 67 in the member 69 to become aligned with each other thereby permitting the liquid paste to pass from the container therethrough. When the container has reached its lowermost position, the bottom of the same contacts the upper surface of the topmost label of the stack, thereby applying a quantity of paste to the surface of the topmost label at the end thereof.

As the container 43 moves downwardly, the pin 75 on the side thereof also moves downwardly in one side or the vertical side of the triangular slot 76 in the plate 77, as shown in Fig. 7, until it reaches the bottom thereof. The pin is then caused to follow the lower or base portion of the triangular slot 76, due to the action of the springs 84, thereby causing the container to move about the shaft 64 so as to swing the bottom of the container forwardly. This is done so as to provide a wiping action of the bottom of the container on the topmost label whereby a uniform coating of paste is applied thereto and any tendency of the label to stick to the bottom of the container is eliminated. After the pin 75 has passed along the lower or base portion of the triangular slot 76, it reaches the other side thereof and moves upwardly therealong against the action of the springs 84, due to the returning movement of the crank 98 and the upward movement of the shaft 64 in the slots 66. As the pin 75 approaches

the upper end of this side of the slot 76, it strikes and trips the pawl 78 against the action of the spring 81 and passes to position of rest at the apex of the triangular slot 76. As the container is swung outwardly by the springs 64 and the pin 75 moves upwardly in the slot 76, it will be seen that the cam 71 is moved out of contact with its actuator 72 thereby permitting the spring 74 to act to move the member 69 to the left, as shown in Fig. 5, so as to move the apertures 67 and 70 out of alignment whereby the valve arrangement is closed so as to prevent the flow of the liquid paste therethrough. It is the purpose of the pawl or latch 78 to insure that the pin 75 passes initially down the vertical side of the slot or the right side, as shown in Fig. 7. In other words, this pawl prevents the pin 75 from passing initially down the inner or left side of the slot, as shown in this figure. The container has now reached its initial or original position in readiness for the next cycle of operation. It will be understood that in any one cycle the pasting mechanism applies paste to the topmost label of the stack to be used during the next cycle with the label being wrapped around the paper during any particular cycle having been pasted during the previous cycle.

As the stack of labels diminishes, it will be seen that the bar anvil 52 moves gradually upwardly against the bottom of the stack due to the action of the counterweight 61, thereby maintaining at all times the topmost label against the ledges of the stops 47 and in the proper position to be pasted relative to the bottom of the container 43.

As a result of my invention, it will be seen that there is provided a combined wrapping and pasting device which effectively and efficiently roll-wraps the paper with a label neatly and securely positioned therearound thereby securing the paper in its roll-wrapped condition. While I have shown my machine in connection with the wrapping of newspapers, it will be understood that it can be adapted for wrapping magazines, pamphlets or any other flexible paper or articles that are adaptable to such type of wrapping.

While I have shown and described one embodiment which my invention may assume in practice, it will be understood that this embodiment is merely for the purpose of illustration and description and that various other forms may be devised within the scope of my invention as defined in the appended claims.

What I claim as my invention is:

1. A machine of the class described for wrapping newspapers and the like comprising a table top, means arranged on said table top for holding a stack of labels, a horizontally disposed, elongated rotatable spindle arranged above the table top at one end of the label holding means around which the newspaper or article is adapted to be wrapped, said spindle being rotatably and securely mounted at one end thereof with the other end being free and having an open-ended diametrically arranged slot therein extending from a point intermediate the length thereof to the free end of the same, means arranged adjacent the first mentioned end of said spindle for driving the same, a retractable guide member arranged to one side of said spindle, means for moving and holding the guide member yieldably in a protracted position adjacent said spindle, said guide member adapted to contact the outer convolutions of the newspaper or article being wrapped and which is yieldable and responsive to the increasing size of the convolutions whereby a tightly rolled article is obtained, and means for moving the guide member to a retracted position away from the spindle so as to permit the wrapped article to be removed therefrom.



2. A machine of the class described for wrapping newspapers and the like comprising a table top, means arranged on said table top for holding a stack of labels, means arranged at one end of said last mentioned means for applying an adhesive to the end portion of the topmost label of said stack, a horizontally disposed, elongated rotatable spindle positioned adjacent the other end of said label holding means around which the newspaper or article is adapted to be wrapped, said spindle being rotatably and securely mounted at one end thereof with the other end being free and having an open-ended diametrically arranged slot therein extending from a point intermediate the length thereof to the free end of the same, means arranged adjacent said first mentioned end for driving said spindle, a retractable guide shoe arranged to one side of said spindle, means for moving and holding said guide shoe in a protracted position adjacent said spindle, said guide shoe adapted to contact yieldably the outer convolutions of the newspaper or article being wrapped and which is responsive to the increasing size of the convolutions whereby a tightly rolled article is obtained, and means for moving said guide shoe to a retracted position away from said spindle.

3. A machine of the class described for wrapping newspapers and the like comprising a table top, means arranged on said table top for holding a stack of labels, means arranged at one end of said last mentioned means for applying an adhesive to the end portion of the topmost label of said stack, a horizontally disposed, elongated rotatable spindle positioned adjacent the other end of said label holding means around which the newspaper or article is adapted to be wrapped, said spindle being rotatably and securely mounted at one end thereof with the other end being free and having an open-ended diametrically arranged slot therein extending from a point intermediate the length thereof to the free end of the same, means arranged adjacent said first mentioned end for driving said spindle, retractable guide and confining means arranged to one side of said spindle, yieldable means for holding said retractable means in a protracted position adjacent said spindle whereby said retractable means is adapted to contact yieldably the outer convolutions of the newspaper or article being wrapped and which is responsive to the increasing size of the convolutions so that a tightly rolled article is obtained, and means for moving said retractable means automatically to a retracted position away from the spindle after a predetermined number of revolutions of said spindle.

4. A machine of the class described for wrapping newspapers and the like comprising a table top, means arranged on said table top for holding a stack of labels, means arranged at one end of said last mentioned means for applying an adhesive to the end portion of the topmost label of said stack, a horizontally disposed, elongated rotatable spindle positioned adjacent the other end of said label holding means around which the newspaper or article is adapted to be wrapped, said spindle being rotatably and securely mounted at one end thereof with the other end being free and having an open-ended diametrically arranged slot therein extending from a point intermediate the length thereof to the free end of the

same, means arranged adjacent said first mentioned end for driving said spindle, the rotation of said spindle and the adhesive applying means being in timed relation so that the adhesive is applied to the topmost label of the stack during the wrapping operation so that that label is in readiness to be applied to the next succeeding article to be wrapped, retractable confining and guiding means arranged to one side of said spindle which is adapted to contact yieldably the outer convolutions of the newspaper or article being wrapped and which is responsive to the increasing size of the convolutions whereby a tightly rolled article is obtained, means for moving said retractable confining and guiding means automatically away from the spindle after a predetermined number of revolutions of said spindle to a retracted position, and means for positioning automatically said spindle after each wrapping operation so that the slot therein is arranged substantially horizontal in readiness for the next succeeding wrapping operation.

5. A machine of the class described for wrapping newspapers and the like comprising a table top, means arranged on said table top for holding a stack of labels, means arranged at one end of said last mentioned means for applying an adhesive automatically to the end portion of the topmost label of said stack, a horizontally disposed, elongated rotatable spindle positioned at the other end of said label holding means, said spindle being rotatably and securely mounted at one end thereof with the other end being free and having an open-ended diametrically arranged slot therein extending from a point intermediate the length thereof to the free end of the same, a drive shaft arranged below said spindle and



said table top for driving said spindle, means carried by said shaft for actuating said adhesive applying means, retractable confining and guiding means arranged adjacent said spindle which is adapted to contact yieldably the outer convolutions of the newspaper or article being wrapped around the spindle and which is responsive to the increasing size of the convolutions whereby a tightly rolled article is obtained, and means arranged on said shaft for positioning the spindle after each cycle of operation thereof so that the slot therein is positioned horizontally in readiness for receiving the article for the next succeeding wrapping operation.

6. A machine of the class described for wrapping newspapers and the like, as defined in claim 5, including means arranged on said drive shaft for moving said retractable confining and guiding means to a retracted position away from said spindle.

GEORGE L. BOLARD.

## REFERENCES CITED

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

UNITED STATES PATENTS


| Number | Name | Date |
|---|---|---|
| 371,988 | Stone | Oct. 25, 1887 |
| 403,324 | Brown | May 14, 1889 |
| 478,345 | Linthicum | July 5, 1892 |
| 577,418 | Carter | Feb. 23, 1897 |
| 661,152 | McCausland | Nov. 6, 1900 |
| 828,630 | Scott | Aug. 14, 1906 |
| 892,837 | Hutchinson | July 7, 1908 |
| 1,166,737 | Baird | Jan. 4, 1916 |
| 2,185,399 | Carr | Jan. 2, 1940 |