

June 18, 1935.

R. E. DE LUCE

2,005,132

GLUING MACHINE

Filed Nov. 19, 1934

2 Sheets-Sheet 1

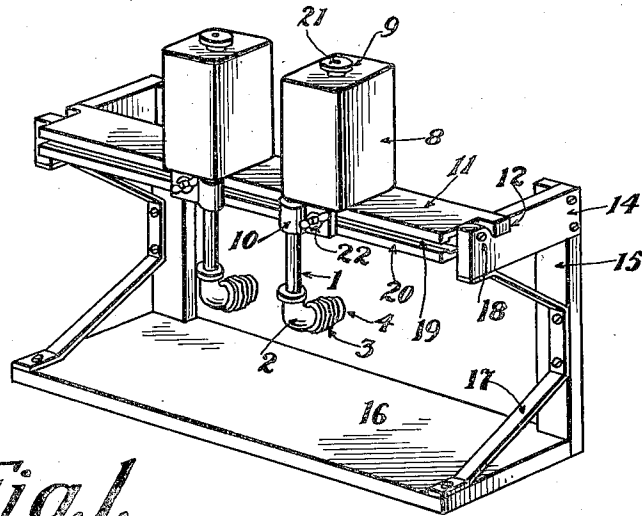


Fig. 1.

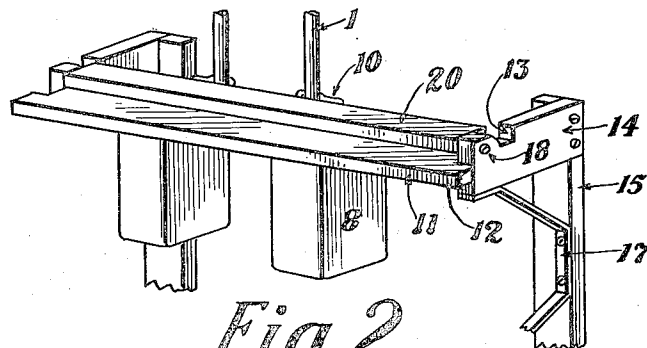


Fig. 2.

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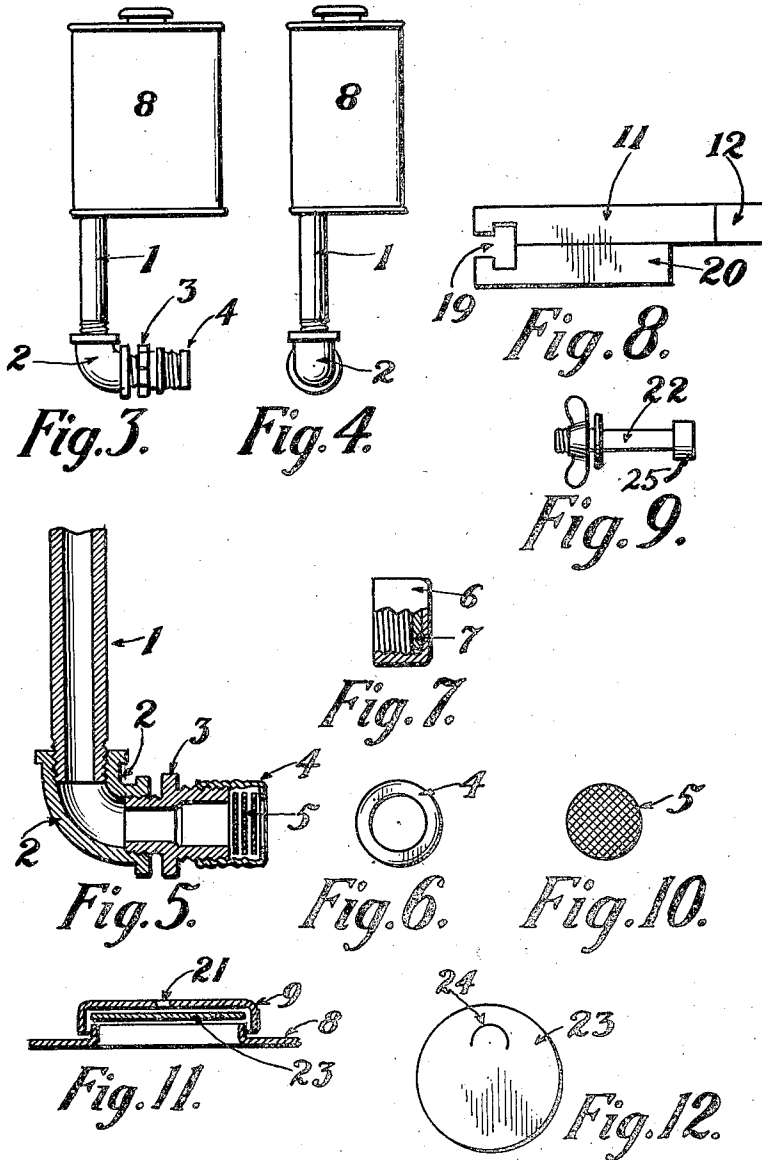
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2 Sheets-Sheet 2



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2,005,132

GLUING MACHINE

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Tenn.

Application November 19, 1934, Serial No. 753,743

8 Claims. (Cl. 91—67.1)

My invention relates to an improved gluing machine mounted on an elevated frame by means of which certain types of telescope boxes can be glued and set up by the customer or packer of boxes, the boxes being shipped flat to the customer, and particularly to a machine that can be adjusted to any size box very quickly and which does not require special forms, clamps, etc., as a special type box only is to be glued on the machine described. It is also an object of my invention to provide novel means for inverting the cans of glue when the machine is not in use or whenever the operator stops gluing; and to provide various novel details of construction and arrangement. I attain these and other objects of my invention by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of the entire machine;

Fig. 2 is a perspective view of a portion of the machine showing the cans of glue in their inverted position, with a portion of the frame and of the spouts of the cans broken away;

Fig. 3 is a side elevation of one of the cans with its spout;

Fig. 4 is a rear elevation of same;

Fig. 5 is a vertical section through a portion of the spout and the discharge nozzle;

Fig. 6 is an end view of cap 4;

Fig. 7 is a detail view partly in side elevation and partly in section of cap 6 and washer 7;

Fig. 8 is an end elevation of bars 11 and 20, showing the contour of slot 19;

Fig. 9 is a detail view of wing nut and bolt 22;

Fig. 10 is a detail view of screen 5;

Fig. 11 is a section of a portion of the top of can 8 and cap 9 and washer valve 23; and

Fig. 12 is a detail view of washer 23.

Like numerals designate like parts in each of the several views.

Referring to the accompanying drawings, I provide a plurality of cans 8 for containing glue. Each can has a spout 1 to the lower end of which is attached an elbow 2. A nipple 3 is threaded on elbow 2. Nipple 3 is also threaded for engagement by a cap.

For distributing the glue I provide an apertured cap 4 which is screw threaded on the end of nipple 3 and which thereby holds the several screens 5 in place against the end of nipple 3 as shown in Fig. 5, and through which the glue is fed by gravity. I also provide a cap 6 which has no aperture but does have a washer 7, and which may be used to replace cap 4 and screens

5 when the cans are not in use, to prevent evaporation of the glue.

Can 8 has a suitable cover 9. This cover has an opening 21 as shown in Fig. 11. A leather or chamois disk is mounted in cover 9. This disk 23 has a half moon slot 24, as shown in Fig. 12, which functions as an air valve.

As shown in Fig. 1, cans 8 rest on an upper bar 11. A lower bar 20 extends parallel with and is attached to bar 11. Bar 11 has a projecting end 12 of suitable size to seat in the slot 13 of the elevated horizontal end frame member 14. Member 14 is affixed to and supported in its elevated position by post 15, which in turn is affixed to base 16. A brace 17 is fastened to base 16, post 15 and frame member 14 to securely brace these members to each other, as shown in Fig. 1. As shown in Figs. 1 and 2, I provide suitable pivots 18 by means of which bars 11 and 20 are pivotally mounted on members 14.

The brackets 10 engage the spouts 1 which are welded to the glue cans 8, and also carry the bolts 22, the heads 25 of which are slidable in the longitudinal slot 19 in bars 11 and 20. The wing nuts on bolts 22 permit of tightening them in an adjusted position, so that the cans 8 can be readily fastened in whatever spaced position is desired according to the size of the box which is to be glued by the machine. The cans 8 are filled through the openings covered by the covers 9, and the glue is fed by gravity through the spouts 1, elbows 2 and nipples 3 to and through the screens 5 and the aperture in cap 4. Flaps of the folding boxes to be glued are brought underneath to the caps 4 and lightly placed on end of cap 4 which applies the glue.

If the operator should find it necessary to stop gluing, all that need be done is to invert the glue cans and the bars 11 and 20 on which they rest and to which they are adjustably attached, as these bars are swingably mounted on the end frame members 14 by the pivots 18. The glue will automatically quit feeding and flow back into the cans by gravity. After the operator is through using the machine he may remove the cap 4 and screens 5 and replace them with the cap 6 which has no aperture, in order to keep the glue from evaporating.

As shown in Figs. 11 and 12, the disk 23 has a half moon slot 24 cut in it. The action of this is like a valve, inasmuch as when the can is in operating position air will pass through the hole 21 in cover 9 and the suction from the liquid in can 8 pulls the air through 24. Then when the can is tilted inasmuch as disk 23 is placed against

the top, the aperture formed by slit 24 automatically closes, keeping the glue from spilling.

What I claim is:

1. In a gluing machine, the combination of a
5 frame, bars pivotally mounted on the frame, a plurality of cans adjustably mounted on the bars, spouts on the cans, horizontally disposed nipples on said spouts, apertured caps on the nipples, and screens contained within the caps.
- 10 2. In a gluing machine, the combination of a frame, including elevated frame members having slots in their upper portions, bars pivotally mounted on said frame members, one of said bars having projecting ends seatable in said
15 slots, cans adjustably mounted on the bars, spouts on the cans, horizontally disposed nipples on said spouts, apertured caps on the nipples, and screens contained within the caps.
- 20 3. In a gluing machine, the combination of a frame, including elevated frame members having slots in their upper portions, bars pivotally mounted on said frame members, one of said bars having projecting ends seatable in said
25 slots, cans mounted on the bars, spouts on the cans, horizontally disposed nipples on said spouts, apertured caps on the nipples, and screens contained within the caps.
- 30 4. In a gluing machine, the combination of a frame, a pair of bars secured to each other and pivotally mounted on the frame, said bars having a longitudinal slot, cans seated on the bar, spouts on the cans, brackets attached to the
35 spouts, bolts and wing nuts engaging said brackets, said bolts having their heads slidably mounted on the longitudinal slot in the bars for securing the cans in an adjustable position on the bars, the aforesaid spouts terminating in horizontal nipples for the discharge of glue.

5. In a gluing machine, the combination of a frame, a pair of bars secured to each other and pivotally mounted on the frame, said bars having a longitudinal slot, cans seated on the bar, spouts on the cans, brackets attached to the
5 spouts, bolts and wing nuts engaging said brackets, said bolts having their heads slidably mounted on the longitudinal slot in the bars for securing the cans in an adjustable position on the bars, the aforesaid spouts terminating in horizontal nipples for the discharge of glue, apertured caps on the nipples, and screens contained within the caps.

6. In a gluing machine, the combination of a supporting frame, bars pivotally mounted on the
15 frame, cans for containing glue mounted on the bars, spouts depending from said cans, covers on the cans, said covers having apertures, flexible discs contained within the covers, said flexible discs having arcuate slots whereby the discs
20 will function as air valves substantially as described.

7. In a gluing machine, the combination of a base, posts affixed to the base, horizontal frame
25 members mounted on the upper ends of the posts, said frame members having slots, bars pivotally mounted on the horizontal frame members, said bars having projecting ends seatable in the slots of the frame members, cans secured to the bars, said cans having spouts terminating in
30 horizontal nipples for the discharge of glue.

8. In combination with the apparatus defined in claim 7, means for securing the cans in any
35 desired laterally adjusted position on the aforesaid bars.

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