E. W. LABOMBARDE.

PAPER BOX AND BLANK THEREFOR.

APPLICATION FILED OCT. 28, 1910.

1,093,705. Patented Apr. 21, 1914.

Fig. 2.

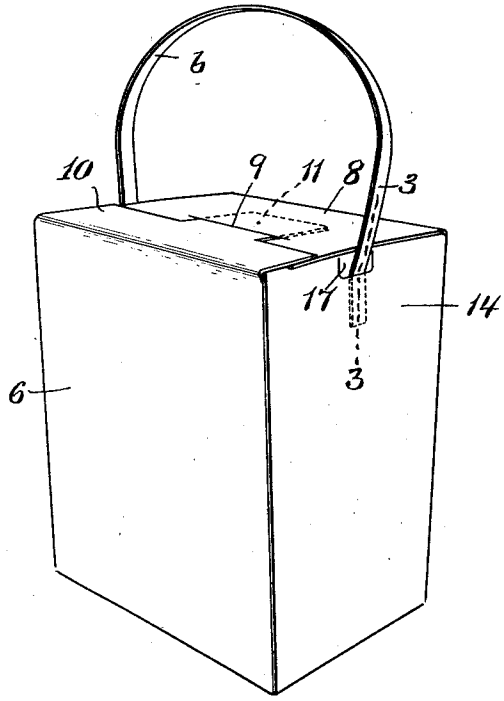


Fig. 3.

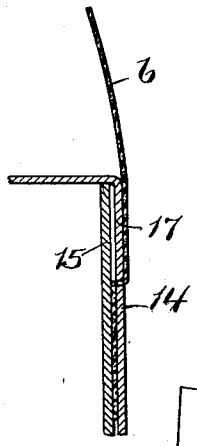
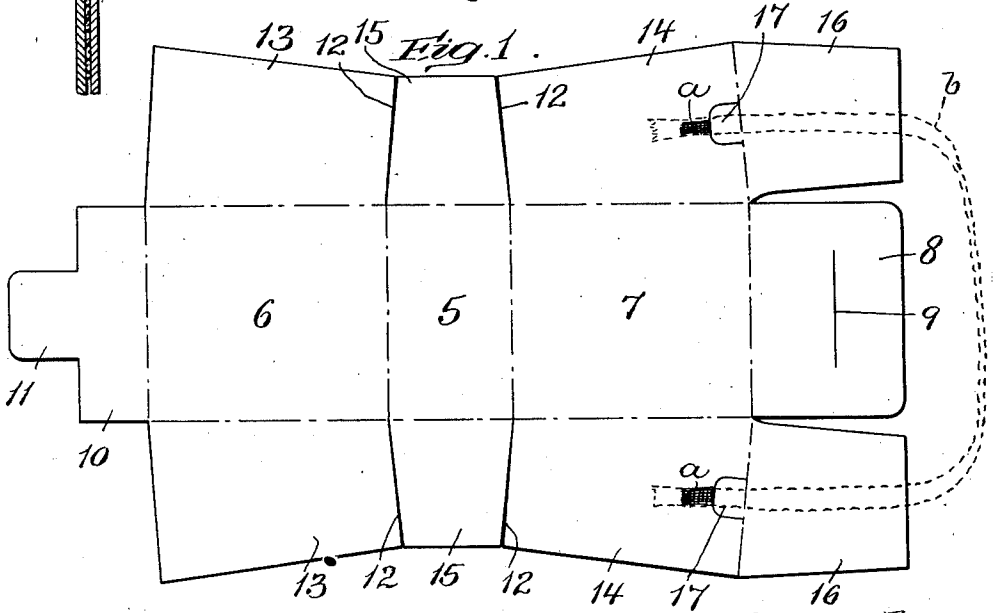


Fig. 1.



Witnesses

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UNITED STATES PATENT OFFICE.

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PAPER BOX AND BLANK THEREFOR.

1,093,705. Specification of Letters Patent. Patented Apr. 21, 1914.

Application filed October 28, 1910. Serial No. 589,606.

To all whom it may concern:

Be it known that I, ELIE W. LABOMBARDE, of Nashua, in the county of Hillsboro and State of New Hampshire, have invented certain new and useful Improvements in Paper Boxes and Blanks Therefor, of which the following is a specification.

One of the chief items of the cost of making paper articles of the type commonly known as ice cream boxes, is the labor of affixing the handles by which said boxes are carried, this affixing being done by hand. The handles consist of flexible strips, and are commonly called the "tapes." In another application filed by me on Oct. 28, 1910, Serial No. 589,607, I have disclosed and claimed a machine for automatically affixing the tapes to the blanks, which machine performs the work at the rate of several thousand an hour. Said machine employs curved fingers which tuck or insert the ends of the tape through apertures in the blank, and affix said tape ends to portions of the blank adjacent the apertures which have had small areas or "spots" of an adhesive applied thereto by other parts of the machine. For practical reasons it is essential that the apertures be made in certain portions of the blank, and it is also essential that the apertures shall permit the fingers of the machine to pass through, and that, after the fingers have performed their functions, the apertures shall substantially cease to exist.

One of the objects of the present invention is to provide blanks capable of having the tapes automatically affixed thereto without interfering in the least with the carrying qualities of the boxes or pails when the blanks are folded for use.

Another object is to provide a box or pail having a tape handle secured to two sides thereof by an adhesive in such location and in such a manner, that the contents cannot come in contact with the adhesive, or with the tape, or escape through the apertures for the tape.

To these ends the invention therefore consists in the blank, and in the box or pail folded up from such blank, substantially as hereinafter described and claimed.

Of the accompanying drawings: Figure 1 is a plan view of the blank. Fig. 2 is a perspective view of the same folded up to form a box or pail. Fig. 3 represents a section on line 3—3 of Fig. 2, on a larger scale.

Similar reference characters designate the same parts in all of the views.

A sheet of stock of the kind of paper usually employed for the purpose is cut and scored or creased to form sections and wings and flaps which can best be described by reference to the positions which they occupy when the blank is folded up to box form. The longitudinal middle portion of the blank is continuous from end to end and comprises the bottom 5, two sides 6, 7, an end flap 8 having a slit 9, and another end flap 10 having a tongue 11. From the four corners of the bottom section 5, four cuts 12 extend to the side edges of the blank to form two wings 13 of the section 6 and two wings 14 of the section 7. The material between the cuts 12 is left so as to form wings 15 that are folded up between the wings 13, 14. Projecting from the ends of wings 14 the flaps 16 which, when the box is filled and closed, are folded under the flaps 8 and 10 and with the latter constitute the top of the box. The tongue 11 is slipped into the slit 9 to hold the top closed.

As so far described, the box is of a well known type, usually called an "ice cream box", or pail, and it has a bottom and two sides of single thickness, the other two sides being partly double and partly triple thick, the latter being due to the wings 15 which usually lie between the wings 13, 14. Such boxes are commonly provided with tape handles or bails.

In carrying out my invention, I provide each of the wings 14 with a U-shaped slit to form a tongue 17 extending toward the cuts 12 from the crease (or near it) which divides the wing 14 from the flap 16. This tongue yields when the inserting finger of the machine carries the end of the tape *b* through the aperture resulting from deflection of the tongue, so that the end of the tape can be pressed down by the tip of said finger on a spot of adhesive *a* placed on the blank near the bottom of the U-shaped slit. In Fig. 1 the tape is indicated only by the dotted lines, in order to permit illustration of the spots *a* of glue or other adhesive. After the tape ends have been affixed, the tongues 17 return to place so as to fill up the temporary apertures, the presence of the tape preventing said tongues from being deflected beyond proper plane. When the blank is folded up to constitute a box or pail as

shown in Fig. 2, the tongue-carrying wings 14 are always outermost, and therefore the slits and tongues and the tape ends and the adhesive are covered and protected by the unslitted inner wings 13 as shown in Fig. 3, so that the contents of the box can never come in contact with any of these portions. When the box is filled, and being carried by its tape handle or bail, the tongues can never get out of position because they are confined by the taut portions of tape extending over their outer faces, against the internal pressure of the contents holding the wings 13 against the inner walls of the wings 15.

While I have referred to the member *b* as a "tape", it is to be understood that I do not limit myself to a strip of flat fabric, as any material capable of the same utility may be employed.

As best shown in Fig. 3, the box when made up is capable of carrying liquid contents such as ice cream not only without danger of the said contents getting access to the tongues or the tape or the adhesive, but also the use of adhesive between the contacting faces of the wings or sections 13, 14 retains the parts in such relative positions that the edges of the tongues are caused to bite or tightly grip the portions of the tape which passes down over the outer surfaces of the tongues and through the slits. Since said slits and the biting edges of the tongues are below the upper margins of the wings, the weight of the contents of the box when filled and the box is being carried causes the tension on the tape to hold the tongues in against the support afforded by the inner wings. At the same time the upper margins of both wings add to the lateral support provided by the top flaps 8 and 10 (Fig. 2) to prevent the top of the box from being laterally collapsed by the inward pressure of the portions of the tape which bear against the outer faces of the tongue. Said tape therefore serves as a carrying handle (not merely a tying device), which handle has its ends not only securely held by the biting action of the tongues and also the adhesive, but said adhesive is also shielded by the inner side wings, as shown in Fig. 3, and the top or upper portion of the box is strengthened so as not to be collapsed by the inward pressure of the tape handle when the filled box is being carried.

The location of the slits and tongues in the outer members of the overlapping side wings, and the location of the tape ends passed through the slits, as shown in Fig. 3, results in having the tape ends and the tape-locking tongues in such position that when the contacting faces of the said overlapping wings are glued or cemented together as is customary with this type of box, such gluing together prevents any liability of unlocking the tongues from their tape-biting positions.

I claim—

A box having two of its sides composed of overlapping sections, the outer sections having slits and tongues below their upper margins, and a tape extending over the top of the box and over the outer surfaces of the upper portions of the sides and through the slits and having its ends secured to the inner surface of the outer sections and protected by the inner sections, the inner sections being uncut or continuous, whereby the contents of the box cannot reach the tongues or tape ends, the overlapping side sections being adhesively connected to hold the parts in position to cause the edges of the tongues to bite the tape.

In testimony whereof I have affixed my signature, in presence of two witnesses.

ELIE W. LABOMBARDE.

Witnesses:
A. W. HARRISON,
P. W. PEZZETTI.