Feb. 14, 1933. W. B. POWELL 1,897,143

CONTAINER FOR ROLL PAPER

Filed July 23, 1931

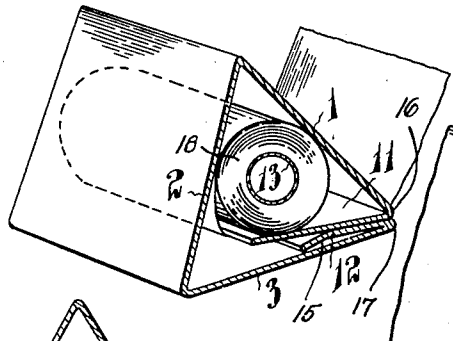
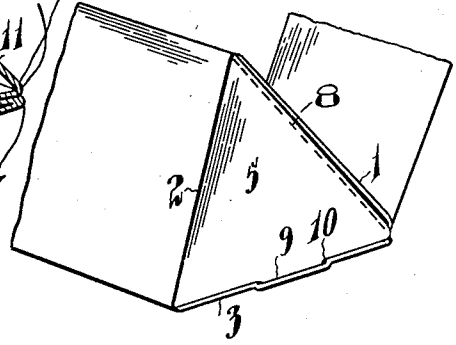


Fig. 1.



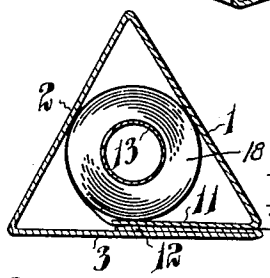


Fig. 5.

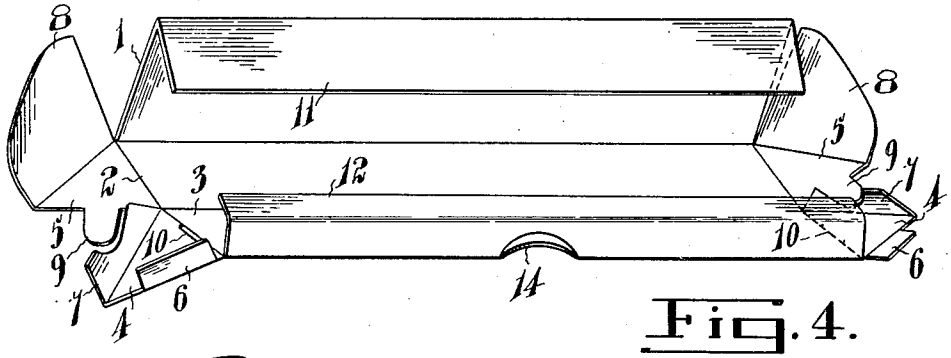


Fig. 4.

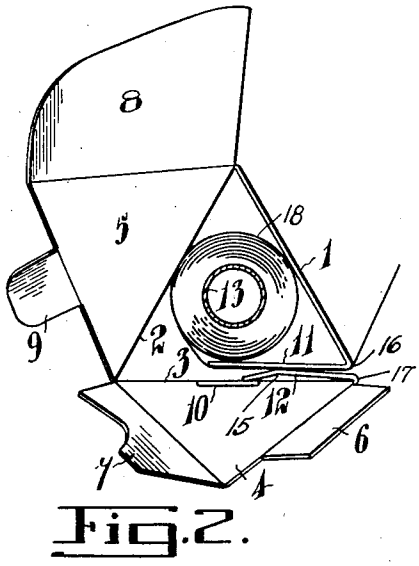


Fig. 2.

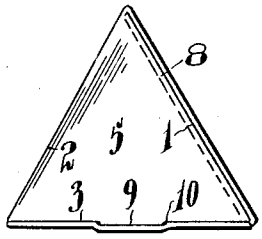


Fig. 3.

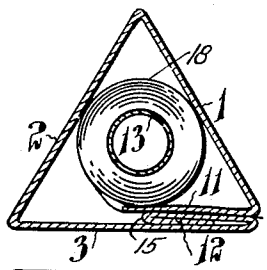


Fig. 6.

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Patented Feb. 14, 1933

1,897,143

UNITED STATES PATENT OFFICE

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CONTAINER FOR ROLL PAPER

Application filed July 23, 1931. Serial No. 552,608.

This invention relates to improvements in packages for roll paper, particularly waxed paper in which it can be shipped and sold and which hold the paper in a manner convenient for the use of the ultimate consumer. The main requirements in such a package are:

(*a*) That it shall at all times form a complete enclosure to keep out dust;

(*b*) That it provides means for enabling lengths of paper to be cleanly torn from the enclosed roll;

(*c*) That it provides means for applying a brake to the roll to prevent more paper being pulled off the roll while a strip is being torn off;

(*d*) That the edge of the paper shall always be accessible to the grasp when a length of paper is drawn out to be torn off; and

(*e*) That it shall be cheap to manufacture.

In application No. 548,365, July 2, 1931, is shown and described a container which satisfied these requirements, but which necessitated the use of core bearings to support the roll in order to fully satisfy requirements (*c*) and (*d*). In the present invention my object is to simplify the construction and to satisfy the above requirements as far as possible without the use of core bearings to carry the roll.

I attain my object by means of a construction which may be briefly described as follows. The container is formed of a cardboard box in the shape of a triangular prism. The sides are locked to the ends. The sides are connected to one another except that adjacent edges of two of them are free for the passage of paper from a roll contained within the container. Each of the free edges is formed with an inwardly directed flap, which flap forms a guideway for the paper and serve to frictionally engage it to prevent its free end being drawn back into the container. An important result of the triangular shape of the box is that pressure exerted against the sides having the free edges will tend to clamp the paper between the flaps and give it sufficient resistance to movement to enable a piece to be torn from the paper web against one of the free edges.

The invention is hereinafter more fully described and is illustrated in the accompanying drawing in which

Fig. 1 is a perspective view, partly broken away, of a container constructed in accordance with my invention;

Fig. 2 is an end elevation showing the container partly knocked down;

Fig. 3 an end elevation of the set up container;

Fig. 4 a perspective view, showing the container with parts folded for assembly;

Fig. 5 a cross section of a slight modification; and

Fig. 6 a similar view of another modification.

In the drawing like numerals of reference indicate corresponding parts in the different figures.

The container will usually be formed of a cardboard blank cut and shaped to form three sides 1, 2 and 3, the sides 1 and 3 being connected with the side 2 and their free edges being brought into juxtaposition.

The ends of the container may be formed in any convenient manner. I prefer, however, to provide the ends 4 and 5 connected with two of the sides. The end 4 is provided with the flaps 6 and 7. The end 5 has a flap 8 formed thereon. The end 4 is turned in first and its flaps tucked in against the inner surfaces of the adjacent sides. The end 5 is then turned up and the flap 8 tucked in between the end 4 and the adjacent side 1 of the container. If desired, as an additional lock, a tab 9 may be formed on the end 5 and tucked through a slit 10 formed at the juncture of the end 4 and the side 3. The side 1 is folded over to form a flap 11 and the side 3 is similarly folded over to form a flap 12, these flaps extending inwardly towards the opposite side of the container. These flaps form a guideway for the paper and serve to frictionally engage it to prevent its free end being drawn into the container. They also serve to resist the pulling out of paper from the roll 18 while a piece is being torn against the shearing edge 16 of the side 1. Of course, the similar edge 17 of

the side 3 might be employed as a shearing edge.

The flap 11 preferably extends inwardly to a point below the axis of the roll and the flap 12 is bent on the line 15. It thus serves as a resilient brace to the flap 11 to press the latter against the paper as it is drawn from the roll. In Fig. 5 I show a slight modification in which the fold 15 is omitted. In Fig. 6 I show the flap 12 folded on the line 15.

The great advantage of this triangular construction of container is that pressure against the sides 1 and 3 of the box presses these sides towards one another and thus tends to close the passage between them thus imparting pressure to the flaps 11 and 12 and the paper passing between them to resist the pulling out of paper from the roll when a piece is being torn off.

While it is desirable to wind the roll on a core 13 with this form of container, it will not usually be necessary to support the core in bearings as in the application hereinbefore referred to.

A thumb notch 14 is provided in the free edge of the side 3 to facilitate the grasping of the edge of the paper when a fresh length is to be drawn out of the container.

To facilitate the closure of the ends of the container with a roll in place the flap 7 has its outer end notched or concaved so that, when pushed into place against the inside surface of the side 2, the end portions of the flap pass on each side of the point of contact between the roll and the side and guide the flap between the roll and the side, thus preventing the flap catching on the roll.

What I claim as my invention is:

1. A container for roll paper formed of stiff flexible material and shaped as a hollow triangular prism, each of two adjacent sides having a free edge adjacent the free edge of the other side, the edges forming between them a passage for paper contractible by pressure on the said adjacent sides.

2. A container for roll paper formed of stiff flexible material and shaped as a hollow triangular prism, each of two adjacent sides having a free edge adjacent the free edge of the other side, the edges forming between them a passage for paper contractible by pressure on the said adjacent sides, each of the two sides aforesaid having an inwardly directed flap integrally connected with its free edge approximately paralleling one another and extending between one of said sides and a roll positioned in the container.

3. A container for roll paper formed of stiff flexible material and shaped as a hollow triangular prism, each of two adjacent sides having a free edge adjacent the free edge of the other side, the edges forming between them a passage for paper contractible by pressure on the said adjacent sides, each of said sides having an inwardly directed flap integral with its free edge between which flaps the paper form a roll positioned within the container can pass.

4. A container for roll paper formed of stiff flexible material and shaped as a hollow triangular prism, each of two adjacent sides having a free edge adjacent the free edge of the other side, the edges forming between them a passage for paper contractible by pressure on the said adjacent sides, each of the two sides afore said having an inwardly directed flap integrally connected with its free edge approximately paralleling one another and extending between one of said sides and a roll positioned in the container, the flap of the last mentioned side having a bend formed therein intermediate of its free and connected edges.

5. A container for roll paper formed of stiff flexible material and shaped as a hollow triangular prism, each of two adjacent sides having a free edge adjacent the free edge of the other side, the edges forming between them a passage for paper contractible by pressure on the said adjacent sides, each of the two sides afore said having an inwardly directed flap integrally connected with its free edge approximately paralleling one another and extending between one of said sides and a roll positioned in the container, the flap of the last mentioned side having a bend formed therein intermediate of its free and connected edges, the bend being in the direction of the side of the container to which the flap is connected.

6. A container for roll paper formed of stiff flexible material and shaped as a hollow triangular prism, each of two adjacent sides having a free edge adjacent the free edge of the other side, the edges forming between them a passage for paper contractible by pressure on the said adjacent sides, and means connected with said edges for applying friction to the paper between said edges and the supply roll.

7. A container for roll paper formed of stiff flexible material and shaped as a hollow triangular prism, each of two adjacent sides having a free edge adjacent the free edge of the other side, the edges forming between them a passage for paper contractible by pressure on the said adjacent sides, and means connected with said edges for applying friction to the paper between said edges and the supply roll and for applying friction directly to the paper on the roll.

8. A container for roll paper formed of stiff flexible material and shaped as a hollow triangular prism, each of two adjacent sides having a free edge adjacent the free edge of the other side, the edges forming between them a passage for paper contractible by pressure on the said adjacent sides, and means connected with said edges for applying friction directly to the paper on the roll.

9. A container for roll paper formed of stiff flexible material and shaped as a hollow triangular prism, each of two adjacent sides having a free edge adjacent the free edge of the other side, the edges forming between them a passage for paper contractible by pressure on the said adjacent sides, each of the two sides aforesaid having an inwardly directed flap integrally connected with its free edge approximately paralleling one another and extending between one of said sides and a roll positioned in the container, the flap of the last mentioned side having a return bend formed therein intermediate of its free and connected edges.

Signed at Hamilton, Canada, this 6th day of June, 1931.

WILLIAM B. POWELL.