Oct. 5, 1943. A. H. LUNDSTROM 2,331,035

PACKAGE JACK

Filed Jan. 22, 1940

Fig. 1.

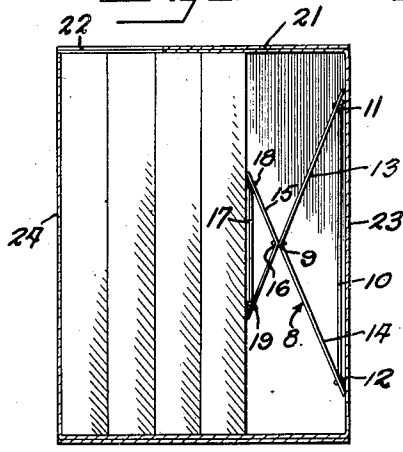


Fig. 2.

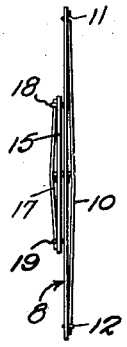


Fig. 3.

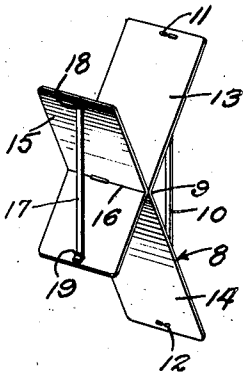


Fig. 4.

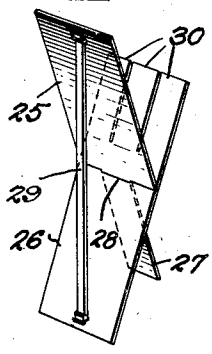


Fig. 5.

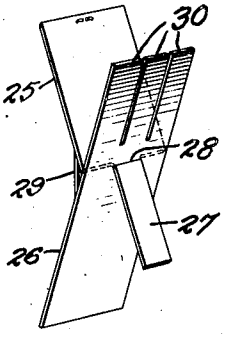


Fig. 6.

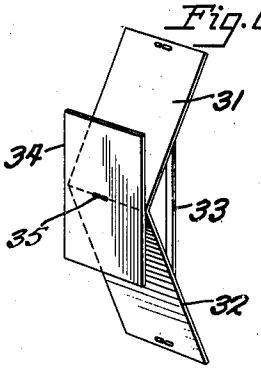
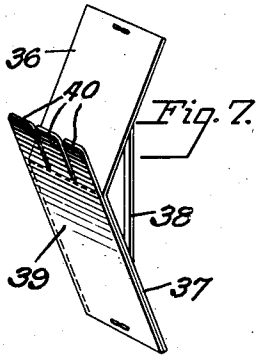


Fig. 7.



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PACKAGE JACK

Axel H. Lundstrom, Madison, Wis.

Application January 22, 1940, Serial No. 314,941

4 Claims. (Cl. 206—41.2)

This invention relates to a jack for positively positioning goods within a package to insure easy withdrawal of the goods whether the package be completely filled or only partially filled.

One object of this invention is to provide a jack which will keep the supply of the articles in the package constantly in reach of the opening through which they are to be withdrawn.

Another object of this invention is to provide a jack which will serve to strengthen the package container so that it will retain its original shape for longer periods of time. My invention also serves in this manner to prevent the contents of the package from being crushed.

A further object of the invention is to provide a jack which will exert constant pressure upon the articles within the package to move them toward the opening to replace articles taken from the package.

Still another object of this invention is to provide constant pressure on articles contained within a package, in such a manner that neither by their own weight nor by ordinary jarring or shaking will such articles fall out of their package container, this prevents the articles from being damaged by falling loose from their container.

Still other objects of this invention are to provide such a device which will be light in weight, occupy but little space within the package when the package is full, be simple to manufacture, and be extremely low in cost.

Other objects will become apparent from the following description which illustrates some of the preferred and practical embodiments of this invention.

In the drawing which accompanies and forms a part of this specification, and throughout the several figures of which, like reference characters are employed to denote like parts:

Figure 1 is a vertical section through a cigarette package showing the article positioning jack in place;

Figure 2 is a side view of the article positioning jack before being placed in a package;

Figure 3 is a perspective view of that form of the invention shown in Figures 1 and 2;

Figures 4 and 5 are perspective views of opposite sides of a modified form of the invention;

Figure 6 is a perspective view of a further modified form of the invention; and

Figure 7 is a perspective view of another modification.

In modern merchandising many products are sold in package form, a number of articles being wrapped or boxed and sold as a unit, for example, cigarettes, sanitary napkins, paper table napkins, paper handkerchiefs such as Kleenex, first aid bandages and compresses, and certain drugstore supplies such as codliver oil and haliver oil in capsule form. It is almost an universal custom among cigarette users, for example, in opening the package to tear off one corner and to remove cigarettes through this opening one at a time as needed. There are, however, distinct disadvantages to this method. In the first place, packages are made to closely embrace the articles which they contain. Thus, when a relatively small portion of one end of a package is opened the articles directly under the opening are readily and easily removed, but after such removals the remaining articles back under the unopened portions of the package cannot be reached conveniently and, due to the tight fit within the package, cannot easily be shaken to a position under the opening. Thus, those articles are frequently torn, made unshapely or otherwise damaged before they are finally removed for use.

A second disadvantage of this method lies in the fact that after several units of the articles have been removed from the package and the package is inadvertently inclined or inverted, the remaining articles which are loose may drop out, thus not only causing inconvenience to the user, but damage and injury to the article as well. Again using cigarettes as an example, the removal of one or two will permit most of those remaining beneath the opening to eventually fall out causing inconvenience to the user and usually injury to the cigarettes. Although the foregoing has dealt particularly with cigarette packages it is equally true of other similar packaged goods. By the use of my invention these disadvantages and inconveniences are overcome.

Referring to the drawing in detail, and first adverting to that form of the invention shown in Figures 1, 2, and 3, the invention contemplates the use of a relatively stiff, though flexible, rectangular member 8 of cardboard, fiber, celluloid, or the like, scored transversely at some point, perhaps, but not necessarily, midway between its ends as at 9. A tensioning element 10, preferably of rubber, although other materials having similar properties may also be used, has its ends anchored near the upper and lower edges of the member 8 by suitable means such as the staples 11 and 12. The tensioning element 10 is stretched while it is being secured to the member 8 and therefore will constantly exert a pull on the ends of the members 8, causing the members to bend at the score line 9. As it bends at the

score line the resulting arms 13 and 14 form the sides of some form of a triangle which has the tensioning element 10 at its base. The more the element 10 contracts the smaller will become the apex angle of the triangle and consequently the altitude will increase. A counterpart of this structure of a smaller size, having a member 15 scored at 16 and a tensioning element 17 secured near the edges of the member 15 by the staples 18 and 19, is fixed to the member 8 by means of a staple or glue or other fastening device 20 passing through the score lines 9 and 16. Thus is produced two triangles having their apexes joined together.

In Figure 1 is shown a conventional cigarette package 21 with a a jack such as that just described in place within the package. One corner of the package has been torn off as at 22 and some of the cigarettes removed. The members 8 and 15 of the jack are flat as in Figure 2 when placed in the package. Due to the relatively tight fit of the package about the cigarettes the jack will remain in this position until some of the contents are removed. As cigarettes are taken from the package through the opening 22 the members 8 and 15 can bend at their score lines under the pull of the tensioning elements 10 and 17. As the two similar triangles begin to take form the upper and lower edges of the member 8 will bear against the side wall 23 of the package 21, while the upper and lower edges of the jack seat member 15 will bear against the cigarettes forcing them away from the wall 23 of the package and against the side wall 24. Upon withdrawal of more cigarettes from the package, the tensioning elements 10 and 17 will draw the upper and lower edges of the members 8 and 15 closer together making the apex angles of the two triangles more acute and increasing their altitudes, thereby forcing the remaining cigarettes against the side wall 24 of the package under the opened corner 22. In this manner as long as any cigarettes remain in the package they will be gently, but firmly, pressed by the jack seat against the side wall 24 of the package thus maintaining the cigarettes in a position at the opening where they may be readily removed.

In Figures 4 and 5 a slightly modified form of jack is shown. This form comprises two elongated strips 25 and 26, the strip 25 having a reduced tongue 27 which passes through a lip 28 cut in the strip 26. A tensioning element 29 is secured to the upper end of strip 25 and to the lower end of strip 26. The upper end of strip 26 is cut to form a plurality of fingers 30. In use the tongue 27 and the fingers 30 will form a jack seat which will bear against the cigarettes while the opposite ends of the strips will bear against the side wall of the package. This form is peculiarly adapted to use in a cigarette package as the cigarettes may not present an even surface for the jack to bear against. The resiliency of the fingers 30 will allow the jack to press firmly against the individual cigarettes.

Figure 6 shows a further modified form in which a triangle similar to that shown in Figures 1, 2, and 3 has the sides 31 and 32 and a tensioning element 33. To this triangular structure is secured a relatively short flat jack seat member 34 by means of a staple, glue, or other similar fastening means 35. The member 34 will provide a comparatively large bearing surface and may be preferable in some cases where a line contact pressure might injure the merchandise.

A further modification is shown in Figure 7, wherein one side of the triangular structure 36, 37, 38 has secured to it a single flat strip 39 having a series of fingers 40 formed at its upper end, the whole forming a jack seat to bear against the article to be positioned in the package.

While a number of forms of the invention have been shown and described, it is to be understood that these are given by way of example and not by way of limitation.

Having thus described my invention what I claim is:

1. A jack for positioning articles in a package so that they are readily accessible, comprising a rectangular member having one end reduced to form a tongue, a second rectangular member having a slot to receive the tongue of said first member to hingedly connect the two members together, a tensioning element secured near and stretched between one end of the first member and one end of the second member, contraction of the tensioning element causing the hinge connection of the members to move out of the plane of the ends, the continuations of the two said members past the hinge forming a jack seat to bear against the articles in the package.

2. A jack for positioning articles in a package so that they will be readily accessible at all times, comprising: an elongated member having a reduced tongue section; a second elongated member having a slot through which the tongue section of the first elongated member may pass so as to pivotally connect the two members together; a tensioning element, the ends of said tensioning element being secured near one end of the first elongated member and the corresponding end of the second elongated member; the other end of said second elongated member being cut to form a plurality of resilient fingers, said resilient fingers and the tongue section of said first elongated member forming a jack seat which bears against the contents of said package; all substantially as described.

3. A jack for positioning articles in a package so that they are readily accessible, comprising, an elongated member having one end reduced to form a tongue, a second elongated member having a slot adapted to receive the tongue of the first member to hingedly connect the two members together, a tensioning element secured near one end of the first elongated member and one end of the second elongated member, the continuations of the two said members past the hinge connection forming a jack seat to bear against the articles in the package.

4. A jack for positioning articles in a package so that they are readily accessible, comprising an elongated member having one end reduced to form a tongue, a second elongated member having a slot to receive the tongue of the said first member to hingedly connect the two elongated members together, a tensioning means secured near and stretched between one end of the first member and one end of the second member, contraction of the tensioning means causing the hinge connection of the elongated members to move out the plane of their ends, a plurality of fingers on one end of the first elongated member, said fingers and said tongue forming a jack seat which bears against the contents of said package, all substantially as described.

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75