Oct. 7, 1941. M. P. AUSTIN ET AL 2,258,170

CIGARETTE LIFTING JACK

Filed Oct. 23, 1939

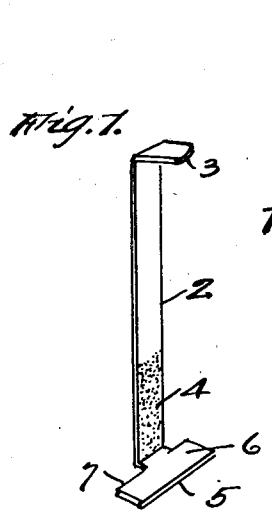

Fig. 1.

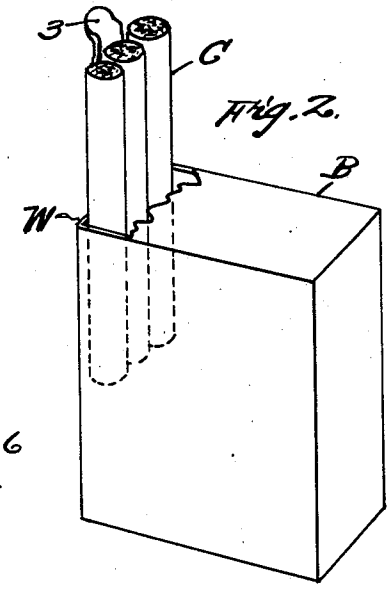

Fig. 2.

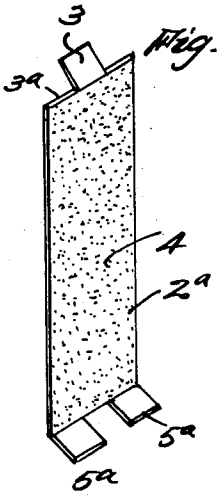

Fig. 3.

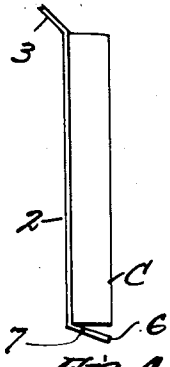

Fig. 4.

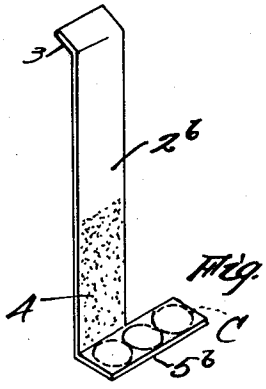

Fig. 5.

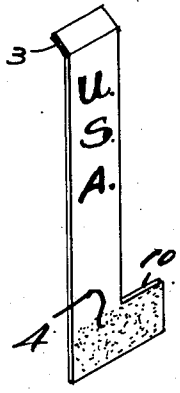

Fig. 6.

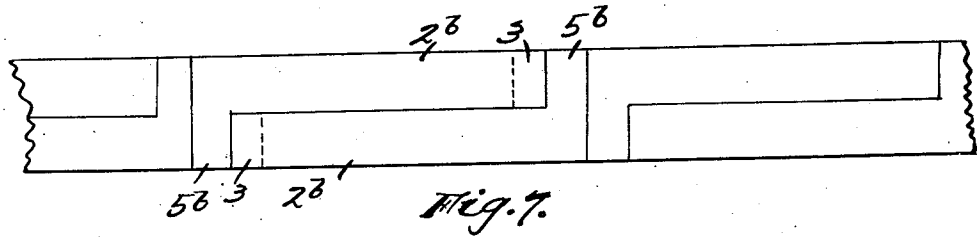

Fig. 7.

Inventors,
Millard P. Austin,
Mary C. Austin;
By Frederick E. Maynard
Atty.

Patented Oct. 7, 1941 2,258,170

UNITED STATES PATENT OFFICE

2,258,170

CIGARETTE LIFTING JACK

Millard P. Austin and Mary C. Austin, Burbank, Calif.; said Millard P. Austin assignor to said Mary C. Austin

Application October 23, 1939, Serial No. 300,694

2 Claims. (Cl. 206—41.2)

This invention is a jack for projecting an initial row of three cigarettes from a tight pack.

It is well known that some difficulty is experienced in picking out the first one or two cigarettes from their package because of the compactness of their assembly therein, and some technique is required in offering a cigarette to a guest or companion from a new pack.

Many complex, cumbersome and expensive contrivances have been proposed to effect the desired projection of a cigarette but as yet none have gone into commercial use.

It is therefore an object of this invention to provide a device greatly simplifying types of prior proposals of means to eject initial cigarettes from their pack.

Notably, an object is to provide a jack of utmost simplicity, of minimum cost of stock and of labor, and free from mechanical attachment to elements of structure of the package.

A further object is to provide a practical and economical method for the manufacture of the jack.

The invention consists in certain advancements in this art as set forth in the ensuing disclosure and having, with the above, additional objects and advantages as hereinafter developed, and whose construction, combinations and sub-combinations, and details of means, and the manner of operation, and the preferred method of production, will be made manifest in the description of the herewith illustrative embodiments; it being understood that modifications, variations and adaptations may be resorted to within the scope, spirit and principle of the invention as it is more particularly set out in the appended claims herebelow.

Figure 1 is an isolated perspective of a preferred form of the jack, in such a form as when installed in a cigarette package.

Figure 2 is a perspective showing the projection of a row of cigarettes, from their package.

Figure 3 is a perspective of another form of the jack; cutable without loss from a strip of stock.

Figure 4 is a side elevation of the jack of Fig. 1 showing mechanical engagement of the step of the jack with a corner of a cigarette.

Figure 5 is another form of stock-saving jack with a lifting foot, and

Figure 6 shows a further form of stock-saving jack without a foot ledge, and involving a lateral friction means to effect the lift, without foot engagement.

Figure 7 is a plan of a stock strip showing the method of production of jacks of Fig. 5 and Fig. 6 without loss of stock.

A number of cigarettes C are packed quite tightly in their case or box B with the result that the extraction of the first cigarette or two is difficult and generally involves the upcrushing of the bottom of the pack, in one mode, at least.

The present invention, as actually employed, includes a shank 2 of about the length of a cigarette and the upper end of the shank has a short tab 3 to lie infolded over the top of adjacent cigarettes in a sealed pack.

The adjacent sides of cigarettes will press firmly against the shank 2 in the several illustrated forms of the invention and while these cigarettes may rise if the shank is pulled after the top of the pack has been torn open as at O it is desirable to provide means reliably operative to effect this lifting action.

For instance the shank may be made of some material having inherently a surface offering such a degree of friction as to insure the movement upward. This material may be coarse fibered paper, cork product, rubber product, or paper or other sheet or strip material impregnated or suitably coated with an effective friction offering media as indicated at 4 either all over one face of the shank, Fig. 3, or any suitable portion thereof, Figs. 1, 5 and 6. This friction media may be of any appropriate kind, such as a dry tacky coat that will not attach to near cigarettes but will pull them with the shank or it may be of somewhat an attritional nature like a very thin coat of sand-paper adhesive; or it may be a very thin ply of any known friction giving sheet.

An aim is to provide a jack shank with the desired lifting efficiency due to friction. A shank which will slip out without pulling the cigarettes will not meet the invention.

Some manufacturers pack the cigarettes much tighter than others and to meet this emergency it may be desirable to provide a positive mechanical interlock of the shank 2 to one or more of the adjacent cigarettes. But it is necessary in so doing that a device of the lowest possible cost, consistent with reliability, be utilized, and previous proposals to this end have all been too costly to have gone into commercial use. Cigarettes are made and consumed by the hundreds of millions of packs a year, and if a lifting jack costs only one-half of a cent—that would amount to a cost of $5,000.00 per million. This present invention provides a jack costing about one-hundredth (1/100) of a cent, or about one hundred dol-

lars per million—which obviously is not prohibitive and would be well off-set by the increased sales due to use of the invention by the packers.

A purpose of the invention is to provide a jack of far less cost than other proposed means to accomplish the same purpose. Therefore the mechanical lift or positive engagement feature of the jack includes the generally, elongate, plane, thin shank 2 in combination with a lifting foot 5 which has an upper face 6 long enough to lie under the row of three cigarettes nearest the side wall of the box B at which the shank is installed.

As shown in Fig. 4 when the shank 2 is pulled the bottom end of the cigarettes are positively hooked by the lifting foot 6 and if this should bend down under the load then the corner of the outer edge 7 of the foot still engages the butt of the cigarette and pulls it because the outer side of the cigarette positively rides along the box wall W; if the shank is not as wide as the end wall or as the width of the row of cigarettes, as in Figs. 1, 4, 5 and 6.

Therefore, for a loose-pack package of cigarettes the friction type of jack may be sufficient, but for tight-pack packages the above foot type jack may be employed; either with or without the friction side face feature.

A full-row width of shank 2*a* is shown in Fig. 3 with a full area friction face 4, and to avoid any waste or strip or sheet stock the tab 3 is so cut as to leave end shoulders 3*a* at its sides on the shank end and the opposite end of the shank thus has spaced foot parts 5*a* produced by the cutting of the tab for the next, endwise adjacent jack unit in a method where the units are cut in blanks successively from a long tape or strip; see Fig. 7.

Another economical form of footed shank 2*b* is shown in Fig. 5 where the foot is about equal to the width of a row of three cigarettes and the shank is of a width of one-half of the foot length and alines with one end thereof so that nested L-shaped blanks or units can be stamped out in pairs from a strip which is as wide as the length of the foot 5*b*, Fig. 5. There is no stock loss in this form.

In Fig. 6 there is shown a jack unit of the same form as that of Fig. 5 but the lifting foot function is omitted and the lateral lug 10 serves to increase the effective friction-face width to full cigarette-row width so that the three adjacent cigarettes will lie against the friction face or media at the lower end of the unit.

The friction facing or friction area may cover all of one side of a jack unit, Fig. 3, or over only the lower part thereof according to the denseness of the cigarettes in the package. One purpose of covering only a portion, the upper portion, of the friction or inner face of the jack is to provide for the imprinting or other production thereon of any illustrative or descriptive, or advertising matter, as indicated at "U. S. A.," Fig. 6. The advertisement value may far over-pay the cost of the installation of the jack.

When the friction media 4 is of attritional or abrasive character it provides a match strike.

What is claimed is:

1. In a cigarette pack, a cigarette lifting jack including a lifting shank presenting a plane face from edge to edge transversely and having a lift-effecting part provided with a friction affording means engageable with contiguous cigarettes of a row in a pack to lift the cigarettes engaged; said means including an applied coat having an efficient frictional quality whereby to act by friction to lift the engaged cigarettes.

2. In a cigarette pack, a cigarette lifting jack including a lifting shank having a lift-effecting facial part provided with a friction affording means engageable with contiguous cigarettes of a row in a pack to lift the cigarettes engaged; said means including an applied coat having an efficient frictional quality whereby to act by friction to lift the engaged cigarettes.

MILLARD P. AUSTIN.
MARY C. AUSTIN.