H. B. SMITH.

QUICK OPENING BOX.

APPLICATION FILED JUNE 5, 1916.

1,253,436. Patented Jan. 15, 1918.

Fig. 1,

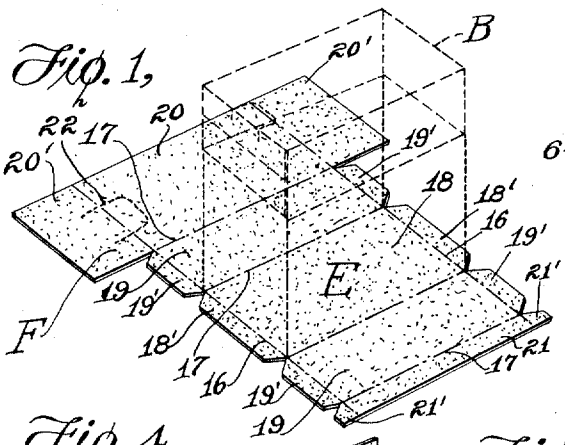


Fig. 2,

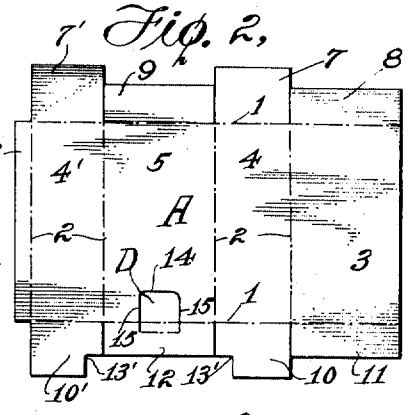


Fig. 4,

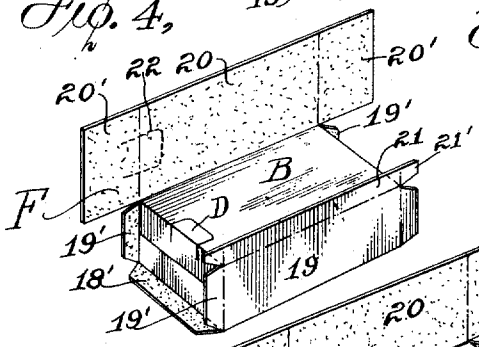


Fig. 3,

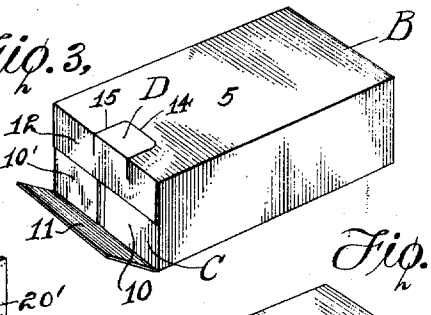


Fig. 9

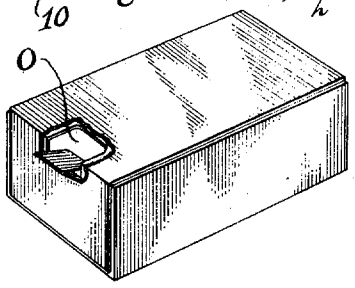


Fig. 5,

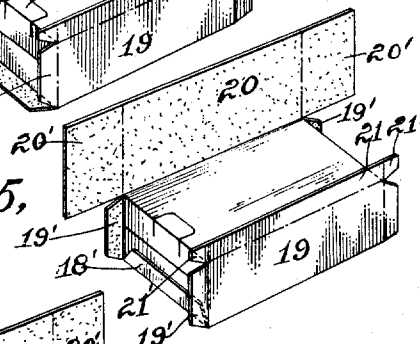


Fig. 6,

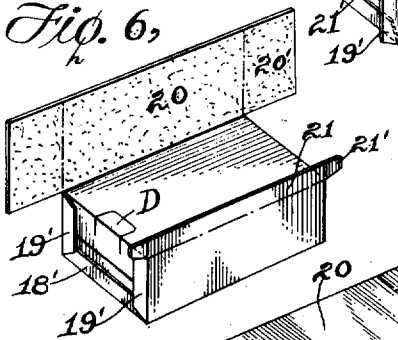


Fig. 8,

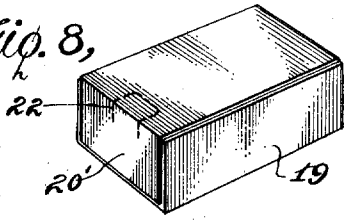
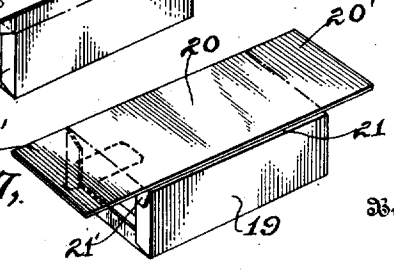


Fig. 7,



Inventor

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By his Attorneys

Meyers, Cushman & Rea

UNITED STATES PATENT OFFICE.

HARRY B. SMITH, OF BROOKLYN, NEW YORK, ASSIGNOR TO STOKES & SMITH COMPANY, OF PHILADELPHIA, PENNSYLVANIA, A CORPORATION OF PENNSYLVANIA.

QUICK-OPENING BOX.

1,253,436. Specification of Letters Patent. Patented Jan. 15, 1918.

Application filed June 5, 1916. Serial No. 101,684.

To all whom it may concern:

Be it known that I, HARRY B. SMITH, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Quick-Opening Boxes, of which the following is a specification.

This invention relates to a quick-opening box or container and has particular application to an article of this class which may be embodied in a sealed, wrapped package.

In order to protect certain goods, especially food products, from deterioration due to atmospheric influence and to prevent the contamination of the contents of the package by the entry of dust, dirt, vermin and other foreign matter it has been the practice to provide the exterior of the box or container with a wrapper or cover which is adherently attached to the box by paste or the like in such manner as to completely and tightly envelop and seal such box. While such a package is exceedingly well protected against the entrance of air, moisture and foreign substances, and while the contents thereof are thus preserved in their original condition, or as when first packed, it is usually a difficult matter to quickly open such a package to give access to the contents without unduly cutting, breaking or tearing the walls of the box. This is due mainly to the fact that the enveloping wrapper or cover conceals the joints, flaps and other sections of the box which would ordinarily be manipulated or operated, when the box is being opened.

In carrying out the present invention I propose to provide a package which while possessing all of the advantages of a sealed wrapped or tight covered package will possess the additional advantage that it may be readily, quickly and conveniently opened at a point or place which is clearly visible to a person handling the package.

It is also my purpose to provide a quick-opening package including a box which may be made from a blank, such as a box board or paste board blank, this blank in its formation being marked, scored or cut to present a place or section which may be manipulated to remove the contents of the package. Furthermore, the blank from which the box is made is cut or otherwise formed in such manner that there is but very little waste of material, with the result that when the boxes are made in large quantities a considerable saving of material, and consequently of cost in the production of the box is attained.

Another advantage incident to the present invention is that the box or carton may be closed on an ordinary end sealing machine, while usually it is necessary to close the carton or box of the ordinary tight wrapped package by hand.

A further object of the invention is the provision of a box of this character wherein a discharge opening for the removal of the contents is formed partly in one wall of the box, and partly in a second wall of the box located adjacent to and at an angle to the first mentioned wall of the box, this opening, when the package is in a completely sealed condition being closed by an annular tongue or flap forming part of these walls. In opening the box this tongue is partially ripped or broken from the box body, and is forced outward to expose the opening and permit the pouring or emptying of the contents.

With the above recited objects and others of a similar nature in view my invention consists in the construction, combination and arrangement of parts set forth in and falling within the scope of the appended claims.

In the accompanying drawings,

Figure 1 is a perspective view of the wrapper or cover blank and illustrating diagrammatically a closed box about to be placed thereon.

Fig. 2 is a plan view of the preferred form of the box blank.

Fig. 3 is a perspective view of the box made from the blank such as is shown in Fig. 2.

Figs. 4, 5, 6 and 7 are perspective views showing different stages in the application of the wrapper or cover to the box.

Fig. 8 is a perspective view of the completely wrapped or covered box forming the sealed wrapped package.

Fig. 9 is a similar view showing the sealed wrapped package after it has been broken open to permit removal of the contents.

Referring now to the accompanying drawings in detail, and particularly to Fig. 2, the letter A indicates a box blank made of box board or other suitable material and

which is scored longitudinally along the spaced parallel lines 1—1, and scored transversely along the spaced parallel lines 2—2—2—2, the transverse scorings terminating at the longitudinal scorings. When a blank so scored is folded or bent to provide the box shown in Fig. 3 the blank section 3 will form the bottom of the box, the two blank sections 4—4′ will constitute opposite sides of the box while the blank section 5 will form the top of the box. The side section 4′ is formed with a marginal edge lap 6 which in the complete box is attached by pasting to the inner face of one of the longitudinal edges of the bottom 3. One end of the box, for instance what may be termed the back end and which is indicated as an entirety by the letter B is formed by folding in the laps 7—7′ at the ends of the side sections 4—4′ and then folding inward the laps 8 and 9 of the top and bottom sections 3 and 5, these laps 8 and 9 overlying the side laps 7—7′. Likewise, the front end C of the box is formed by folding inward the laps 10—10′ of the side sections 4—4′ and then folding inward and causing to overlie the laps 10—10′, the lap 11 of the bottom section 3 and the lap 12 of the top section 5. The adjacent outer corners of the end lap 10—10′ are cut away as at 13—13′ so that when the blank is folded into box-like form there will be no material present in the box body, or the end walls to interfere with the breaking out of the flap or tongue D as hereinafter described. As will be seen by reference to Figs. 2 and 9 in particular this tongue D is formed in the box by the U-shaped scoring or cut 14, the parallel sides 15 of the cut extending from the top section 5 of the box into the end flap 12, the tongue being integral with this end flap 12. The tongue may be formed by indenting, scoring, perforating or cutting through the material of the box, and in the manufacture of the blank the scoring or cut 14 does not extend entirely through the blank, but only partially so, although the scoring or cutitng may go entirely through the blank if desired.

When the box has been formed and filled with its contents so that it presents the appearance seen in Figs. 4 to 6 inclusive, for instance, it is preferably provided with a tight cover or sealed wrapper, that is to say, a wrapper which is adhesively attached to the box at all of its faces which contact with the box. This wrapper is preferably made from a one-piece blank of material such as is shown in Fig. 1, the blank being indicated as an entirety by the letter E, and the inner face of this wrapper is completely coated with a suitable paste or adhesive shown at F. This blank in the present instance is scored along the parallel line 16, and along the parallel lines 17, which extend at right angles to the lines 16, so that the wrapper blank includes a bottom section 18 having end flaps 18′, side sections 19 having end flaps 19′, a top section 20 having relatively large end flaps 20′ which are substantially the same area as the ends of the box, and the blank also has a marginal edge strip 21 provided with the end tabs 21′. One manner of applying the wrapper is shown in Figs. 4 to 7 inclusive. The box is placed upon the adhesive coated face of the bottom section 18 of the wrapper, the sides 19 are folded up against the sides of the box, the end laps 18′ are folded against the box ends, then the laps 19′ are folded inward against the box ends, then the marginal strip 21 is folded inward against the top of the box and its tabs 21′ folded down against the ends of the box, and then the top section 20 of the wrapper is folded down on top of the box and its end flaps 20′ folded over the ends of the box to completely cover the latter and to assist in holding the end laps of the box securely closed. When the cover is pressed to cause it to tightly adhere to the box and the package is completely sealed it will present the appearance shown in Fig. 8, and a smooth, neat and attractive package results. One of the end laps 20′ of the cover is marked or printed with a U-shaped line as shown at 22, or otherwise marked to form an indication of the location of the outlines of the tongue D. Thus, when the box is sealed, this indication 22 will overlie and correspond to the outlines of the tongue D and in opening the box it is only necessary to press against the tongue and break the same outward and downward into open position so that the contents may be removed through the opening O, which is thus formed and which is shown in Fig. 9, the tongue acting in a measure as a chute or guide for the material as it flows from the package.

It will be noted that the integral tongue really forms a part of two of the walls of the box, in the present instance one end wall and the top wall, the tongue being angular in form with its angular edge forming a continuation of one of the edges of the box when the box is closed and sealed.

By this arrangement the box may be readily and quickly opened to permit the removal of the contents, and this is accomplished without unduly tearing or destroying the walls of the box, or necessitating the use of a knife or the like, yet when the box is completely sealed it will protect the contents from air, moisture and foreign substances.

While I have herein shown and described one particular embodiment of my invention I wish it to be understood that I do not confine myself to all the precise details of construction herein set forth by way of illustration, as modification and variation may

be made without departing from the spirit of the invention or exceeding the scope of the appended claims.

What I claim is:

1. A box having a plurality of rigid walls, an angular tongue normally positioned partly in one wall section and partly in a second wall section, adjacent to and extending at right angles relative to the first wall section, said tongue being adapted to be readily broken away entirely from one wall section, but only partially away from the other wall section whereby to expose an opening in the meeting edge of the two wall sections, and a wrapper completely enveloping said box and overlying the tongue and wall sections in which such tongue is normally positioned, the portion of the wrapper overlying the tongue being adapted to be ruptured when the tongue is broken away from the wall sections of the box to expose the tongue.

2. A box having an angular tongue positioned partly in a top wall section, and partly in an adjacent end wall section of a box, said tongue constituting a continuation of the wall sections when closed, such tongue being adapted to be readily broken outwardly entirely away from the top wall section of the box but only partially away from the end wall section of such box whereby to expose an opening which is formed at the meeting edges of the wall sections, and a wrapper completely enveloping said box and adherently attached to the latter at all sides, the portion of the wrapper overlying the tongue having a marking to indicate the location of the tongue, said wrapper being adapted to be ruptured at the marking when the tongue is broken away from the box for the purpose of exposing the opening.

In testimony whereof I affix my signature in the presence of two witnesses.

HARRY B. SMITH.

Witnesses:
CARL E. SCHAEFFER,
SILAS E. CHILD.