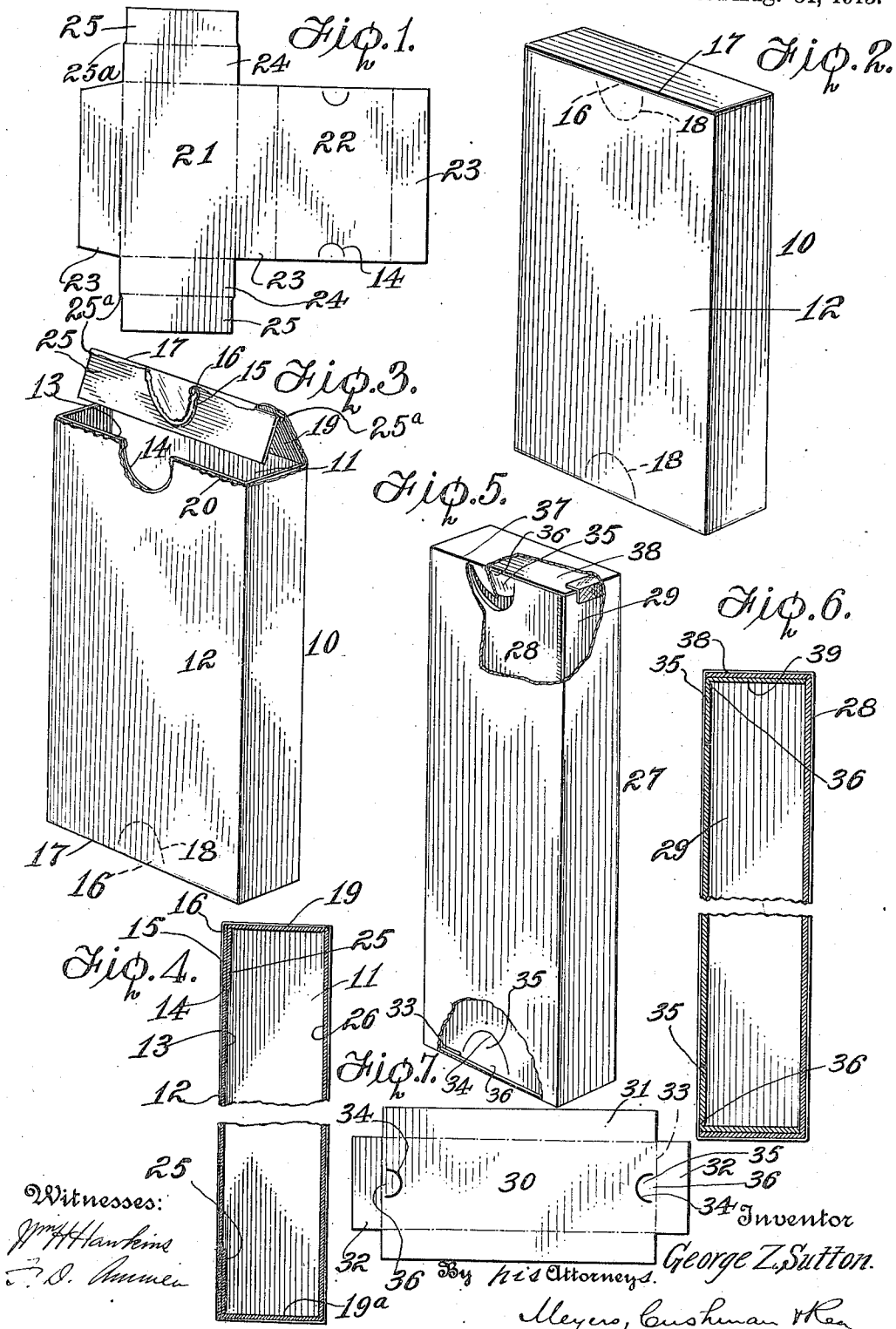


G. Z. SUTTON.
QUICK OPENING BOX.
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1,152,355.

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UNITED STATES PATENT OFFICE.

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QUICK-OPENING BOX.

1,152,355.

Specification of Letters Patent.

Patented Aug. 31, 1915.

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To all whom it may concern:

Be it known that I, GEORGE Z. SUTTON, a citizen of the United States, residing at Philadelphia, in the State of Pennsylvania, have invented new and useful Improvements in Quick-Opening Boxes, of which the following is a specification.

This invention relates to boxes or containers.

Many articles are now sold in sealed wrapped packages which comprise a wrapper applied in such a way that the packages are substantially air tight. This practice has been largely adopted in packing candies and other articles which are adapted to be affected by contact with the atmosphere. While such boxes are not absolutely air tight, they do preserve candies fresh for a longer period than unsealed packages. Such packages are also desirable as containers for salted almonds or nuts, the salt of which may be affected by moisture in the atmosphere. Such sealed wrapped packages are unfortunately not easily opened, because the wrappers usually adhere to the package at all points and for that reason conceal the vulnerable point at which the opening can be started; and a knife or similar instrument is usually required to effect the opening of the box.

A principal object of the invention is to produce a box which is completely sealed, but at the same time having a construction particularly adapting it to be readily broken open, and without necessitating the use of any instrument such as a knife.

Further objects of the invention will appear more fully hereinafter.

The invention consists in the combination of parts and details hereinafter described all of which contribute to produce an efficient and easily opened box.

A preferred embodiment of the invention will be described in the accompanying specification, while the broad scope of the invention is set forth in the appended claims.

In the drawing, Figure 1 is a plan of a blank of any desired form indicating the manner in which the blank may be constructed so as to adapt it to the purposes of my invention. Fig. 2 is a perspective of a box or container embodying my invention and showing the box sealed as when sold. Fig. 3 is a perspective showing the box

illustrated in Fig. 2, but illustrating the same as broken open through the agency of my improvements. Fig. 4 is a vertical section through the box shown in Figs. 2 and 3, the middle portion of the view being broken away. In this view only the cardboard is shown in cross section, while the wrapper is indicated simply by a parallel outline near the cardboard. Fig. 5 is a perspective illustrating the invention applied to another form of box or container, portions of the wrapper being broken away. Fig. 6 is a vertical section taken through a box of the form illustrated in Fig. 5, the middle portion of the view being broken away. This view is similar to Fig. 4 and in this view also the wrapper is indicated not in a cross section, but simply by a line running parallel with the cardboard. Fig. 7 is a plan of the blank indicating the form of blank from which the shell of the box shown in Fig. 6 may be conveniently produced, and indicating the manner in which the blank is constructed in order to embody my invention in the completed box.

Referring more particularly to the parts, 10 represents the box illustrated in Fig. 2, and which comprises a container 11 formed of a plurality of rigid walls of cardboard or similar material (see Fig. 4) which is completely enveloped in a sealed wrapper 12. In order to adapt the box to be quickly opened I provide one of the rigid walls thereof preferably a front main wall 13 of the cardboard container with a weakened point or line 14 and this weakened line is preferably located near an edge of the box. The line 14 is preferably a cut through the wall and disposed in a curve, so that it forms the outline for a frangible tongue 15 which is left integral with the wall 13, the root 16 of the tongue being disposed near the adjacent edge 17 of the box. The presence of this tongue is indicated on the exterior of the box preferably by means of a dotted line 18 printed on the face of the wrapper. But the tongue is left in the plane of the wall so that even at the weakened point the box has a complete rectangular rigid wall. That is, this wall presents a continuous rectangular edge extending all around the wall.

By pressing on the exterior of the box over the tongue 15, the wrapper at the cut 14 will readily be broken through so as to force

the end of the tongue slightly inwardly into the interior of the box. This enables the person opening the box to exert pressure on the adjacent wall 19 from the inside, and a slight pressure from the inside will break this wall outwardly. When this occurs the wrapper 12 will break away at some point such as on a line 20 at the end of the box (see Fig. 3).

The weakened point or line 14 is most conveniently formed in the box by forming it in the blank from which the box is to be formed (see Fig. 1). Of course the blank may be of any shape and folded in any desired manner to produce the box. It is simply necessary to provide the blank with one or more of the weakened lines or cut 14 at some point which will lie near an edge of the completed box. For example: The blank shown in Fig. 1 is of a well known form to produce a common form of box having end walls formed of flaps which open outwardly. In a blank of this form, the blank presents two substantially rectangular body portions 21 and 22, which are to form the two opposite main walls of the box, and the blank includes the narrow wings 23 which fold up to produce the narrow side walls of the box. The body portion 21 in the blank has integral side wings 24 with margin flaps 25. In the complete box the body portion 22 of the blank forms the forward wall 13, while the body portion 21 forms the rear wall 6. The wings 24 form the ends 19 and 19^a of the box respectively, which ends carry the integral flaps 25. In a box of this type the breaking in of the tongue gives the person opening the box a grip on the angle formed by the flap 25 and its adjacent end wall and by pressing outwardly, the end wall 19 can be made to break its way through the end of the wrapper, in the manner indicated at the line 20.

The box illustrated in Fig. 3 is shown simply by way of example, and the invention is applicable to other forms of boxes.

As another example, a box is illustrated in Figs. 5 and 6 which is of the ordinary telescoping shell type. In this type of box, the box or container 27 is formed of two telescoping shells 28 and 29. The outer shell 28 is simply an ordinary box shell, while the other box shell 29 is preferably specially constructed to adapt it to my purpose. This is preferably done, as in the other instance, by forming a weakened point or weakened line in the blank, and the blank of this box may have the form illustrated in Fig. 7 in which the body portion 30 of the blank is of substantially rectangular form and has side integral wings 31, and integral end wings 32 adapted to fold up to give the box its form. The ends of the body portion 30 of the blank near the folding lines 33 of the blank are preferably provided with weakened lines or

cuts 34 which are preferably curved and disposed so as to form the outline for frangible tongues 35 which are integral in the blank. The roots 36 of said tongues are disposed adjacent the edges 33 which indicate the point where the edge 37 of the box will come. In this case, as in the other case, I prefer to indicate the position of the tongue on the exterior of the box with a line such as the line 18. This box is opened in substantially the same way as the other box, except that it may require slightly more force. When the tongue 35 is forced inwardly, the person opening the box gets a grip on the inner edge of the end of the box and then pulls the end wall outwardly and, in doing so, he breaks out the outer layer 38 which is the end wall of the outside shell 28 and he also breaks outwardly the layer 39 which is the end wall of the shell 29.

It is evident that the application of my invention to boxes does not substantially increase their cost, because the weakened point may be readily formed in the blank when the blank is cut; that is, the weakened points may be produced by the same operation which cuts the blank. At the same time, although the weakened points are preferably lines cut completely through the container, they do not interfere with the perfect sealing of the container by means of the wrapper which completely covers the cut; if desired, the wrapper may as usual constitute an air tight wrapper or seal for the container. The flap 25 is of slightly less width than the flap 24 so that projecting shoulders or off-sets 25^a are formed which engage the side walls of the box and prevent the heads or ends walls of the box from being pushed into the interior when the box is being covered. The flaps 25 are also sufficiently narrow to permit them to pass readily into the open ends of the box.

I do not limit myself to the use of all the features of my invention in combination, as I may use any of the features separately.

It is understood that the embodiment of the invention described above, is only one of the many forms or embodiments the invention may take, and I do not wish to be limited in the practice of the invention nor in my claims to the particular embodiment set forth.

What I claim is:

1. A box having a plurality of rigid walls, one of said walls having a readily frangible tongue portion in the plane thereof and integral therewith and a wrapper completely enveloping said box and continuously covering said tongue portion and the wall carrying the same, said wrapper having means on the exterior thereof for indicating the location of said tongue portion and readily frangible by pressure exerted inwardly on the exterior of the wrapper at said tongue

portion, said tongue portion located near an edge of an adjacent wall of the box whereby said tongue portion may be broken inwardly with one's finger and pressure applied to the inner face of the said adjacent wall to break the same outwardly.

2. A box having a plurality of rigid walls, one of said walls having a scored line formed therein near an edge of said box, said scored line outlining an integral tongue in the plane of the box wall, said tongue readily frangible by external pressure to displace the same from the wall in an inward direction, and a wrapper completely enveloping said box, covering said scored line but having means for indicating the

location of said scored line, said wrapper formed of an easily broken material whereby the cover and said tongue may be broken inwardly by pressure exerted on the exterior of the box and thereby give access to the inner side of an adjacent wall of the box to enable said adjacent wall to be forced outwardly by a pressure on its inner side.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

GEO. Z. SUTTON.

Witnesses:

CARL E. SCHAEFFER,
SILAS E. CHILD.