Aug. 22, 1939. J. P. MARKERT 2,170,420

PAPER RECEPTACLE

Filed Feb. 12, 1936

Fig. 1.

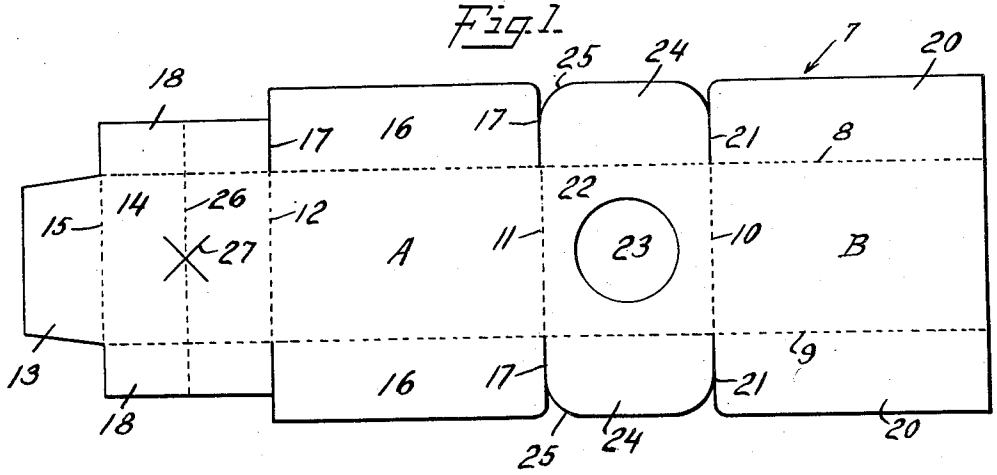


Fig. 2.

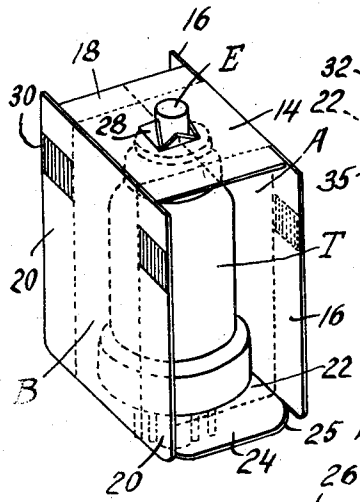


Fig. 3.

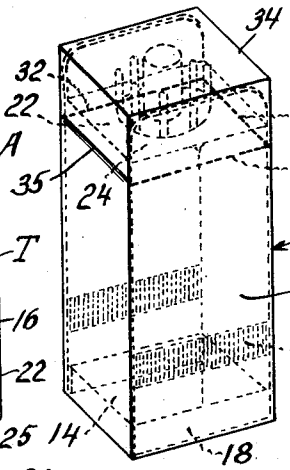


Fig. 4.

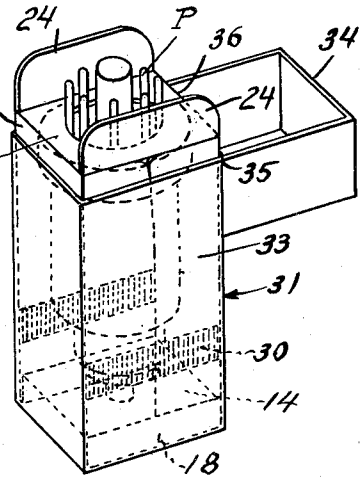


Fig. 5.

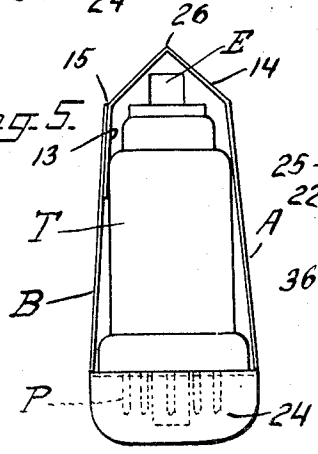
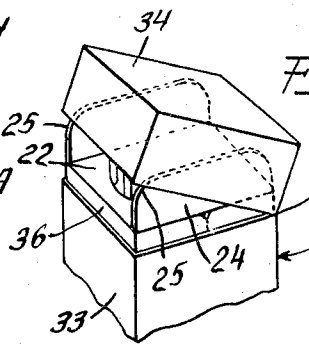


Fig. 6.



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PAPER RECEPTACLE

John P. Markert, Stamford, Conn.

Application February 12, 1936, Serial No. 63,623

4 Claims. (Cl. 229—6)

My present invention relates to receptacles, particularly though not exclusively, to paper or cardboard receptacles adapted to contain radio tubes, electric light bulbs or other articles which are subject to test as to integrity and genuineness at the time of purchase.

The principal general object of the invention is to provide a receptacle of box-like nature to enclose articles of the character above mentioned and preventing access to the interior of the receptacle without at least partially destroying the same or giving evidence of the fact that the container has been opened, so that the articles originally packed therein may not be removed or replaced without evidence of such substitution being plainly visible to the purchaser.

More specifically the invention resides in the provision of a two-part receptacle, one part being an inner wrapper or holder for the article, and the other part being a box to receive the inner wrapper or support and article supported therein; the two parts being constructed and arranged to interfit, in such manner that they may be secured together to prevent separation thereof and removal of the enclosed article without mutilating or breaking the receptacle to such extent as to plainly give evidence of the fact that its original character has been destroyed.

Another important object of the invention is to provide for testing the tubes, bulbs, or other articles without removing them from receptacles.

Specific objects of the invention include, the provision of an inner holder or wrapper with means at opposite ends thereof to receive the ends of radio tubes or like articles and to support the tubes or the like in predetermined position, and facilitating insertion of the tubes or the like therewithin, and the provision on said inner wrapper or holder of means to guide the opening and closing movements of a hinged cover of any type on the box and to provide stability to the receptacle when the hinged cover is closed.

The foregoing and other objects and advantages of the invention will become more apparent and will be pointed out during the course of the following detailed description of the accompanying drawing, in which

Fig. 1 is a plan view of a preferred form of blank from which the inner holder or wrapper is constructed;

Fig. 2 is a perspective view showing the blank of Fig. 1 assembled and containing a radio tube of known type, but not completely folded for insertion into the outer container;

Fig. 3 is a perspective view showing the complete receptacle including the outer container or box and the inner holder or wrapper inserted therein and the box sealed;

Fig. 4 is a view similar to Fig. 3 showing the cover of the box opened;

Fig. 5 is a side elevation of the structure of Fig. 2 showing the inner holder or wrapper in the position which permits and facilitates insertion of the tubes therein, and

Fig. 6 is a fragmentary perspective view similar to Figs. 3 and 4 showing the hinged cover of the outer container partially closed.

Referring to the drawing and for the present particularly to Fig. 1, the numeral 7 designates generally a blank from which the inner wrapper or holder for the articles is constructed and comprising an elongated cardboard sheet having along opposite sides thereof longitudinal creases or lines 8 and 9 respectively, along which the sheet may be folded, and also provided with transverse creases or lines 10—11 and 12 along which the sheet may be folded.

One end of the blank is provided with a tab 13 joined to the portion 14 along a crease or line 15, the said crease or line 15 and the crease or line 12 defining said portion 14, which for the purpose of convenience I call the top of the inner wrapper or holder 7. Between the creases 11 and 12 there is a panel A which forms one of the side walls of the inner wrapper or holder, and along opposite sides of panel A are flaps 16, defined by the creases 8 and slits 17 which divide the flaps 16 from similar flaps 18 on the top or panel 14. A panel B similar to the panel A is provided at the other end of the blank, and flaps 20 are provided along the edges thereof and defined by the creases 8 and slits 21, similar to slits 17.

Intermediate the panels A and B is a bottom panel 22 defined by creases 10 and 11 and slits 17 and 21 and having an opening 23. Panel 22 is provided intermediate slits 17 and 21 with flaps or wings 24, the corners of which are rounded as indicated at 25 for a purpose hereinafter given.

Preferably the panel 14 is provided with a transverse crease or line 26 which extends also transversely across flaps 18. Slits or cuts 27 in substantially X-form are provided centrally of the panel 14 to be positioned above the opening 23 when the blank is assembled as presently described and for the reason hereinafter given.

In assembling or extending the blank of Fig. 1 to form the inner wrapper or holder for a tube or the like, the blank is folded transversely along

lines 10 and 11 to bring the panels A and B into substantial parallelism, and with the panel 22 forming the bottom. Then the panel 14 is folded toward the panel B along the crease or line 12 to bring the panel 14 into substantial parallelism with the panel 22, after which the tab 13 is adhesively or otherwise secured to the panel B to hold the structure substantially in the form shown in Fig. 2. In such form the structure comprises side walls composed of the panels A and B and ends 14 and 22 respectively, with the flaps 16 and 20 extending outwardly from the panels A and B, and the flaps 18 and 24 extending outwardly from the panels 14 and 22, respectively.

To insert the tube, lamp or the like within the wrapper or holder provided by the blank 7, it is simply necessary to partially collapse the holder by bringing the upper ends of the panels A and B toward each other to form a frustro pyramidal structure as shown in Fig. 5. This is accomplished by pressing inwardly on the walls A and B adjacent their tops which causes the panel 14 to partially fold along its crease 26, so that the longitudinal dimension of the holder or inner wrapper between the centers of panels 14 and 22 is increased due to the partial folding of the panel 14 along the crease 26. This permits the tube designated generally by the letter T to be inserted at an angle of inclination so that the prongs or electrodes P may be inserted through the opening 23 in the bottom panel 22 and the upper electrode E may be positioned in alinement with the slits 27. It is then possible to press down on the panel 14 on opposite sides of the crease 26 to force the electrode E through that portion of the panel 14 located between slits 27 to form tabs 28 on four sides of the electrode E. It is obvious the tube is then firmly held between the panels 14 and 22 as well as the panels A and B.

To complete the receptacle or package and accomplish the objects hereinabove stated, the flaps 18 are bent upwardly from the position of Fig. 2 and the flaps 24 are bent downwardly from the position of Fig. 2, so that as shown clearly in Fig. 3 (where the position of the tube and inner wrapper is reversed) the said flaps 18 and 24 project beyond the ends of the panels A and B. The flaps 20 and 16 are then folded inwardly, and preferably an adhesive designated generally by the numeral 30, is applied to said flaps, although the adhesive may be applied to portions of the panels A and B as will become hereinafter more apparent. The exact location of the adhesive is relatively not important since the main purpose of the application of the adhesive between the parts is to maintain the inner holder and outer box against relative movement after assembly thereof.

With the inner wrapper and holder in the condition just described, that is, with the flaps 18 folded upwardly, flaps 24 folded downwardly, and the flaps 16 and 20 folded inwardly, the holder with the tube or bulb contained therein, is inserted in the outer receptacle, shown in Figs. 3, 4 and 6, and designated generally by the numeral 31. This outer container may be of any standard type of box having an inner cross-sectional dimension corresponding to the outer cross-sectional dimension of the inner holder or wrapper, so that the adhesive 30 which is applied to the walls of the inner holder will be firmly united to corresponding walls of the outer container when the parts are assembled. It will be noted by reference to Fig. 3, that the longitudinal dimension of the inner wrapper or container from the ends of the flaps 18 and 24 is substantially the same as the length of the outer container 31. It will further be noted that the container 31 is preferably provided along at least three of its sides with perforations or weakened lines 32, dividing the receptacle 31 into a body 33 and a lid or cover 34, with the lid 34 hingedly connected to the body 33 along a crease 35 in the fourth wall of the outer container which provides a hinged connection between the lid and the body.

It will also be noted that the inner wrapper or bulb with the tube or bulb therein is inserted in the outer container with the prongs P disposed within the end portion of the outer container covered by the lid 34. The other end of the outer container may be sealed or closed in any manner. I would also call attention to the fact that the assembling of the inner and outer containers may be accomplished on any type of base or support (not shown), which limits the movement of the inner container within the outer container to an extent which provides a shoulder 36 extending above the perforations 32 and hinge 35.

It should be obvious from the foregoing, that the complete package, that is, the outer container and inner wrapper with the tube or bulb held therein is completely sealed, and when the lid 34 is opened by partially separating it from the body 33 along the perforations 32, the prongs P are exposed so that they may be connected with any suitable testing apparatus to determine the condition of the tube or bulb. Furthermore this breaking open of the lid indicates that the package has been opened for testing purposes, and yet the tube or bulb cannot be removed without destroying or mutilating the inner holder or wrapper, because the bulb is completely housed with the exception of the prongs which are exposed for testing.

If the bulb is efficient as indicated by the testing apparatus, the merchant in delivering the tube or bulb to the purchaser simply swings the lid 34 to closed position on hinge 35, and during this operation tabs 24 with rounded corners 25, as shown in Fig. 6, provide a guide to closing movement of the lid, while the shoulder 36 further assists in the closing movement. After the lid has been closed the shoulder 36 and tabs 24 impart stability to the package or container as should be obvious, due to the fact that the lower portion of the lid embraces the shoulder 36, and the tabs 24 are disposed along opposite walls of the lid 34.

The invention in its broader aspects, pointed out in the appended claims, may be practiced in connection with outer containers having other types of lids or closures disposed over the prongs 36, so long as there is an indication of the fact that the container has been opened and the provision against gaining access to the interior of the inner holder and the bulb or tube contained therein.

What I claim is:

1. A receptacle for articles such as radio tubes and electric bulbs comprising an inner wrapper or holder having end panels supporting opposite ends of the tubes or bulbs, at least one of said end panels having an opening through which the electrodes of the tubes or bulbs project, and an outer container within which the inner holder is inserted to completely house the tubes or bulbs,

said holder being secured within said container against relative movement or removal therefrom to prevent access to the contents without mutilating or destroying the holder and container, and a cover for the end of said container adjacent said electrodes adapted to be opened to permit testing of said tube or the like, and means on the end of said inner wrapper or holder to guide opening and closing movements of said cover, said means comprising upstanding tabs having rounded corners around which the cover moves.

2. A receptacle for articles such as radio tubes and electric bulbs comprising an inner wrapper or holder having end panels supporting opposite ends of the tubes or bulbs, at least one of said end panels having an opening through which the electrodes of the tubes or bulbs project, and an outer container within which the inner holder is inserted to completely house the tubes or bulbs, said holder being secured within said container against relative movement or removal therefrom to prevent access to the contents without mutilating or destroying the holder and container, said outer container having three of the side walls thereof weakened along lines located in the same plane adjacent one end thereof to provide a cover which may be broken open along said lines and hingedly swung on the remaining wall to provide a cover permitting opening of the outer container to expose the electrodes for testing of the tube or the like within the inner container, and one end of said inner container extending beyond said weakened lines to form a shoulder to stabilize the container after the cover has been opened and closed, and said inner container being also provided with tabs extending upwardly on opposite sides of the cover and provided with rounded corners to guide opening and closing movements of the cover.

3. A receptacle for articles such as radio tubes and electric bulbs comprising an inner wrapper or holder having end panels supporting opposite ends of the tube or bulb, at least one of said end panels having an opening through which the electrodes of the tube or bulb project, and an outer container within which the inner holder is inserted to completely house the tube or bulb, said holder being so secured within said container against movement relative thereto or removal therefrom as to prevent access to the tube or bulb without mutilating or destroying the holder and container, said container having three of its side walls weakened along lines located in the same plane adjacent one end thereof to provide a cover which may be broken open along said lines and hingedly swung on the remaining wall to provide a cover permitting opening of the container to expose said electrodes for testing, one end of said inner container extending beyond said weakened lines to form a shoulder to stabilize the container after the cover has been opened and closed.

4. A receptacle for radio tubes or the like having projections at the ends thereof, comprising an inner member having side walls and ends connecting said side walls, one of said ends having centrally located slits through which the projection at one end of the tube is insertable to provide upstanding tabs embracing said projection to stabilize the tube, the same end of the inner member being partially foldable upon itself when opposite side walls are brought into approaching relation to facilitate insertion of the tube within said inner member, the other end of the inner member being provided with an opening through which the electrodes of the tube are exposed for testing, an outer container receiving said inner member and secured thereto against relative movement whereby said tube is completely housed, and a cover on the end of the outer container adjacent the electrodes, said inner member being of less length than the outer member and so secured within said outer member as to provide a projecting shoulder to guide opening and closing movements of said cover and to stabilize the receptacle.

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