

Dec. 28, 1954

R. C. J. PALSON

2,698,083

BOX WITH TILTING ARTICLE SUPPORT

Filed March 3, 1951

Fig. 1.

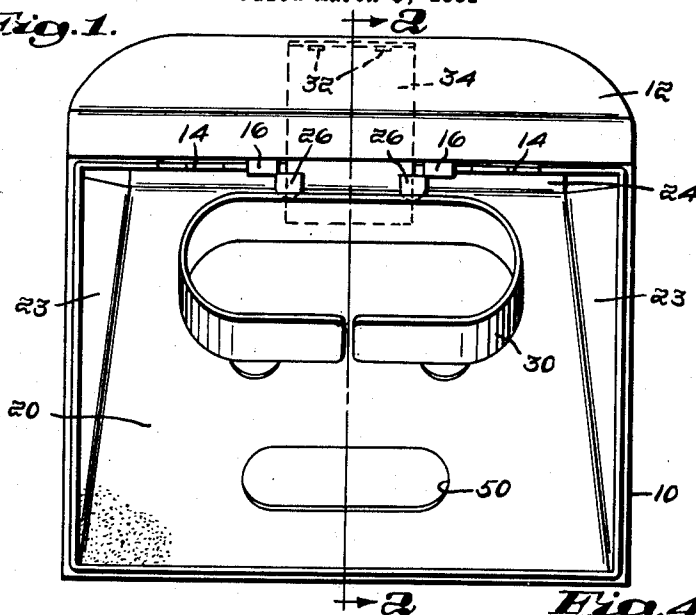


Fig. 4.

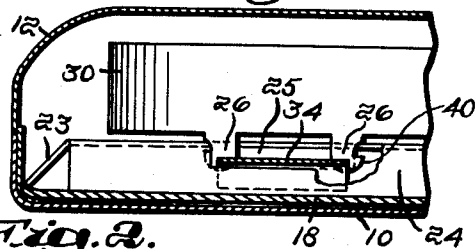


Fig. 2.

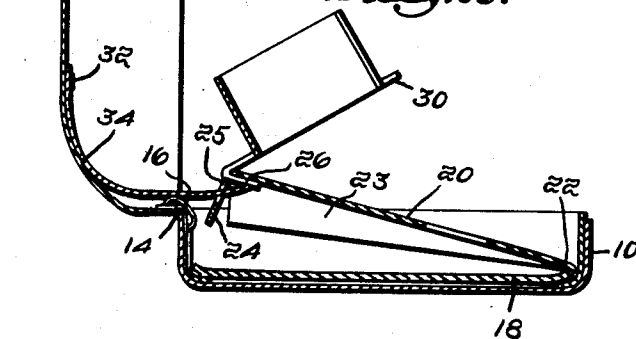
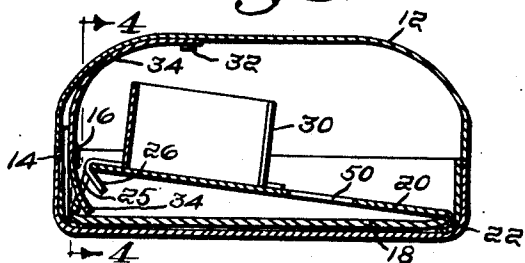


Fig. 3.



Inventor

Richard C. J. Palson
 Harold A. Lutnick

Attorney

1

2,698,083

BOX WITH TILTING ARTICLE SUPPORT

Richard C. J. Palson, Needham, Mass., assignor to Far-
rington Manufacturing Company, Boston, Mass., a cor-
poration of Massachusetts

Application March 3, 1951, Serial No. 213,732

5 Claims. (Cl. 206—45.13)

This invention relates to packaging and more particu-
larly to the packaging of jewelry such as watches, brace-
lets, cuff links, other articles of personal adornment or
other goods, in such manner that the contained goods
are automatically moved to an elevated position with
respect to the outer bottom of the box when the box
is opened.

The invention has for a main object the production
of an article-mounting assembly adapted for insertion
in conventional jewelry-type finished cases, the assembly
being designed in such manner that an article mounted
on the assembly will be moved into a tilted, more ac-
cessible or more pleasing display position as the cover
is opened.

A further object of the invention is the provision of
a display background false bottom for the box which,
simultaneously with the movement of the article-mount-
ing support to tilted position is also tilted into an in-
clined position.

While the tilting of both the article-mounting support
and the false bottom are about transverse axes sub-
stantially parallel to the hinged axis of the cover and
the base of the box, the tilting of the article support
takes place about an axis disposed adjacent the back
of the box so that the supported article swings in the
same direction as the cover when the cover is opened
although not so far, whereas the tilting of the false
display background bottom takes place about an axis
disposed adjacent the front of the box so that it swings
in the opposite direction lifting the back of the back-
ground. The combined motion is thus accordion-like.

The above and other objects of the invention will in
part be more fully described and in part be apparent
from the following description of a typical embodiment
of the invention illustrated in the accompanying drawings,
wherein:

Fig. 1 is a plan view of a bracelet watch display box
with its hinged cover in open position and the article-
mounting support and background plate in display po-
sition;

Fig. 2 is a cross-sectional view taken along the line
2—2 of Fig. 1;

Fig. 3 is a cross-sectional view similar to that of Fig.
2 but with the box closed; and

Fig. 4 is an enlarged cross-sectional detail, with cer-
tain parts broken away, taken along the line 4—4 of
Fig. 3.

The box-forming elements of boxes of this invention
may be of any conventional kind comprising a hollow
base 10 and a hollow cover 12, each having front, side
and rear walls, and being hinged together along their
rear wall edges as at 14. As known in the art, the
hinges may be provided with C-springs 16 which act to
limit the opening movement to an arc of approximately
90° and to provide a snap shutting action. Such hinges
form no part of this invention, being old and in com-
mercial use. Any other form of equivalent stopping de-
vice may be substituted.

The base 10 is provided with an inner bottom 18
which may be of cardboard, shaped to have a friction
fit with the walls of the base. Overlying this inner
bottom is a background plate 20; preferably formed of
metal, which has spaced hook-like extensions 22 (Fig.
3) extending from its forward edge which are hooked
around the forward edge of the inner bottom 18.

As shown in Fig. 1, the sides 23 of the background
plate 20 are inclined downwardly and provide, with a

2

rear downwardly extending marginal portion 24 of the
plate 20, a permanent inclination of the background plate
upwardly towards the rear of the box. The marginal
portion 24 is provided centrally thereof and near its
top with an apertured slot 25, through which extend
two spaced rear-attached hook-like tabs 26 of an oval-
shaped article support 30. The article support 30 and
its extensions 26 are conveniently made of metal so that
the hooks 26 will be permanently shaped, although the
article support may, if desired, be covered with a decora-
tive surfacing material, for example, velvet.

The cover 12 has permanently attached inside its top
wall, as by rivets 32, for movement therewith, a curved
sheet 34 of relatively stiff but resilient material, for ex-
ample, spring metal, which extends, as shown, out of the
cover 12 and through the slot 25 of marginal rear por-
tion 24 of plate 20 underneath the hook-like extensions
26. The parts assume the position shown in Fig. 3 when
the cover is closed.

However, as the cover is opened, the end of sheet
metal 34 acts as a lifting means, first engaging the ends
of extensions 26 to move them upwardly and pivot the
article support 30 until the extensions 26 are limited
from further movement relative to the plate 20 by con-
tacting the under surface of the plate 20, whereupon
continued opening motion of the cover will cause the
lifting element 34 to bodily lift the rear portion of the
background plate 20, together with the article support
30 into the position shown in Fig. 2 with the background
plate 20 hinging at its front end relative to the inner
bottom 18 and base 10.

In return closing motion of the cover, the lifting ex-
tension 34 first moves downwardly whereupon the front
end of the article support 30 moves by gravity down on
to the plate 20 and then continued closing motion of
the cover permits the combined article support 30 and
plate 20 to return by gravity to a position where the
downwardly extending rear portion 24 and sides 23 of
the plate 20 rest upon the inner bottom 18 in the posi-
tion shown in Fig. 3.

If desired, and as shown in Fig. 4, the extensions
26 may be so designed that the dimension between their
outer edges is slightly greater than the horizontal width
of the slot 25; and the outer edges of the extensions
26 are then notched inwardly as at 40. In this manner,
the lateral ears beyond the notches 40 become engaged
inside of the rear marginal wall 24 (shown broken away
at the right in Fig. 4), so that the article support 30
is gripped in the slot to prevent its inadvertent detach-
ment from the background plate 20. The dimensions
are such, however, that in assembling the device, the
two extensions may be sprung into the slot 25. It can
be understood that the notches 40, though they thus
act to retain the two parts together, do not interfere
with the hinging action of the article support 30 rela-
tive to the background plate 20 as a result of engage-
ment of the lifting element 34 with the extensions 26
when the box cover 12 is moved to open position.

There has thus been provided an automatically lifting
article display support which has an accordion-like mo-
tion which is the resultant motion of the pivoting of
the article support 30 at its rear relative to the back-
ground plate 20 followed by the reverse pivoting of the
background plate 20 about the inner bottom 18.

In the embodiment shown, I have illustrated certain
relieved portions of the background plate 20. When
the background plate 20 is cloth-covered, this provides
a depressed section as shown at 50 which can accommo-
date the side of a watch positioned on the article support
30.

I claim:

1. In a display box having a hollow base and a cover
hingedly connected to the back of said base, a back-
ground plate inside said base, said plate having a down-
wardly extending rear marginal portion, a horizontally
disposed slot in said rear portion, an article support above
said background plate, rear-attached hook-like extensions
on said support caught loosely in said slot to permit
tilting movement of said support relative to said plate
about an axis disposed transversely of said box, and lift-
ing means mounted on said cover, movable therewith

3

and extending through said slot beneath said extensions for moving the ends of said extensions upwardly against the under surface of said plate to tilt said article support relative to said background plate from a position with its front portion lying adjacent said plate to a position with its front portion elevated above said plate as said cover is raised from closed to open position relative to said base.

2. In a display box having a hollow base and a cover hingedly connected to the back of said base, a plate mounted in said box, an article support in said box, a downwardly extending rear-attached extension on said support and substantially rigid therewith, said extension pivotally engaging said plate to permit tilting movement of said support relative to said plate about an axis disposed transversely of said box, and lifting means mounted on said cover, movable therewith and extending beneath said extension for engaging and pivoting said extension upwardly to tilt said article support relative to said plate from a position with its front portion lying in a lowered position to a position with its front portion in an elevated position as said cover is raised from closed to open position relative to said base.

3. In a display box having a hollow base and a cover hingedly connected to the back of said base, a background plate inside said base, an article support above said background plate, rear-attached extensions on said support engaging said plate to permit tilting movement of said support relative to said plate about an axis disposed transversely of said box, said extensions extending beneath said plate and downwardly and forwardly of said box when said cover is in closed position, and lifting means mounted on said cover, movable therewith and extending beneath said extensions for engaging and lifting the forward ends of said extensions upwardly towards the under surface of said plate to tilt said article support relative to said plate from a position with its front portion lying adjacent said plate to a position with its front portion elevated above said plate as said cover is raised from closed to open position relative to said base.

4

4. A display box as claimed in claim 3, wherein the background plate is hingedly supported at its front edge in said base and wherein the lifting means lifts the forward ends of the article support extensions upwardly against the under surface of the plate to lift also the back of said plate as the cover is raised to open position.

5. A display box having a hollow base and a cover hingedly connected to the back of said base, a background plate hingedly supported at its front end in said base, an article support lying over said plate, said support being hingedly connected at its rear to said plate for tilting movement relative thereto and having means extending downwardly below said plate, and relatively rigid means fixedly mounted on said cover and extending beneath said plate and article support for engaging said downwardly extending means to tilt the front of said article support and the back of said background plate upwardly accordion-fashion relative to the bottom of said base as said cover is raised from closed to open position relative to said base.

References Cited in the file of this patent

UNITED STATES PATENTS

Number	Name	Date
47,430	Kolb	Apr. 25, 1865
371,182	Evans	Oct. 11, 1887
922,054	Southwick	May 18, 1909
1,010,442	Menger	Dec. 5, 1911
2,196,688	Warner et al.	Apr. 9, 1940
2,457,812	Epps	Jan. 4, 1949
2,472,449	Van Rosen	June 7, 1949
2,575,016	Hopp et al.	Nov. 13, 1951

FOREIGN PATENTS

Number	Country	Date
9,813	Great Britain	1892
912,250	France	Apr. 23, 1946