H. W. PUTNAM.
STOPPER FOR JARS, &c.

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Inventor:
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by his attorney

Witnesses:
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TO ALL WHOM IT MAY CONCERN:

BE IT KNOWN THAT I, HENRY W. PUTNAM, OF BENNINGTON, VERMONT, HAVE INVENTED AN IMPROVED STOPPER FOR JARS AND OTHER VESSELS AND THE LIKE, OF WHICH THE FOLLOWING IS A SPECIFICATION.

FIGURE 1 IS A PERSPECTIVE VIEW OF THE JAR, SHOWING THE COVER PARTLY LIFTED OFF. FIG. 2 IS A SIDE VIEW, SHOWING THE LVER RAISED WHILE THE BALL IS ON THE STOPPER OR COVER. FIG. 3 IS A SIDE VIEW OF THE UPPER PART OF A JAR HAVING MY IMPROVED STOPPER LOCKED AND HELD DOWN. FIG. 4 IS A VIEW OF THE SAME; FIG. 5, A TOP VIEW THEREOF. FIG. 6 IS A FACE VIEW OF THE JAR WITH THE PARTS IN THE POSITION SHOWN IN FIG. 2; FIG. 7, A DETAIL SIDE VIEW, ON AN ENLARGED SCALE, OF THE SHEET-METAL WHICH IS ATTACHED TO THE NECK OF THE JAR. FIG. 8 IS A VERTICAL CROSS-SECTION OF SAID EARTH ON THE ENLARGED SCALE.

THIS INVENTION RELATES TO IMPROVEMENTS ON DEVICES FOR HOLDING THE COVERS OF JARS OR OTHER VESSELS TIGHTLY TO THEIR PLACES AND PERMITTING THEIR READY REMOVAL AND REPLACEMENT, AND HAS FOR ITS OBJECT, IN THE FIRST PLACE, TO CONSTRUCT THE PARTS THAT UNDER THE STRAIN OF THE TIGHTENING DEVICES THAT HOLD THE COVER DOWN NO PART OF THE JAR IS LIABLE TO BE INJURED; ALSO, TO ARRANGE THE TIGHTENING DEVICES THAT THEY CAN BE READILY MOVED ASIDE, ALLOWING THE COVER TO BE USED ENTIRELY WITHOUT THEM, AND SO THAT THEY CAN BE AS READILY PLACED OVER THE COVER TO LOCK IT TO THE JAR; ALSO, TO ALLOW THE COVER TO BE HELD LOOSELY ON THE JAR BY A BALL WITHOUT BEING LOCKED AND PRESSED DOWN.


THE INVENTION ALSO CONSISTS IN COMBINING AN ECCENTRIC LEVER AND YOKE OR BLADE OF THE KIND DESCRIBED IN LETTERS PATENT NO. 158,406 WITH A COVER WHICH IS NOT CONNECTED TO THE BALL OR LEVER, BUT ONLY PLACED UNDER THE BALL OR YOKE TO BE LOCKED TO THE JAR BY THE ACTION OF SAID YOKE AND LEVER, YET ENTIRELY SEPARABLE FROM THE JAR WHEN DESIRED, AND SO PROPORTIONED WITH REFERENCE TO THE OTHER PARTS OF THE MECHANISM THAT EVEN WHEN THE LEVER IS SWUNG UPRIGHT THE COVER WILL STILL BE HELD IN PLACE BY THE BALL.

THE INVENTION ALSO CONSISTS IN PROVIDING THE COVER ITSELF WITH A CENTRAL PROJECTION HAVING A RECESS AT THE TOP INTO WHICH THE BALL OR YOKE ENTERS IN STRADDLING THE DETACHABLE COVER, FOR USE IN THE COMBINATION HEREOF AFTER MORE FULLY DESCRIBED.


I DO NOT LIMIT MYSELF TO THE MANER OF HOLDING THE NECKBAND IN POSITION ON THE JAR.

THE NECKBAND IS PREFERABLY MADE OF WIRE, AND ITS OBJECT IS TO CONNECT WITH THE COVER E OF
the locking apparatus, so as to furnish a bear-
ing to said lever on opposite sides of the jar. 70
For the reception of the ends b of the lever the
neck of the jar is provided with a groove d,
in which ears are more completely shown in Figs. 7 75 and 8. Each ear is made of doubled sheet
metal that is laid around the neck-wire D and
made to project from it, and bulged outward,
so that its end will bear against the body of
the projection a of the jar, which, under severe
strain, might otherwise be apt to be torn off
the body of the jar or otherwise ruptured. The
ears F are perpendicularly, either close to the wire
D or at short distance from the same, as in
Fig. 8, to receive the ends b of the lever E, that
is thus suspended from said ears.
In order to fasten each ear F securely upon
the wire D and prevent it from becoming dis-
placed thereon, I either nick the ear, as at d in
Fig. 7, so as to partly embed it into the body of
the wire, or form suitable shoulders on the wire
near the ends of the ear; or I can secure the
parts together by a drop of solder near each
end, or otherwise. I prefer this more definite
attachment of the ear to the wire, although
the ear may be doubled so tightly over the
wire, especially where a large wire is used, as
to grip it with sufficient force to prevent lon-
gitudinal displacement without additional pro-
vision for the same purpose.

The lever E is substantially such a lever as
is described in the above-mentioned patent,
No. 158,406, and connects in its eyes e with
a ball or yoke, G, which also is substantially
like the ball or yoke that is described in said
patent; but instead of fastening the cover B
to this ball or yoke I leave it separate there-
from, so that when the parts E and G are in
the position which is shown in Fig. 1—namely,
when the bail is swung aside to clear the
cover—the latter can be lifted off and replaced
on the jar, and the jar used without interfer-
ence by said parts E, G, as any common jar can
be used; but when the cover is to be locked
tightly, the parts are brought into the posi-
tion shown in Figs. 3 and 4—that is to say,
the cover being placed on the jar the ball G is
carried over the cover, while the handle part of
the lever is raised, (see Fig. 5,) until the ball is
diametrically across the top of the cover, where-
upon the lever E is swung down until it as-
sumes the position shown in Fig. 3. By this
movement the lever carries the ball down,
casting it to press with great force upon the
cover, and at the same time the bail is locked
by the eccentric action of the lever that has
already been specified in said Patent No.
158,406.
Thus I have produced a jar which is capable
of being hermetically sealed by the mechan-
ism which I have described, and which at the
same time, when its contents are in greater
or less use, can be opened and closed without
interference with the mechanism that locks it,
which feature I believe to be altogether new
in fruit jars, as is also the general construction
with locking devices, either in form of screw-
threads or of lugs and spiral ways for their re-
ception, could only be opened and closed by
using the devices that should finally lock them
75 together, or, if not, such jars, when the covers
could be opened and closed without interfer-
ence with the locking mechanism, were at
such time without any locking mechanism.
According to my invention, however, the jar
is always in condition to be locked, the locking
devices are not liable to be lost from the jar,
being always attached to it, and yet the jar

80 can be used with freedom without them, which
is a great convenience to ladies who may not
wish to have to handle the locking devices
every time a jar already in use is opened or
closed.

As a further means of locking the cover in
place I provide its top, at the center, with a
central upward projection, h, having projecting
lugs f, f, between which a groove or depres-
sion, g, is formed, into which groove the strad-
dling bail will set in locking, as shown in Fig.
5. The projections f may be tapering to a
95 greater or less extent, and will serve, even if
not tapering, to prevent the cover from being
pushed laterally away from under the strad-
dling bail. By making these projections f f
circular the cover will be in position to prop-
erly receive the bail, even if not exactly aligned
with the bail; but the more the said projec-
tions are elongated the more care must be
taken that the depression or groove g between
the projections is aligned with the bail before
the latter is brought down. The groove g
may, however, be formed in the top of the
cover without the lugs f. By tapering the lugs
f the cover may in some cases be turned after
the bail is locked down, so as to carry said pro-
jections as wedges beneath the bail and in-
sure a still firmer locking of the jar.
I desire it to be particularly understood that
although the metallic ears F, F on the neck-
band are shown in the mechanism D, E, and
G, which is separable from the cover B, still
I do not limit myself as far as these ears are
concerned to their use on devices that com-
bine with such a separable cover, because these
ears, of the peculiar construction shown, will
also be of advantage when used on mechan-
ism which is pivotally or otherwise connected
with the cover or stopper of a jar or bottle, as
in Patent No. 158,406, or in analogous struct-
ures.

In packing jars for transportation before
they are filled, and after they have been just
made, it is a common experience that the new
rubber gasket placed between the newly-made
jar and cover, if the cover is held to the jar
under pressure, is liable to become cemented
to the jar and cover in such a way as to inter-
ference with the removal of the cover and involve
the destruction of the gasket. With my mech-
anism I can obviate this difficulty with ease, because for transportation I can leave the jar in the position shown in Figs. 2 and 6—to wit, carry the ball over the cover into the groove of the cover, but leave the lever E raised, as shown in those figures. The groove g is deep enough to receive the bail even in this position, and to prevent the cover, under the jarring action of the vehicle in which the article may be transported, from sliding out from beneath the bail. Hence the bail holds the cover to its place, but not under pressure, the pressure being produced only by lowering the lever into the position shown in Fig. 3, and therefore the rubber gasket is held between the jar and cover, but not under pressure, thus obviating the danger of cementing these parts together.

The bail G in Fig. 6 is shown to rest on the central projection, k, of the cover, but does not touch the cover at or near the periphery; but when the lever is swung down the bail is sprung down, as in Fig. 4, to touch the cover at or near the periphery also. This advantage of obtaining central pressure and dual peripheral contact is obtained by providing the cover with the central projection or elevation, k.

I claim—

1. The combination of the jar A, having shoulder a, with the neckband D, and with the sheet-metal ears F, that are doubled around and below the neckband, bent or curved inward against the body of the jar, and perforated below the neckband through its two thicknesses to receive the actuating-lever of the jar or bottle closing apparatus and the upward strain thereof, and that bear against the shoulder a, substantially as specified.

2. The combination, with a jar, of a fastening consisting of the eccentric lever E, straddling the jar and forming a handle at the side thereof, combined with the bail or yoke G, that is pivoted to it, and with horizontal supporting and suspending devices on the jar A, and with the cover, that is disconnected from said bail or yoke and from said pivoted lever, the proportions and arrangement of said elements being such that when the lever is raised against the vessel the yoke will hold the cover loosely in position, and when depressed will hold it tightly in position, substantially as herein shown and described.

3. The combination of a jar and its cover B, having recess or groove g on the raised part h of its top, with the springing bail or yoke and eccentric lever pivoted to the jar, all arranged and proportioned so as to allow the bail to hold the cover loosely when the lever is raised against the jar, and the cover to be taken off when said lever is so raised by springing the bail out of the groove or recess g, substantially as herein shown and described.

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