

No. 827,667.

PATENTED JULY 31, 1906

G. T. REED.

FIBER CLOSURE FOR JARS AND JELLY GLASSES.

APPLICATION FILED JULY 3, 1905.

Fig. 1.

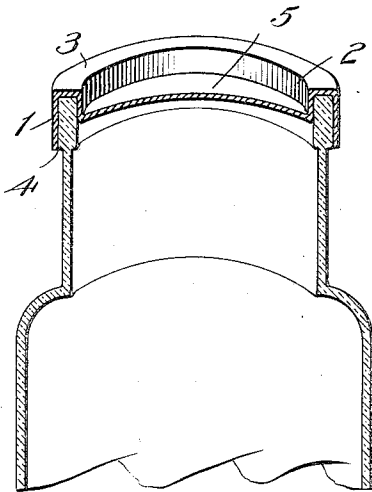


Fig. 2.

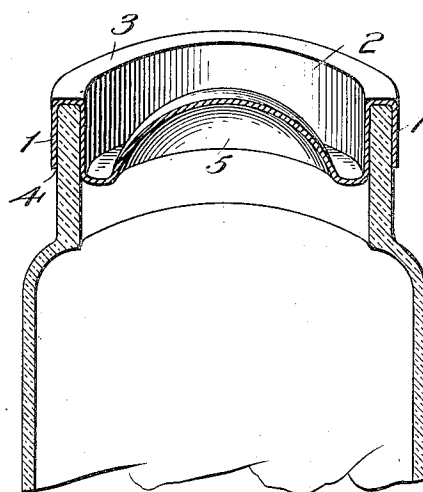


Fig. 3.

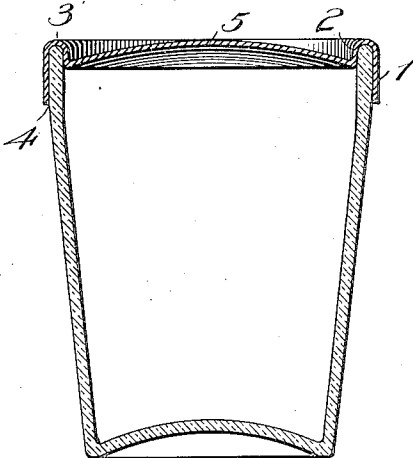
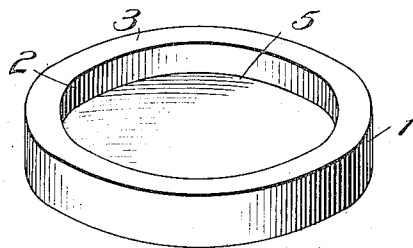


Fig. 4.



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FIBER CLOSURE FOR JARS AND JELLY-GLASSES.

No. 827,687.

Specification of Letters Patent.

Patented July 31, 1906.

Application filed July 3, 1905. Serial No. 268,082.

To all whom it may concern:

Be it known that I, GEORGE THORN REED, a citizen of the United States, residing at Baltimore, in the State of Maryland, have
5 invented certain new and useful Improve-
ments in Fiber Closures for Jars and Jelly-
Glasses; and I do hereby declare the follow-
ing to be a full, clear, and exact description
of the invention, such as will enable others
10 skilled in the art to which it appertains to
make and use the same.

My invention is directed to means for pre-
venting the deterioration of preserves and
analogous substances put up in jars, jelly-
15 glasses, and the like; and for this purpose I
have produced a closure of cap form made of
wood-pulp and paraffin and having a con-
struction of outer and inner annular walls or
flanges adapted to have an elastic, sticking,
20 and adhesive sealing function upon the outer
and upon the inner walls and the edge of a
jar to effect an air-tight sealing, such elastic
and adhesive walls being integral with the
crown or disk of the closure and forming a
25 self-binder fastening in which each wall or
flange in applying the cover will yield to any
irregularity in the glass, while the element of
paraffin which gives to the closure under heat
a sticking character will cause its walls to
30 stick to the glass, rendering it thereby air-
tight.

The closure is non-corrosive and is not af-
fected by acids and its preparation renders
it antiseptic and free from germs.

35 The accompanying drawings illustrate my
improved fibrous cap-closure, which has both
an elastic and an adhesive function in its seal-
ing capacity as an envelop cover on the outer
and inner walls of the jar.

40 Referring to the drawings, Figure 1 shows
a jar having my improved closure-cap in ver-
tical section, the cap being in partial perspec-
tive. Fig. 2 is a like view of a different-
shaped cap. Fig. 3 shows my improved cap
45 as applied to a jelly-glass. Fig. 4 shows the
cap in perspective.

The cover is of cap form, preferably of wood-
pulp and paraffin in suitable proportions and
pressed by dies into disk form with an annu-
50 lar circumferential flange or wall 1, an inner
circumferential flange or wall 2, and an annu-
lar top ridge 3, connecting the walls or

flanges and forming an interior groove 4, sur-
rounding the crown or disk 5, so that the lat-
ter joins the inner edge of the groove. The
55 walls or flanges forming the grooves may
have sharp or rounded angles or corners and
the sealing walls or flanges may be of equal
or of unequal width and each has a plain sur-
face, so as to have a saddle fitting over and
60 upon the edge and upon the walls of the jar,
each closure-wall fitting, by reason of its com-
posite elastic material, with a binding func-
tion at every part of the annular walls upon
the outer and upon the inner walls of the jar. 65

The wood fiber gives a certain elasticity to
every part of the closure, while the paraffin
gives a homogeneous and tough quality to
the wood fiber and also an adhesive or stick-
ing quality, and so far as I know and can find
70 I am the first to produce a fibrous enveloping
closure for a jar having exterior and interior
joint-forming walls or flanges, each wall hav-
ing an elastic and an adhesive sealing func-
tion upon the inner and upon the outer walls
75 of the jar. In applying the cap-closure there
is no danger of breaking the glass, and the
element which gives the adhesive or sticking
function of the sealing-walls of the cap is ren-
dered active and effective by subjecting the
80 closure to a low degree of heat before apply-
ing the cap, or the heat of the jar imparted to
it from its contents will be sufficient to de-
velop the adhesive quality of the paraffin
when the closure is firmly applied, or this
85 sticking function of the closure may be ren-
dered effective by applying the closure-cap
to the jar in a damp condition, so that in dry-
ing the walls or flanges of the closure will
shrink tight and close all the crevices in the
90 walls of the jar, making the closure self-seal-
ing and self-fastening.

In bleaching of the pulp to render it white
all germs are killed, and the cap when formed
is elastic at every part and can be stretched
95 in pressing it on the jar, and this with the ad-
hesive and the shrinking functions will main-
tain an air-tight and a fastened closure.

The closure is preferably of uniform thick-
ness, and the crown or disk is preferably con-
100 vex to have a yielding bracing function upon
the inner wall or flange, tending to press
said flange against the inner wall of the jar.
In packing the jars for transportation the

annular crown of the groove will act as a cushion to the superposed jar to prevent breakage.

In Fig. 2 the closure walls or flanges are about equal width. In Figs. 1 and 3 the outer wall or flange is of greater width than the inner wall, and in either case the walls of the jar are unbroken by shoulder or groove, so that the closure is easily applied and removed and may be ornamented and made of various colors. I prefer to make the closure-cap from wood-pulp; but obviously equivalent material may be used which will have an elastic sealing function upon the jar-walls, while paraffin or its equivalent will impart to the walls an adhesive quality.

The importance of bulging or convexing the crown of the cap or closure resides in its capacity to yield to be fitted upon jars the diameters of which may be of uneven circle or slightly larger than the outer grasping-walls of the cap; but this advantage is only possible in a cap of the yielding character described. Another advantage of this cap is the spring function of its double grasping-walls allows them to be fitted and sprung upon walls of slightly greater thickness than the space between the grasping-walls and to conform to any unevenness or irregularity in the circle of the jar-walls. This expansive-spring function is rendered active in applying pressure upon the convex crown, and the pressure being removed the grasping-walls will, in contracting, having a binding force, and this function will render the closure-cap effective as a bottle-stopper when applied under heat.

I claim—

1. A fiber closure for vessels having as a component an adhesive element and comprising a central disk, an inner annular wall or flange integral with said disk, an outer annular wall integral with the inner wall, and an annular ridge connecting and forming a groove between said walls, the walls of the groove being adhesive in their closure function.

2. A fiber closure for jars having as a component an adhesive element and having a central

disk, an outer and an inner annular wall or flange, said walls being elastic and adapted for elastic, adhesive and sealing engagement with the inner and the outer walls of a jar.

3. As an improved article of manufacture a closure for jars, consisting of wood fiber and paraffin formed with a disk having inner and outer annular walls or flanges, each wall being both elastic and adhesive.

4. A fiber closure for jars having as a component an adhesive element and having an outer circumferential wall or flange, an inner concentric wall or flange, both walls rendered adhesive, and a bulging or convex crown joining the edge of the inner wall whereby to cause an expansion in the diameter of the grasping-walls in applying the cap and the sealing of the jar-walls.

5. A cap-closure for vessels formed of wood-pulp and paraffin having circular double walls, or flanges, each adapted to be rendered adhesive under heat to adapt them to stick to and seal the walls of the vessel.

6. A fiber cap for jars and the like having an adhesive substance and formed with a plurality of annular circumferential walls or flanges caused to have a binding function to render it self-sealing and self-fastening when applied under heat.

7. As a new article of manufacture a closure for vessels consisting of a thin flexible cap of fiber including an adhesive element and adapted to fit and inclose the inner and the outer walls of the vessel and having a sealing and sticking function.

8. A removable flexible cap for vessels formed of fiber pulp including an adhesive element and with an inner and an outer wall or flange adapted to inclose and to seal the inner and the outer walls of the neck of the vessel with a flexible sticking function.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

GEORGE THORN REED.

Witnesses:

JAMES M. BROOKS,
HENRY M. SCHOEFFNER.