No. 756,956. PATENTED APR. 12, 1904.

R. A. GILCHRIST.

PRESERVE JAR AND CAP THEREFOR.

APPLICATION FILED FEB. 21, 1903.

NO MODEL.

Fig. 1.

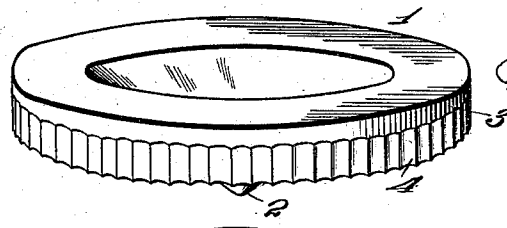



Fig. 2.

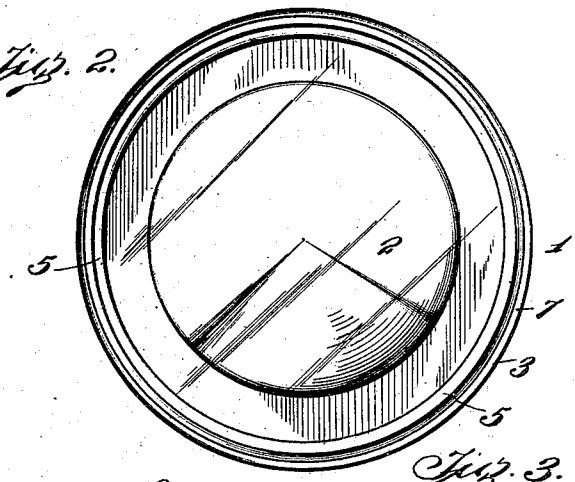



Fig. 3.

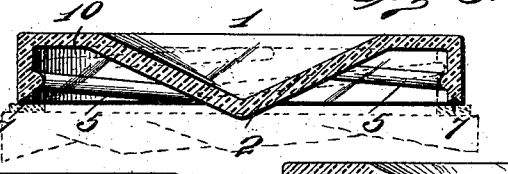



Fig. 4.

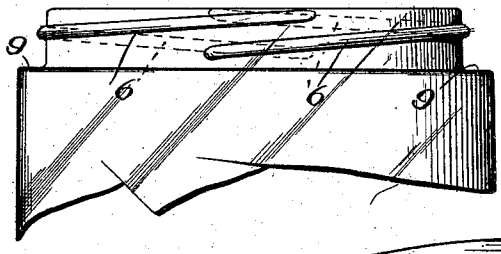



Fig. 5.

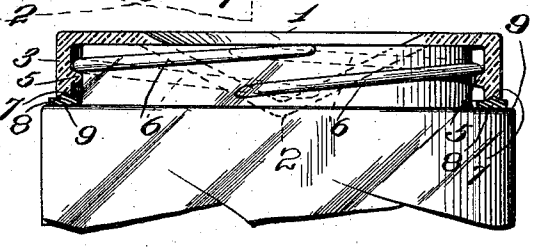



Fig. 6.

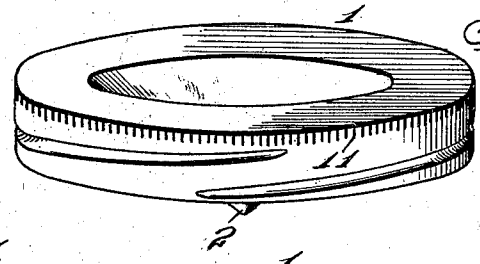
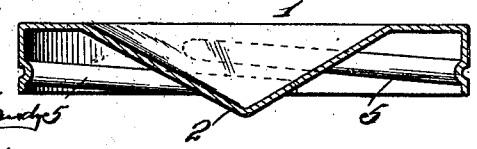



Fig. 7.




Witnesses

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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

No. 756,956. Patented April 12, 1904.

# UNITED STATES PATENT OFFICE.

RUTH A. GILCHRIST, OF WILKESBARRE, PENNSYLVANIA.

## PRESERVE-JAR AND CAP THEREFOR.

SPECIFICATION forming part of Letters Patent No. 756,956, dated April 12, 1904.

Application filed February 21, 1903. Serial No. 144,504. (No model.)

*To all whom it may concern:*

Be it known that I, RUTH A. GILCHRIST, a citizen of the United States, residing at Wilkesbarre, in the county of Luzerne and State of Pennsylvania, have invented certain new and useful Improvements in Preserve-Jars and Caps Therefor; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to preserve-jars and caps or covers therefor; and it consists, first, of a cap formed, preferably, of a single piece of material, either glass, earthenware, or metal, and provided with an inwardly-extending centrally-depressed displacing portion and a vertical flanged attaching portion, which latter is provided with a quick-acting interrupted worm-thread.

The invention consists, second, of such a cap or cover provided on the lower edge of its flanged attaching portion with a peripheral groove or depression.

The invention consists, third, of the combination with such a cap as first set forth of a jar provided with a shoulder and a quick-acting interrupted worm-thread formed on the neck of the jar and a sealing-gasket applied on the shoulder, which is engaged on the lower edge of the flange of the cap; and the invention consists, fourth, of a cap constructed entirely of glass or earthenware and formed with an inwardly and downwardly extending centrally-depressed portion and a vertical flanged attaching portion, which latter being provided on its inner surface with a quick-acting interrupted inwardly-extending worm-thread, the outer surface of said flange being roughened or corrugated.

The invention also consists of certain other novel constructions, combinations, and arrangement of parts, as will be hereinafter fully described and specifically claimed.

The main object of my invention is the production of a cap for a preserve-jar which can be molded, stamped, or pressed out of a single piece of material, thus reducing the cost of production, said cap being of such construction that it can be very quickly and effectively applied and which in the act of applying will displace a certain amount of the contents of the jar and force the air out of the jar and hermetically seal the jar, the entire construction being very simple yet perfect in its operation.

In the accompanying drawings, Figure 1 is a perspective view of a cap constructed in accordance with my invention. Fig. 2 is a bottom plan view of the same. Fig. 3 is a vertical section through the cap. Fig. 4 is a portion of a jar designed to be used with my improved cap. Fig. 5 is a view of the jar and cap, the jar being shown in full lines and the cap in section and the inverted displacing portion of the cap being shown in dotted lines. Fig. 6 is a perspective view of a cap slightly modified in its construction, and Fig. 7 is a vertical section through the construction in Fig. 6.

1 in the drawings represents my improved cap, which consists of an inwardly and downwardly extending displacing portion 2, which latter is formed, preferably, in the shape of a cone, though it may be pyramidal in form, and extends, preferably, slightly below the lower edge of the vertical attaching flanged portion 3, with a space all around between it and said flange. I have found that by constructing the inwardly-projecting portion in the form of a true cone I am enabled much more expeditiously and satisfactorily to produce the caps than when said projecting portion is made in the form of a semisphere, and I have found that the cone acts more quickly and satisfactorily in entering the contents of the jar and displacing the same and in expelling the same when thus constructed.

It will be observed that the inverted-cone displacing portion forms a part of the main body of the cap and is either molded, pressed, or stamped out of the same and extends, preferably, below the lower edge of the vertical attaching-flange, by which construction the said displacing portion is permitted to enter the contents of the jar sufficiently to displace the same and force them up into the space between the spacing portion and the attaching-flanges, and thus dispel all the air and hermetically seal the jar. The vertical flanged

portion 3 is preferably provided on its outer surface with vertical ribs or corrugations 4, which form a roughened surface and facilitate applying and removing the cap. The cap is provided on its inner surface with an inwardly-extending interrupted quick-acting worm-thread 5, which is designed to engage similarly-formed threads 6 on the neck of the jar, as clearly shown in Fig. 5. When the cap is constructed of glass, porcelain, or other similar material, the interrupted worm-thread 5 does not appear on the outer surface of the flange of the cap, as might be the case when the cap was constructed of comparatively thin metal, and, as is seen in Fig. 1, corrugations 4 are formed on the outer surface of the vertical flange without in any way interfering with the worm-thread, and vice versa. The lower edge of the vertical flange 3 is preferably provided with a peripheral groove 7, as shown in Fig. 3, which extends all around the same and which is designed to receive and grip a rubber gasket 8, applied on the shoulder 9 of the jar, as clearly shown in Fig. 5, to secure a very tight joint. By constructing the cap with an interrupted worm-thread the same can be quickly applied to and removed from the jar, and by providing the lower edge of the cap with the peripheral groove and applying the rubber gasket on the shoulder of the jar the cap can be applied with rapidity and force, and the interrupted worm-thread having a wedging action the cap will be held very firmly in place without any liability of air entering the jar and injuring the contents thereof. By forming the cap with an inverted displacing portion 2 and by nearly filling the jar with the fruit or food to be preserved the said inverted displacing portion will displace a certain amount of the fruit or food and force the same up into the space 10, left all around between said displacing portion and the inner surface of the neck of the jar when the cover is in place, and at the same time the air will be expelled from the jar between the interrupted worm-thread on the neck of the jar and the worm-thread on the cap and the hermetically-sealed joint secured.

In Fig. 6 I have shown a slightly-modified construction in that the cap instead of being provided with vertically-arranged ribs or corrugations is formed with a milled edge 11 and the interrupted worm-thread is shown as being stamped or pressed into the vertical flange of the cap.

When the cap is constructed of metal, it is preferably coated or painted with a suitable enamel or other waterproof non-corrosive substance; but when the cap is constructed of glass, porcelain, or other similar material it is not necessary to employ the coating. I prefer the glass cap to the all-metal cap, as it possesses many advantages in its production and use over the all-metal cap.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. As an improved article of manufacture, a cap for a preserve-jar, consisting of a suitable body portion formed with a downwardly and inwardly extending displacing projection of suitable size for displacing a portion of the contents of a jar and dispelling air therefrom, and a vertical attaching-flange with a large annular space between said flange and the displacing projection for the reception of displaced food and juices, said flange being provided on its inner surface with a quick-acting interrupted worm-thread, the whole being constructed of a single piece of material, substantially as described.

2. As an improved article of manufacture, a cap for a preserve-jar, consisting of a body portion constructed of glass or other suitable material with a downwardly-extending displacing projection of suitable size for displacing a portion of the contents of a jar and dispelling air therefrom, and a vertical flange provided on its inner surface with an inwardly-projecting interrupted worm-thread, with a large annular space between the flange and the displacing projection for the reception of the displaced food and juices, the outer surface of the flange being formed with ribs or corrugations, substantially as described.

3. As an improved article of manufacture, a cap for a preserve-jar, consisting of a body portion constructed of glass or other equivalent material and formed with a downwardly-extending displacing projection of a suitable size for displacing a portion of the contents of a jar and dispelling air therefrom, and a vertical flange provided on its inner surface with an inwardly-projecting interrupted worm-thread, with a large annular space between the flange and the displacing projection for the reception of the displaced food and juices, the outer surface of the flange being formed with comparatively long vertically-arranged ribs or corrugations which extend practically the entire height of the cap and in line with the interrupted worm-thread, said ribs or corrugations, however, not interfering with the threads, substantially as described.

4. A preserve-jar and cap therefor, comprising in its construction a suitable glass body of ordinary thickness, having a vertical neck portion formed with an outwardly-projecting interrupted worm-thread, and a shoulder at the lower end of the threaded portion, in combination with a cap having a vertical flange and an inwardly and downwardly extending displacing projection of suitable proportions and which is of considerably less diameter than the cap proper so as to leave a large annular space all around between it and the inner surface of the said flange, said flange being formed with an inwardly-projecting interrupted quick-acting worm-thread which engages the projecting worm-thread on the jar,

and said flange being also provided on its lower edge with a peripheral groove or depression, and a rubber gasket applied on the jar around the shoulder thereof between said shoulder and the lower edge of the flange, the construction and operation being such that the cap can be quickly applied to the jar, during which application a certain amount of the contents of the jar will be displaced and be forced up into the annular space of the cap, and the air expelled between the threads, the gasket on the shoulder of the jar being firmly gripped and held in the groove or depression in the lower edge of the flange of the cap, substantially as described.

5. A preserve-jar and cap therefor comprising in its construction a jar having a neck portion formed with an interrupted quick-acting worm-thread in combination with a cap formed with a downwardly and inwardly extending displacing projection and a vertical attaching-flange with a large annular space between said flange and the displacing projection, said flange being provided on its inner surface with a quick-acting interrupted worm-thread which engages thread on the jar, substantially as described.

6. As an improved article of manufacture a cap for a preserve-jar constructed from a single piece of glass or other equivalent material and formed with a vertical attaching-flange which latter is provided on its inner surface with a quick-acting interrupted worm-thread and with a downwardly-extending centrally-arranged displacing projection which extends substantially to or a little below the lower edge of the attaching-flange with a large annular space between said flange and said projection, substantially as described.

In testimony whereof I hereunto affix my signature in presence of two witnesses.

RUTH A. GILCHRIST.

Witnesses:
JOHN THIEL,
A. J. JONES.