

(No Model.)

R. S. CARR.
JAR FASTENING.

No. 517,433.

Patented Apr. 3, 1894.

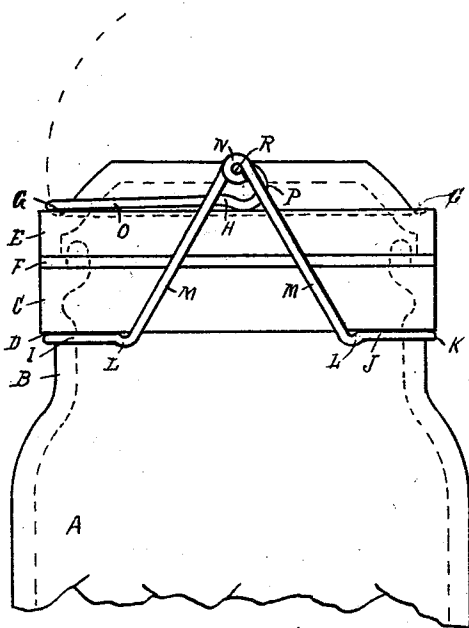


Fig. 1.

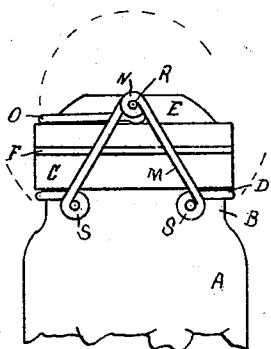


Fig. 2.

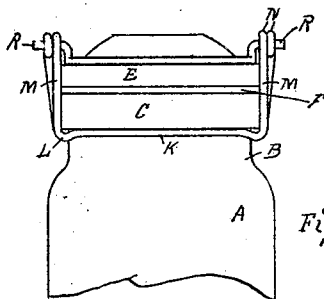


Fig. 3.

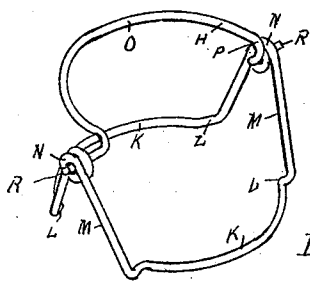


Fig. 4.

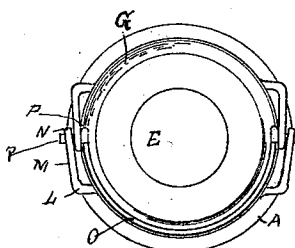


Fig. 5.

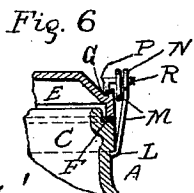


Fig. 6.

Witnesses.

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UNITED STATES PATENT OFFICE.

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JAR-FASTENING.

SPECIFICATION forming part of Letters Patent No. 517,433, dated April 3, 1894.

Application filed July 13, 1893. Serial No. 480,365. (No model.)

To all whom it may concern:

Be it known that I, ROBERT S. CARR, of Hamilton, Ohio, have invented certain new and useful Improvements in Jar-Fastenings, of which the following is a specification.

My invention relates to that class of jar fastenings that removably clamp the covers on fruit jars and similar vessels: and the objects of my improvement are, to provide a fastening of such form that its use will not cause breakage of the jars: that may be easily detached or applied to different jars: that is capable of repeated use and that distributes and reduces the direct pressure on the collar of the jar by exerting a greater clamping pressure around the neck thereof. These objects are attained in the following described manner as illustrated in the accompanying drawings, in which—

Figure 1 illustrates a side elevation of the fastening as applied to the jar; Fig. 2 a side elevation showing a different form of construction; Fig. 3 a front elevation of Fig. 1 reduced in size; Fig. 4 a perspective view of the fastening; Fig. 5 a plan of Fig. 3; and Fig. 6 is a broken sectional view of a portion of the top of a jar with the cover and fastener in position to show how the cam of the clamping member is seated in the groove around the top of the cover.

In the drawings, A represents the body and B the neck of the jar. An enlargement of the top portion of the neck forms collar C. The abrupt projection of the lower edge of the collar from the neck forms the annular abutment D. Cover E suitably fitted to the jar and seated on rubber gasket F is provided with a shallow circular groove G near the edge of its top surface.

The fastening is preferably constructed of wire and consists of clamp H and two similar yokes I and J that are pivotally secured thereto. Each of the yokes is formed of a single wire, the central portion thereof being curved to form an arc K adapted to extend about one-third of the distance around and in contact with, the neck of the jar directly under the annular abutment. An outward and slightly downward turn of the wire from the ends of the arc forms shoulders L of sufficient length to clear the collar. Thence by an upward turn of the wire, arms M are

formed. The extremities of the wire terminate said arms in short circular bends or eyes N at points just above opposite edges of the cover. In Fig. 2, coils S are substituted for shoulders L being turned in the wire between the ends of the arc and arms M.

Clamp H consists of a single wire, having its central portion curved to form a semicircular bail O to coincide with the curve of groove G in the cover. Small parallel cams P, slightly exceeding semi-circles, are extended from the ends, and vertical to the plane, of the bail. Thence by abrupt turns, in opposite directions, the extremities of the wire terminate and form trunnions R that pivotally engage with the yokes through the respective eyes therein.

The fastening is easily placed in position on the jar with the respective yokes embracing opposite sides of the neck and against the annular abutment. By a turn of the clamp by the bail the cams, being eccentric to the trunnions, press on opposite edges of the cover. The resistance of the trunnions to this pressure is exerted in an upward direction on the yokes, and causes them to forcibly grip the neck of the jar and press tightly against the annular abutment at points near the respective shoulders. In this manner the cover is pressed toward the jar by the cams while the jar is pulled toward the cover by the yokes. The interposed rubber gasket is thus compressed until the jar is hermetically sealed and perfectly air-tight. Maximum pressure is obtained when the bail of the clamp is in contact with the cover. The bail is retained on the cover by the greatest eccentricity of the cams having passed their points of contact on the cover. The groove in the cover serves as a guide to prevent lateral deflection of the points of contact of the cams on the cover. An upward turn of the bail releases the pressure on the cover and permits the removal of the fastener from the jar. Through the divergence of the yokes, the force exerted thereon by the trunnions, is deflected to opposite sides of its normal direction and to the respective shoulders. The pressure of the shoulders against the abutment is in a slanting direction the same as that of the respective arms thereto. The shoulders of the respective yokes when under pressure tend

strongly to approach each other along the abutment and to close the yokes together. This is prevented by the contact of the arcs against the opposite sides of the neck which they are thus caused to grip with some force. 5 The extremities of the trunnions may be headed or turned aside to retain the eyes thereon. This however is deemed unnecessary as the eyes tend inwardly on the trunnions when 10 the fastening is being clamped on the jar. The members composing the fastening may be pivotally folded together when it may be placed inside the jar or closely packed for shipment. The removal of the fastenings 15 permits the jars to be more easily and thoroughly cleaned and more conveniently filled. By uniformity in the construction, the fastenings may be applied to jars miscellaneously, without being specially fitted and secured 20 thereon by the jar makers. They are thus adapted to be made and sold by others than jar makers as a separate industry.

Having fully described my improvements, what I claim as my invention, and desire to 25 secure by Letters Patent, is—

1. A jar fastening consisting of a clamping member and two yokes similar to each other, the clamping member being formed with a cam near each end and parallel with each 30 other and the ends terminating in trunnions, and the central portion of each yoke forming a curve of less extent than a semi-circle, and having its ends each extended at an obtuse angle to the plane of the curved portion and terminating in an eye for engaging with the 35 clamping member, whereby when in position upon a jar, the pivotal point between the clamping member and the yokes will be located at a point above and between the adjacent ends of the curved portions of the yokes, 40 substantially as set forth.

2. A jar fastening consisting of a clamping member and two yokes similar to each other, the clamping member being formed with a 45 cam near each end and parallel with each other, and the ends terminating in trunnions, and the central portion of each yoke forming a curve of less extent than a semi-circle, and having its ends each extended at an obtuse 50 angle to the plane of the curved portion and

terminating in an eye, the point of union between the end and the curved portion lying below the plane of and without the end of the curved portion, and the pivotal point between the clamping member and the yokes, when in 55 position upon a jar, being located at a point above and between the adjacent ends of the curved portions, substantially as set forth.

3. A jar fastening consisting of a clamping member and two yokes similar to each other, 60 the clamping member being formed with a cam near each end and parallel with each other, and the ends terminating in trunnions, and the central portion of each yoke forming a curve of less extent than a semi-circle, and 65 having its ends each extended at an obtuse angle to the plane of the curved portion and terminating in an eye for engaging with the clamping member, the point of union between the end and the curved portion comprising a 70 rearwardly turned loop lying below the plane of and without the end of the curved portion, and the pivotal point between the yokes and the clamping member, when in position upon a jar, being located at a point above and 75 between the adjacent ends of the curved portions, substantially as set forth.

4. The combination with a can, the top of the cover of which is provided with an annular groove near its periphery, of a fastening 80 consisting of a clamping member and two yokes similar to each other, the clamping member being provided with a cam near each end and parallel with each other and adapted to fit within the groove of the cover, and the 85 central portion of each yoke forming a curve of less extent than a semi-circle, and having its ends extended at an obtuse angle to the plane of the curved portion and terminating in an eye for engaging with the clamping 90 member, whereby, the pivotal point between the clamping member and the yokes will be located at a point above and between the adjacent ends of the curved portions, substantially as set forth.

ROBERT S. CARR.

Witnesses:

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