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A. BRESEE.

CLOSURE FOR JARS, &c.

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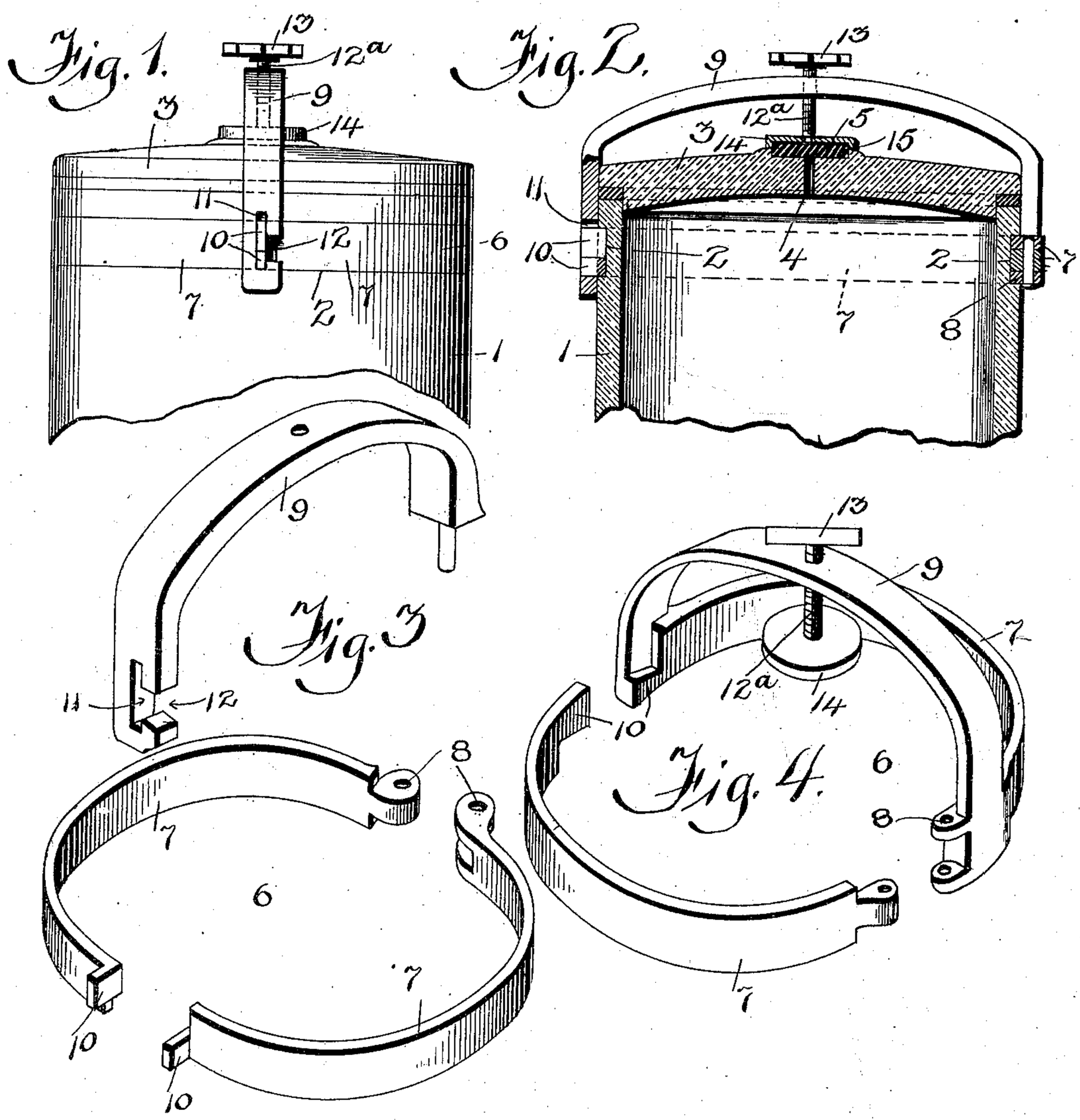
(No Model.)



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CLOSURE FOR JARS, &c.

SPECIFICATION forming part of Letters Patent No. 654,512, dated July 24, 1900.

Application filed November 10, 1899. Serial No. 736,451. (No model.)

To all whom it may concern:

Be it known that I, ALDIN BRESEE, a citizen of the United States, residing at Westford, in the county of Otsego and State of New York, have invented certain new and useful Improvements in Closures for Jars, &c.; 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 improvements in closures for jars, &c., and has particular relation to the construction of mechanism for retaining the jar-top in position to close and seal the jar.

One object of my invention is to provide a construction which is neat and attractive in appearance, durable in construction, simple and efficient in operation, and which can be made at a moderate cost.

A further object is to provide a closure which can be readily attached to and detached from the jar and which when placed in proper position will be locked against movement.

A further object is to provide a construction which encircles the jar, the encircling portion being formed in sections pivotally or hingedly connected, said sections having the opposite ends adapted to form a lock, the lock becoming operative upon the forcing of the jar-top to its closed position.

A further object is to provide a construction employing an encircling band, which band is normally locked within a peripheral groove, the face of the jar and the band being substantially flush.

A further object is to provide a construction in which an encircling band employing two sections is employed, the sections being hingedly connected, said band being adapted to be locked at the opposite ends of said sections, a connecting portion being formed, said portion leading from the hinged connection to the opposite sides, the locking ends of said sections being held in locked position by said connecting bar or portion.

A further object is to provide a construction in which an encircling band is employed, said band being formed in two sections hingedly connected, the free ends of said sections being adapted to be locked together, a connecting bar or portion being formed extending from the hinged portion of the sections to the opposite side of the jar, the free or locking ends of said sections being embraced by said connecting portion or bar.

A further object is to provide a construction in which an encircling band is employed, said band being formed in sections hingedly connected and adapted to be locked at their free ends, said sections being placed in position or taken therefrom by a movement of said sections on their hinges and in the same horizontal plane.

To these and other ends, the nature of which will be readily understood as the invention is hereinafter described, said invention consists in the improved construction and combination of parts hereinafter fully described, illustrated in the accompanying drawings, forming a part of this specification, and particularly pointed out in the appended claims.

In the drawings, in which similar numerals of reference indicate similar parts in all of the views, Figure 1 is a side elevation of a portion of a jar, showing my improved closure thereon. Fig. 2 is a central vertical section of the structure shown in Fig. 1. Fig. 3 is a perspective view showing the parts composing my preferred form of closure, the parts being shown separated. Fig. 4 is a similar view showing a modified form.

Various methods have heretofore been employed in sealing jars, the purpose being to clamp or secure the jar-top in a sealed contact with the jar. One of these methods consisted in placing the top in position, forming a substantial air-tight seal, the clamping or the screwing of the closure in position which followed serving merely to firmly secure the top in its sealed position. In this class of closures the cooling of the contents formed a partial vacuum under the top, making it difficult when the closure was released to remove the top. Another form of closure provided the jar-top with a vent or opening, which vent was closed by the closure while the contents were heated, the cooling of the contents forming a vacuum. When the jar was to be opened, this vent was first opened, thus allowing air to enter, whereupon the

jar-top could be readily removed. To this class of closures the present invention is intended to apply.

The invention disclosed herein presents a construction in which an encircling band, formed in two sections hingedly connected and adapted to be locked together at its free ends, is employed to form the support for a connecting portion or bar which extends over the top of the jar, the latter carrying a screw which is adapted to close the vent in the jar-top, the act of closing said vent serving to lock the free ends of the encircling band in a locked position. The encircling band having a hinge connection retains a relative horizontal alinement between its sections whether the sections be open or closed. Two forms of closures embodying this construction are shown. In one form the parts are formed in separate pieces, including the connecting portion, but which when ready for use presents the appearance of but two members, this form being preferred by reason of its being manufactured to a greater advantage than the other form shown, the latter having the connecting-bar and one of the sections forming the encircling band formed integral. Another difference consists in the manner in which the free ends are arranged when in locked position.

In the use of the closures herein described and, in fact, in all structures making use of the vent it is essential that a shoulder or shoulders be formed in the jar-body, which shoulders form the support which retains the support for the vent-closing device against vertical movement under the pressure exerted in sealing the jar. These shoulders have been provided in various forms; but in the present invention it is found preferable to employ a peripheral groove of sufficient depth to receive the encircling band, so that a flush surface will be formed on the outer face of the jar. It is to be understood, however, that the device may be used in connection with a jar having simply an annular or peripheral shoulder or with a series of projecting portions extending radially from the surface of the jar, said portions having their contacting surfaces arranged in horizontal alinement.

A prominent feature of the invention herein disclosed consists in the fact that the closing movement of the sections is limited, it being impossible to move the sections inwardly beyond a position where a complete circle is formed. This forms a protection against the accidental breaking of the jar, the encircling metallic band preventing the jar from receiving the strain if a blow is accidentally struck along the surface of the jar contiguous to the band, the stops formed at the end of the sections preventing the band from moving or being driven inwardly against the surface against which it contacts.

To enable a better understanding of the invention, I will now describe the parts in detail, the construction being illustrated in the drawings.

1 designates the jar-body, of any suitable configuration, having near its upper end a peripheral groove 2, adapted to receive the encircling band.

3 designates the jar-top, which, as herein shown, has its under side concave to form a vacuum-chamber. The top 3 is adapted to be placed on a ring of suitable material, laid on the upper edge, a portion of the top extending downward inside of the jar to a point below the upper edge of the jar-body, as shown in Fig. 2. The jar-top is provided with a central opening or vent 4, the upper face of the jar-top having a suitable face to receive the rubber closure 5, which may be either placed loosely thereon or may be carried by the clamping-screw, as hereinafter described.

6 designates the encircling band, composed of sections 7, each substantially of half a circle, said sections being pivotally or hingedly connected, as at 8. In the form shown in Figs. 1, 2, and 3 the pintle for the hinge portions of the sections is formed on one end of the connecting portion or bar 9, the lower end of said pintle being riveted after said sections are placed thereon. The free ends of the sections are provided with outwardly-extending portions 10 of a length equal to the thickness of the portion 9, said portions being separately of a height less than the height of the section, the two portions 10 when combined equaling the height of said sections. The two portions 10 are of unequal height, the greater being arranged at the upper portion of its section, and the smaller being arranged at the lower portion of the opposite section. The connecting bar or portion 9 has its free end provided with a vertically-extending elongated slot 11 of a length greater than the height of the sections, said slot being adapted to receive the portions 10. In assembling this structure the knuckle portions of the sections are placed on the pintle and the latter riveted. The section having the portion 10 of greatest height is then moved to a position where the portion 10 may be sprung into the slot 11. As the opening 12 in the bar or portion 9, through which the other portion 10 is to be passed, is of a less width than the height of the larger portion 10, it will be readily seen that the larger portion 10 must be sprung into position and when in such position cannot pass out of the slot 11. The normal position of said portion in said slot is at the upper end thereof, so as to allow the opposite portion 10 to readily pass within the slot 11 through the opening 12 when the closure is placed about the jar within the groove or recess 2.

The connecting bar or portion 9 carries a suitable screw 12^a, having a suitable operating portion 13, the opposite end of the screw having a swiveled flat portion 14, adapted to press against the rubber closure 5. The portion 14 may be formed with a flat face or may

be formed with an annular flange extending downward, the portion in the former construction simply bearing against the closure which is placed on the top 3 or may receive and retain it, as shown in Fig. 2, where the depending flange is shown at 15.

The construction shown in Fig. 4 differs from that heretofore described in that the bar 9 is formed integral with one of the sections and carrying a knuckle to receive the knuckle formed on the opposite section, the two sections being secured by a suitable pintle, a further difference being in the form of the locking device. In this form the portions 10 are continuations of the section, the contacting faces of the two portions being inclined to form a lock when the band is closed to form a continuous ring.

The operation will be readily understood. The jar is first filled with the contents and the top placed thereon. The band 6 (which is open) is then passed around the jar, within the groove 2, and closed until the free end containing the portion 10 abuts against the end of the opposite section, when the parts will be as shown in Fig. 1, or in case the form shown in Fig. 4 is used the portions 10 will overlap, in either case forming a continuous encircling band. The screw 12 is then operated, closing the vent 4 and at the same time locking the portions 10 against movement in any direction. When the jar is to be unsealed, the screw 12ª is first operated to release the closure 5, the same movement serving to allow the connecting-bar 9 to move, which movement allows the sections 7 to be readily opened, whereupon the closure can be readily removed and the jar opened.

By reason of the fact that the moving section 7 of the form shown in Fig. 4 must be sprung (to a slight extent) into position this form is preferably used in connection with a jar having only an annular shoulder and not a peripheral groove, said springing movement obviously preventing the band from being secured within an inclosed groove such as shown and within which the form shown in Figs. 1, 2, and 3 may be used advantageously. It will be seen, therefore, that I have provided a construction embodying two members hingedly connected, one of said members carrying the connecting-bar, the two members being adapted when closed to form a complete encircling band the closing movement of which is limited by the contacting faces of the meeting ends of said members, said meeting ends overlapping and being in turn overlapped by said connecting-bar.

By providing a construction in which the meeting ends overlap and are in turn overlapped by the connecting-bar I prevent all liability of the meeting ends being accidentally pressed outward after the closure is in position, the overlapping of the connecting-bar retaining and protecting the meeting ends from such tendency. In addition to this, the fact that said bar overlaps the meeting ends of the band causes said bar when the top screw is being forced home to more firmly bind the parts together, the ends of the bar being drawn inward to a slight extent in an obvious manner.

A number of other advantages appear from this construction; but it is not thought necessary to point them out in detail, inasmuch as they will be obvious.

While I have shown several ways in which the invention can be advantageously made and used, I do not limit myself to such precise constructions, but claim the right to use such other modified constructions which will fall within the spirit and scope of my invention as set forth in the appended claims.

While I have shown and described the construction as applicable to a closure for jars, it will be readily seen that the construction may be used as well as a means for carrying a heated jar, the weight of the jar as exerted by the shoulder formed on the periphery thereof serving to hold the two portions 10 in the lower portion of the slot 11, as shown in Fig. 1, in which position both will be locked within the slot, while the shoulder resting on the top of the construction shown in Fig. 4 will cause the portions 10 to be interlocked, so that as long as the connecting-bar, which in this case would form the handle, is raised the band would be held in locked position, enabling the jar, whether hot or cold, to be carried from one place to another.

Having thus described my invention, what I claim as new is—

1. A closure for jars, &c., comprising two members, hingedly connected, one of said members carrying the connecting-bar, the two members being adapted, when closed, to form a complete encircling band the closing movement of which is limited by the contacting faces of the meeting ends of said members, said meeting ends overlapping and being in turn overlapped by said connecting-bar; and means carried by said bar, for holding the jar-lid in position.

2. A closure for jars, &c., comprising two members, hingedly connected, one of said members carrying a connecting-bar, said members when closed, forming a complete encircling band, the meeting ends of said band having overlapping projecting portions adapted to coöperate, said projecting portions being in turn overlapped by said bar, the closing of said band being limited by the contacting faces of the meeting edges and their projecting portions; and means, carried by said bar, for holding the jar-lid in position.

3. The combination with a jar-body having a shoulder; of an encircling band formed in sections, hingedly connected, one of said sections carrying a connecting-bar adapted to overlap and hold said sections against movement, the closing movement being limited,

whereby any tendency of the band to exert pressure against the side of the jar will be prevented.

4. A closure for jars, &c., comprising a plurality of members hingedly connected, the meeting ends of said members being provided with radially-projecting portions, said members when closed, forming a complete encircling band, the closing movement of which is limited by the contacting faces of said meeting ends; a connecting-bar, carried by one of said members, said bar having a slot to receive said projecting portions; and means for retaining said projecting portions in said slot.

5. The combination with a jar-body having a shoulder; of an encircling band formed in sections, hingedly connected, said band carrying a connecting-bar provided with a slot and passage-way to said slot, said slot being adapted to receive the meeting ends of said band and retain said band in a closed position, the closing movement being limited.

In witness whereof I have hereunto set my hand in the presence of two witnesses.

ALDIN BRESEE.

Witnesses:
RAY FENTON,
CARRIE BRESEE.