M. R. Bissell,

Fruit Jar.

No. 111,607. Patented Feb. 7. 1871.

FIG. 2.

FIG. 3.

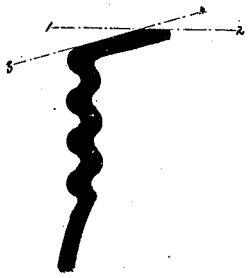
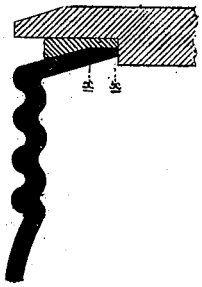


FIG. 4.



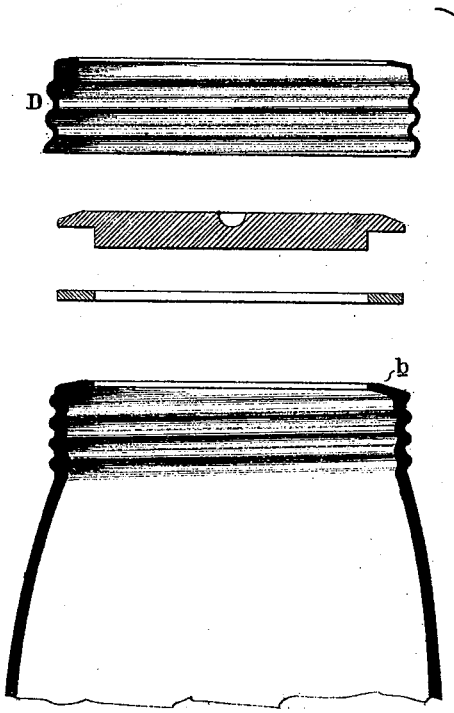


FIG. 1.

WITNESSES.

A. W. Norris

W. C. Henderson

M. R. Bissell

By his attys

Howson & Son

United States Patent Office.

MELVILLE R. BISSELL, OF KALAMAZOO, MICHIGAN, ASSIGNOR TO SALMON B. ROWLEY, OF PHILADELPHIA, PENNSYLVANIA.

Letters Patent No. 111,607, dated February 7, 1871.

IMPROVEMENT IN FRUIT-JARS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, MELLVILLE R. BISSELL, of the village and county of Kalamazoo and State of Michigan, have originated and invented an Improvement in Fruit-Jars; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon making a part of this specification.

Nature and Object of the Invention.

My invention consists of certain improvements in glass jars for preserving fruit, &c.; my improvements, which are too fully described hereafter to need preliminary explanation, having for their object the production of an economical jar, at the mouth of which a perfectly tight joint can be made.

Description of the Accompanying Drawings.

Figure 1 represents in section the upper portion of a fruit-jar embodying my improvement, and

Figures 2, 3, and 4, enlarged sectional views of part of the jar illustrating my invention.

General Description.

The class of blown jars to which my invention relates is that in which the jar has at the mouth an internal lip, consequent upon the formation in the mold of an external bearing, *b*, for receiving the packing-ring.

In blowing the jar there remains at the top what is termed a blow-over, a portion of which is shown at *d*, fig. 2; this is knocked off, leaving behind a ragged-edged rib, and this I grind away to a surface flush, or nearly so, with the blown shoulder without grinding the latter, however.

If, for instance, the shoulder be inclined, as shown by the line 3 4, fig. 3, the extreme top of the jar, formed by grinding away the remnant of the blow-over, will be represented by the line 1 2; thus the top of the jar will consist partly of a smooth-blown unground surface, and partly of a ground surface, the latter consisting of a narrow annular rim nearest the mouth.

It is well known that a much tighter joint can be produced through the medium of a gum ring when the latter bears on a smooth-blown surface of glass than on a ground surface; another advantage of a blown surface is this, that when made in the mold it is true and ready for use, as the most available bearing for the gum ring; whereas the formation of a ground surface of sufficient width for a like ring is a tedious and costly operation, during which many jars are lost by fracture, and it results in a bearing frequently notched and otherwise inferior to that having a blown surface.

In making my improved jar, the overblow is very thin, and in removing the remnant by grinding, it is not essential that exact smoothness should be obtained; the ground portion may even be notched, provided it be reduced to or very nearly to the blown surface, for I do not rely upon the ground portion as the part where the tight joint is produced

In fig. 4, for instance, I have shown the gum ring as compressed between a cover and the top of the jar, and it will there be seen that while the inner edge of the gum ring is compressed against the narrow annular ground surface between *x x*, the greater portion of the ring is also compressed to form the most efficient joint against a blown surface.

The narrow ground portion of the bearing possesses an advantage, especially when the blown portion of the bearing is inclined, as shown in the drawings, and this is always the case when the jars are blown in two-part molds.

On pressing down the cover the inner edge of the gum ring is first compressed against the ground rim, which therefore retains the packing ring within proper bounds while the joint is being completed by further pressure on the cover.

In the present instance the cover is depressed by an elastic screw-ring, D, adapted to a screw-thread on the neck of the jar A, as described in the patent granted to C. G. Imlay, May 23, 1865, reissued to S. B. Rowley, March 2, 1869; and I prefer this mode of fastening, but it will be evident that the bearing surface partly blown and partly ground possesses advantages independent of the mode of securing the cover.

The screw, however, can be formed on the jar more completely and with a better finish when it terminates at the top in a blown surface.

My improved jar, while thus presenting the advantage of a smooth-blown shoulder or bearing surface for the packing ring, also possesses certain advantages arising from grinding down the vertical rib forming the remnant of the overblow flush with the said smooth-blown shoulder, and these advantages may be thus explained:

If the rib is not thus ground down it is necessary to employ a flanged cap or cover to overlap the said rib, a construction, which, if the cap be of glass, is liable to cause warping unless the greatest care and skill be exercised in the manufacture.

In my arrangement a cap having such a vertical

flange is not necessary, a lighter cap may therefore be made, and one requiring less care and skill in its construction.

At the same time it is evident that where, as in the present instance, a screw-ring, engaging with external threads on the jar, is employed as the means of fastening, a shorter screw-ring will be required than is necessary to secure a cover having a vertical flange.

Claim.

A glass jar, terminating at the top in a partly-blown and partly-ground bearing for a gum ring, as set forth.

MELVILLE R. BISSELL.

Witnesses:
W. S. CRANE,
GEO. M. BUCK.