J. A. NICHOLS.

FRUIT-JAR.

No. 187,406. Patented Feb. 13, 1877.

Fig. 1.

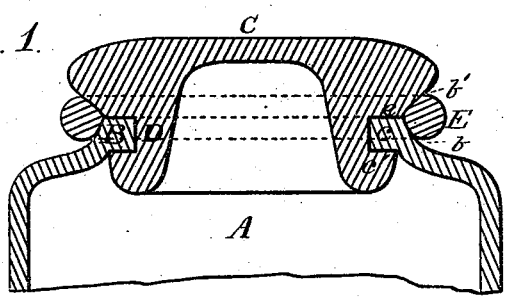


Fig. 2.

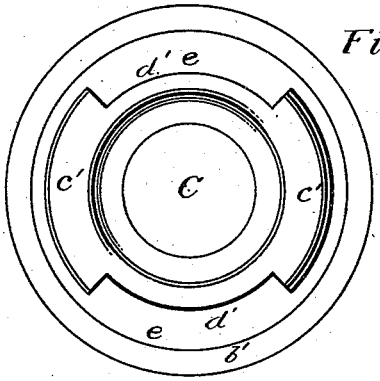


Fig. 3.

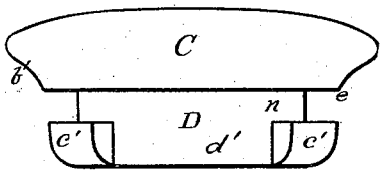


Fig. 4.

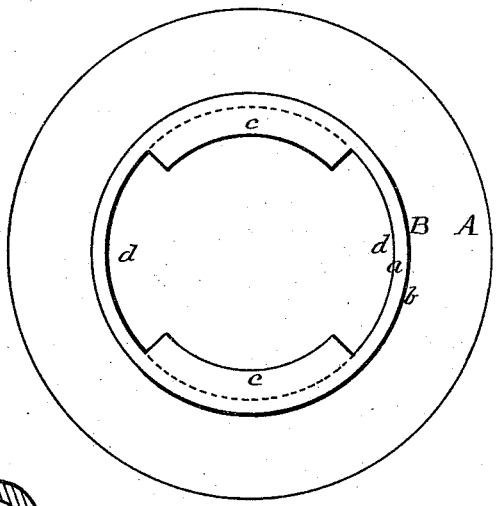
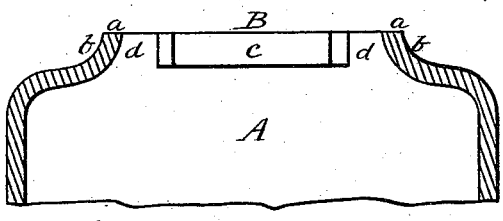


Fig. 5.



WITNESSES

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UNITED STATES PATENT OFFICE.

JOHN A. NICHOLS, OF PITTSBURG, PENNSYLVANIA.

IMPROVEMENT IN FRUIT-JARS.

Specification forming part of Letters Patent No. **187,406**, dated February 13, 1877; application filed October 21, 1876.

To all whom it may concern:

Be it known that I, JOHN A. NICHOLS, of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented a new and valuable Improvement in Preserving or Fruit Jars, and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a vertical section of the jar, with cover and ring in place. Fig. 2 is a bottom view of the cover. Fig. 3 is a side view of the same. Fig. 4 is a top view of the jar. Fig. 5 is a vertical section of the mouth of the jar, showing the marginal flange.

This invention has relation to preserving-jars, and it consists in the construction and novel arrangement of the internal marginal neck-lugs or flanges of the jar, and in connection therewith of the terminal lugs or flanges opposite each other on the central portion of the top or cover, which is designed to be inserted into the neck of the jar, and turned to interlock said lugs or flanges of the cover and neck; and in combination with said cover and neck, this invention consists in a shoulder of the cover, fitting the margin of the neck and exterior terminal surfaces of said shoulder and neck, coming together at the joint, forming a seat for a rubber ring which closes the joint externally, as hereinafter shown and described.

In the accompanying drawing, the letter A designates the jar, and B the neck thereof, terminating at the margin *a*, which is externally circular, the outer surface *b* forming one-half of the seat of the rubber ring hereinafter referred to. Internally, the neck is provided on opposite sides with the marginal lugs or flanges *c*, which extend partly around the neck circularly and horizontally. Between the lugs the internal wall of the neck extends free to the margin *a*, forming alternate interspaces *d* for the passage of the interlocking lugs of the cover. The marginal flanges *c* are usually made quadrants of the circular aperture, and flush with the margin *a*, so that they will be strong, and not liable to fracture on account of accidental shocks in attaching the cover when the parts are made of glass, which is the material preferred. Furthermore, this construction affords the greatest amount of space in the jar for the contents. These flanges may be slightly beveled on their under sides, but as usually constructed their upper and lower surfaces are parallel, as an air-tight joint between the margin *a* and the shoulder of the cover is not designed to be secured by the forced contact of these parts, which would be apt to break the lugs, but by the joint-ring hereinafter described. C indicates the top or cover of the jar. This is provided with a central stopper-portion, D, which is designed to be inserted within the neck of the jar. Above this central portion D is a shoulder, *e*, which is wide enough to extend outward to the edge of the margin *a* of the jar when the cover is placed thereon. The circular exterior surface of the cover, above the shoulder *e*, is designed to be even with the surface *b* of the neck, and to extend upward therefrom, forming the upper half *b'* of the seat of the joint-ring. Below the shoulder *e* the central portion D is circular, and forms a guide-neck, *n*, which in its external diameter is very nearly equal to the distance between the marginal flanges *c*, which engage with said neck, and serve to keep it properly centered in turning to interlock or unlock the lugs. At the lower portion of the central stopper D, below the neck, are formed the outwardly-projecting lugs or flanges *c'*, which extend circularly and horizontally around the lower end of said stopper portion for about a quadrant of its circumference on opposite sides. Between these flanges *c'* are interspaces *d'*, whereby allowance is made for the flanges *c* of the jar when the central portion B of the cover is inserted therein. When the jar is ready to be closed the lugs of the central portion D of the cover are passed between the lugs *c* of the jar through the interspaces *d*. After the lugs of the cover have passed by the flanges *c* of the jar, the shoulder *e* of the cover comes in contact with the margin *a* of the jar, and the guide-neck *n* of the cover is in contact with the inner concave faces of said flanges *c* of the jar. The cover can now be turned hori-

zontally on said guide-neck, bringing its terminal lugs c' under and into engagement with the flanges c of the jar. When the shoulder e of the cover is brought down upon the margin a of the neck of the jar, the half-seats b b' of the neck and cover come together, forming a seat directly at and exterior to the contact surfaces of said shoulder and margin, for the reception of the joint-ring E, which is made of rubber, and is designed to be slipped over the top of the cover to its seat at the joint, and serves to make this joint air-tight without being liable to contact with the contents of the jar. At the same time it holds the cover and jar in their relative position, so that the flanges will not be liable to be accidentally moved upon each other and disengaged.

What I claim as my invention, and desire to secure by Letters Patent, is—

The combination, with the jar-neck B, having the margin a, the internal interspaced marginal flanges c, and the external half-seat b next said margin, of the cover having the shoulder e in contact with said margin, the guide-neck n, flanges c' and external half-seat b' above said shoulder, and the rubber ring E spanning both said half-seats, and closing the joint externally, substantially as specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

JOHN A. NICHOLS.

Witnesses:

WM. B. BATEMAN,

JAMES E. ROGERS.