GRAY & HEMINGRAY.

Cap for Fruit Jars.

No. 38,820. Patented June 9, 1863.

Fig 1

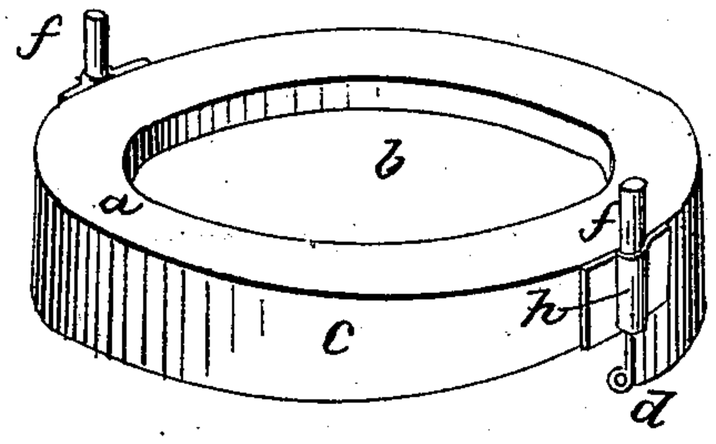
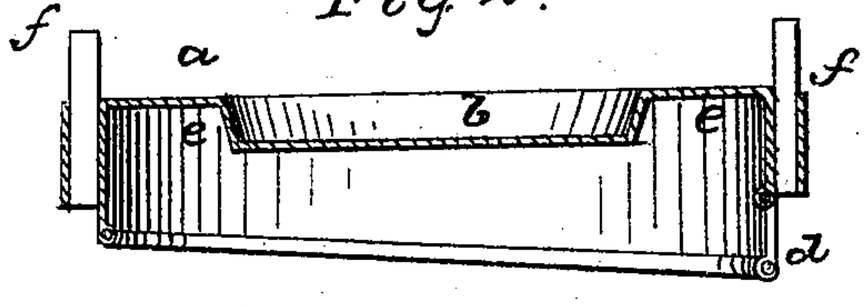


Fig 2.



Witnesses.

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UNITED STATES PATENT OFFICE.

RALPH GRAY AND ROBERT HEMINGRAY, OF COVINGTON, KENTUCKY.

IMPROVEMENT IN CAPS FOR FRUIT-JARS.

Specification forming part of Letters Patent No. **38,820,** dated June 9, 1863.

To all whom it may concern:

Be it known that we, RALPH GRAY and ROBERT HEMINGRAY, of Covington, in the county of Kenton and State of Kentucky, have invented a new and useful Improvement in the Construction of Caps for Fruit-Jars; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, which form a part of this specification.

It may be remarked that the art of preserving fruit and other perishable articles of food by inclosing them, while heated, in air-tight jars or cans has become so general that the slightest improvement in the construction of the vessels, either in rendering them more secure and efficient or in reducing their cost, is important.

The process of closing or sealing the mouth of fruit-jars by screw-caps has many advantages, and were it not for the expense of construction screw tops or caps would probably supercede all others.

The modes heretofore employed for closing glass and earthenware jars by screw-fitted caps have been particularly expensive.

Our invention relates to screw-caps for glass jars; and it consists in the peculiar construction of the caps by which economy and efficiency are both attained.

Referring to the annexed drawings, Figure 1 is a perspective view of my improved cap. Fig. 2 is a sectional representation of the same.

The jar upon which the cap is to be used is made with a coarse screw-thread formed around the neck of the jar. The edge which surrounds the mouth of the vessel is left level, and for greater security this edge is afterward slightly ground, to afford an even smooth edge upon which the gum gasket, hereinafter mentioned, is made to press.

The cap is made of sheet metal and wire. The top plate, *a*, is a circular piece of tin or other sheet metal, adapted to the size of the opening or mouth of the jar. It has a central depression, *b*, made by stamping or compressing the piece between dies in the usual manner. Surrounding this top plate and soldered thereto is a narrow rim, *c*, formed of a strip of sheet metal, which is cut with a regular taper from end to end. Before this strip is joined to the top plate, and after it has been cut to the proper taper, one edge is bound with wire *d*, as shown. The taper of the strip *c* is exactly adapted to the inclination of the screw-thread which surrounds the neck of the jar, and the wire *d* is so employed that when the strip is formed around the top plate, *a*, and the cap thus rendered complete, the wire *d* projecting inward forms a screw-thread corresponding with the thread on the neck of the jar, allowing the cap to be applied to the jar by screwing it thereto in the ordinary manner.

Between the circular depression *b* and the inner face of the rim *c* an annular space, *e*, is formed, which serves to contain a gasket of vulcanized india-rubber, which, as the cap is screwed down, encounters and is compressed upon the smooth edge of the jar, which has been named, and renders the vessel air-tight.

f f are lugs made of short pieces of stout wire, and firmly soldered to the circumference of the cap. These are for the purpose of allowing a plain bar of iron to be used as a wrench to screw down or remove the caps. I attach these lugs to the cap by means of small pieces of sheet metal, *h*, which are first indented or recessed to receive the wire and then firmly soldered to opposite points on the periphery of the cap in the manner represented in the drawings. By this means the lugs are rendered firm, and will support any strain it may be necessary to employ in operating the cap.

Screw-caps of various kinds having been made and used by others, we wish to restrict ourselves to the specific construction herein described, which constitutes our invention.

We claim—

In the construction of sheet-metal screw tops for jars, the combination of the helical wire *d*, the annular space *e*, and the lugs *f*, substantially as herein shown and described.

RALPH GRAY.
ROBERT HEMINGRAY.

Witnesses:
D. L. REID,
W. R. CLOUGH.