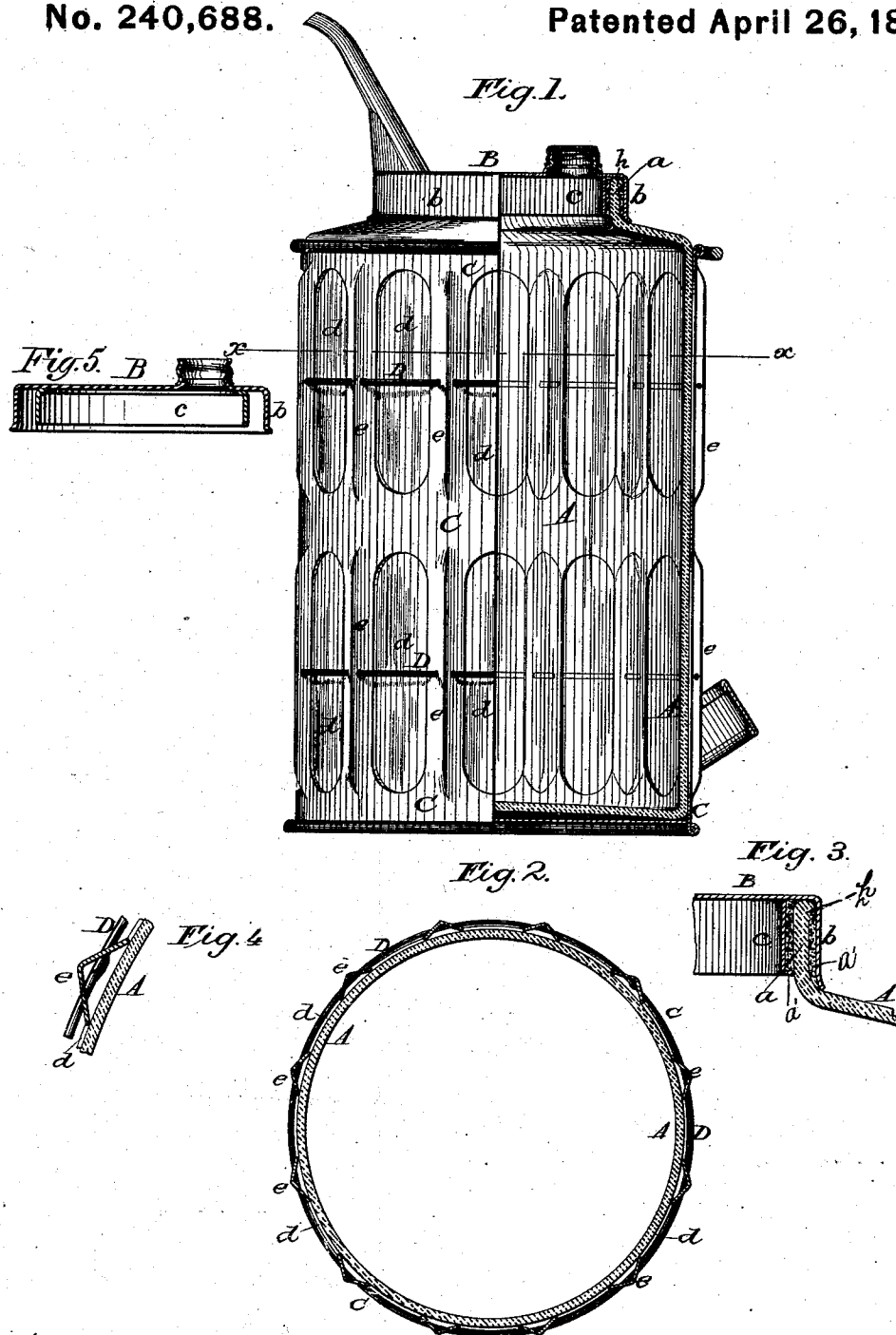


(No Model.)

J. A. FREY.
Glass Bodied Can.

No. 240,688.

Patented April 26, 1881.



Attest.

James P. Hollingworth
Walter S. Dodge

Inventor.
J. A. Frey
By Dodge & Son
Attys.

UNITED STATES PATENT OFFICE.

JOHN A. FREY, OF BROOKLYN, NEW YORK.

GLASS-BODIED CANS.

SPECIFICATION forming part of Letters Patent No. 240,688, dated April 26, 1881.

Application filed October 28, 1880. (No model.)

To all whom it may concern:

Be it known that I, JOHN A. FREY, of Brooklyn, in the county of Kings and State of New York, have invented certain Improvements in Glass-Bodied Cans, of which the following is a specification.

My invention relates to that class of cans used for transporting liquids which consists of a glass body having a wide mouth closed by means of a sheet-metal top secured permanently thereon, the top being provided with a discharge tube or spout and with a tubular neck for filling purposes.

My invention relates to the peculiar manner of constructing and attaching the sheet-metal top, to the peculiar construction of a perforated ribbed jacket of sheet metal used to inclose and protect the glass body, and to the combination, with the jacket, of transverse wires, all as hereinafter described in detail.

The object of the first part of my invention is to prevent the leakage which so frequently occurs in other cans from the unequal expansion and contraction of the glass body and the metal top; and to this end it consists in a flat top consisting of a single sheet of metal having its outer edge turned downward or flanged to embrace the outside of the glass body, and also having soldered to its under surface a second flange, which fits within the glass body, the two flanges embracing the edge or neck of the body closely between them, and being cemented closely thereto. In order to give the top additional firmness of attachment to the body, the latter is provided at its edge with an outwardly-extending lip, beneath which the cement engages.

The second feature of the invention has for its object the production of a protecting-jacket which shall be at once cheap and strong; and to this end it consists in punching a series of slits or openings in a sheet of tin or other metal, and then punching or forcing up the metal between the slits in such manner as to form raised ribs of angular cross-section.

The third feature of the invention is designed to secure the sheet-metal jacket closely and firmly against the glass to give it additional strength, and to prevent foreign bodies from striking against the glass.

Figure 1 represents an elevation of my im-

proved can, one side being represented in section. Fig. 2 represents a cross-section of the same on the line *x x*. Fig. 3 represents a vertical section through one side of the top and body, illustrating the manner in which they are constructed and united, the space between the flanges of the top being somewhat exaggerated, in order to show more clearly the form of the parts. Fig. 4 is a horizontal cross-section, on an enlarged scale, showing the form of the ribs of the jacket and the manner in which the protecting-wires are passed through the same. Fig. 5 is a vertical cross-section of the top detached from the can.

A represents a cylindrical glass vessel or body, having, as usual, a wide mouth or opening at the top, with a vertical flange, *a*, surrounding the same, the flange having at its upper edge a slight outward curvature or lip, *h*, as shown.

B represents the top of the can, constructed of sheet-metal in two pieces, the main portion covering the entire mouth of the can and being bent or flanged downward closely around the same, as indicated at *b*, while the smaller portion, *c*, consists simply of an annular flange or ring soldered firmly to the under surface of the main portion, and fits closely to the inside of the neck *a*.

It will be seen that the two flanges *b* and *c* embrace the lip *a* between them. The two flanges are secured firmly and tightly to the lip *a* by means of a cement of any suitable character introduced between them, as indicated at *a'* in the drawings.

Inasmuch as the outside flange, *b*, is in one piece with the metal covering and closing the mouth, and is held securely by the cement, which not only adheres to the glass, but engages beneath the outwardly-turned lip of flange *a*, the top is secured to the metal with great firmness. When the metal expands a tight joint is maintained by means of the inside flange, *c*, and when the metal contracts a close joint is, in like manner, secured by means of an outside joint, *b*.

I am aware that flanged sheet-metal tops are old; and I am also aware that in an electric lamp the edge of a glass body has been seated in a wide body of cement, the latter mounted between two widely-separated flanges

soldered to a third piece of metal made in the form of a heavy plate or plug and constituting the base of a glass body.

My construction differs from that above stated in that the top proper and the outside flange are made in a single piece; also, in that my flanges are brought in close proximity to the glass; also, in that the neck of my glass body has the lip to secure the cement against working loose; and, also, in that my top is connected to a contracted portion of the body, so that its edges fit upon the top of the body, so that they cannot encounter foreign bodies, which would tend to drive the top upward from the body.

C represents the jacket of my can, constructed usually of a single sheet of metal, having a series of oblong openings, *d*, punched therein, and having the bars which are left between the openings pressed or punched from the inner side in such manner as to give them an angular cross-section, as shown at *e* in the drawings. The jacket thus made from a single sheet of metal is at once cheap, strong, and neat in its appearance.

When the size of the body is such that a single sheet of metal will not inclose the same, two or more sheets will be secured together at their edges. In order to give the jacket additional strength, I form holes transversely through the ribs *e* and pass wires *D* through the same, as shown, the wires being arranged to encircle the body and hold the jacket closely against the same. The ends of the wire will be soldered or otherwise secured to the jacket or to each other.

I am aware that square lanterns have been constructed in which angular sheet-metal corner-posts are soldered to frames at their ends; and I am also aware that wire guards have been arranged to encircle the lantern and secured to the frame thereof, and this I do not broadly claim.

What do I claim is—

1. As a new article of manufacture, a can

having a glass body with a contracted flanged mouth and a sheet-metal top consisting of two parts, one part covering the mouth and flanged to encircle the glass neck, and the other made in the form of an annular flange soldered to the under side of the main portion, in close proximity to the inner surface of the glass neck, the latter being cemented to both flanges, as described and shown.

2. In combination with the glass body having the flange *a* and the outwardly-turned lip thereon, the sheet-metal top *B*, provided with the two flanges embracing the lip *a*, and cemented thereto, as shown.

3. A top for a glass-bodied can, consisting of a circular sheet having its outer edge turned downward to form an annular flange, and its body provided with a filling-tube and a discharge-tube, and of an annular rim or flange, soldered permanently to the under surface of the main portion, as described and shown.

4. In combination with a glass body having a flanged mouth, a thin sheet of metal having its outer edge turned downward around the glass flange, in combination with a sheet-metal rim or flange soldered firmly to the under side of the sheet within the glass flange, the two metal flanges and the glass flange being cemented firmly and closely together.

5. The sheet-metal jacket consisting of a sheet of metal having a series of elongated openings punched therein, and the metal between the openings raised to form bars of curved or angular cross-section, substantially as described and shown.

6. In combination with the glass body and the sheet-metal jacket constructed and fitted closely upon the glass, as shown, the wires *D*, passed through the ribs of the metal jacket and encircling the glass body, as shown.

JOHN A. FREY.

Witnesses:

P. T. DODGE,

J. W. HAMILTON JOHNSON.