R. PORTER.

Sheet-Metal Can.

No. 205,676. Patented July 2, 1878.

Fig. 1

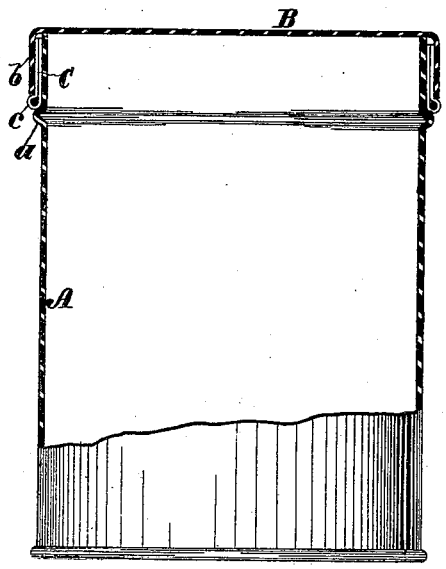
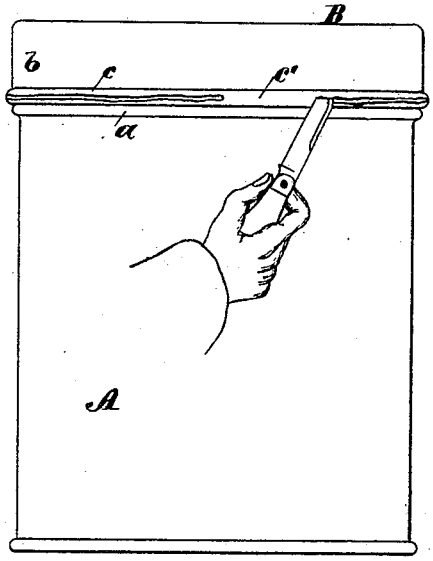


Fig. 2



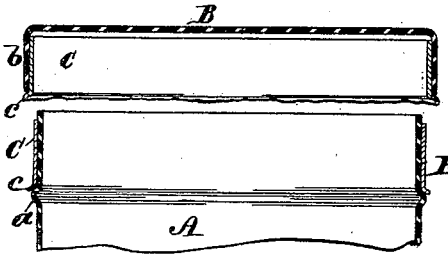


Fig. 3

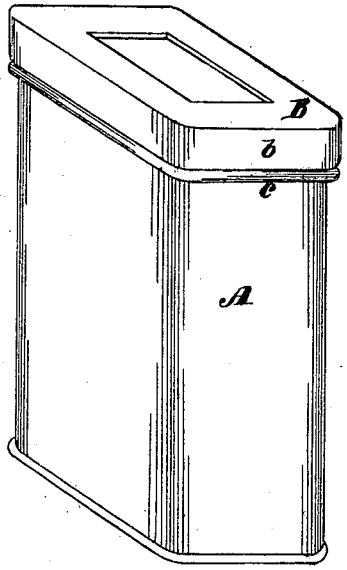


Fig. 7

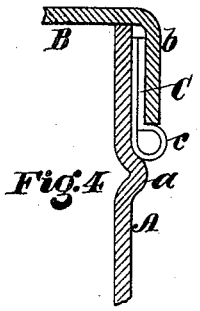


Fig. 4

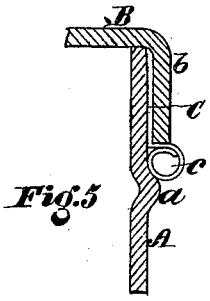


Fig. 5

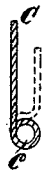


Fig. 6.

WITNESSES:

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INVENTOR,

Robert Porter,

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ATTORNEYS.

UNITED STATES PATENT OFFICE.

ROBERT PORTER, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN SHEET-METAL CANS.

Specification forming part of Letters Patent No. **205,676,** dated July 2, 1878; application filed May 18, 1878.

To all whom it may concern:

Be it known that I, ROBERT PORTER, of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Sheet-Metal Cans and similar vessels; 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 pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification, in which—

Figure 1 is a vertical longitudinal section of my improvements. Fig. 2 is a side elevation of the same; Fig. 3, a broken vertical section, showing the top severed from the body of the can; Figs. 4 and 5, sectional detail views; and Fig. 6 illustrates a sectional view of a modified form of the soft-metal ring. Fig. 7 is perspective view of my invention applied to an oblong can.

My invention has for its object to provide a can or equivalent vessel having a lid, top, or end so secured to the body by a tight metallic connection that it may be readily detached by severing said connection with a knife or other suitable tool.

My invention consists, essentially, in the provision of a band or ring, of brass or other soft metal, fitted around the body of the can or vessel near its upper edge, and adapted to have the lid, top, or end slipped over it, said ring or band having around its lower edge a bead, rib, or fillet, which remains below the lower edge of said top or end when the latter is applied to the vessel. To hold said ring or band and top or end in position, they are soldered to each other, solder being also employed to fasten the ring to the body of the vessel. To remove the top or cover from the vessel, the fillet or bead around the lower edge of the ring or band, which is of double thickness, and which may be either filled with some soft material, like paper, or else formed hollow and left empty, is cut through its outer fold. The cut may be entirely around the ring, in which case the lid, top, or end may be slipped wholly off the vessel; or it may be of such a character as to leave a portion of the band or ring uncut, such uncut portion serving as a hinge upon which the top or end may be swung back.

Referring to the accompanying drawing, A indicates the body of a can or similar vessel; and B, its top, lid, cover, or end. For the sake of brevity, this part B is referred to hereinafter as the top, though it may be either end of the vessel. C is a band or ring, of thin, soft brass or other equivalent metal or material. Said band is, by preference, formed of a single sheet, folded so as to produce a bead, rib, or fillet, *c*, which may be either left empty or filled with paper or some other soft and easily-penetrable material. This band or ring is applied to the can or vessel A, around the body of the latter and just below its upper edge, or so that the upper edges of said band and can shall be flush with each other.

For convenience, the body of the can should be formed with an annular rib or swell, *a*, which will prevent the band C from slipping down out of position before being soldered to the can; but this rib or swell is not absolutely necessary. The band C being applied to the can A, the top B is then slipped on, its depending flange *b* encompassing or surrounding said band, the lower edge of said flange coming down to, or about to, the fillet or bead *c*. Solder is now applied on the outside to fasten the band to the can and to the top B. The fastening is then complete.

To remove the top from the can, the band C is severed by a knife-cut through the outer projecting fold of the bead or fillet *c*. Such cut, as already suggested, may be entirely around the band, permitting the complete removal of the top B; or it may leave a portion of the band uncut, as shown at *c'* in Fig. 2, such uncut portion serving as a hinge, upon which the top may be thrown back.

The object of the fillet or bead *c* on the band or ring C is to cause one fold of the metal of said band to be thrown out from the body of the can or vessel A, so as to permit it to be more easily cut or penetrated by the point of a knife or other equivalent tool. The object of the soft filling for such fillet is to maintain the projection or fullness of the latter, and prevent it from being bruised or flattened down against the sides of the can during the soldering operation, or when the can is being transported.

The construction of the band may be slightly modified, as shown in Figs. 5 and 6, its lower

edge being turned inwardly or outwardly to form the fillet or bead *c*, the band above said fillet being of but a single thickness, instead of the double fold shown in Figs. 1 and 4, and already described.

I have described the application of the connecting-band as being made to the body of the can first, the top being then slipped over it; but this order may be reversed, the band being then first inserted in the top inside the depending flange of the latter, said top and band being then applied to the body of the can, and then soldered thereto and to each other, as already suggested.

The shape of the vessel to which my improvement is applied is immaterial, and I do not, therefore, confine myself to any particular shape, but reserve the right of using the improvement on cans or vessels of square, oblong, cylindrical, or other shapes.

In soldering the parts together, the projecting part of the brass band becomes coated with solder, so that no brass shows on the completed vessel, the joint bearing the appearance of an ordinary soldered joint. When the cut is made through the fillet and the top is detached from the body, the inner fold of the brass band remains attached to said body, and its outer fold, or that part of said outer fold above the cut, adheres to and is removed with the top.

What I claim as my invention is—

1. A can or other vessel having a top, lid, or end, and an intermediate band or ring of soft brass or equivalent metal or material located between its body and the flange of such top, lid, or end, and formed with a projecting fillet or bead, said band being soldered to the body and top or end, respectively, forming the connection between said parts, and adapted to be readily cut to permit the detachment of said top, lid, or end, substantially as set forth.

2. The band or ring C, of soft brass or equivalent material, having a fillet or bead around its edge, and adapted to form between the body and top or end of a can or other vessel a connection which may be readily cut, substantially as and for the purpose set forth.

3. In combination with the band or ring C, of soft brass or equivalent material, having the fillet or bead *c*, the soft filling *c'*, substantially as and for the purpose set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 16th day of May, 1878.

ROBT. PORTER.

Witnesses:
THOS. CONNOLLY,
CHAS. F. VAN HORN.