

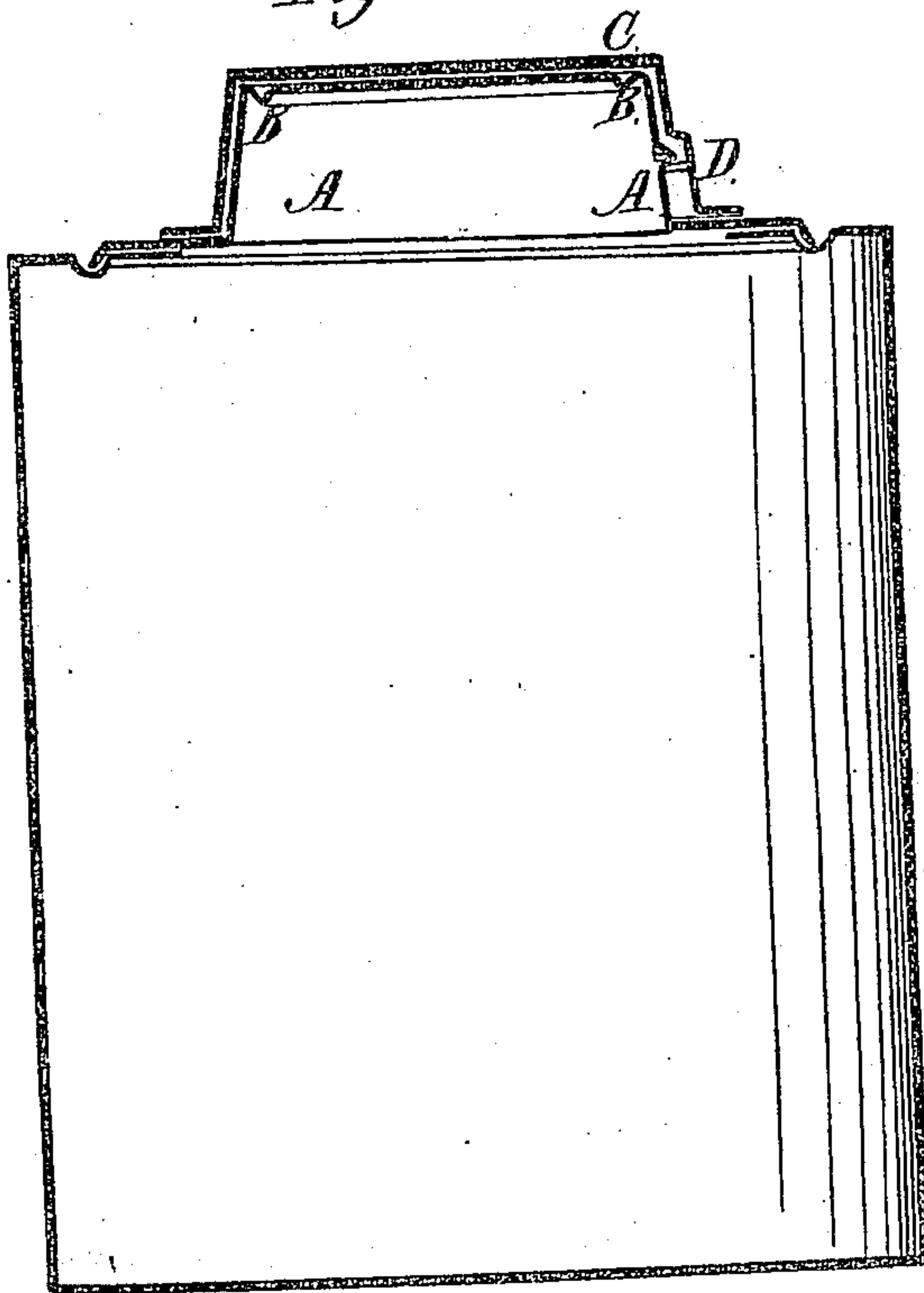
*J. I. Livingston*

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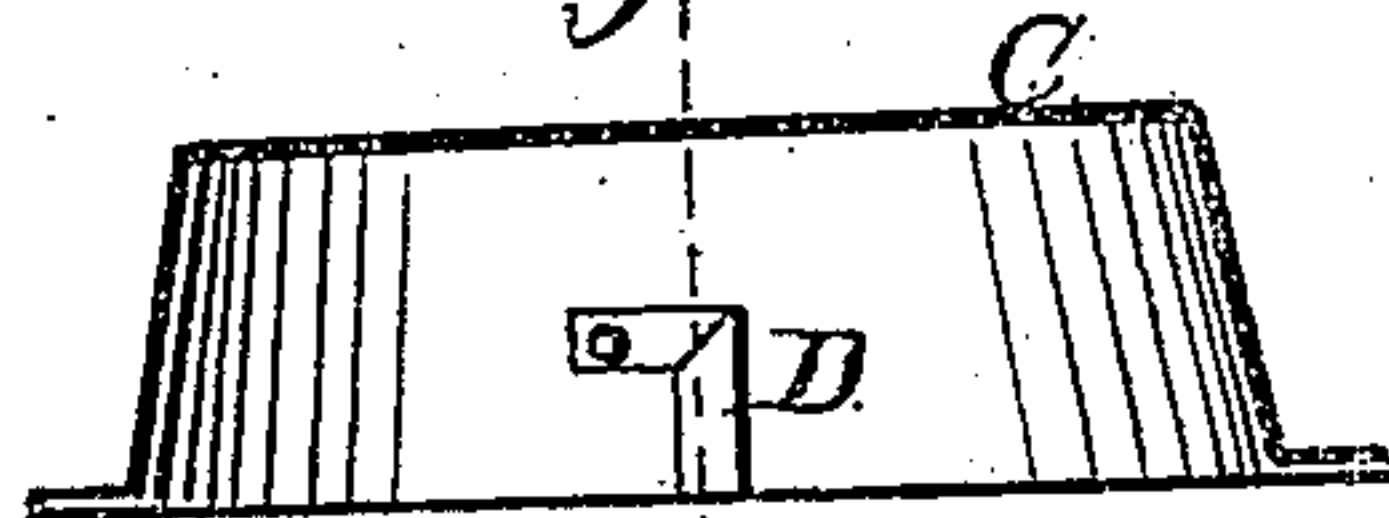
*Nº 87,415.*

*Patented Mar. 2, 1869.*

*Fig: 1.*



*Fig: 2.*



*Witnesses:*

*Albenus Endorf  
H. A. Morgan.*

*Inventor:*

*J. I. Livingston*

*per M. M. S. J.*

# UNITED STATES PATENT OFFICE.

J. I. LIVINGSTON, OF PITTSBURG, PENNSYLVANIA.

## IMPROVEMENT IN UNCUT CAPS FOR CANS.

Specification forming part of Letters Patent No. 87,415, dated March 2, 1869.

*To all whom it may concern:*

Be it known that I, J. I. LIVINGSTON, of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Uncut Caps for Cans; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

This invention relates to improvements in caps for sheet-metal cans, such as are designed to close a vessel hermetically when packed for shipping, and to be opened by cutting out a portion of the metal, the object of which is to provide an arrangement whereby the part to be cut out may be removed more readily, and whereby, also, the removable cap, commonly applied to close the opening so cut out, may be attached more readily, or a plug or cork inserted in place thereof; also, to provide a cheaper construction.

Figure 1 represents a sectional elevation of my improvement as applied to a can, and Fig. 2 represents a sectional elevation of the removable cap.

Similar letters of reference indicate corresponding parts.

It is customary to close the openings made in sheet-metal cans for introducing the articles to be packed in them by soldering flat disks of metal over the said openings, to be cut out when the contents are to be removed, after which the cans are commonly destroyed, or are of little value for use. To render them useful afterward small cylindrical or conical rings having flanges and a bottom of thin metal, which may be easily cut at the base, and caps screwing onto their upper ends, have been soldered to the tops of the cans over the holes, and the opening made through the said thin sheet metal inside of these rings, and the cap, which screws upon the outside, forms the means of closing the passage for all uses subsequently to the said opening of the cans.

The objections which I have found to this latter plan are, that it is very difficult to cut the top of the can through the ring and accomplish the work sufficiently well to admit of

inserting a plug or cork besides being too expensive in construction, and the cap, which screws upon the outside, seldom forms a tight joint, as the threads often crack or become jammed and prevent the caps from screwing on, and require considerable time in removing and applying them.

Instead, therefore, of the aforesaid ring, I provide an inverted cup, A, having a flange at the bottom, for soldering to the can, and solder the same over the hole in the top of the can, and strike a groove, B, in the bottom of the said cup, partly severing the metal, and forming a guide for the knife in cutting out the said bottom when the can is to be opened. I also provide one or more studs in the side of the cup by punching the inside sufficiently to raise them on the outside without puncturing the metal; and I provide a removable cap, C, having a smooth interior surface, and fitted snugly over the smooth outer surface of the cup A, and with right-angled recesses D struck into the sides from the inside thereof, as represented in Fig. 2, to form, in connection with the studs in the side of the cup A, bayonet-fastenings for the said caps. These caps are fitted to embrace the inverted cups A very snugly when pressed down thereon sufficiently to lock the bayonet-fastening, and thereby serve an excellent purpose for closing the passage, for all uses to which the cans may be put, after the uncut bottoms of the cups are cut out.

This arrangement provides an uncut cap for packing-cans that may be manufactured very much cheaper than the one above described, and which is also more reliable and useful.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

The uncut cup A and cap C, constructed and arranged as described, and combined with the top of packing-cans, substantially as specified.

The above specification of my invention signed by me this 19th day of January, 1869.

J. I. LIVINGSTON.

Witnesses:

FRANK BLOCKLEY,  
ALEX. F. ROBERTS.