E. A. HEATH.
Encased Bottle.

No. 211,092. Patented Jan. 7, 1879.

Fig 1

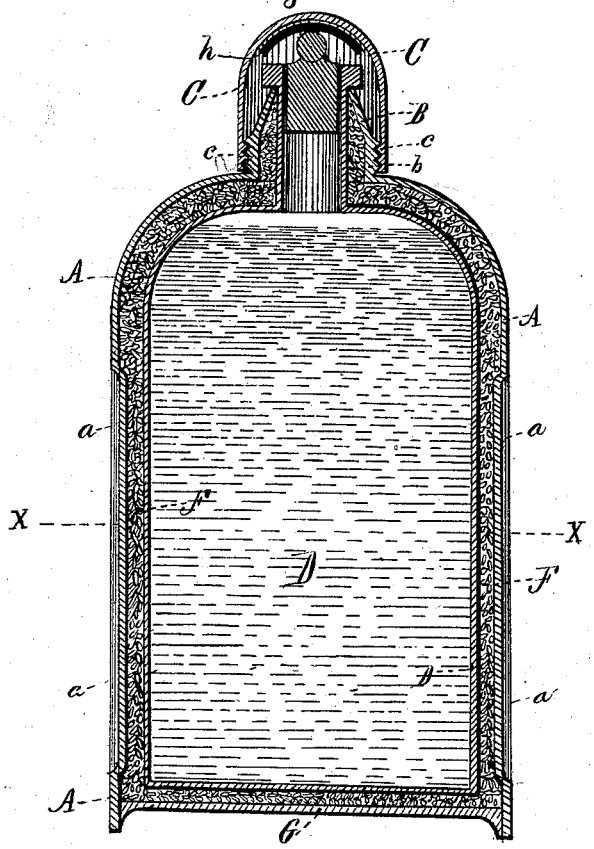
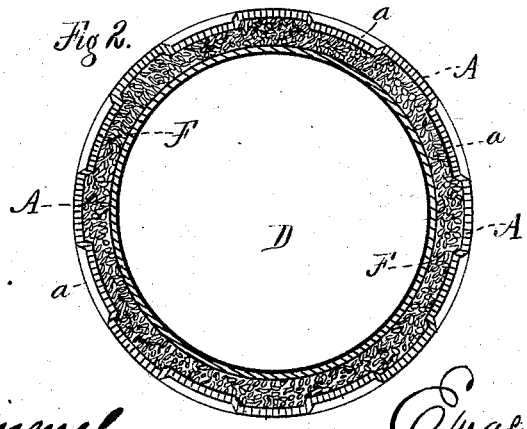


Fig 2.



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UNITED STATES PATENT OFFICE.

EUGENE A. HEATH, OF NEW YORK, N. Y.

IMPROVEMENT IN INCASED BOTTLES.

Specification forming part of Letters Patent No. **211,092**, dated January 7, 1879; application filed December 28, 1877.

To all whom it may concern:

Be it known that I, EUGENE A. HEATH, of the city, county, and State of New York, have made certain new and useful Improvements in Incased Bottles for Transporting Fluids, of which the following is a specification:

This invention relates to that class of bottles which are provided with an exterior casing, a suitable packing being interposed between the two, the object sought for being the prevention of breakages during transportation.

The present invention consists in incasing the bottle in a light metallic case, the contour of which follows closely the configuration of the bottle, a space being left between the bottle and the casing, which is filled with soft packing, the base of the bottle also being covered, the bottom of the casing being securely closed by means of a metal bottom. The mouth of the bottle and its stopper are slightly projected above the neck of the casing, such neck being provided with a removable cover or cap, the entire arrangement forming a permanent bottle and case, which may be used generally in the same manner and in place of the common bottles, at the same time being well adapted for all shipping purposes without requiring any additional protection.

In the drawings, which form an essential part of this specification, Figure 1 represents a vertical sectional elevation of an incased bottle in which my invention is fully embodied; and Fig. 2 is a cross-section of the same, taken on line X X, in Fig. 1.

The same reference-letters marked on both drawings will locate and designate corresponding parts.

The object of my invention is to provide an incased bottle which presents to the eye an appearance similar to that of an ordinary bottle, that is capable of being used in place thereof for all general purposes, and at the same time be absolutely unbreakable. Such bottle may also be transported without boxing, and will insure the perfect delivery of its contents.

In carrying out my invention I prepare from sheet metal of suitable gage for the purpose the exterior casing, into which the bottle is to be inserted, secured, and packed. This casing A is formed by any of the usual mechanical processes of manipulating sheet metal. It may be struck up in dies, spun, or drawn into shape, or so partially shaped and finished by other processes. The shape of this casing preferably partakes after the general exterior configuration of the bottle, as shown in Fig. 1, and its walls may be smooth, or may be recessed, paneled, or corrugated below the breast, as may be preferred.

In Fig. 2, I have shown the casing as corrugated, and such corrugations may be varied in number and be large or small, as may be deemed best. The apex of the breast of the casing is so drawn or shaped as to form a projecting-neck, B, the base of which has formed upon its exterior a screw-thread, *b*, which may be spun thereupon by means of any suitable tools.

A cap, C, the base of which is also provided with a screw-thread, *c*, corresponding with the screw-thread *b* on the neck of the casing, is arranged for application to such neck in order to cover the mouth of the bottle. This cap may be struck up or drawn from sheet metal and the screw-thread spun thereupon in the manner usually adopted in such cases. A suitable soft lining or packing, *h*, may be inserted into the top of said cap in order to prevent the bottle-stopper from coming in contact with the metal of the cap.

A sheet-metal bottom, G, either with or without a flange, is provided for insertion in the base of the casing A, and is permanently secured therein after the bottle and packing are in place.

D represents the bottle, which is inserted into the case A from its opened base, the apex or mouth of the bottle passing out of the open top of the neck of the case. The metal at the top of the neck B, above the screw-thread, is then pressed inwardly, so as to close firmly around the neck of the bottle, which may be flanged, as shown. Various methods of closing in the metal of the neck B will readily suggest themselves to the skilled artisan, and I therefore do not limit myself to any specific device.

The casing A is made of such size that after the bottle is inserted therein a space is left on all sides between the two, which space is then filled with any suitable soft packing

or filling. Various substances may be used, although I prefer to use fine cork chips. This filling covers the bottle completely, including the neck, also the bottom thereof. The metal bottom G is then inserted, pressed down upon the packing, and secured in place by soldering, which completes the package.

It is apparent that a bottle so incased is immovably in place and secure from any danger of breakage, as at no point can it come in contact with any ordinary breaking causes. This incased bottle is specially adapted for general use, and the exterior of the case may be highly ornamented by plating or painting, and its sides may be plain or paneled or corrugated, as described.

What I claim as my invention is—

1. The combination, substantially as described, of a glass bottle, a light metal casing formed in one piece, the configuration of which is substantially that of the bottle, such casing being of greater size than the bottle, a soft filling or packing interposed between the two, and a light metal bottom for finally closing the base of said case and retaining the bottle therein.

2. The combination of the bottle D, the filling or packing F, the metal casing A, formed in one piece, having neck B, provided with screw-thread *b*, metallic bottom G, and cap C, all arranged and applied as and for the purposes substantially as herein shown and set forth.

EUGENE A. HEATH.

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