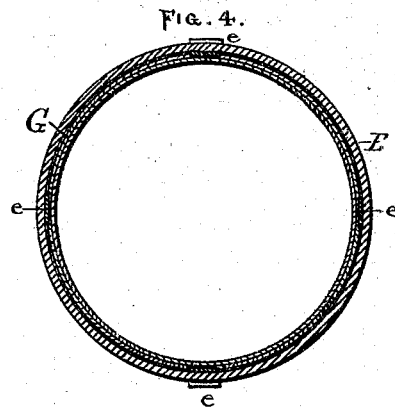
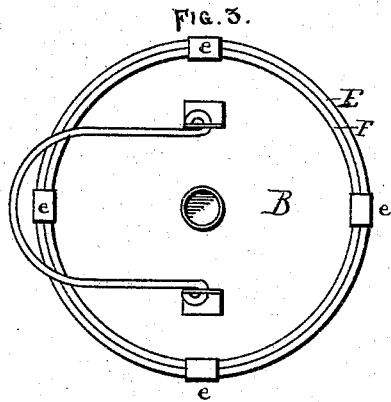
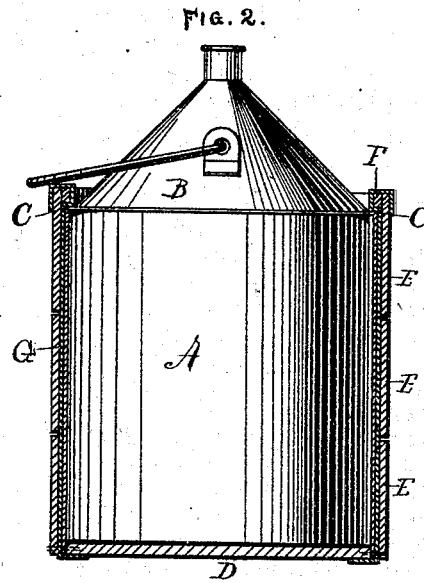
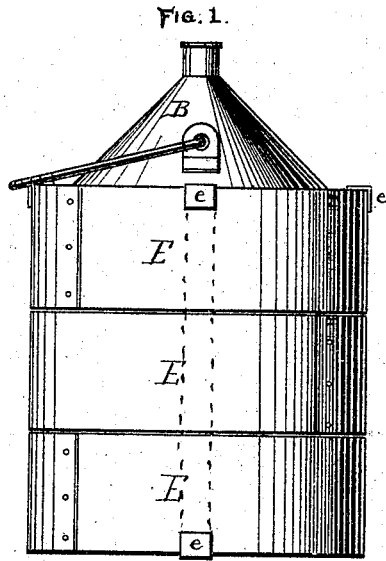


L. F. BETTS.  
SHIPPING CANS.

No. 182,404.

Patented Sept. 19, 1876.



WITNESSES:

*James S. Murray*  
*Farde R. Smith*

INVENTOR:

*Lewis F. Betts*  
*by Monday & Evans*  
*his attys*

# UNITED STATES PATENT OFFICE.

LEWIS F. BETTS, OF CHICAGO, ILLINOIS.

## IMPROVEMENT IN SHIPPING-CANS.

Specification forming part of Letters Patent No. **182,404**, dated September 19, 1876; application filed July 17, 1876.

### *To all whom it may concern:*

Be it known that I, LEWIS F. BETTS, of Chicago, in the county of Cook and State of Illinois, have invented certain Improvements in Shipping-Cans, of which the following is a specification:

This improvement relates to the construction and method of securing to the can the exterior jacket or shield for protecting the can in transportation. This jacket I form of wood, the bottom being made, as usual in such cases, of a disk of wood. The sides of the jacket I make of two or more horizontal bent-wood hoops, sufficient in number according to their vertical breadth to inclose and guard the cylindrical portion of the can, and, preferably, extending a little above the peen or flange formed by the junction of the cylindrical portion or sides and the conical portion or breast of the can; so as to afford some defense or guard at this point. In order to bind the hoops or bands together, I employ two or more vertical strips, usually of sheet metal, secured to the wooden bottom piece, and to the wooden hoop at the top, thus uniting the several wooden bands together against vertical separation. In order to secure this jacket to the can, a short internal hoop is applied to the upper one of the several bent-wood bands, so that the said inner hoop may rest upon the flange or peen at the base of the breast, or a shoulder may be otherwise formed upon the inside of the upper bent-wood band at this point.

By employing several separate horizontal bands instead of a single sheet of bent wood, I am enabled not only to use cheaper material, but also find that the jacket thus made can be more easily and conveniently formed, and more readily applied to the can, and also that the liability to split the jacket by the shrinkage of the wood, and the strain upon the can and fastenings by reason of the shrinkage, are entirely obviated, each band or hoop being perfectly free to shrink without causing the whole jacket to contract. Sometimes it happens that the contact of the wood with the metal of the can will cause the latter to rust and corrode, the corrosions being due to the retention of moisture between the two, and to the acid nature of the juices of the wood when not perfectly dry. To guard against

this I sometimes place between the wood and the can, and upon the can, a layer or coating, preferably of paper or cloth, or other fibrous material, but it may consist of a coat of paint or varnish.

In the accompanying drawing, which forms a part of this specification, Figure 1 is an elevation of a cone-breasted shipping-can provided with my improved jacket. Fig. 2 is a similar view with the jacket shown in section. Fig. 3 is a top or plan view of Fig. 1, and Fig. 4 is a horizontal section through can and jacket.

Like letters of reference made use of in the several figures indicate like parts wherever used.

In the said drawing, A is the body of the can, and B is the breast thereof. C is the flange or peen between the body and the breast. D is a wooden piece of suitable size placed beneath the bottom of the can, and serving to guard the same. E E E, several in number, are the bent-wood hoops or bands placed edge to edge and lying one above the other, forming the guard or protection for the body of the can. The upper one of these hoops, as will be seen by reference to the drawing, projects a little way above the peen or flange C, and above said peen or flange, upon said upper band, is formed an inside shoulder, preferably, by applying thereto a narrow internal hoop, F, which shoulder, resting upon the peen or flange, serves, when the several bands are united together in the manner presently to be described, to secure the jacket to the can.

As a means of uniting the several bands to each other and to the bottom piece, I employ narrow metal strips, *e*, running vertically from the top of the uppermost band, or from some portion thereof, to the bottom of the lowermost band, and secured at both ends to the bands, and at the lower end also to the bottom piece, the latter being optional. These strips may readily be secured by bending them over the top and under the bottom, as shown in the drawing, or they may be fastened by nails or otherwise. The lower bent-wood band being secured to the bottom piece, and the upper one being provided with a shoulder, the can is secured between the two if they are fastened together, and any intervening bands are also thus secured in place. G is the skin or coat-

ing of paper, paint, varnish, or other substance, surrounding closely the body of the can, between the wood and the metal, and serving both as a guard against dampness and corrosion, and also, in the case of paper or fiber, as an additional protection and strengthening of the can as a part of the jacket.

The elevated portion rising above the base of the breast gives increased security to the peen against injury when the can is tipped in the act of pouring, and caused to rest upon the upper edge.

The shoulder or hoop F rests above the peen, and, unlike a groove at this point in the jacket, offers no resistance to the can when the latter is thrust downward through the jacket by sudden jar, which might happen if the jacket expands or becomes loose. When anything is placed below the peen, and the weight of the can and contents brought to bear upon the peen, it is liable to wrench the joint open by taking it in its weakest direction. This I avoid by having the shoulder entirely above the peen, the strain being thus downward upon the joint and not upward.

Having thus fully described my invention,

what I claim as new, and desire to secure by Letters Patent, is—

1. The shipping-can provided with an exterior protecting-jacket, whereof the body is composed of several bent-wood horizontal bands, substantially as specified.

2. The shipping-can provided with an exterior jacket composed of several bent-wood horizontal bands held together by vertical strips, substantially as specified.

3. The combination, with the can and the jacket composed of several bent-wood strips, of the wooden disk at the bottom, the shoulder lying above and not under the peen at the top, and the thin narrow strips securing the whole together and to the can, substantially as specified.

4. The combination, with the can and its exterior wooden protecting-jacket, of the interposed layer of paper or other suitable coating or fabric lying between the wood jacket and the metal can, substantially as specified.

LEWIS F. BETTS.

Witnesses:

EDW. S. EVARTS,  
FORDE R. SMITH.