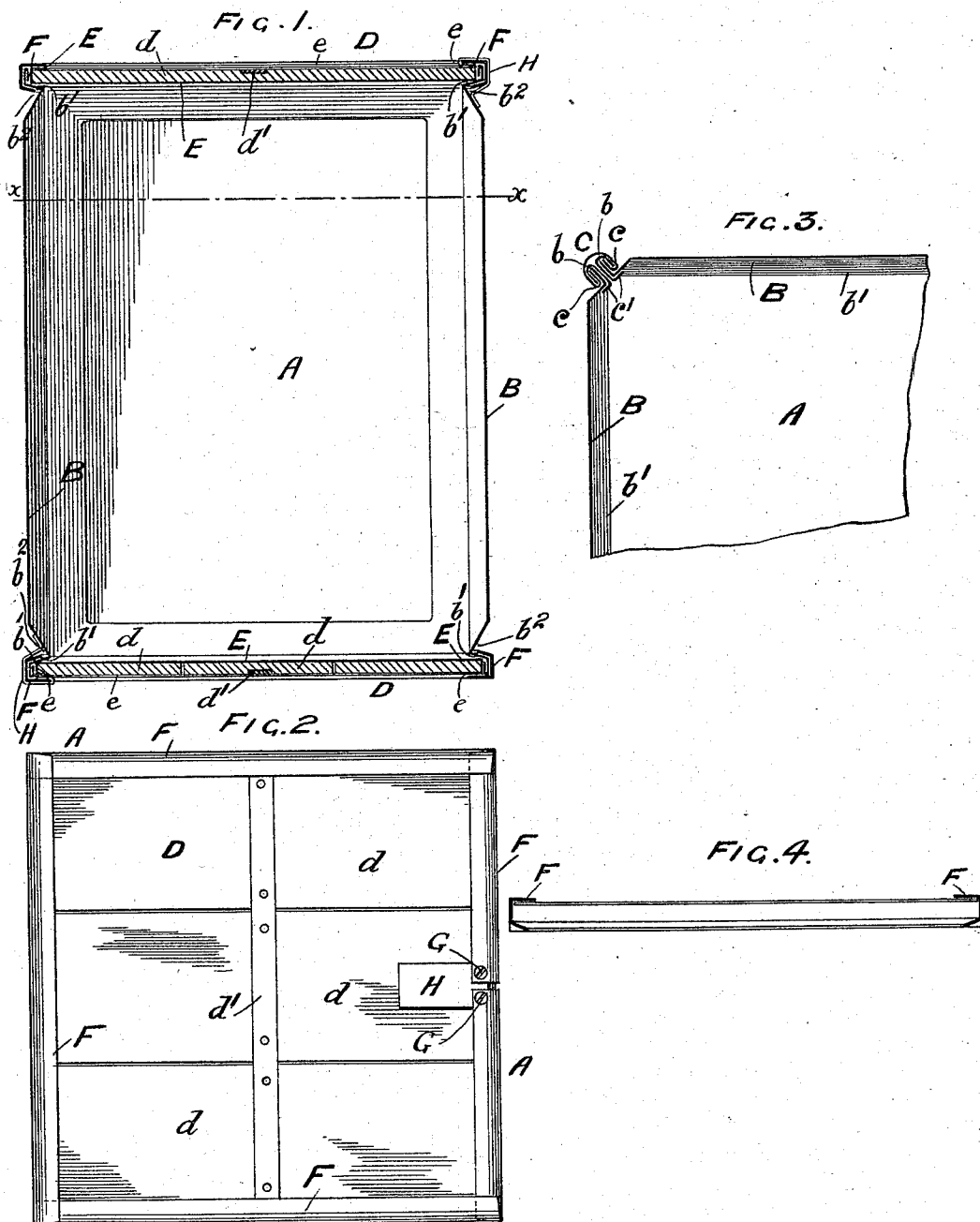


(No Model.)

H. J. S. BROWN.
METALLIC OR COMPOSITE BOX.

No. 571,427.

Patented Nov. 17, 1896.



Witnesses:-
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UNITED STATES PATENT OFFICE.

HENRY JAMES STUART BROWN, OF CAMBUSLANG, SCOTLAND, ASSIGNOR
TO THE ACME PACKAGE COMPANY, LIMITED, OF BRIDGETON, GLAS-
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METALLIC OR COMPOSITE BOX.

SPECIFICATION forming part of Letters Patent No. 571,427, dated November 17, 1896.

Application filed March 24, 1896. Serial No. 584,610. (No model.) Patented in England October 16, 1891, No. 17,697.

To all whom it may concern:

Be it known that I, HENRY JAMES STUART BROWN, of Egremont, Cambuslang, in the county of Lanark, Scotland, have invented certain new and useful Improvements in Metallic and Composite Boxes, (for which I have obtained Letters Patent in Great Britain, No. 17,697, dated October 16, 1891,) of which the following is a specification.

This invention relates to metallic and composite boxes and tanks; and it has for its object the provision of simple and improved means for fastening or securing together the ends of the sheet of which the sides of the box or tank are composed, and to provide for supporting and securing the metallic or composite ends.

The invention is illustrated by the accompanying drawings.

Figure 1 is a vertical section; Fig. 2, a plan; Fig. 3, a section on the line *xx* of Fig. 1 to show how the meeting edges of the body of the box are joined, and Fig. 4 a detail of the improved box as constructed under my invention.

The sides of the improved box or tank A are composed of a single metallic sheet B, dished and paneled, as shown, in order to strengthen the sides of the box to make it capable of being easily bent into the box form and to provide ledges for supporting the ends. The ends *b* of the sheet B, which are fitted to meet at one of the corners, are first bent toward and then parallel to each other, as shown at Fig. 3, being finally secured by means of a U-shaped bar C forming with the bent-over ends *b* of the sheet B a slip-joint which can be readily fastened or unfastened. This U-shaped bar C, which has its ends turned inward at *c*, is passed over the parallel ends *b* of the sheet B and is finally secured to these ends by means of two strips or keys *c'*, of the form shown, fitted between the parallel ends *b* of the sheet B, one edge of each of these strips or keys entering the turned-in edges of the bar C, and the outer edges being turned over against the ends *b* to bind together the ends of the sheet B and the bar C and thus form the complete joint.

The ends D of the box or tank A may be

made of dished sheets, or as is preferred of wooden boards *d* made up of two or more plies, with the reed or grain in one crossing that in the other, or when only one ply of wooden boards is used a check is cut across these and a bar *d* of wood or a steel band is inserted, as is shown at Figs. 1 and 2, and secured therein, the grain of which bar runs at right angles to that of the boards. The wooden board so formed has its inner side covered by a metal sheet E, the edges *e* of said sheet being turned back and bent upon the outer side of the wood, as shown at Fig. 1. The composite end is then laid on the ledges *b'*, formed by the paneling of the sheet constituting the body of the box or tank, the upper edges of the sides of said sheet being folded over upon themselves to stiffen or strengthen them. When the ends are thus inserted in position upon the ledges *b'* of the sheet B, the ends D and the upper edges of the sheet are surrounded by a band F of metal so bent into channel form, as shown at Figs. 1 and 4, as to grip both the ends D and the grooves *b''* of the panels. This band of metal is made in one length cut or recessed to enable it to be bent round the corners of the box. To secure it in position, the ends are fastened by screws G passed through them into the wood *d*, a strip H of metal secured at this point between the overlapping edge of the sheet E and the wooden board *d* being thereafter turned over the ends of the bands, as shown at Fig. 1, and soldered to the side of the box to prevent tampering with the fastening.

Having now described the invention, what I desire to claim, and secure by Letters Patent, is—

1. In a metallic or composite box or tank, the body portion consisting of a single metallic sheet bent into box form and having ledges at its sides, the ends of said sheet bent to lie parallel and secured together by means of a U-shaped bar and strips or keys fitted between said parallel ends of the sheet and engaging the U-shaped bar and sheet, substantially as set forth.

2. In a metallic or composite box or tank, the combination with a body portion consisting of a single sheet of metal bent into box

form and dished or paneled and having its ends suitably joined together and ledges at the edges of the sheet, one of the ends of the boxes resting on said ledges and bands of metal bent into channel form to grip both the ends of the boxes and the supporting-
 5 ledges on the body, substantially as set forth.

3. The combination with a single sheet of metal B bent into box shape and provided
 10 with ledges for supporting the ends of the box, the ends of said sheet being bent up to lie parallel with each other, of the U-shaped bar C formed with inward-turned ends, and the strips or keys *c'* fitted between the parallel
 15 bent ends of said sheet, one end of each of said keys entering the turned-in edges of the bar C and their other ends bent over against the sheet B, substantially as set forth.

4. The combination with the body of the
 20 box or tank having grooved supporting-ledges formed on its edges, of the ends D supported on the ledges of the body, the metal bands F bent into channel form and adapted to grip the edges of the ends D and the grooves
 25 of the supporting-ledges and means for securing said metal bands in place, substantially as set forth.

5. The combination with the body of the box or tank consisting of a single sheet of

metal B dished and paneled, as shown, and bent into box form and provided with end supporting-ledges, of the wooden end D supported on the ledges of the body, the inner covering metal sheet E, and the metallic band F bent into channel form around the corners
 30 of the box and adapted to grip both the end D and the groove of the supporting-ledge, substantially as set forth.

6. The combination with the body of the box or tank consisting of a single metallic
 40 sheet dished and paneled and having supporting-ledges on its edges, of the wooden end D supported on the ledges of the body B and provided with a bar or band *d'*, metal sheet E covering the inner surface of the end
 45 D and metallic band F bent into channel form around the corners of the box and gripping the end D and the groove in the ledges of the body, and metal strip H soldered to the side of the box to secure the metal band in
 50 place, substantially as set forth.

Signed at Glasgow, in the county of Lanark, Scotland, this 16th day of January, 1896.

HENRY JAMES STUART BROWN.

Witnesses:

WALLACE FAIRWEATHER,
 JNO. ARMSTRONG, Jr.