

(No Model.)

E. ANDREWS.

TRUNK.

No. 332,034.

Patented Dec. 8, 1885.

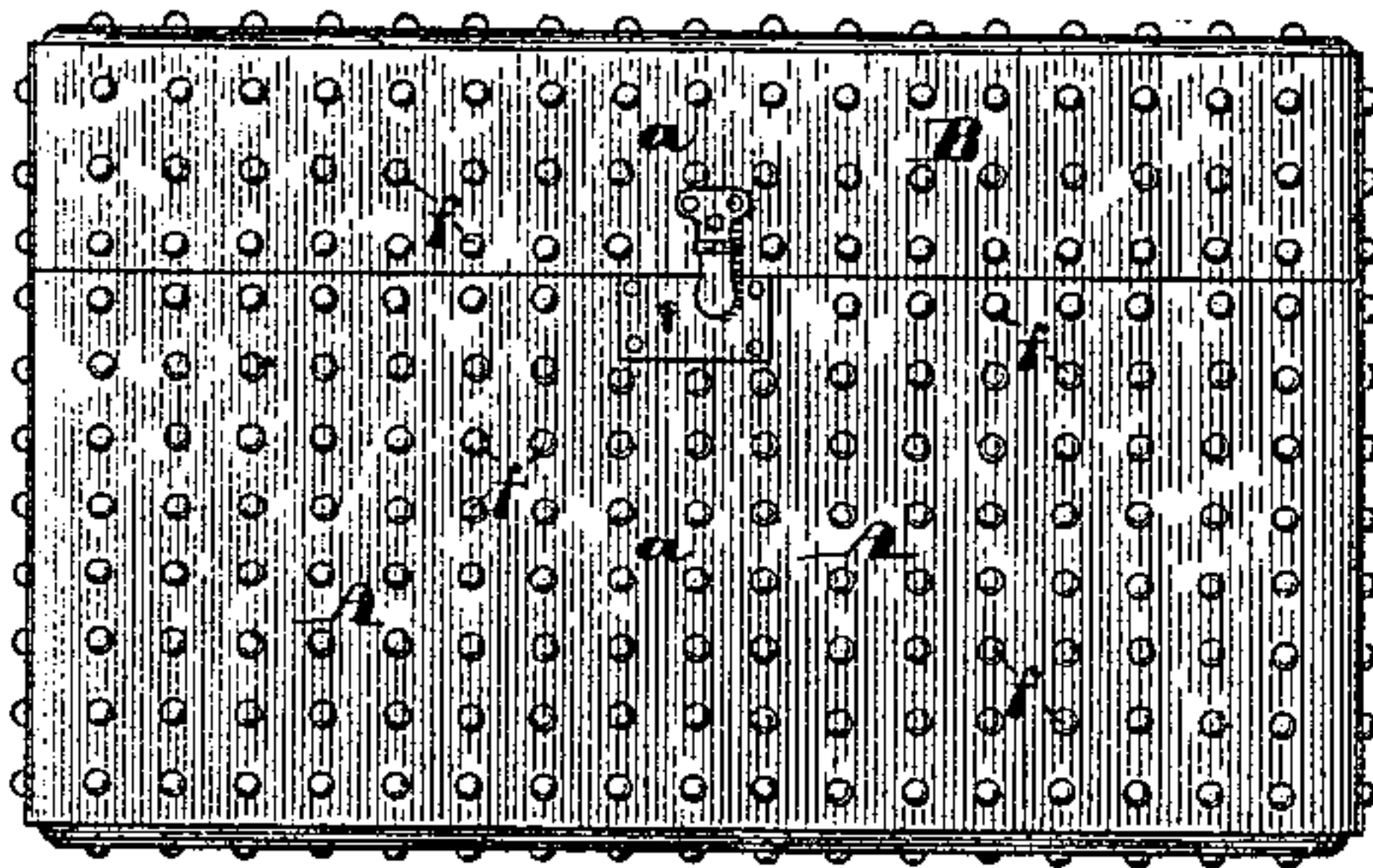


Fig. 1.

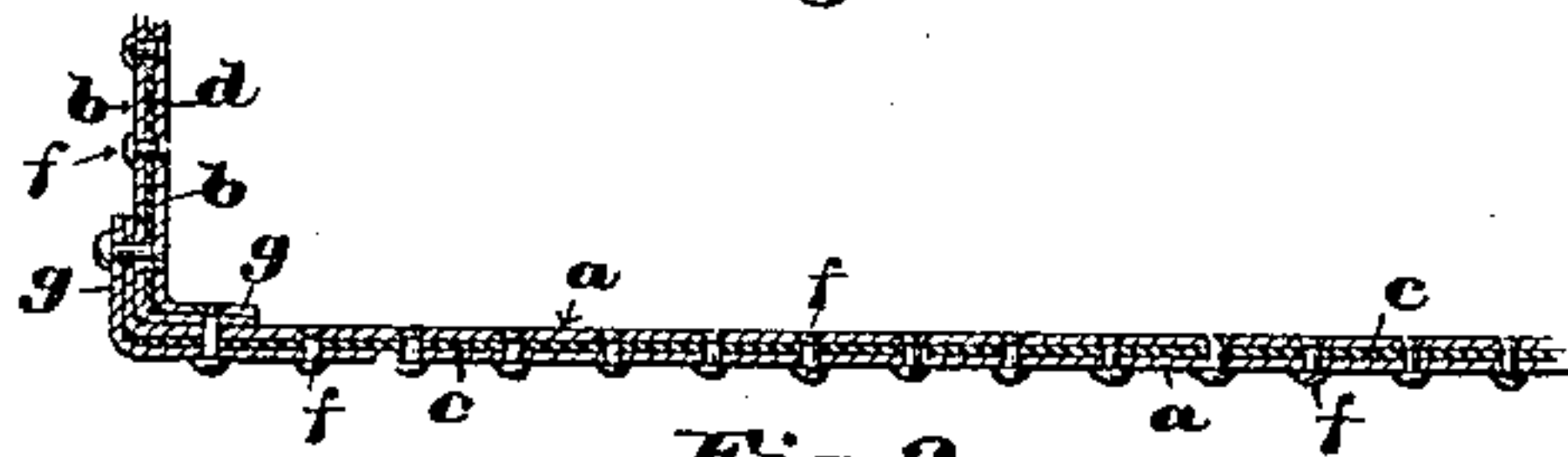


Fig. 2.

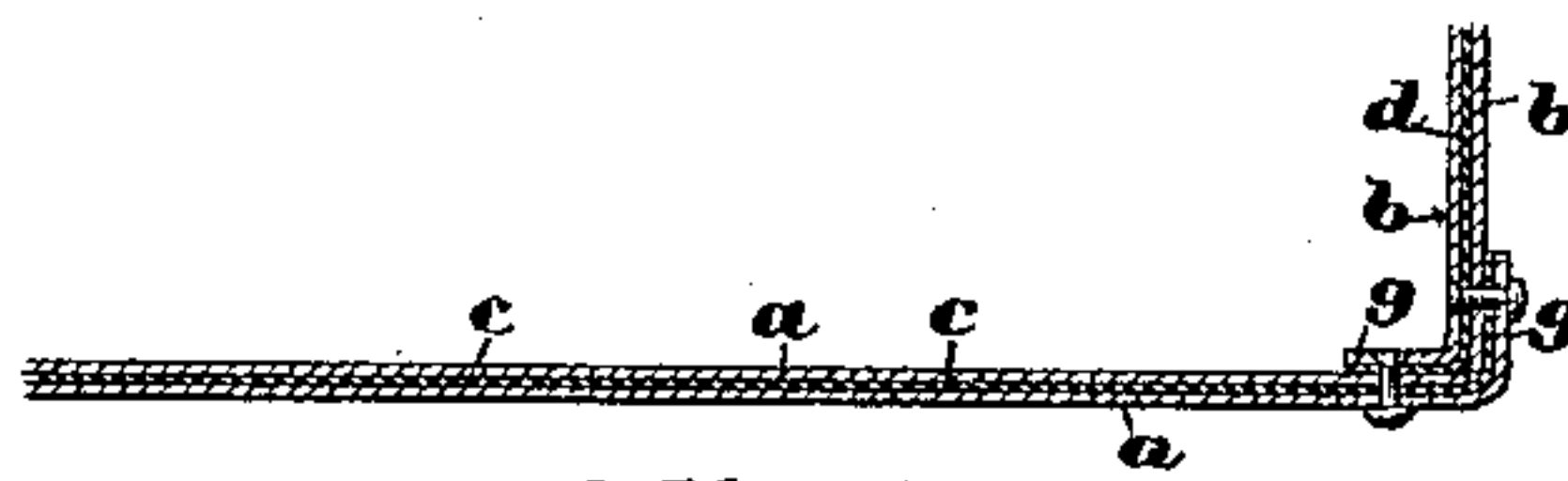


Fig. 3.

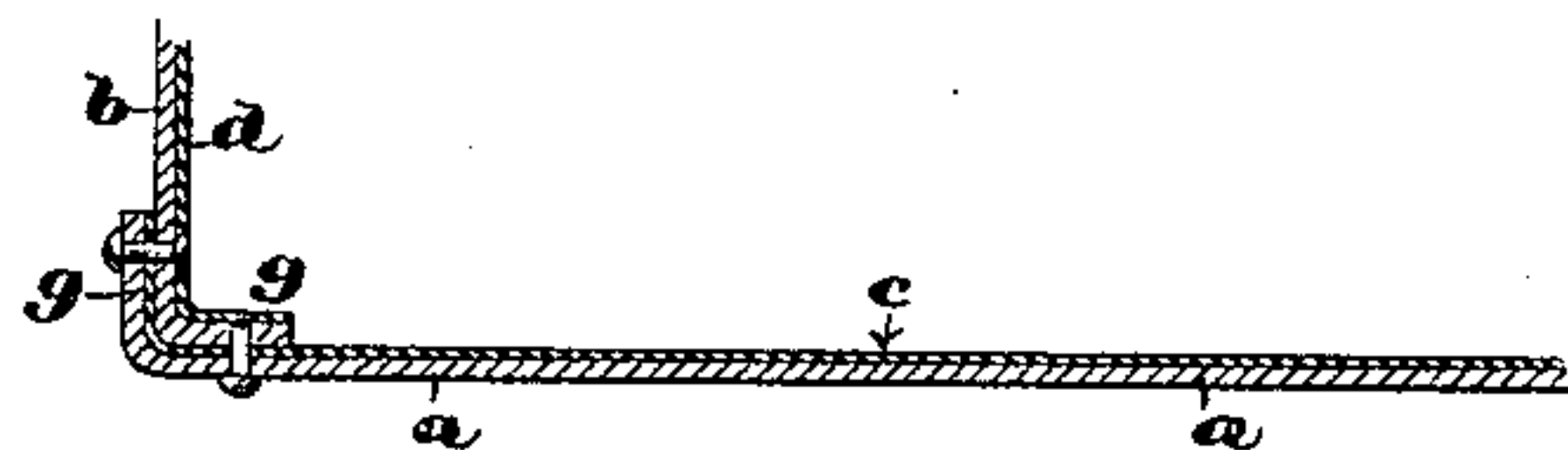


Fig. 4.

Witnesses:

Walter E. Lombard
Frank O. Gray

Inventor:

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UNITED STATES PATENT OFFICE.

EMERY ANDREWS, OF KENNEBUNK, MAINE, ASSIGNOR TO THE LEATHEROID MANUFACTURING COMPANY, OF SAME PLACE.

TRUNK.

SPECIFICATION forming part of Letters Patent No. 332,034, dated December 8, 1885.

Application filed April 16, 1885. Serial No. 162,424. (No model.)

To all whom it may concern:

Be it known that I, EMERY ANDREWS, of Kennebunk, in the county of York and State of Maine, have invented a new and useful Improvement in Trunks, of which the following, taken in connection with the accompanying drawings, is a specification.

My present invention relates to the manufacture of trunks from material composed of a series of layers of chemically-treated paper—such, for instance, as is known under the term “leatheroid,” and described in Letters Patent No. 198,382, granted to T. and T. S. Hanna on the 18th day of December, A. D. 1877—and is an improvement upon the invention described and claimed in Letters Patent No. 312,946, for improvements in trunks, granted to The Leatheroid Manufacturing Company, as my assignee, on the 24th day of February, A. D. 1885.

Trunks which were constructed after the manner described in said Letters Patent No. 312,946 have been put into use in many kinds of rough service—as, for instance, the express business—and it has been discovered that while the tensile strength of said trunks is all that can be desired, yet the transverse strength is such that when one of the sides of the trunk has given to it a sudden blow by the corner of a heavy weight, as is quite apt to be the case in such service, then said side is apt to be punctured thereby and broken in, while the shape of the trunk remains intact.

To obviate this difficulty and increase the transverse strength of the sides of the trunk, so as to render them better adapted to resist the sudden and heavy blows to which they are liable to be subjected, is the object of my present invention; and it consists in a trunk the sides of which are formed of laminated plates, each composed of a thin sheet of metal, preferably steel, and one or more sheets of leatheroid or other chemically-treated paper, firmly secured together by rivets or by cement and rivets, said laminated plates being secured together, to form the corners of the trunk, substantially as described in the above-cited Patent No. 312,946, all of which will readily be understood by reference to the description of the drawings, and to the claims to be hereinafter given.

Of the drawings, Figure 1 represents a front elevation of a trunk embodying my invention. Fig. 2 represents a section through one of the corners of said trunk and a portion of its adjacent sides, drawn to a slightly-enlarged scale; and Figs. 3 and 4 represent sections similar to Fig. 2, showing different methods of making up the corners.

In the drawings, A is the body of the trunk, provided with the top or cover B, all constructed in the manner described in my before-mentioned Letters Patent, except as will be hereinafter described.

In constructing trunks in accordance with my present invention, I take sheets of leatheroid or other heavy board composed of a series of layers of chemically-treated paper firmly compacted and united, and cut therefrom four pieces, *a a*, each of which is of about the height that the desired trunk is to have, and of a length somewhat greater than the length of said trunk, and four other pieces, *b b*, of the same width, and of a length somewhat greater than the width of said trunk. I next take thin sheets of metal—for instance, steel—and cut therefrom two sheets, *c c*, corresponding in width to the sheets of leatheroid, and of a length equal to the length of the trunk, and two other sheets, *d d*, of the same width and of a length equal to the width of the trunk. Two of the sheets *a a* and one of the sheets *c c* are then taken and firmly secured together by cement or other suitable adhesive material, in such a manner that the ends of the sheets *a a* will project a greater or less distance beyond the ends of the sheet *c*.

In order to prevent the cement giving away from excessive heat or from rough usage of the trunk, I take the sheets thus cemented together and additionally secure them by rivets *f f*, some three or four inches apart over the entire surface. This method of securing the sheets together to form a plate to be used as one side of the trunk prevents any warping or shrinking of the sides, while at the same time the heads of said rivets protect the surface of the said trunk. The other vertical sides may be made up in the same manner from the remaining sheets of leatheroid *a a b b* and the sheets of metal *c d d*, and then flanges *g g* are formed upon each end of each

of said sides by bending those portions of the leatheroid sheets *a a b b* which project beyond the metal sheet *c d* at right angles to the main portion, and the sides are then placed together in the position shown in Fig. 2, and secured together by cement and rivets, all as fully described by me in my before-mentioned Letters Patent. The top and bottom sides are formed in a similar manner to the vertical sides, and are then secured to said vertical sides in the same manner as has been described in my before-mentioned Letters Patent. The shell thus made up is also provided with a joint-band and stay-pieces, all as described in the before-mentioned Letters Patent, and therefore needs no further mention here. A modified form of the corner is shown in Fig. 3, in which the flanges *g g* are made up of but one sheet of leatheroid, while the metal sheet is also turned at right angles to the main body of the side, to help form the corner. Still another form is shown in Fig. 4, in which but one sheet of leatheroid, *a* or *b*, is used in connection with the metal sheet *c* or *d* to make the laminated plate of which the sides of the trunk are formed; but when only one sheet of leatheroid is used its thickness is much greater than the thickness of those sheets where two or more are used to form a laminated plate. It is obvious that a great variety of corners will suggest themselves; but for general rough

service the form shown in Figs. 1 and 2 has been found to be the best, combining, as it does, the lightness of a leatheroid trunk with the strength of a steel one.

What I claim as new, and desire to secure by Letters Patent of the United States, is—

1. A trunk the sides of which are composed of laminated plates, each made up of a thin sheet of metal and one or more sheets of leatheroid or other similar chemically-treated paper material, said sheets being secured together by riveting at short intervals over their entire surface, substantially as described.

2. A trunk the sides of which are composed of laminated plates made up of a thin sheet of metal and one or more sheets of leatheroid or other similar material, riveted together, as set forth, each side having a portion of one or more of its sheets at each end thereof bent at right angles to its main body and overlapping an adjacent side, and secured thereto by riveting or cementing and riveting.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 14th day of April, A. D. 1885.

EMERY ANDREWS.

Witnesses:

WALTER E. LOMBARD,
FRANK E. BRAY.