(No Model.)

E. ANDREWS.

BOX.

No. 329,875. Patented Nov. 10, 1885.

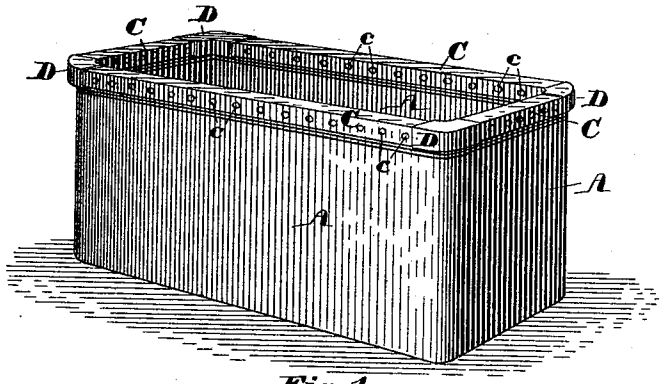


Fig. 1.

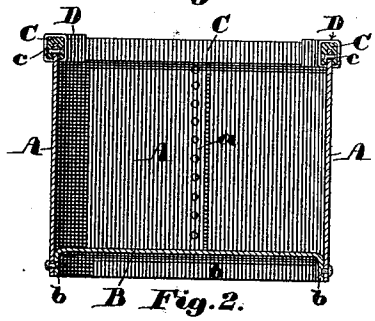


Fig. 2.

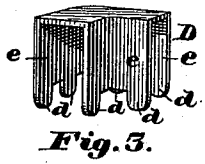


Fig. 3.

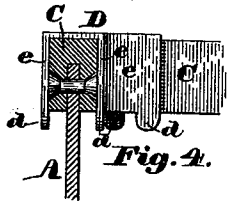


Fig. 4.

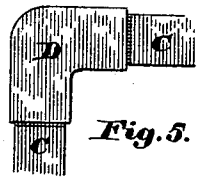


Fig. 5.

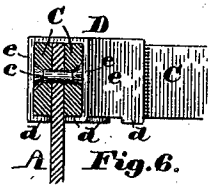


Fig. 6.

Witnesses:
Walter E. Lombard.
Frank A. Gray.

Inventor:
Emery Andrews;
by N. B. Lombard
Attorney.

N. PETERS, Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

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

BOX.

SPECIFICATION forming part of Letters Patent No. 329,875, dated November 10, 1885.

Application filed April 16, 1885. Serial No. 162,425. (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 certain new and useful Improvements in Boxes, of which the following, taken in connection with the accompanying drawings, is a specification.

My invention relates to boxes, and particularly to such boxes as are used in factories for moving bobbins, yarns, &c., from one portion of the building to another; and its object is to produce a box for such purposes which will be lighter and stronger (and hence more durable) than the wooden boxes now in common use, and which will have no rough surfaces, as the baskets sometimes used have.

My invention consists in boxes made of a thin flexible material, preferably of paper chemically treated—such as is known as "leatheroid" by the trade—and strengthening the upper edges of the leatheroid sides with bands or hoops of wood, in combination with metal corner-pieces of a peculiar construction, by which the ends of the wooden strengthening bars or bands are connected and protected, 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 perspective view of a box embodying my invention. Fig. 2 represents a transverse sectional elevation of the same. Fig. 3 represents a perspective view of one of the metal corner-pieces. Fig. 4 represents a transverse section through one of the strengthening-bars, with the corner-piece shown in elevation thereon. Fig. 5 represents a plan of the same, and Fig. 6 represents a section the same as Fig. 4, but with the corner-piece secured to the strengthening-bar.

In the drawings, A A are the sides, and B is the bottom, of the box, both of which are made of leatheroid or other similarly-treated chemical paper.

In the construction of my improved box I take a sheet of leatheroid of the requisite thickness, of a height about equal to the desired height of the box to be made, and of a length somewhat greater than the desired perimeter of the box, and then rivet the two ends of said sheet together, as shown at *a*, Fig. 2. I then take another sheet of similar thickness and somewhat greater in length and breadth than the interior diameter of the desired box, cut notches in the corners in a well-known manner, and turn half of the superfluous width and length over at either side, to form flanges *b b*. This bottom B, thus formed with its flanges *b b* on all sides, is inserted into the lower end of the shell formed by the sides A A, and the flanges *b b* are secured to the lower edges of the said sides A A by riveting, or by riveting and cementing, in a well-known manner.

In order to protect the upper edges of the sides A A and to prevent the said sides from warping, wooden bars C C are prepared, each equal in length to the side upon which it is to be used, all of said bars being provided upon the lower sides with deep grooves of a width about equal to the thickness of the leatheroid sides A A, which sides enter into the grooves in said bars when they are in place, and are secured therein and the bars C C prevented from being disengaged from the sides A A by suitable rivets, *c c*, which pass through the bars C C and sides A A, all as shown in Figs. 2 and 4. Two narrower bars or bands may be used, if desired, by placing one inside of the leatheroid sides A A and another upon the outer side, and riveting through the three thicknesses, all as shown in Fig. 6.

The bars C C may be joined together at the corners, or continue around said corners so as to form a continuous band or hoop with but a single joint, without altering the principles of my invention.

In order to better protect the corners of the box, I provide a metal corner-piece, D, having ears *d d* formed upon its vertical walls *e e*, which walls are made of such a distance apart as to snugly fit over the bars or band C C, so that their lower edges are flush with the lower or under sides of the said bars or bands C C, while the ears *d d* project beyond the lower edge, as shown in Fig. 4, until bent at right angles to the walls *e e*, as shown in Fig. 6, for the purpose of firmly securing the said corner-piece to said bars or bands, and prevent the same from coming off.

The advantages of a box thus made up, com-

bining, as it does, great lightness, strength, and durability, while at the same time it presents a smooth surface and neat appearance, are obvious, and therefore need no further description.

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

1. A box made of thin flexible material, reenforced at its upper edge by a band or hoop of wood, said band of wood being protected at its corners by metal corner-pieces U-shaped in cross-section, which embrace a portion of three sides of said hoop or band upon two sides of said box.

2. A box made of thin flexible material, reenforced at its upper edge by a band or hoop of wood, said band of wood being protected at its corners by metal corner-pieces U-shaped in cross-section, which embrace a portion of three sides of said hoop or band upon two sides of said box, and which are provided with suitable ears bent under said re enforcing bars or band, substantially as and for the purposes described.

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.