

W. H. ALLEN.
MANUFACTURE OF BOXES.

No. 182,543.

Patented Sept. 26, 1876.

Fig. 1.

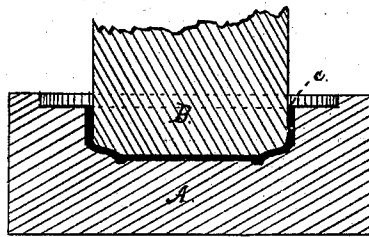


Fig. 2.



Fig. 3.

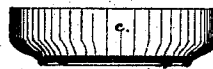
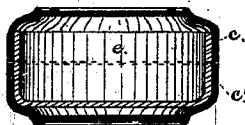


Fig. 4.



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IMPROVEMENT IN THE MANUFACTURE OF BOXES.

Specification forming part of Letters Patent No. **182,543**, dated September 26, 1876; application filed June 12, 1876.

To all whom it may concern:

Be it known that I, WILLIAM H. ALLEN, of the city, county, and State of New York, have invented a new and useful Improvement in the Manufacture of Boxes, which improvement is fully set forth in the following specification, reference being had to the accompanying drawings.

The object of my invention is to produce a box for packing or holding articles, such as blacking, tobacco, &c., out of a cheap material which will be water-proof. It consists in a novel method of making a box from leather-board or leather paper, which material has a sufficient amount of ductility, elasticity, and compressibility to permit of its being struck up into the desired shape by means of (a punch and die) pressure. It will also permit of embossing or printing, and the material may be colored in various shades. It is then coated with a thin shellac, which renders it oil and water proof and hard.

In the annexed drawings, Figure 1 represents a cross-section of a punch and die, showing the method of forming and shaping the leather-board under pressure. Fig. 2 represents a cross-section of the leather-board after it has been taken from the die-press. Fig. 3 is a similar view. Fig. 4 is a cross-section of a box complete.

Similar letters of reference in the several figures indicate like parts.

In the manufacture of my invention I take a sheet of leather-board or leather paper, of the desired quality and thickness. This I cut into shape, and moisten slightly. It is then

placed in a proper die, and pressure is applied until the leather board or paper has been formed, struck up, and compressed into shape, as shown in Fig. 2 or 3, when it will retain the shape thus given. The leather board or paper is then treated or covered with a thin oil, colored as desired; and then it is coated with shellac, which, when dry, gives to it a nice bright finish, hardens it, and makes it oil and water proof. If desired, the leather-board may then be printed upon.

Fig. 4 represents a box made out of three pieces of leather board or paper, which has been struck up or formed in dies, as above set forth. *c'* represents the bottom piece, *e* the inner piece or lining, and *e* the upper piece or cover.

If desired, the piece *e* may be cemented to the piece *c'* by means of shellac or glue.

If desired, the leather-board, formed as shown in Figs. 2 and 3, may be used for various purposes, such as forming the bottom or covers to paper boxes, or covers to jars for fruit, &c.

Having thus fully described the nature and operation of my invention, what I claim as new, and desire to secure by Letters Patent, is—

The process herein described of manufacturing boxes or covers from leather-board, rendering the same water or oil proof and hard, substantially as herein set forth.

WILLIAM H. ALLEN.

Witnesses:

R. R. MOFFATT,
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