W. H. BROCK.

Manufacture of Paper Packages.

No. 156,765. Patented Nov. 10, 1874.

Fig. 1.

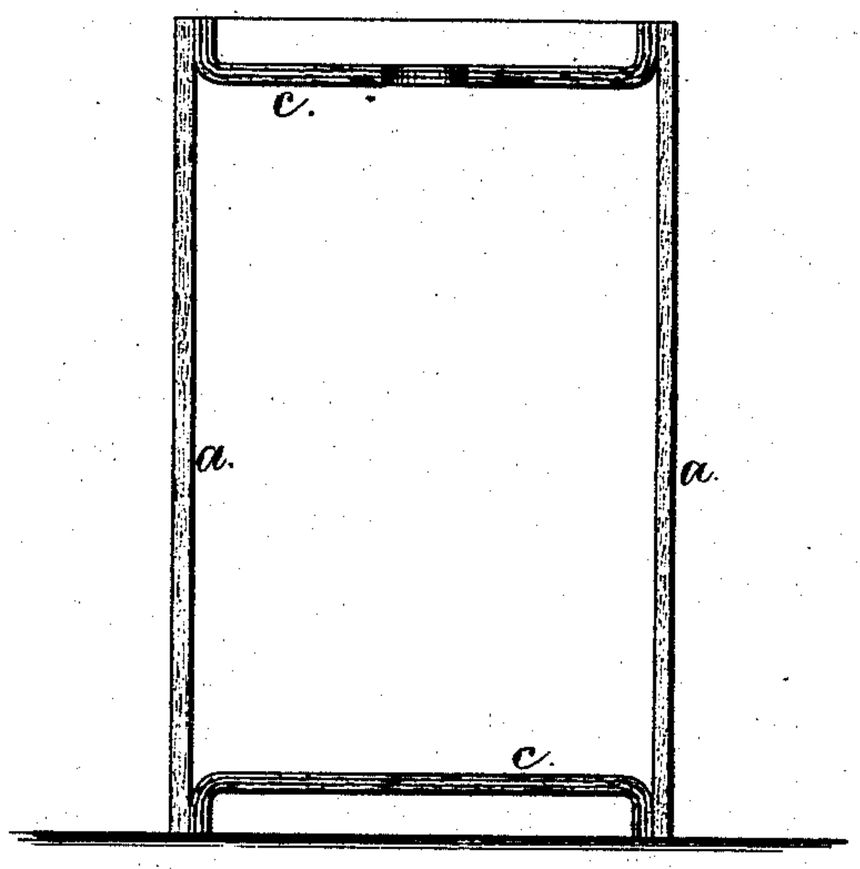


Fig. 3.

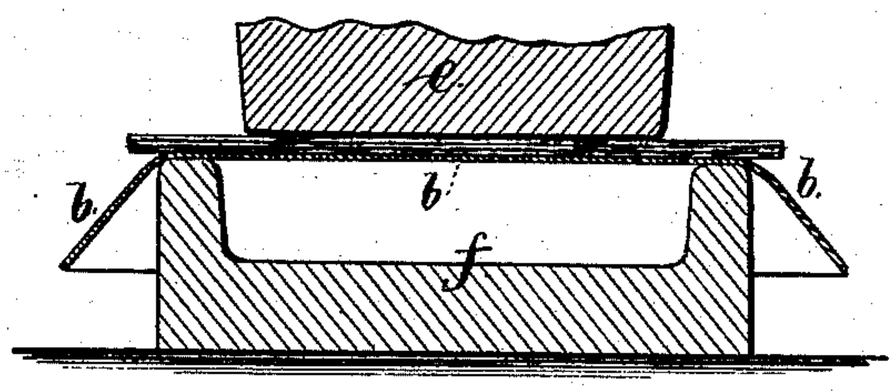
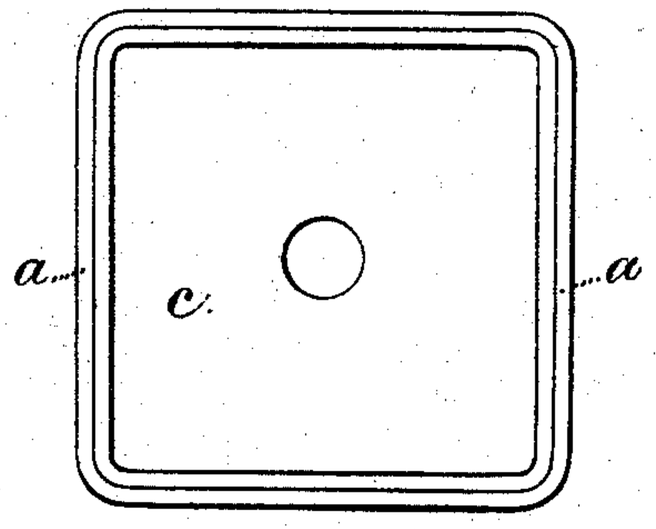


Fig. 2.



Witnesses

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UNITED STATES PATENT OFFICE.

WILLIAM H. BROCK, OF BROOKLYN, E. D., ASSIGNOR TO JABEZ A. BOSTWICK, OF NEW YORK, N. Y.

IMPROVEMENT IN THE MANUFACTURE OF PAPER PACKAGES.

Specification forming part of Letters Patent No. **156,765**, dated November 10, 1874; application filed August 22, 1874.

To all whom it may concern:

Be it known that I, WILLIAM H. BROCK, of Brooklyn, E. D., in the county of Kings and State of New York, have invented an Improvement in the Manufacture of Paper Packages for Liquids, of which the following is a specification:

Barrels for liquids have been made with a cylinder of paper and heads of metal, the parts being united by rivets, and cans for oils have been made of paper coated on the inside with material impervious to oil and on the outside with water-proof varnish.

Packages for lard and similar material have been made of thick paper, with the edges of the head bent by being forced through an open die, but with several thicknesses of paper glued together, as required in packages for petroleum or other liquids. This could not be done without tearing the flange from the head.

My invention is made for strengthening the heads at the angles, lessening the labor in their production, and preventing injury to the paper itself in consequence of notching or cutting.

I make the head out of paper or pasteboard with several sheets glued together, and while the sheets are sufficiently soft by the moisture, and the glue remains plastic, the head is bent up by dies to form a flange all around the same without seam, notch, or incision, and a sheet of muslin is used to prevent the paper tearing as it is pressed up to shape, and so soon as the glue hardens or sets sufficiently to hold the parts of the head firmly in shape the same may be removed from dies, the muslin taken off, and the head allowed to dry or harden. It will be found that the flange of the head is rendered stronger and rather thicker at the angles than the sheets before being pressed, and hence the head is very strong and reliable.

In the drawing, Figure 1 is a vertical section of the package complete, and Fig. 2 is a plan view, showing one end.

The body *a a* is made up of the suitable size, and either cylindrical or prismatic, and the heads *c c* are of a size and shape to fit within the ends of the body. The heads are pressed up from flat sheets, as illustrated in Fig. 3, the flat sheets of paper being glued together and placed between the dies *e f* while in a moist condition, so that the head is pressed up by such dies without tearing the paper, and the paper is pressed together and thickened at the angles and upper portions of the flanges, so as to be without notch, fold, or seam, and hence very strong and free from risk of leakage.

I find that it is important to introduce the layer *b* of cloth between the sheets and the concave die, so as to take the strain in pressing up the sheets and preventing tearing. This cloth should be removed after the head is pressed.

I claim as my invention—

The mode herein specified of making the heads of packages for oil, &c., by gluing several layers of paper or pasteboard together, and pressing a flange on them while the paper is moist and the glue plastic, between dies, with a sheet of muslin between such paper and the concave die, for the purposes set forth.

Signed by me this 17th day of August, 1874.

WILLIAM H. BROCK.

Witnesses:

CHAS. H. SMITH,

GEO. D. WALKER.