J. H. PREATER.
Shipping-Drum.

No. 218,193. Patented Aug. 5, 1879.

Fig. 1.

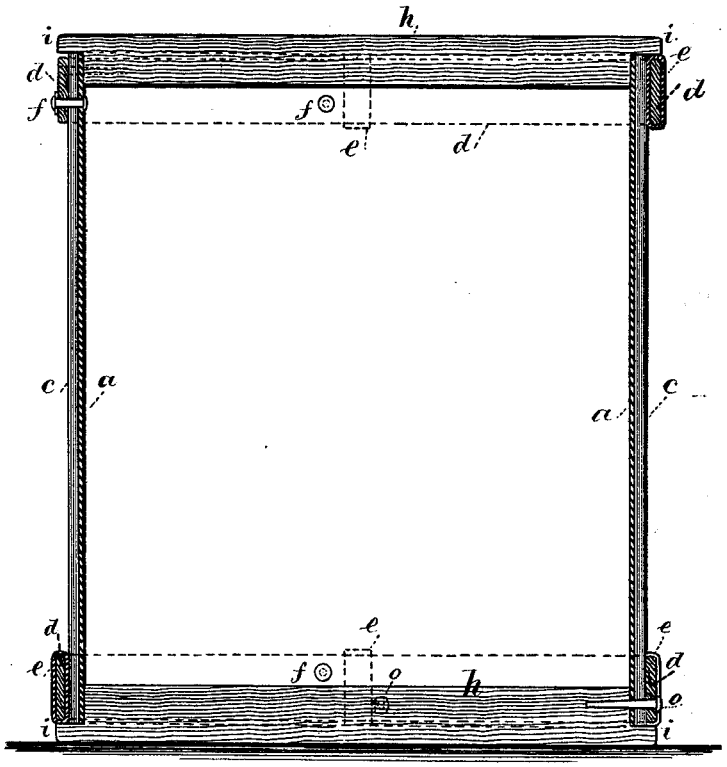
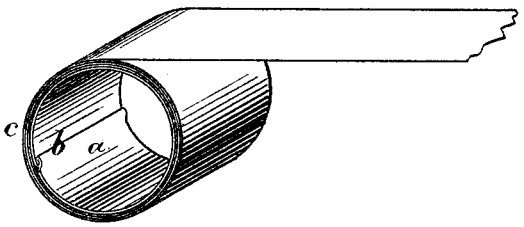


Fig. 2.



Witnesses

Chas. H. Smith
Geo. T. Pinckney

Inventor

James H. Preater.
per Lemuel W. Serrell
atty.

UNITED STATES PATENT OFFICE

JAMES H. PREATER, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN SHIPPING-DRUMS.

Specification forming part of Letters Patent No. **218,193**, dated August 5, 1879; application filed February 12, 1879.

To all whom it may concern:

Be it known that I, JAMES H. PREATER, of Brooklyn, in the State of New York, have invented an Improvement in Shipping-Drums, of which the following is a specification.

Barrels and drums have been made of wood veneers wound up into a cylindrical form, with wooden hoops around the ends, and iron barrels have been made with a cylindrical body of sheet metal and iron hoops at the ends, and cylindrical drums of sheet metal have been made with wooden rims or end pieces.

Cylinders have been made of veneers and textile material lined with metal. These layers are cylindrical and require to be of a size to fit around the metal lining.

In cases where sheet metal has formed the cylindrical body of the can, the same has been comparatively heavy and thick, so as to withstand the blows and concussion incident to shipment, because when thin sheet metal is used the same is liable to become indented and perforated in transportation.

The cylindrical portion of my drum is of thin sheet metal bent up and the ends interlocked with a folded seam, and around this is paper and adhesive material, the paper being wound upon the metal cylinder until the laminæ have accumulated sufficiently to form a paper drum of the required thickness and strength. Hoops and heads are added to form the shipping-drum.

In the drawings, Figure 1 is a section of the barrel complete, and Fig. 2 is a perspective view that illustrates the manner of making the cylinder.

I employ a foundation for the cylinder composed of thin sheet metal, *a*, rolled up into a cylindrical form, with the ends folded and interlocked, as at *b*, Fig. 2, to form a double seam, the projection of which is inwardly, so that the surface is smooth, or nearly so. This metal cylinder *a* is to be coated with adhesive material, such as shellac or asphalt varnish, and a layer of paper caused to adhere thereto; then the cylinder is covered with layers of paper, *c*, caused to adhere by paste or similar material, until a paper body of a cylindrical form—say from a twenty-fourth to an eighth of an inch in thickness—is obtained, the thickness being proportioned to the size of the shipping-drum, and the surface may be paper that is more or less ornamental. This drum is now dried in artificial heat, the same being sufficiently hot to soften the shellac or asphalt, and to insure the adhesion of the iron and the first layer of paper, and also to dry the paste.

The result of this mode of construction is a very hard and firm paper cylinder, the size of which is uniform, as the shrinkage in drying is prevented by the sheet-metal base. The metal and paper mutually support and strengthen each other, and the cylinder is very strong, light, and durable, especially under the circumstances of exposure in shipment.

Rollers may be employed in winding the paper upon the metal body or base, in which case it is preferable that the sheet-metal cylinders be revolved by the roller that comes within it, and that the exterior roller be elastic, like a wringer-roller.

The wooden hoops *d d* are wrapped with sheet-metal clips *e e* at suitable distances apart, the ends of the sheet-metal strips being at the inside of the hoops. These hoops are applied at the ends outside the paper body and secured by rivets at *f*.

The wooden heads *h* are adapted to set within the iron cylinder of the body, and nails *o*, passed through the hoops, paper, and sheet metal, hold the heads in place. The heads may be flanged, as at *i*, to set at the ends of the cylinder and edges of the hoops.

The sheet-metal clips *e*, surrounding the wooden hoops adjacent to where the nails *o* are driven, prevent the hoops being split by driving the nails.

I claim as my invention—

A shipping-drum composed of paper wound upon a sheet-metal cylinder in numerous layers, and secured together and to the sheet metal by adhesive material, so as to obtain the required thickness and strength of cylinder, and provided with heads and hoops to form the shipping-drum, substantially as set forth.

Signed by me this 29th day of January, A. D. 1879.

JAMES H. PREATER.

Witnesses:

HAROLD SERRELL,

CHAS. H. SMITH.