(No Model.)

C. L. CRUM.

CASK.

No. 276,364. Patented Apr. 24, 1883.

Fig. 1.

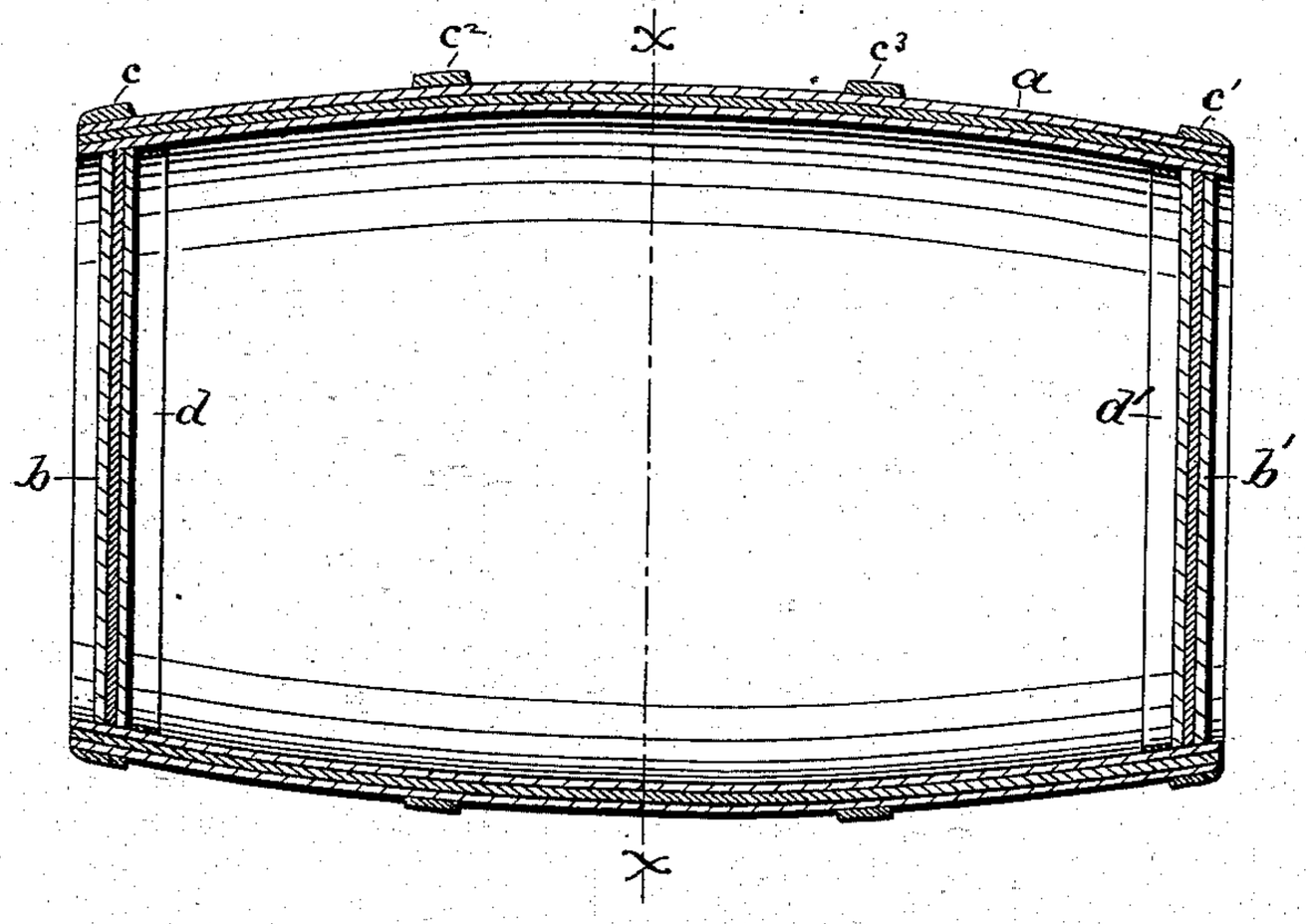


Fig. 2.

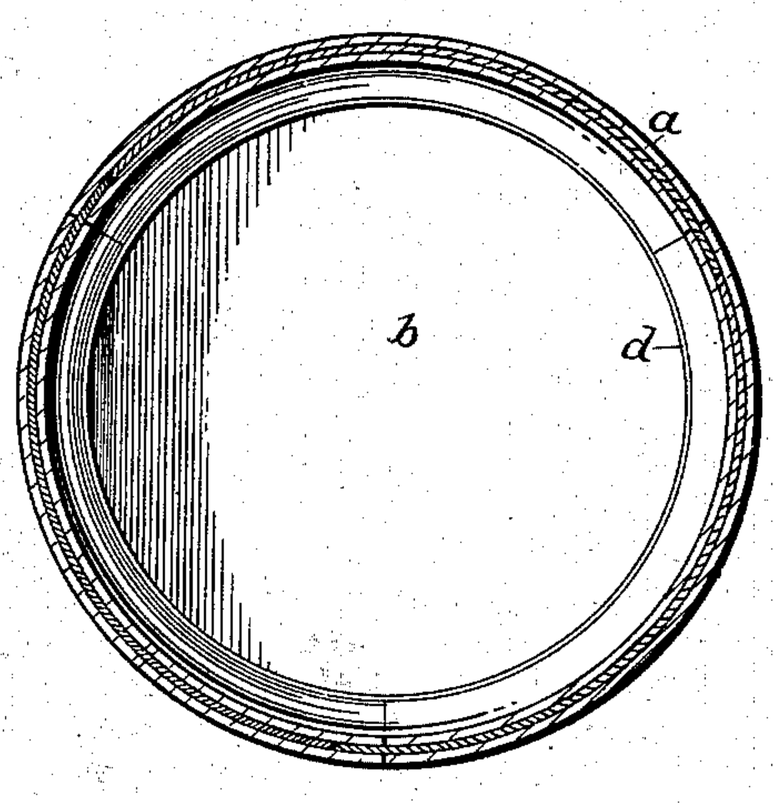
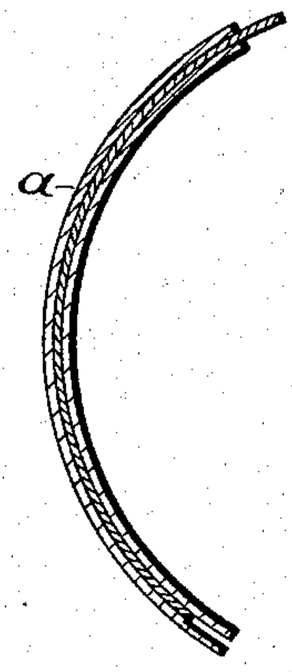


Fig. 3.



WITNESSES:

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UNITED STATES PATENT OFFICE.

CHARLES L. CRUM, OF WINCHESTER, VIRGINIA.

CASK.

SPECIFICATION forming part of Letters Patent No. 276,364, dated April 24, 1883.

Application filed February 16, 1883. (No model.)

To all whom it may concern:

Be it known that I, CHARLES L. CRUM, of Winchester, in the county of Frederick and State of Virginia, have invented a new and useful Improvement in Casks; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a sectional view taken through the cask lengthwise. Fig. 2 is a cross-section taken through the dotted line *x x* of Fig. 1, and Fig. 3 shows a horizontal section of one of the segments of the cask.

This invention has for its object the production of a cask from the ordinary straw or other pulp board in such form as can be knocked down or taken to pieces for transportation and then put together with little labor and expense. It is also of such shape as will make it as easily handled as the ordinary wooden cask.

I first take the straw or other pulp board as it comes from the machine upon which it is made and cut it into proper shape. I pass the sheets through a hot substance or composition to make it in a degree water and acid proof. I then subject the separate sheets to heavy pressure by means of rolls or dies of such form as will give the sheets the proper curvature. I then unite as many of the sheets as may be necessary to form sheets of due strength. For this purpose I use a water-proof glue or paste. I again subject the united sheets to pressure in the rolls or dies, so that they will retain their proper form as segments of the body of the casks. I then unite, with glue or other adhesive substance, or rivets, as many of the segments as may be necessary to make the sides of the cask the desired thickness and strength, allowing the edge of each alternate layer to project a sufficient distance beyond the layers adjoining it to form tongues on one side and grooves on the other, so that when the sections are put together the overlapping sheets will form a tight and substantial joint. If the cask is to be used for liquids, a water-proof cement must be used in the joints, and, as a further security, the joints can be riveted together. The heads are formed by building up the desired thickness with sheets of board first subjected to the hot waterproofing solution, and glued and pressed together.

The drawings represent a cask made of three thicknesses of boards, and the cylinder or body of the cask made into three segments.

a represents the cylinder or body of the cask; *b b'*, the heads; *c c'*, the head-hoops. c^2 c^3 are the quarter or bulge hoops, which may be made of wood, metal, or paper. *d d'* represent wooden or paper hoops or boards, secured to the inside of the cylinder, near the upper and lower ends of the cask, for the heads to rest upon. In ordinary casks the curvature of the ends of the cylinder will be sufficient to hold the heads in place; but for tight casks I also may secure the heads by grooves or crozes on the inside of the cylinder and form the edge of the heads to correspond with and fit into the grooves.

When the casks are intended for acetic substances the inside sheets may be first saturated or coated with paraffine or any like substance.

I do not confine myself to the number of layers or thickness of the material used. Neither do I confine myself to the number of segments into which the body of the cask is divided. Casks for different uses will require different modifications.

Having thus described my invention, what I claim as new is—

1. A segment of a cask made of paper-board and consisting of a series of layers united together, each alternate layer projecting beyond the layers adjoining it at one end of the segment, substantially as shown and described, whereby a tongue is formed at one end of the segment and a groove at its opposite end, as set forth.

2. A cask made of segments constructed of layers of paper-board arranged, as set forth, to form tongues and grooves at their opposite ends, substantially as described.

CHARLES L. CRUM.

Witnesses:

JNO. S. MILLER,

PHILIP W. BOYD.