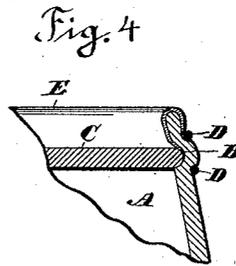
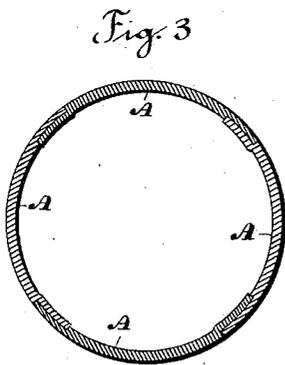
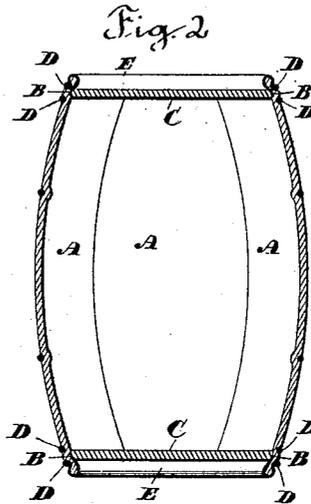
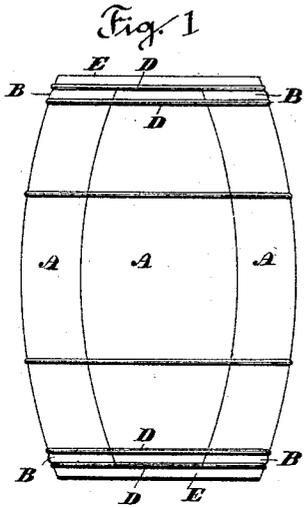


(No Model.)

W. W. JUDD.
PAPER BARREL.

No. 395,236.

Patented Dec. 25, 1888.



Witnesses:
Chas. B. Shumway
E. H. Rogers

Inventor
W. W. Judd
By *G. S. Johnson*
Atty.

UNITED STATES PATENT OFFICE.

WYLLYS W. JUDD, OF HARTFORD, CONNECTICUT.

PAPER BARREL.

SPECIFICATION forming part of Letters Patent No. 395,236, dated December 25, 1888.

Application filed June 16, 1887. Serial No. 241,477. (No model.)

To all whom it may concern:

Be it known that I, WYLLYS W. JUDD, residing at Hartford, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Paper Barrels; and I do declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to an improvement in paper or pulp barrels, casks, or other similar packages, the object being to produce a cheap, durable, and convenient article.

With these ends in view my invention consists in the combination, with a body encircled by a groove forming a recess extending outward from its inner surface and a boss extending outward from its outer surface, of a head entering such recess, which receives the width of its edge, and two independent rings respectively seated upon the opposite faces of the said boss and above and below the head, which they assist in holding in place.

My invention further consists in the combination, with a body encircled by a groove forming a recess extending outward from its inner surface and a boss extending outward from its outer surface, of an annular guard fitting over the edges of the body and having its inner edge entered into the said recess, a head having its edge entered into the recess and clamping the inner edge of the guard therein, and a ring seated against one face or side of the boss and clamping the outer edge of the guard in place thereon, as well as holding the head in position.

In the accompanying drawings, Figure 1 is a view in elevation of one form which a barrel embodying my invention may assume. Fig. 2 is a view thereof in vertical section. Fig. 3 is a view of the barrel in cross-section, and Fig. 4 is an enlarged broken view showing a portion of one end of the barrel-body and of the head.

As herein shown, the body of the barrel is composed of four staves, A, having their edges shouldered and flanged, so as to be lapped to form tight joints.

Each end of the barrel is provided with a groove, B, forming a recess extending out-

ward from its inner surface and a boss extending outward from its outer surface. The rounded edges of the flat barrel-heads C are received into the said recesses. An independent wire ring, D, is seated against each face of each boss, so that each barrel-head has a ring located directly above and directly below it and assisting in holding it in place.

Annular guards E E, made of paper or of metal, are provided for the respective ends of the barrel-body and fit over the ends of the staves A, which project beyond the barrel-heads. The inner edges of the said guards are entered into the said recesses and clamped in place by the barrel-heads, while their outer edges are clamped between the outer surface of the barrel-body and the outermost of the two rings D D, located at each end thereof.

A paper or pulp barrel, cask, or keg, or similar package made under my invention is very strong and well qualified to resist all the strains to which this class of packages is exposed. It is also light and cheap to produce. If desired, the guards may be dispensed with.

I am aware that it is not broadly new to groove the ends of a paper barrel to receive rings for holding the barrel-head in place, nor to protect the edges of a paper package with annular bands or guards. I do not, therefore, broadly claim grooving and wiring, as described, or the employment of annular guards, but only the particular construction herein shown and described.

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

1. In a paper or pulp barrel or similar package, the combination, with a body encircled by a groove forming a recess extending outward from its inner surface and a boss extending outward from its outer surface, of a head entering such recess, which receives the width of its edge, and two independent rings respectively seated upon the opposite faces of the said boss and above and below the head, which they assist in holding in place, substantially as set forth.

2. In a paper or pulp barrel or similar package, the combination, with a body encircled

ward from its inner surface and a boss extending outward from its outer surface, of an annular guard fitting over the edges of the body and having its inner edge entered into the said recess, a head having its edge entered into the recess and clamping the inner edge of the guard therein, and a ring seated on one face or side of the boss and clamping the other edge of the guard in place thereon, as well as

holding the head in position, substantially as is set forth.

In testimony whereof I signed this specification in the presence of two subscribing witnesses.

WYLLYS W. JUDD.

Witnesses:

JOSEPH MAIRSON,
CHAS. H. RIGGS.