

G. W. LARAWAY.
PAPER-BARRELS.

No. 176,869.

Patented May 2, 1876.

FIG. 1.

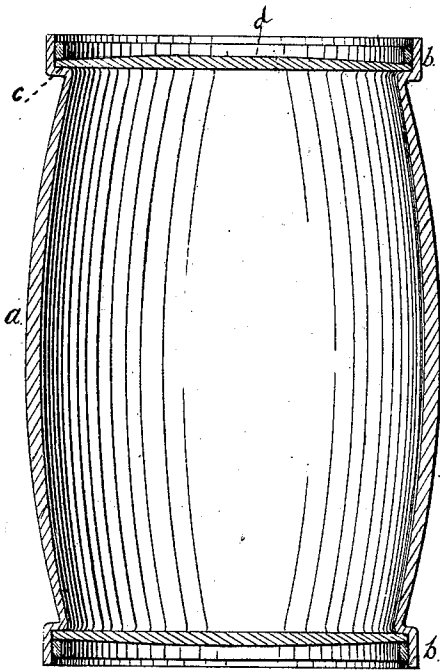
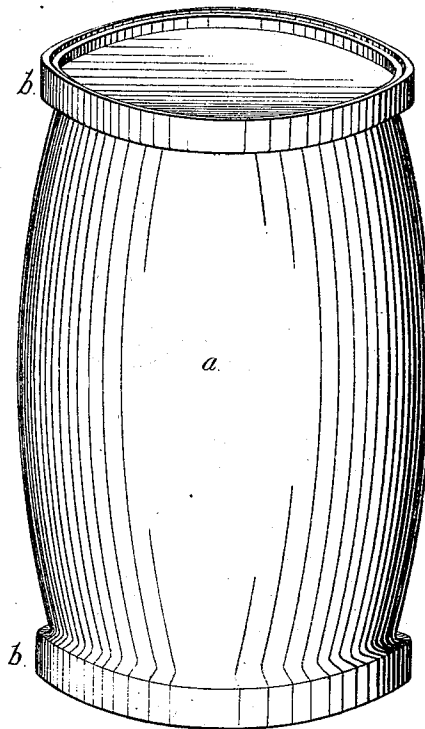


FIG. 2.



Witnesses:

William H. Davis.
P. B. McLeeman

Inventor:

G. W. Laraway
by his Attorney J. J. Greenough.

UNITED STATES PATENT OFFICE.

GEORGE W. LARAWAY, OF PORT BYRON, NEW YORK.

IMPROVEMENT IN PAPER BARRELS.

Specification forming part of Letters Patent No. **176,869**, dated May 2, 1876; application filed September 18, 1875.

To all whom it may concern:

Be it known that I, GEORGE W. LARAWAY, of Port Byron, county of Cayuga, and State of New York, have invented certain new and useful Improvements in Barrels; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing, forming a part of this specification, in which—

Figure 1 is a vertical section of a barrel, and Fig. 2 a perspective view of the same, made in accordance with my invention.

Heretofore barrels have been made by winding and compacting layers of paper or paper-pulp, or bending a sheet or sheets of paper into a hollow cylinder.

The object of my invention is to improve upon these by producing a barrel which shall be sufficiently cheap and durable to answer as a merchantable one for practical service; and it consists of a barrel made in the manner hereinafter fully described and claimed. I take vegetable or animal fiber, or a mixture of the two, and reduce it to a pulp by any of the well-known processes in common use. The pulp, while in a plastic state, is molded into the form of a barrel (shown in the drawings) by peculiarly-constructed molds and pressing mechanism, which I propose to make the subject of a separate patent.

The inner wall of the mold is immovable, while the outer wall is capable of being powerfully contracted after the pulp has been placed in the recess between them with sufficient pressure to consolidate the fibrous material or materials, driving the water out of and leaving it as solid and compact as wood. The outer wall of the mold may be made immovable, and the inner wall capable of being contracted; or both may be made capable of movement. The recess in the mold, when the wall or walls thereof are contracted, is made of such a form as will produce a barrel having recesses *c*, enlargements *b* at each end to take the place of the chine and hoop, and strengthen the ends, and a bilge, *a*, which

may be made thicker than the ends, and project beyond a right line joining the enlargements *b*, so as to permit the barrel to rock and allow it to be easily turned on end, as is the case with ordinary wooden barrels. Drawing-heads *d*, made of pulp and compressed in molds, fit into the recesses *c*, and may be fastened therein in any suitable and well-known manner to complete the barrel.

For greater economy and strength the ends of the barrel may be made of stronger material than the body by filling the lower part of the mold with pulp formed from strong fiber, such as manila or the like, for about one-third of the length of the barrel, then filling in pulp of straw, or other cheap fiber, for another third, or to form the body, and then filling the remaining third with pulp from the same fiber as the first third.

I do not confine myself to making the ends two-thirds and the body one-third of different fibers, as the employment of a different fiber for the ends and body, whether one-third or any proportion suitable, comes within the scope of my invention. Common stock can thus be used when desirable, and the barrel left strong at the ends, where strength is most needed.

I do not confine myself to the exact form of the barrel shown in the drawing, as it may be varied without departing from my invention.

What I claim as new, and desire to secure by Letters Patent, is—

1. A molded pulp barrel having homogeneous enlargements and body, substantially as shown and described.
2. A molded compressed-pulp bilged barrel, substantially as described.
3. A molded pulp barrel, the fibers of the ends thereof being of stronger material than those of the body, substantially as described.

GEO. W. LARAWAY.

Witnesses:

J. J. GREENOUGH,
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