

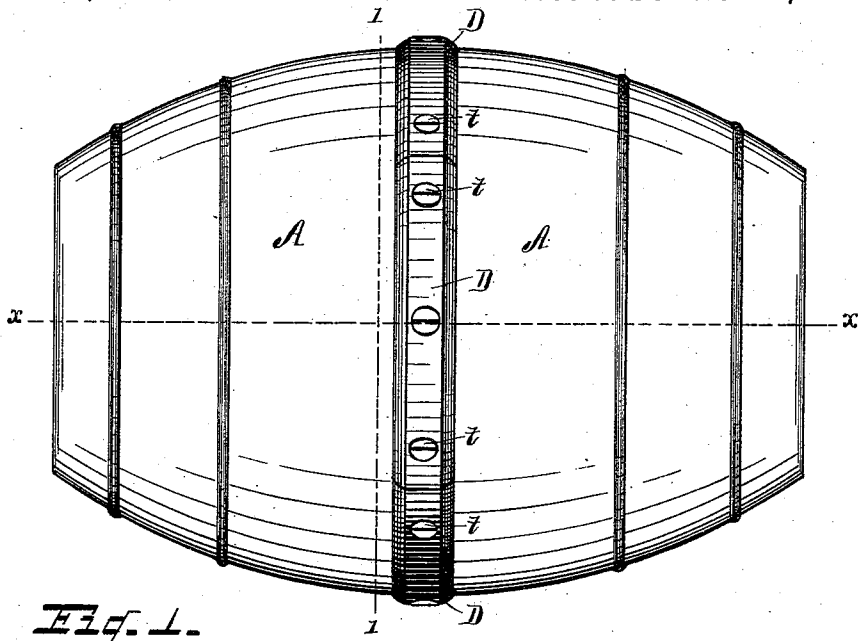
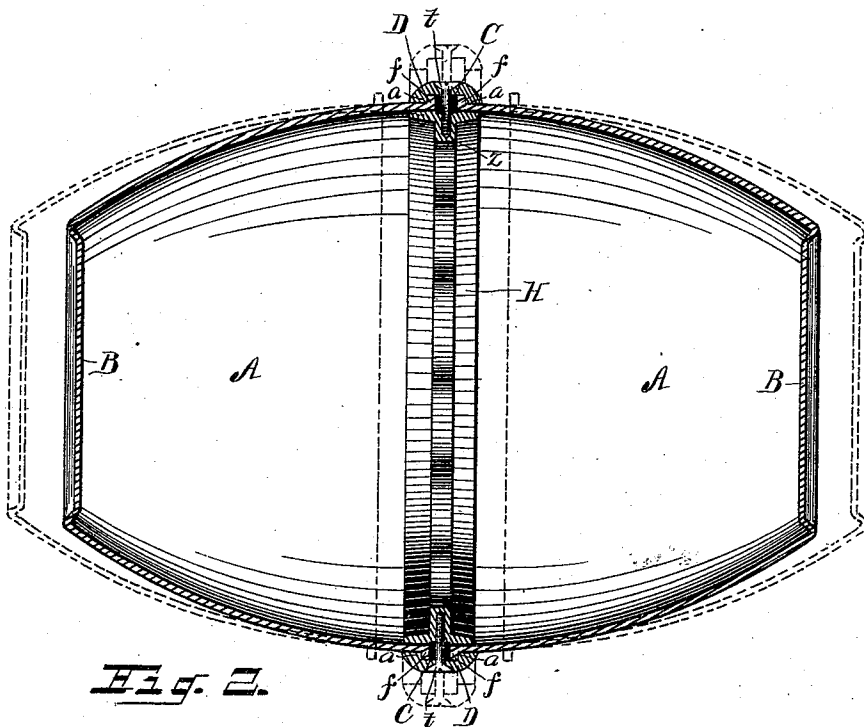
(No Model.)

2 Sheets—Sheet 1.

J. M. SULLIVAN.
METALLIC VESSEL.

No. 429,660.

Patented June 10, 1890.



WITNESSES
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(No Model.)

2 Sheets—Sheet 2.

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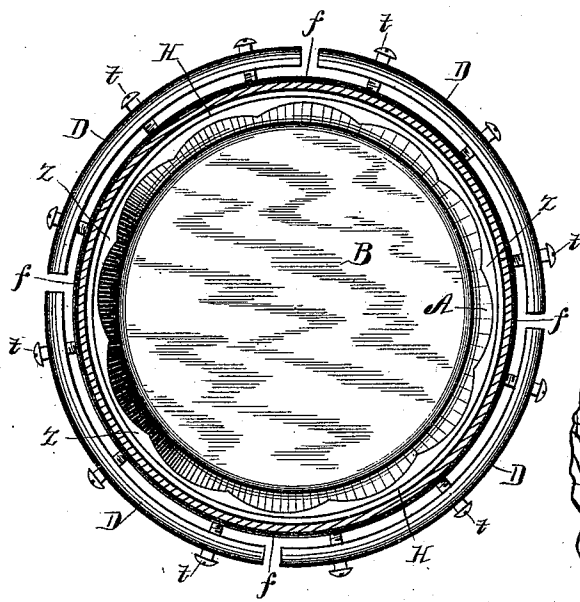


Fig. 3.

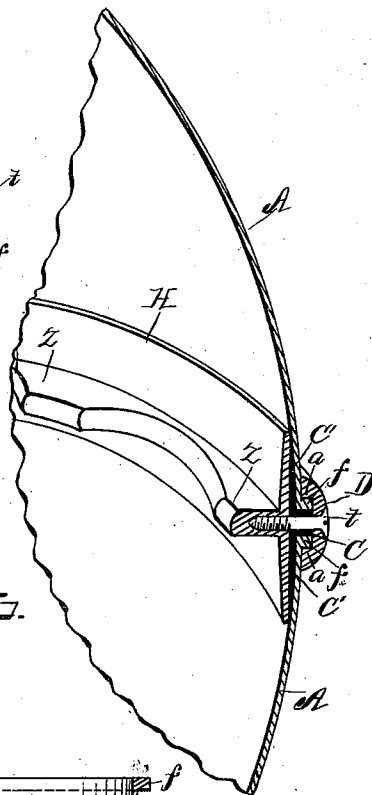


Fig. 5.

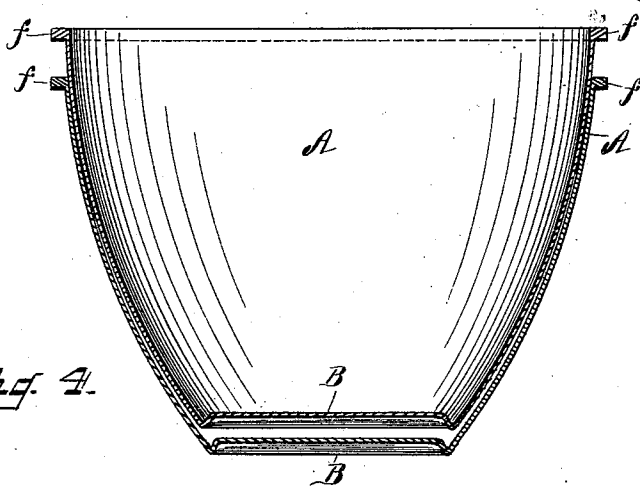


Fig. 4.

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UNITED STATES PATENT OFFICE.

JAMES M. SULLIVAN, OF DETROIT, MICHIGAN.

METALLIC VESSEL.

SPECIFICATION forming part of Letters Patent No. 429,660, dated June 10, 1890.

Application filed December 9, 1889. Serial No. 333,135. (No model.)

To all whom it may concern:

Be it known that I, JAMES M. SULLIVAN, a citizen of the United States, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Metallic Vessels; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This device relates to metal vessels adapted to contain liquids; and the invention consists in the combination of elements, hereinafter set forth, and pointed out particularly in the claims.

The object is to produce a light and strong metallic cask to be used in the shipping of liquids, that may be uncoupled at its greater diameter and the sections nested, one in the other, so as to occupy but little space for return shipment or storage, and readily set up or put together when desired for reuse. This object is attained by the construction and arrangement of parts, as illustrated in the accompanying drawings, in which—

Figure 1 is a view in elevation of my improved cask. Fig. 2 is a horizontal longitudinal section on dotted line *xx* of Fig. 1. Fig. 3 is a plan view of the cask in section on dotted line 1 1 of Fig. 1, showing the sections of the outer ring drawn away from the body of the cask. Fig. 4 is a sectional view showing the two parts of the cask nested. Fig. 5 is an enlarged detail, showing a modification of the packing used to form a tight joint between the ends of the sections of the cask.

Referring to the letters of reference, A A indicate the two sections forming the body of the cask. Said sections are made of thin metal, and are provided with the end or head B, which is formed integral therewith, the open or inner end of the section having the outwardly-turned flange *f*.

D indicates an annular ring, made in four sections and channeled in its inner face, forming the shoulders *a*. The ring D is adapted

to encircle the cask. The shoulders *a* of said ring engage the flanges *f* of the sections A A and hold said sections together, as shown in Fig. 2.

C indicates a rubber ring that lies between the inner ends of the sections A A and forms the joint between said sections.

H indicates a solid annular ring, T-shaped in cross-section, located within the cask, its diameter being equal to the inner diameter of the cask, so that said ring fits snugly therein, receiving the inner ends of the sections A A. Said ring H is provided with an inwardly-extending flange Z, that receives the inner ends of the screws *t*, passing through the outer ring D, through the rubber C, and screwing into the ring H, by means of which said ring is secured in place and the parts held together, as clearly shown in Fig. 2.

To join the two sections in forming the cask the open ends of the sections are placed on the inner ring H and against the rubber band C, encircling the periphery of said ring. The cask is then placed under end pressure, compressing the rubber and forcing the ends of the sections together sufficiently to allow the shoulders *a* of the outer ring D to fit over and engage the flanges *f* of said sections. The screws *t* are then entered through the outer ring D and the rubber C, and screwed into the inner ring H, as clearly shown in Fig. 2, firmly securing the parts in place, and forming a tight joint between the sections A A, when the cask is ready for use.

The two sections of the cask may be readily disconnected by withdrawing the screws *t* and loosening the outer ring D, when the sections A A may be drawn apart, as shown by dotted lines in Fig. 2.

The extended portion Z of the flange of the inner ring H is to afford a strong anchorage for the inner end of the screws *t*, and the cut-out portions of the flange between the points Z is to permit of a perfect drainage of the cask.

The modification shown in Fig. 5 consists in using a wider inner ring H, and in providing the rubber packing C with extending flanges C' C', that lie between the adjacent faces of the ring H and the body A A of the cask, forming a tight joint between the ring

H and the body of the cask, as well as between the ends of the sections A A, thus making the joint doubly secure.

From the drawings and foregoing description it will now be seen that this improved cask is light and strong, that it may be readily set up when required for use, and when in the knockdown state the sections may be closely nested, so as to occupy but little space, especially adapting them for that class of trade in which the casks are returned when empty.

I have described rubber as a packing agent between the joints. In some instances I shall employ other packing agents; therefore I do not desire to limit myself to rubber as the packing agent.

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

1. A two-part metallic vessel, each part having a head formed integral therewith, and

an annular outwardly-projecting flange at the opposite end, combined with an internal ring, and an outside sectional channeled ring, a packing located between the joined parts, and screws uniting the sectional ring to the internal ring, substantially as specified.

2. A metallic vessel consisting of two parts, each part having a closed end and bilged sides, with an outwardly-projecting flange at the greater diameter, combined with a band adapted to lie within the greater circle of the two parts and to support the same, and an outer sectional channeled band having screws which couple said parts.

In testimony whereof I affix my signature in presence of two witnesses.

JAMES M. SULLIVAN.

Witnesses:

R. B. WHEELER,
E. S. WHEELER.