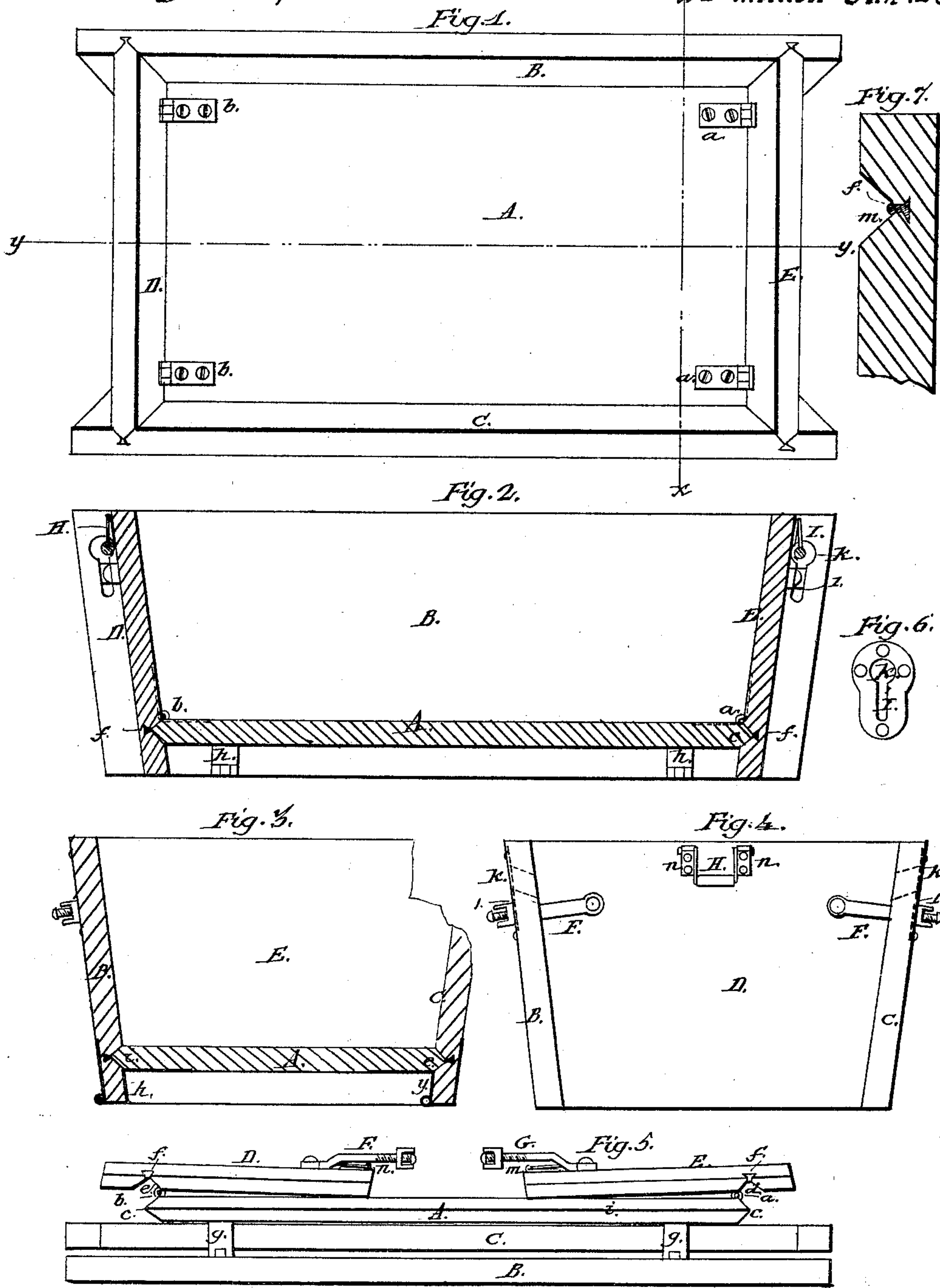


C. H. Hudson,

Folding Tub.

No. 86,159.

Patented Jan. 26, 1869.



Witnesses:
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CHARLES H. HUDSON, OF NEW YORK, N. Y.

Letters Patent No. 86,159, dated January 26, 1869; antedated January 11, 1869.

IMPROVED FOLDING TUB.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, CHARLES H. HUDSON, of the city, county, and State of New York, have invented a certain new and improved Folding Tub or Vessel; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The object of my invention is to provide a tub or vessel, which, while water-tight, or capable of containing fluids without leaking, may yet be folded up into a small compass while not in use, or for the purpose of storage or transportation.

In many small households, on shipboard, and in divers other places and situations, the ordinary wash-tub is very objectionable, on account of its size, shape, and liability to leak by the shrinking of the bottom and staves, and the loosening of the hoops.

It is also inconvenient to ship these round tubs, on account of their bulk, and when packed in nests, the largest and smallest tubs in the nest are difficult to sell, as those sizes are but little in demand.

The stationary or movable square tub, as heretofore constructed, is liable in part to the same objections, as it is bulky, liable to leak, and too cumbersome to be transported for sale with profit.

All these objections are obviated by my improved tub or vessel, which is peculiarly adapted for use as a wash-tub, but may be used for other purposes.

It consists of a bottom, sides, and ends, to which may be added, if desired, a cover, the said bottom, sides, and ends being hinged together in such a manner as to permit their being folded in upon each other in a compact form, occupying but little space, and when opened out to form the tub, the joints are so formed and packed, that they are entirely water-tight, as will more fully appear by reference to the accompanying drawings, in which—

Figure 1 is a top view of my improved folding tub or vessel.

Figure 2 is a vertical longitudinal section, on the line *y y*, fig. 1.

Figure 3 is a vertical cross-section, showing the parts to the right of the line *x x*, fig. 1.

Figure 4 is an end view of the tub or vessel.

Figure 5 is a side view of the same, as it appears when folded up.

Figure 6 is a detail view of a bearing-plate, against which the clamping-screws impinge.

Figure 7 is a sectional view in detail of a portion of one of the walls of the tub, showing the manner of forming and packing the joints.

A is the bottom of the tub;

B and C are the sides; and

D and E are the ends.

The ends, D and E, are hinged to the bottom by the hinges *a* and *b*, the pivots of which lie snugly up to the corner formed by the ends and bottom of the tub, as seen in fig. 2.

When the tub is folded up, these ends are thrown

forward upon the bottom, A, as seen in fig. 5, and when opened out to form the tub, the hinges act as fulera, upon which the ends act as levers, to force the wedge-shaped ends, *c*, of the bottom, A, into the grooves *d* and *e*, and against the packing *f*, thus rendering the joint at the junction of the ends and bottom of the tub tight and secure.

The side, C, is hinged to the bottom, A, by the hinges *g g*, the axes of which are nearly in line with the inner bottom corner of the side, C. This allows the side, C, to fold up snugly against and under the bottom, A, as seen in fig. 5.

The side, B, is in like manner hinged to the bottom, A, by the hinges *h h*, the axes of which are nearly in line with the outer lower corner of the side, B, whereby the side, B, is allowed to fold under the bottom, A, against the side, C, a space being thus left between the side, B, and the bottom, large enough for the side, C, to lie in.

The hinges *g* and *h* also act as fulera, by which the edges *i* are forced into the grooves in the sides, B and C, when the sides are brought up to form the tub.

F and G are screw-clamps, which are fastened to the ends of the tub, and when the tub is opened out, as seen in fig. 1, they pass through the hole or enlarged part *k* of the slots *l* in the sides of the tub, and the nuts being forced down into the narrow part of the slots *l*, as seen in fig. 4, the nuts are screwed up tight, bearing against the bearing-plates, one of which is shown in detail in fig. 6, and the tub, thus tightly clamped together, is ready for use.

H and I are handles, which are fastened to the tub by means of the straps *n*, in the usual manner, and when not in use fall down close against the end of the tub, out of the way.

A tub or vessel constructed in this manner, may be used as a bread-box or dough-box, and for many other purposes besides that of a wash-tub, and it will be found especially useful in small families in crowded cities, and on shipboard.

The V-shaped grooves into which the wedge-shaped edges fit, such as are seen in fig. 7, have at their inner angle a dovetail recess, *m*, into which the packing *f* is thrust. The packing, on being thrust into this recess, expands into the enlarged part, at the inner end of the recess, and is thus firmly and securely held in place.

Any suitable material may be used for packing the joints, as India rubber, flag-leaves, such as are used by coopers to caulk the seams of casks, hemp, or tow, or any suitable elastic, flexible, and sufficiently-tough material, though I prefer the leaves of flag above mentioned, or India rubber.

Having thus fully described my invention,

I claim, as a new article of manufacture, a tub or vessel with folding ends and sides, and capable of containing fluids without leaking.

CHAS. H. HUDSON.

Witnesses:

H. JAMES WESTON,

L. A. ROBERTS.