

(No Model.)

J. MARIANI.

FOLDING TUB.

No. 510,356.

Patented Dec. 5, 1893.

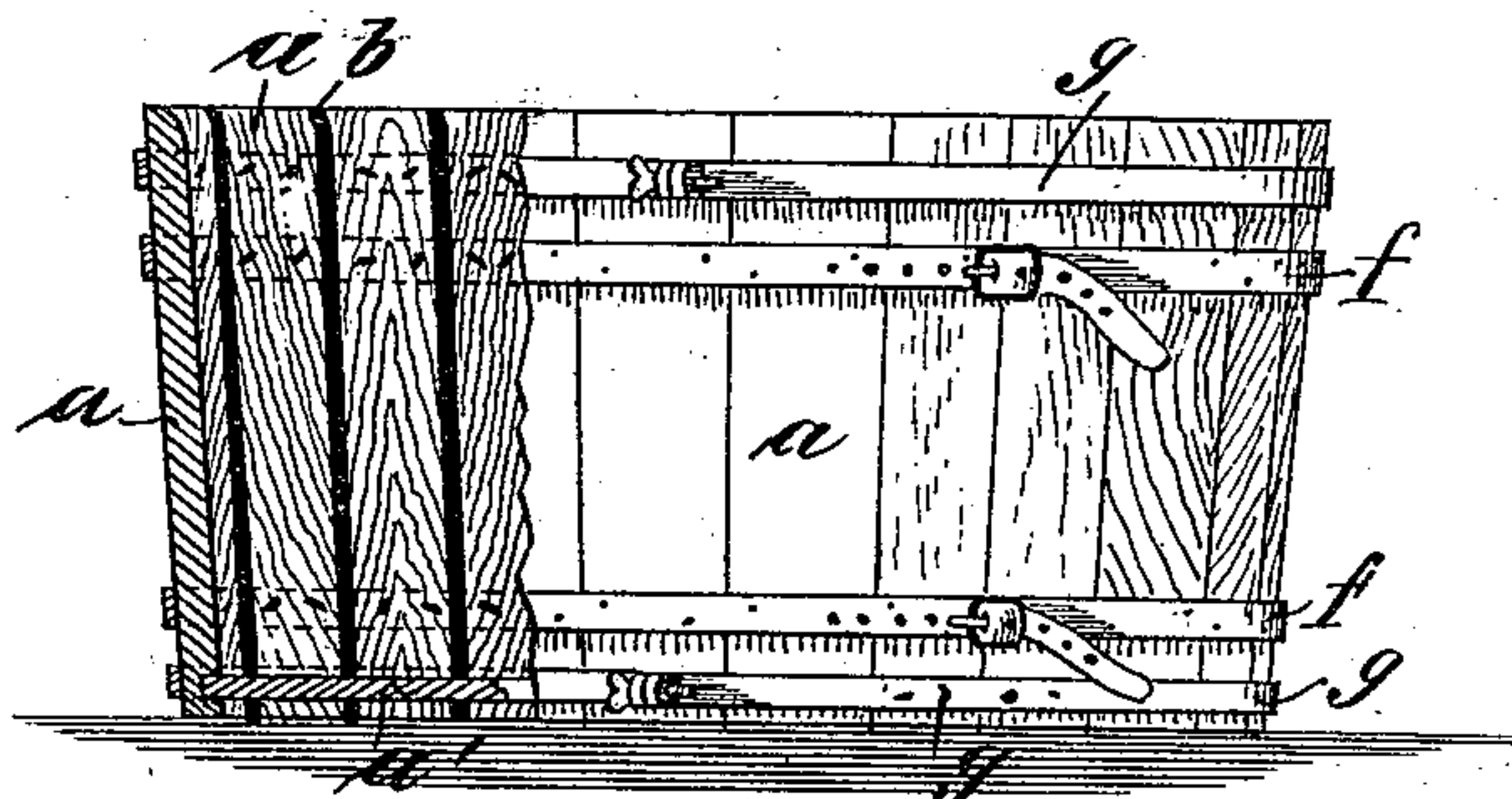


Fig. 1.

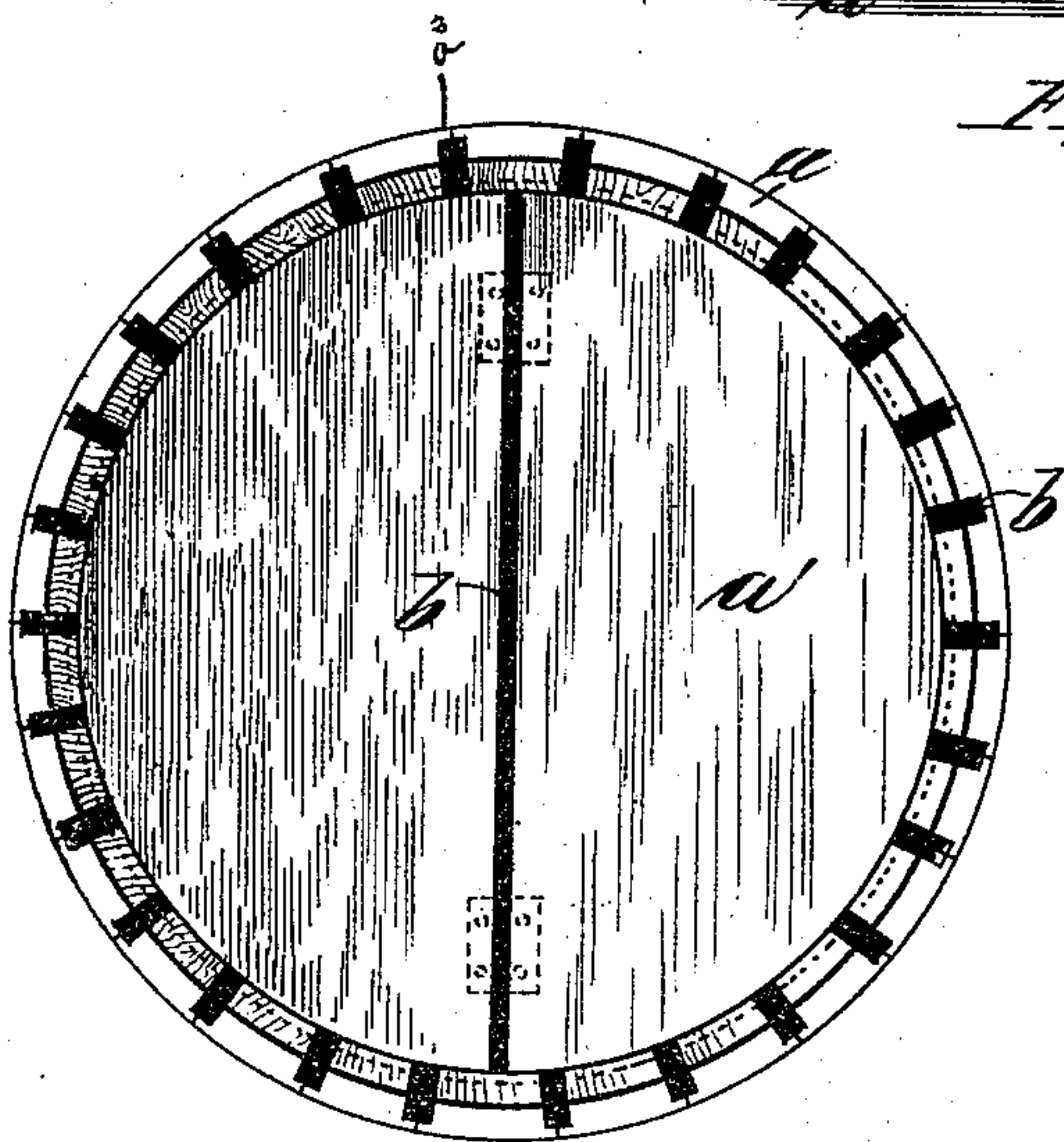


Fig. 2.

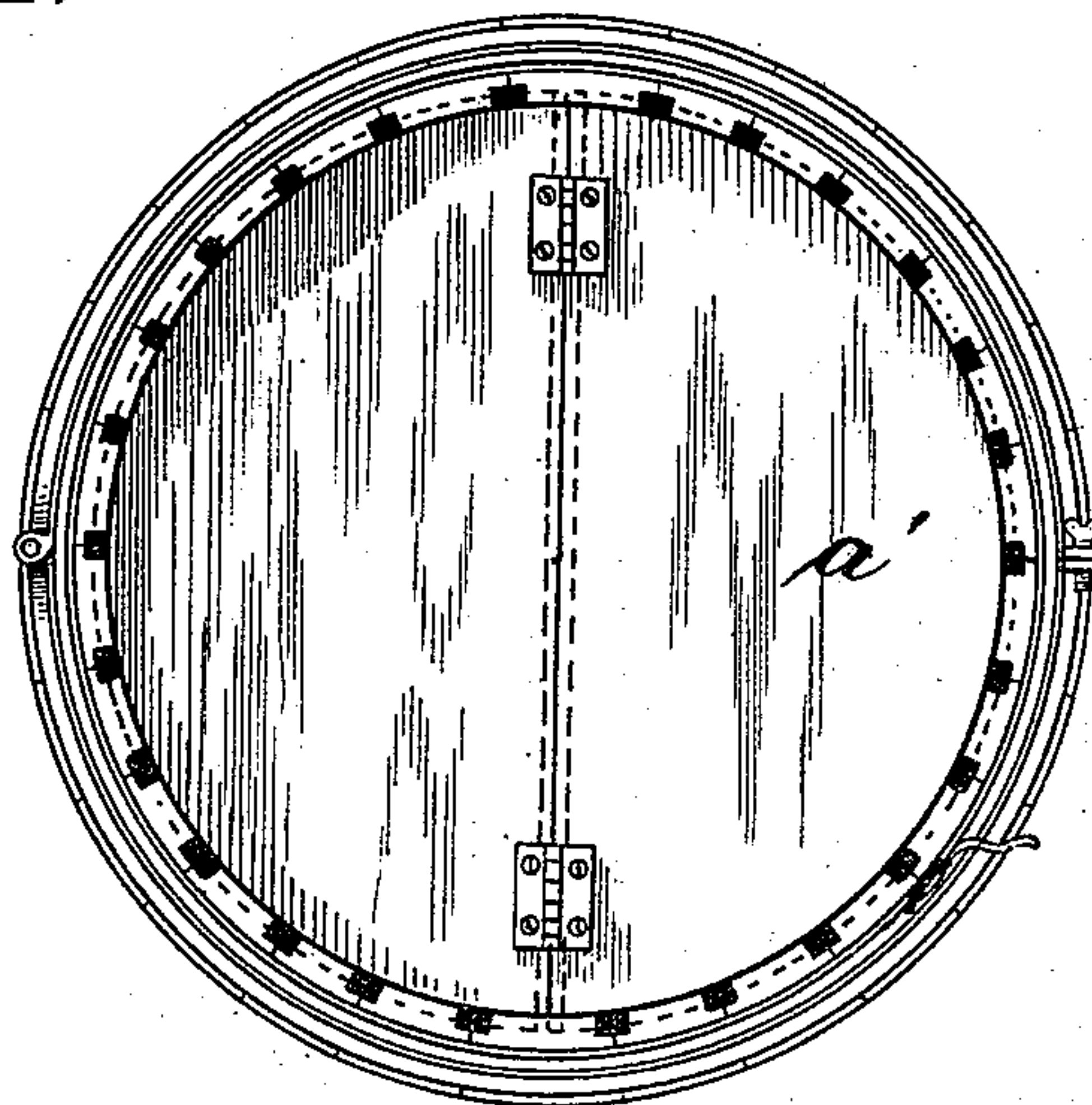


Fig. 3.

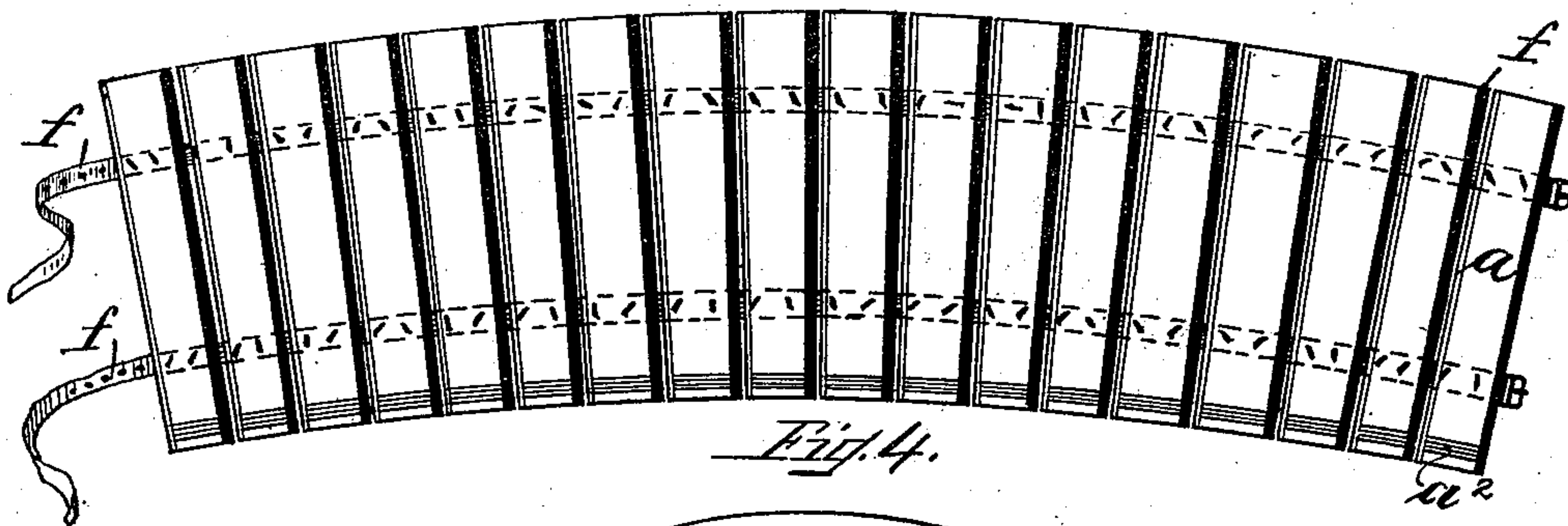


Fig. 4.

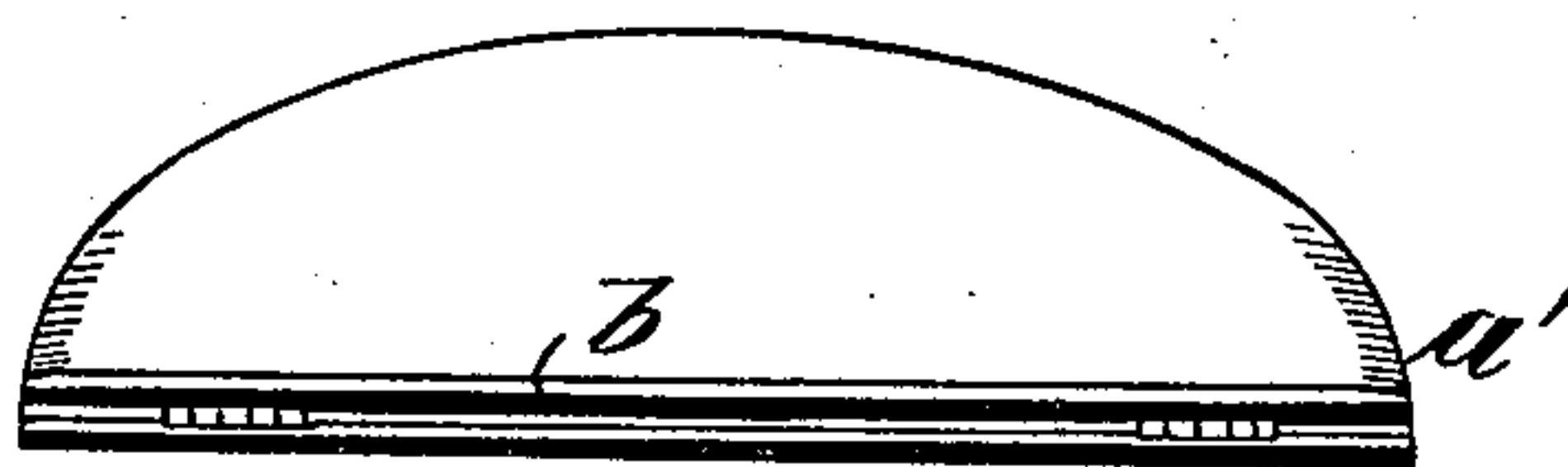


Fig. 5.

Witnesses:
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UNITED STATES PATENT OFFICE.

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FOLDING TUB.

SPECIFICATION forming part of Letters Patent No. 510,356, dated December 5, 1893.

Application filed December 16, 1892. Serial No. 455,410. (No model.)

To all whom it may concern:

Be it known that I, JOHN MARIANI, a subject of the King of Italy, residing at Boston, in the county of Suffolk and State of Massachusetts, have invented a new and useful Folding Receptacle, of which the following is a specification, reference being had to the accompanying drawings, in which—

Figure 1 is a side elevation of a tub embodying my invention. Fig. 2 is a top plan view of a tub set up. Fig. 3 is a bottom plan of what is shown in Fig. 2. Fig. 4 shows the body extended and ready to be folded up. Fig. 5 shows a folding bottom for a tub.

The object of my invention is to produce wash-tubs, bath-tubs, pails and other receptacles (including barrels, &c.) which are liquid-tight when ready for use but which may be folded up for storage or portage.

My invention is a foldable receptacle in which are combined a series of staves secured, at slight distances apart, to one or more flexible straps exterior to the staves; a series of interposed, elastic calking-strips, carried by the staves; and one or more heads; the flexible straps holding the staves and their attached calking-strips in proper relation to each other, for forming the receptacle body, and for folding up.

In the drawings, a , a are the staves, and a' a head, the edge of which is fitted in grooves a^2 near the lower ends of the staves, as usual. Elastic calking-strips b are mounted between the opposed edges of the staves and are secured to the staves by water-proof cement or by some other suitable means. One of these calking-strips is permanently secured to an edge of each stave a ; and all the staves a , and interposed, elastic calking-strips b , attached, one to each stave along an edge thereof, are secured on one or more flexible strips f , of any suitable material, with the edges of the staves sufficiently far apart to permit the bonded or linked staves to be rolled up for storage or portage, and in such wise as when the end staves of the linked series are brought edge to edge, the whole is rounded into a receptacle body. Draft upon a strap f forces the edge of the head a' into groove a^2 . If desired, auxiliary clamps g may be used. If head a' is made foldable, elastic calking-strips are interposed between its sections, being secured to the edges thereof. Each stave is formed with a lip a^3 along

its edge, and each calking strip is permanently secured to the edge of a stave, the lip a^3 of which partially covers the back of the calking strip. When the staves are in contact, the lips and the adjacent walls of the staves form vertical channels on the inner wall of the receptacle. The strips are somewhat broader, normally, that is, when not compressed, than these channels, so that when the tub is set up, the calking strips are not only compressed between the staves, but also an excellent break-joint arrangement of the staves and calking strips is obtained and which is exceedingly valuable in producing a liquid tight, folding receptacle; and moreover, as the lips a^3 are exterior, they fully conceal the calking strips from side-view when the tub is set up, and this is desirable. It is also important to make this break-joint arrangement, because if the calking strips were smooth along their edges, that is, were not provided with lips, each pair of staves would present along their opposed edges, three joints or seams from which water might escape, whereas by the break-joint construction they present but one. Tubs and other receptacles thus constructed are liquid-tight when the elastic calking-strips are compressed between the opposed edges of the staves or between the opposed edges of the head-sections, and such receptacles are easily knocked down and compactly folded. Owing to the fact that the elastic calking-strips b are permanently secured to the edges of the staves or head-sections, danger of losing the same is obviated, and the parts are always ready to be set up into a liquid-tight receptacle.

What I claim is—

The herein described improvement in folding tubs, the same consisting in the combination of a head with a series of staves secured, at a distance apart, to an exterior strap, with a series of elastic calking strips, the staves being formed with lengthwise lips on their edges, and the calking strips being normally broader than the channel formed when opposed lips are in contact, all substantially as and for the purpose set forth.

JOHN MARIANI.

Witnesses:

EDWARD S. BEACH,
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