

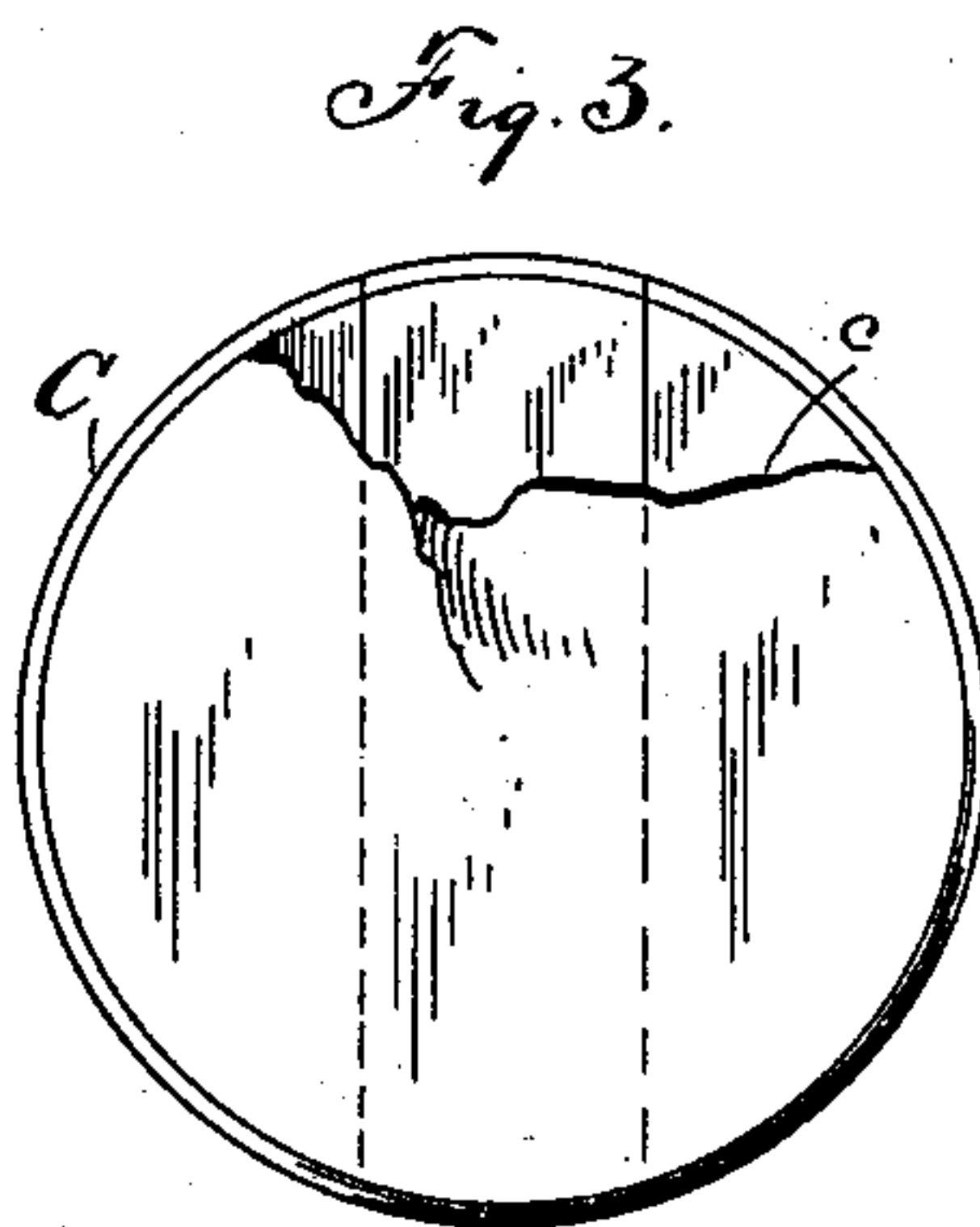
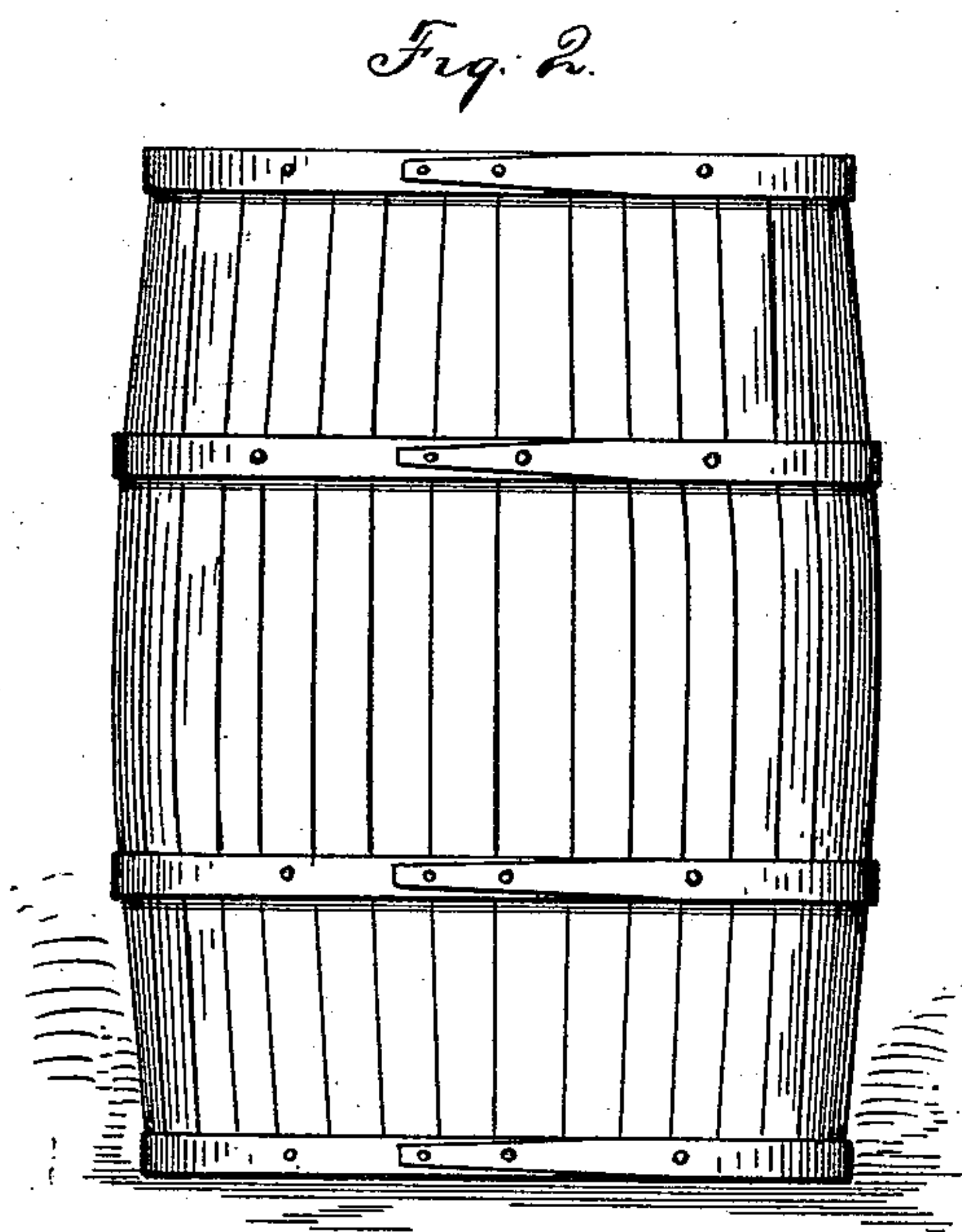
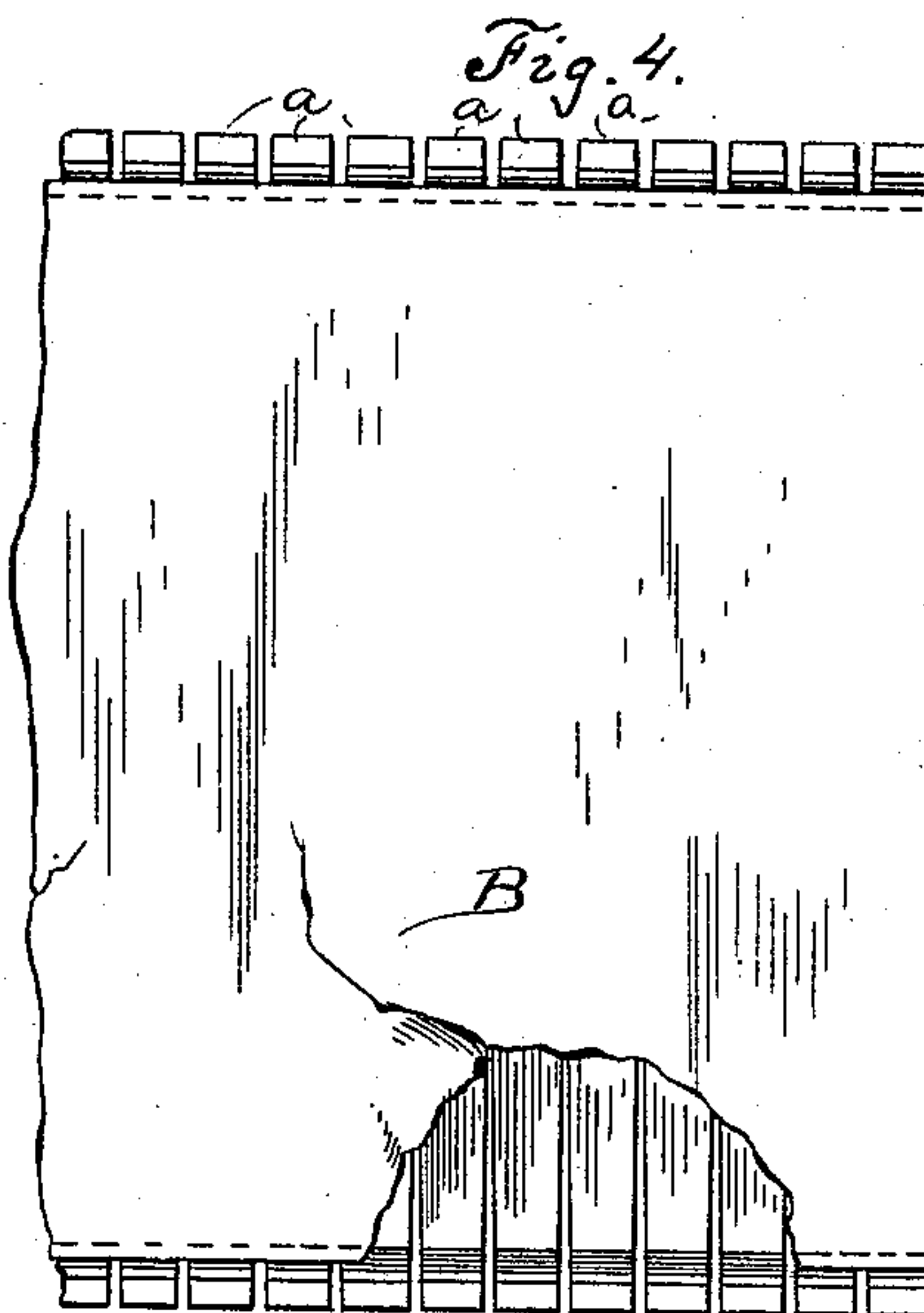
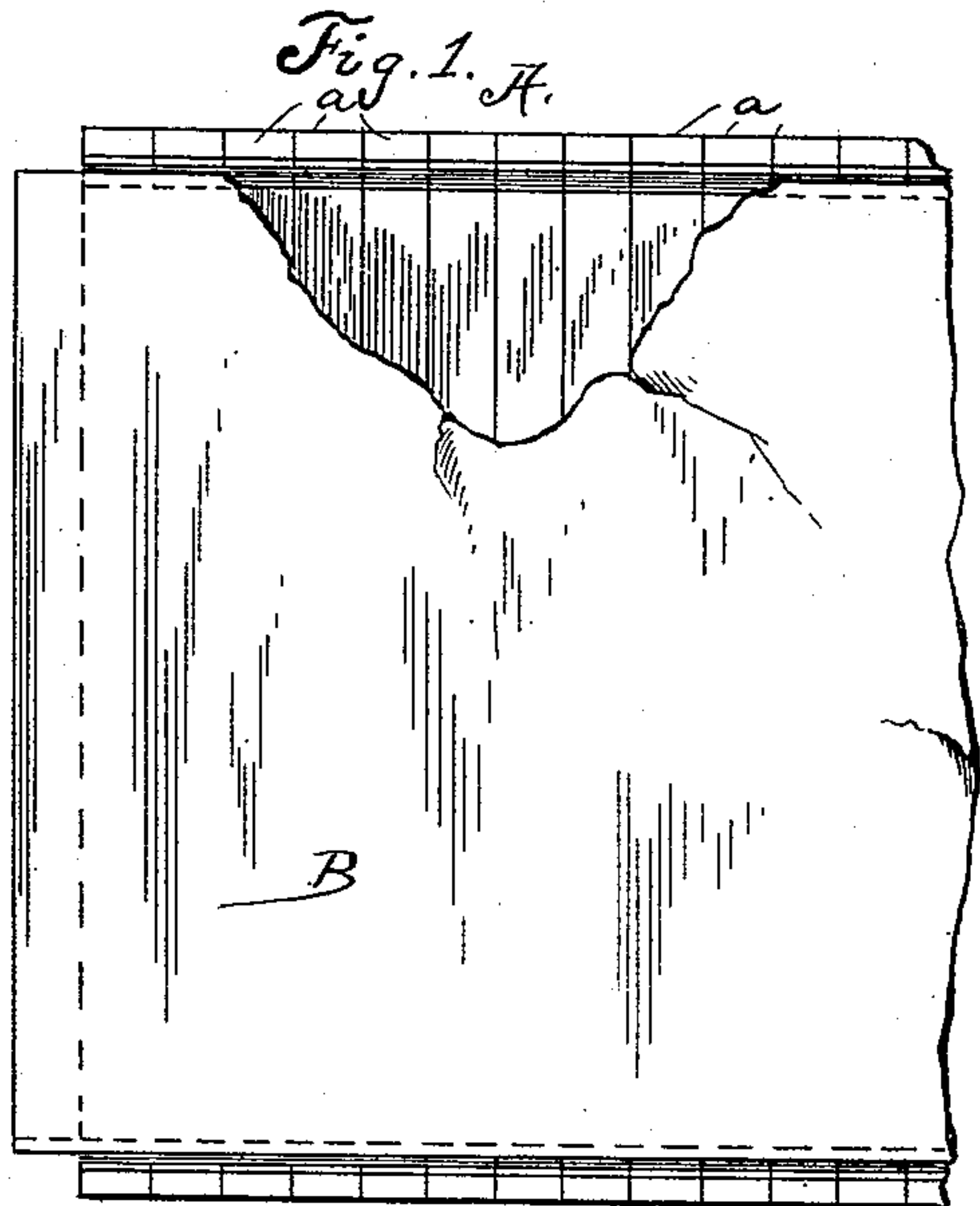
(No Model.)

2 Sheets—Sheet 1.

L. M. REED.  
KNOCKDOWN KEG.

No. 465,291.

Patented Dec. 15, 1891.



Witnesses.  
E. Byron Gilchrist.  
*[Signature]*

Inventor.  
Lemon M. Reed  
*[Signature]*  
Attorneys

(No Model.)

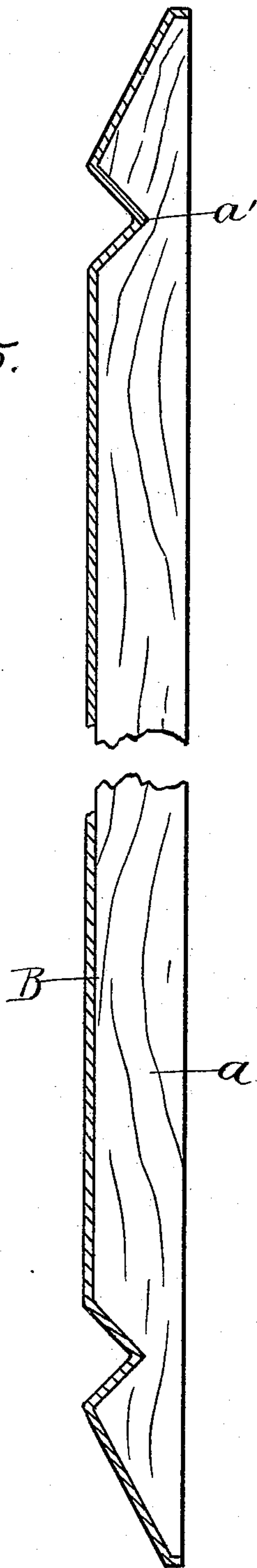
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*Fig. 5.*



Witnesses.

*E. Byron Gilchrist*  
*Charles W. ...*

Inventor.

*Simon M. Reed*

*By Frederick L. ...  
Attorneys*



# UNITED STATES PATENT OFFICE.

LEMON M. REED, OF CLEVELAND, OHIO.

## KNOCKDOWN KEG.

SPECIFICATION forming part of Letters Patent No. 465,291, dated December 15, 1891.

Application filed February 19, 1891. Serial No. 382,097. (No model.)

*To all whom it may concern:*

Be it known that I, LEMON M. REED, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and  
5 useful Improvements in Knockdown Kegs; and I do hereby 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 pertains to make and use the  
10 same.

My invention relates to an improved knock-down keg or similar package as an article of manufacture, the object being to improve the package, cheapen the initial cost, and to lessen  
15 the expense of transportation.

In the accompanying drawings, Figure 1 is a plan of a blank that is to form the body of the package. Fig. 2 is an elevation of the assembled package. Fig. 3 is a plan of one of  
20 the heads. Fig. 4 is a modification, and Fig. 5 is an enlarged detail showing a stave with the paper lining.

A represents the blank that is to form the body of the package, this blank consisting  
25 of staves *a*, laid side by side by means of strong paper B, pasted, glued, or cemented to the inner surface of the staves, with one end of the paper that usually constitutes the lining projecting beyond the staves perhaps an  
30 inch or two, more or less, so as to overlap the joints when the blank has been folded into a circular form. The staves are crozed, as at *a'*, to receive the heads C, and the paper B extends across or at least part-way across the  
35 crozing, so that in placing the heads the paper is crowded into the crozing, thus serving as packing, whereby a tight joint is inserted. As the blank is bent into circular form to form the packages the paper lining or securing-  
40 strips of paper becomes slack at the joints of the staves, where it becomes puckered, wrinkled, or folded, and this surplus paper expands in forcing the heads into the crozing, so that usually the paper is not torn in plac-  
45 ing in the heads, and in filling the package with whatever material is to be shipped therein these folds or wrinkles along the joints of the staves are pressed outward against the staves along these joints, thus effectually  
50 packing these joints, but leaving the paper lining intact. By means of this paper lining a package of the variety known as "slack" or "dry" cooperage is made suitable for ship-

ping—for instance, flour, oatmeal, pulverized sugar, and various commodities that hereto-  
55 fore have usually been shipped in much more expensive packages.

The heads C are likely to be made in two or more pieces; but if made only in one piece the heads are lined with the same material—  
60 heavy strong paper—shown at *c*, the lining of the heads being at least flush with the edges of the heads, so that lining *c* also enters the crozing, and is thereby crowded  
65 against lining B, so that the goods shipped in the package need not come in contact with the wood.

In preparing the knockdown packages for shipment the blanks A—say fifty, more or less, in number—are piled the one above the other  
70 and tied in bundles; also the heads are in like manner tied in bundles, and the hoops, so that these packages in their knocked-down condition can be stored away in cars or other vehicles of transportation, occupying but  
75 small space. For most purposes the lining of the blank extends from crozing to crozing, covering the whole surface thereof; but where the material to be shipped in the pack-  
80 ages is coarse the lining need not cover the entire surface of the blank, but may be applied in strips, in which case strips should at least occur near the crozing or ends of the blank for more firmly securing the latter  
85 while being handled previous to being assembled in the kegs.

In the modification the staves taper slightly at their ends, and they are conveniently se-  
90 cured to the lining so that narrow spaces are formed between them.

What I claim is—

A blank for knockdown kegs, barrels, &c., comprising staves with crozes formed therein, and a lining glued, pasted, or cemented to the inner surfaces of the staves and extending  
95 over the crozes, in combination with heads adapted to enter the crozes in the usual manner, with the lining interposed to form a packing, substantially as set forth.

In testimony whereof I sign this specifica-  
100 tion, in the presence of two witnesses, this 27th day of January, 1891.

LEMON M. REED.

Witnesses:

C. H. DORER,  
WARD HOOVER.