

(No Model.)

G. WATERTON.  
METALLIC BARREL OR PACKAGE.

No. 535,566.

Patented Mar. 12, 1895.

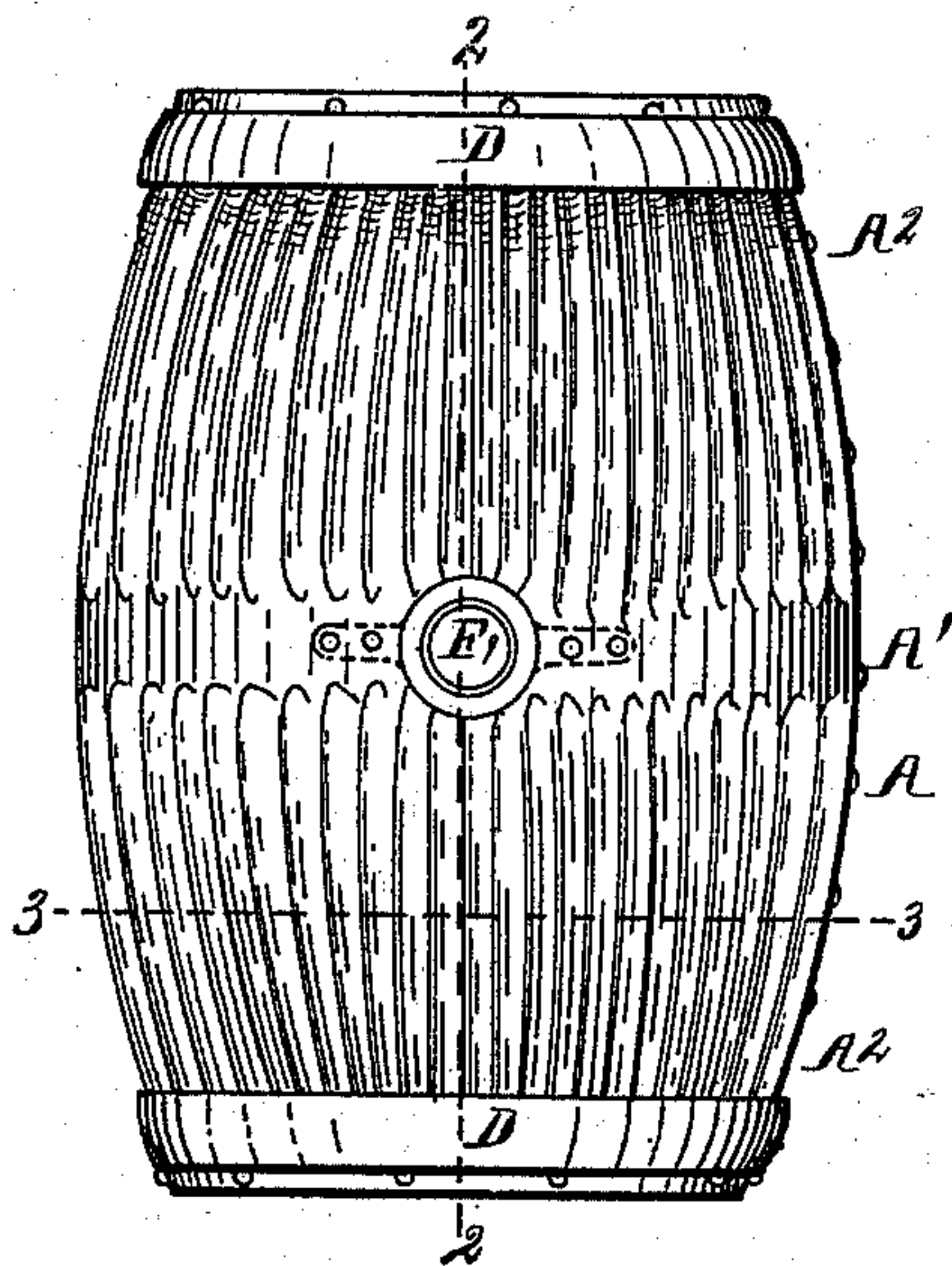


Fig. 1.

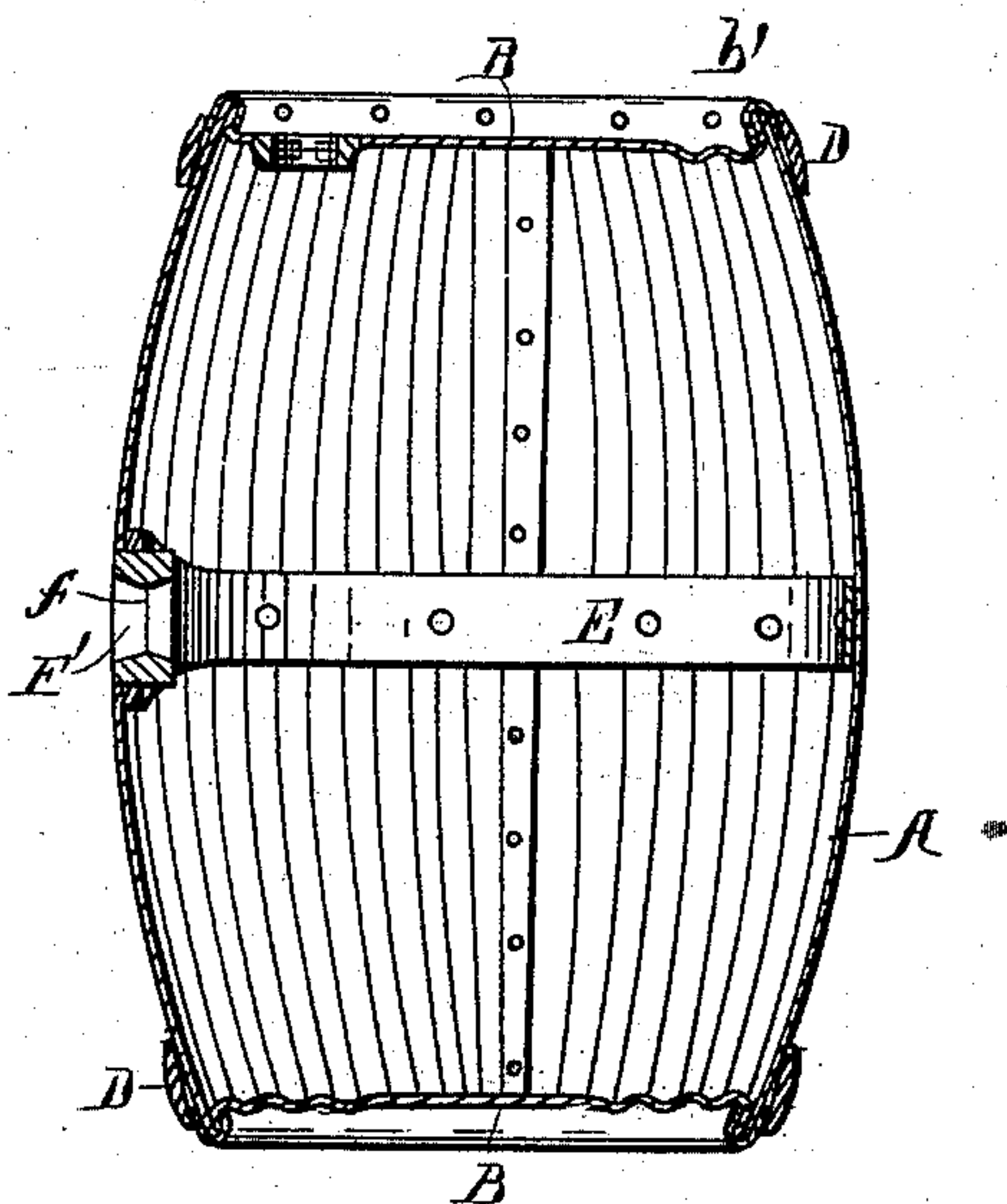


Fig. 2.

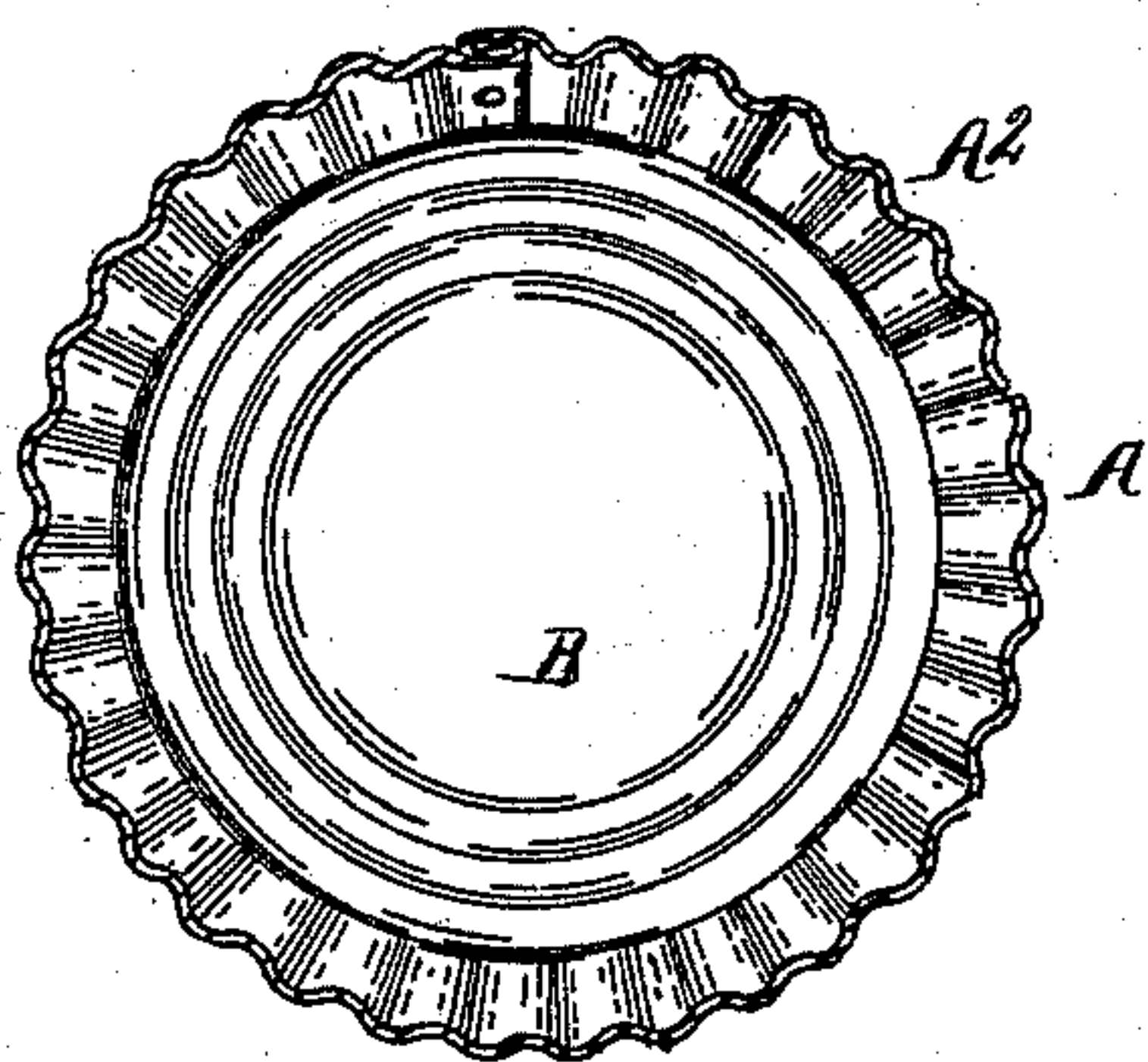


Fig. 3.

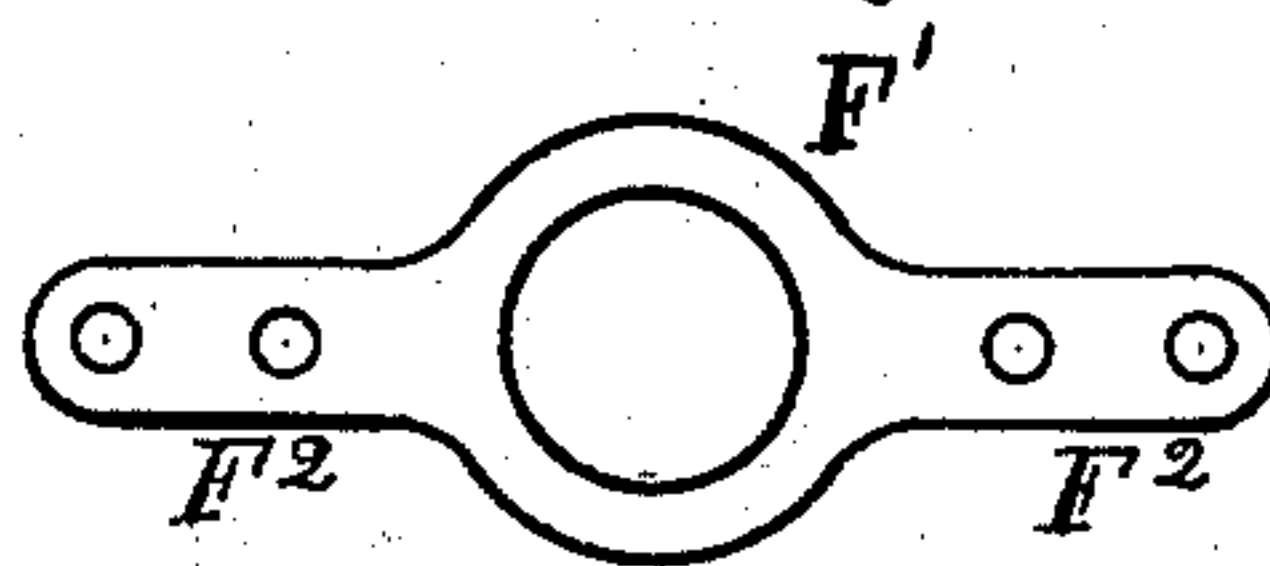


Fig. 7.



Fig. 4.

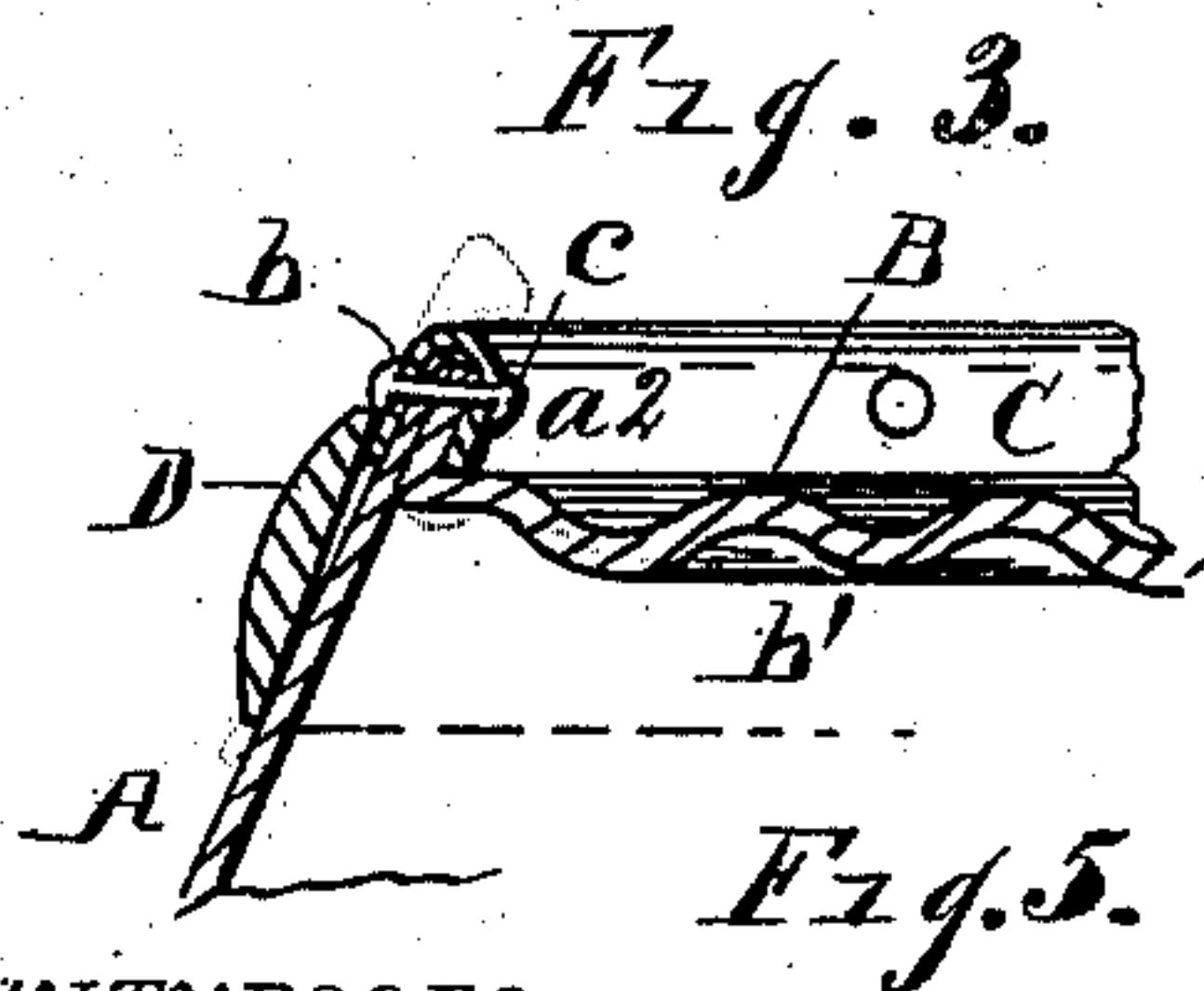


Fig. 5.

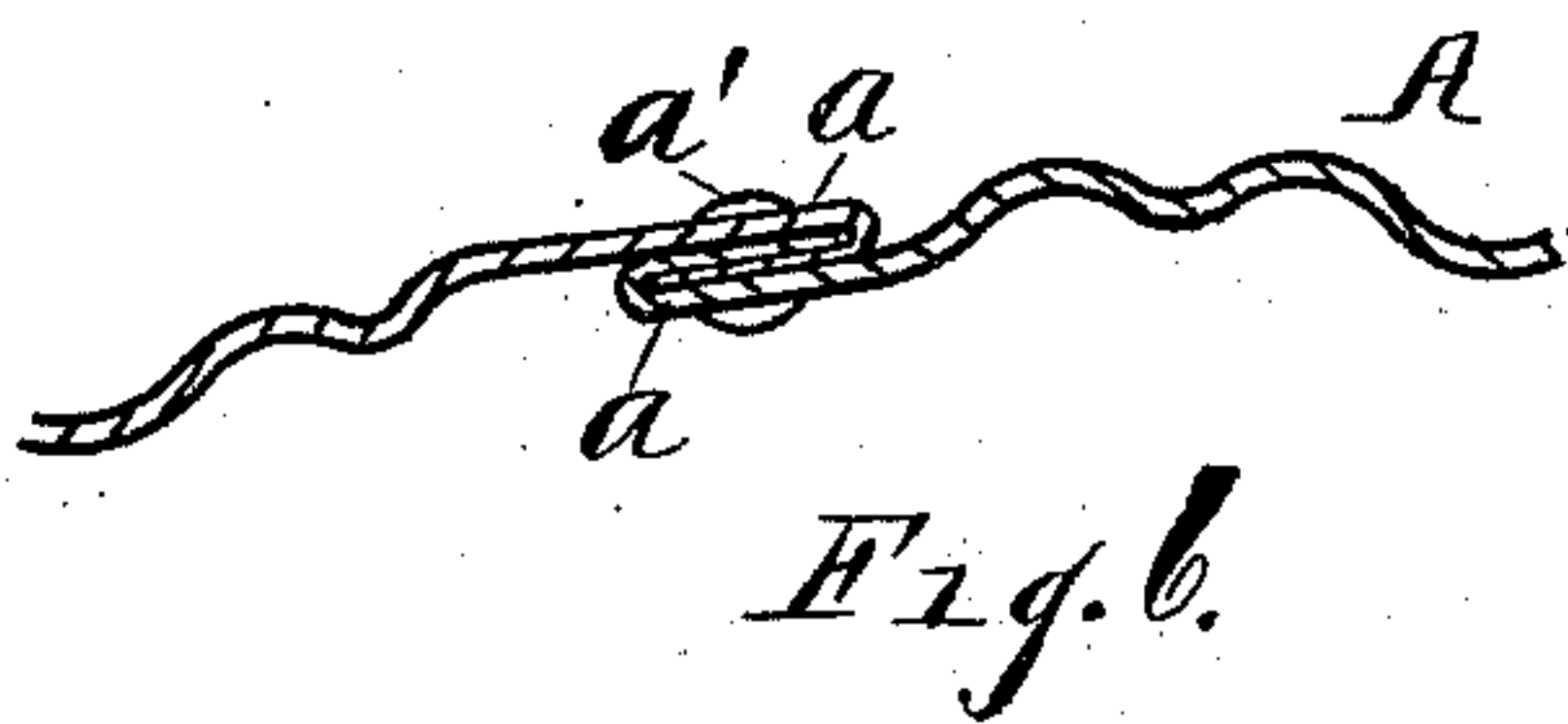


Fig. 6.

WITNESSES

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# UNITED STATES PATENT OFFICE.

GEORGE WATERSON, OF ROCHESTER, MICHIGAN.

## METALLIC BARREL OR PACKAGE.

SPECIFICATION forming part of Letters Patent No. 535,566, dated March 12, 1895.

Application filed July 3, 1894. Serial No. 516,422. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE WATERSON, a citizen of the United States, residing at Rochester, county of Oakland, State of Michigan, have invented a certain new and useful Improvement in Metallic Barrels or Packages; and I 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, which form a part of this specification.

My invention has for its object a metal barrel or package of novel construction and of superior efficiency, and it consists of the construction, combination and arrangement of devices hereinafter described and claimed, and illustrated in the accompanying drawings, in which—

Figure 1 is a view in side elevation of a barrel embodying my invention. Fig. 2 is a vertical section on the line 2—2 Fig. 1. Fig. 3 is a cross section on the line 3—3 Fig. 1. Fig. 4 is a detail view of the central bung. Fig. 5 is an enlarged view showing parts in vertical section. Fig. 6 is an enlarged view showing parts in cross section. Fig. 7 is a detail view of the rim or bushing.

The desirability of a tight metal barrel or package for various articles of merchandise, as for petroleum oil for example, is well understood; such a barrel preventing the oozing out of the oil as is common, through the pores of a wooden structure, while at the same time such a barrel may be employed in the place of customary tanks in retailing the contents. At the same time the barrel or package must be made strong and durable for shipping purposes.

My invention is designed and adapted to provide such a barrel or package.

I carry out my invention as follows:

The body or shell of the barrel or package, indicated in the drawings at A, I contemplate forming of a single integral sheet of metal suitably united at its meeting edges when bent into proper shape.

To secure strength and also to provide the desired bilge, my invention contemplates corrugating the extremities of the plate forming the body or shell A longitudinally of the barrel or package, the corrugations extending

from toward the middle outward toward the extremities of said shell or body. These corrugations may deepen toward said extremities, thereby contracting the diameter of the shell at the extremities and forming a central bilge. The bilge is shown at A' and the corrugated extremities at A<sup>2</sup>. These corrugations are thus made tapering, running out toward the middle and deepening gradually toward the extremity of the body, leaving the bilge plain between the adjacent extremities of the corrugations at each end of the body. I prefer that the corrugations should be of substantially equal length. This construction permits a uniform curvature of the body on the arc of a circle from end to end.

The meeting edges of the shell or body A may be secured together in any suitable manner. I prefer to bend a hook flange on each of said edges and to interlock said flanges, the flange being riveted together to make the seam air tight. The hook flanges are shown in Figs. 3 and 6 at "a," a' indicating the rivets. I do not, however, limit myself solely to uniting the meeting edges of the shell.

B B denote the heads of the barrel which are preferably constructed with an up-turned flange at its periphery, as shown at "b." The heads may also be corrugated toward their peripheries, as shown at b', to give strength and firmness thereto. The flange "b" lies snug against the inner surface of the shell toward the end thereof, and a band U-shaped in cross section, shown at C is engaged over the adjacent extremities of the body or shell of the package and the flange "b," the band C being riveted upon the edges of the shell and head, as shown at "c." This will afford a very firm and tight union of the heads with the shell of the barrel; but the heads may be engaged in place in any suitable manner within the scope of my invention.

My invention includes within its scope, the provision of hoops D toward the extremities of the body of the barrel if desired. These hoops may be made of metal and shrunk into place. By forming the heads with the up-turned flange "b," I obtain a chine at the extremities of the barrel, as shown at Figs. 2 and 5. If desired, to afford greater firmness and strength to the package, I contemplate engaging on the interior of the body or shell



intermediate the extremities, a hoop E which may be riveted in place.

The body of the barrel is formed with a bung hole, as shown at F. To engage the  
5 bung, I prefer to engage in any suitable orifice in the body of the barrel a metallic rim or bushing F', which may be provided with arms or wings F<sup>2</sup> to be riveted to the adjacent  
10 parts of the body to hold the rim or bushing firmly in place. This rim may be made of a metal casting and is preferably beveled from each edge toward the center, forming an intermediate ridge, as at "f." The bung F to be inserted into the rim F' is preferably made  
15 of wood, its inner end being compressed to give to the bung a tapering form. When the bung is driven into place in the rim, the inner compressed end thereof will swell, as is well understood, in contact with the liquid in the  
20 barrel into substantially the form indicated in dotted lines, Fig. 4, making a very tight joint in the rim F'.

Other bungs may be provided as may be desired, for drawing off the liquid.

25 For certain uses my invention contemplates galvanizing the different parts of the barrel, in which case, I should preferably corrugate the shell A, and form the heads galvanizing them after being so formed, either before or  
30 after putting the parts together.

The various joints might be soldered or otherwise united within the scope of my invention.

I do not limit myself to the use of the interior hoop E, nor to the employment of the  
35 hoop D, nor to the use of the bands C.

What I claim as my invention is—

1. In a barrel or package, a body formed of sheet metal having two of its edges united,  
40 said body provided with a series of longitudinal tapering corrugations deepening gradually from near the middle of the body toward the extremities thereof thereby contracting the diameter of the body at its extremities  
45 and forming a plain bilge at the middle of the body, substantially as set forth.

2. In a barrel or package, the combination of a body formed of sheet metal having two of its edges united, and heads engaged with  
50 the extremity of the body, said body provided

with a series of longitudinal tapering corrugations deepening gradually from near the middle of the body toward the extremities thereof, thereby contracting the diameter of the body at its extremities to engage said  
55 heads and forming a bilge at the middle of the body, the body being curved on the arc of a circle from end to end, substantially as set forth.

3. In a barrel or package, the combination  
60 of a body formed of sheet metal having two of its edges united, heads formed with an outwardly turned flange at the periphery thereof to form a chine, said flange fitting within and against the adjacent extremity of the body, a  
65 U-shaped band embracing the flange of the head and the extremity of the body and permanently united therewith, said heads corrugated toward their peripheries, and said body provided with longitudinally extended tapering  
70 corrugations on each side of the middle of the body forming a plain bilge between the inner extremities of said corrugations, substantially as set forth.

4. In a barrel or package, a body or shell  
75 formed of sheet metal having two of its edges united, said body provided with a series of longitudinal tapering corrugations on each side the middle of the body deepening from near the middle in opposite directions toward  
80 the extremities of the body forming a plain bilge at the middle of the body, and in combination therewith a rim F' secured in said body, the bung engaged in said rim, substantially as set forth.  
85

5. In a barrel or package, a body or shell formed of sheet metal corrugated longitudinally toward its extremities, a rim F' beveled from its edges toward the center and provided with attaching arms or wings and a plug F  
90 formed of wood and pressed at one end to a tapering form engageable in said rim, substantially as set forth.

In testimony whereof I sign this specification in the presence of two witnesses.

GEORGE WATERSON.

Witnesses:

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O. B. BAENZIGER.