

No. 672,808.

Patented Apr. 23, 1901.

C. S. REAMS.
BUCKET AND HOOP THEREFOR.

(Application filed Dec. 13, 1900.)

(No Model.)

Fig. 1.

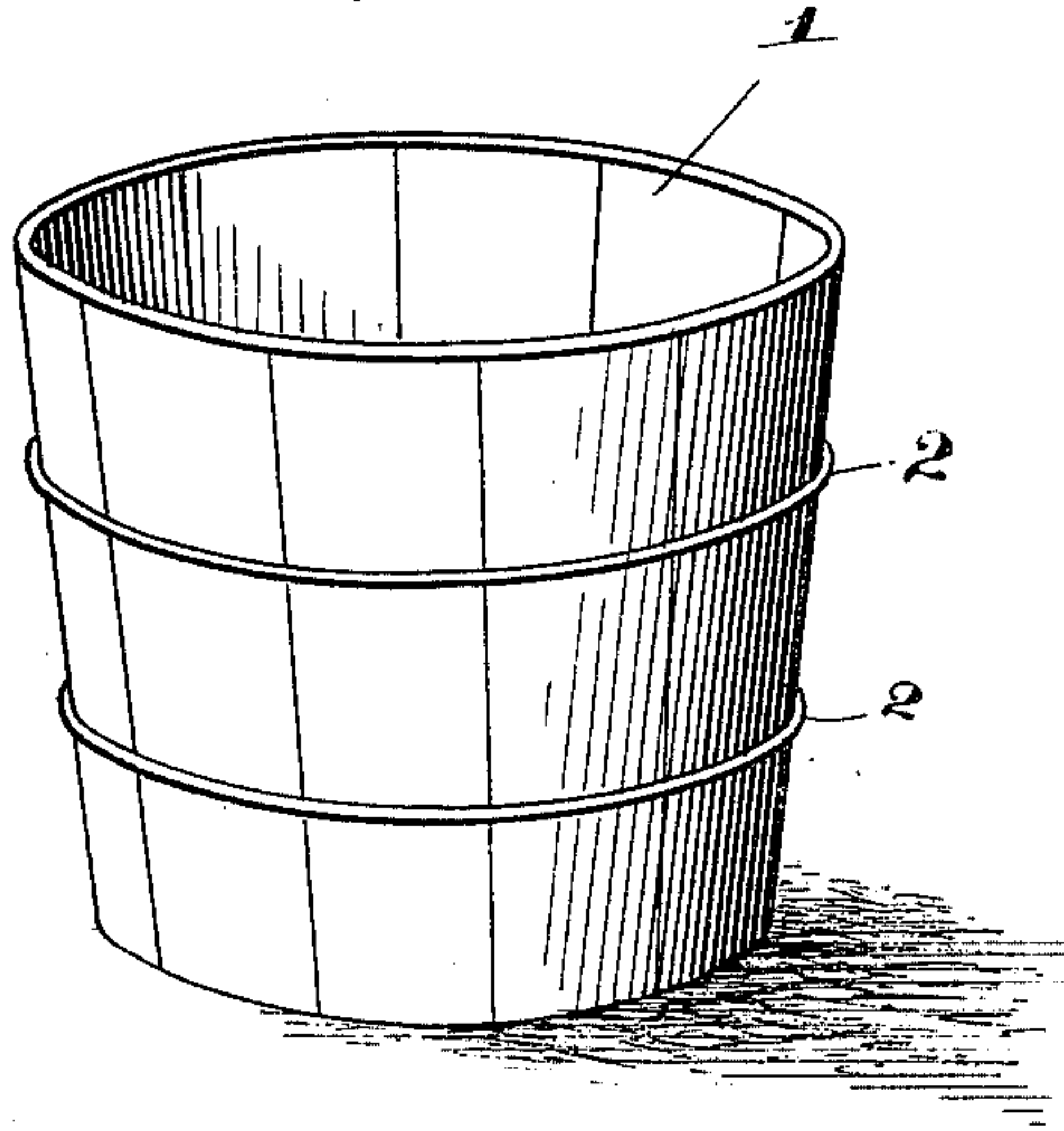


Fig. 2.

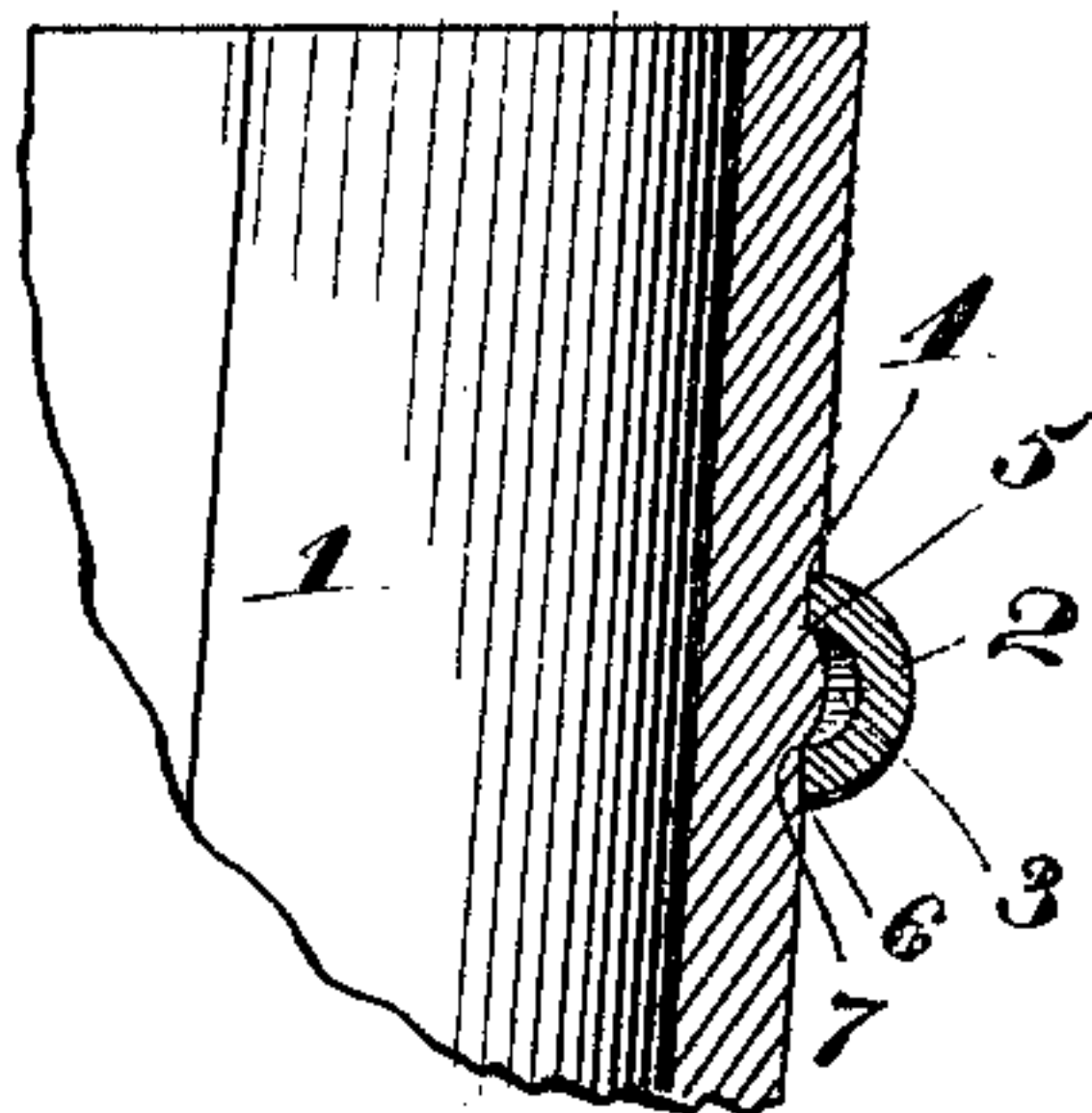


Fig. 3.

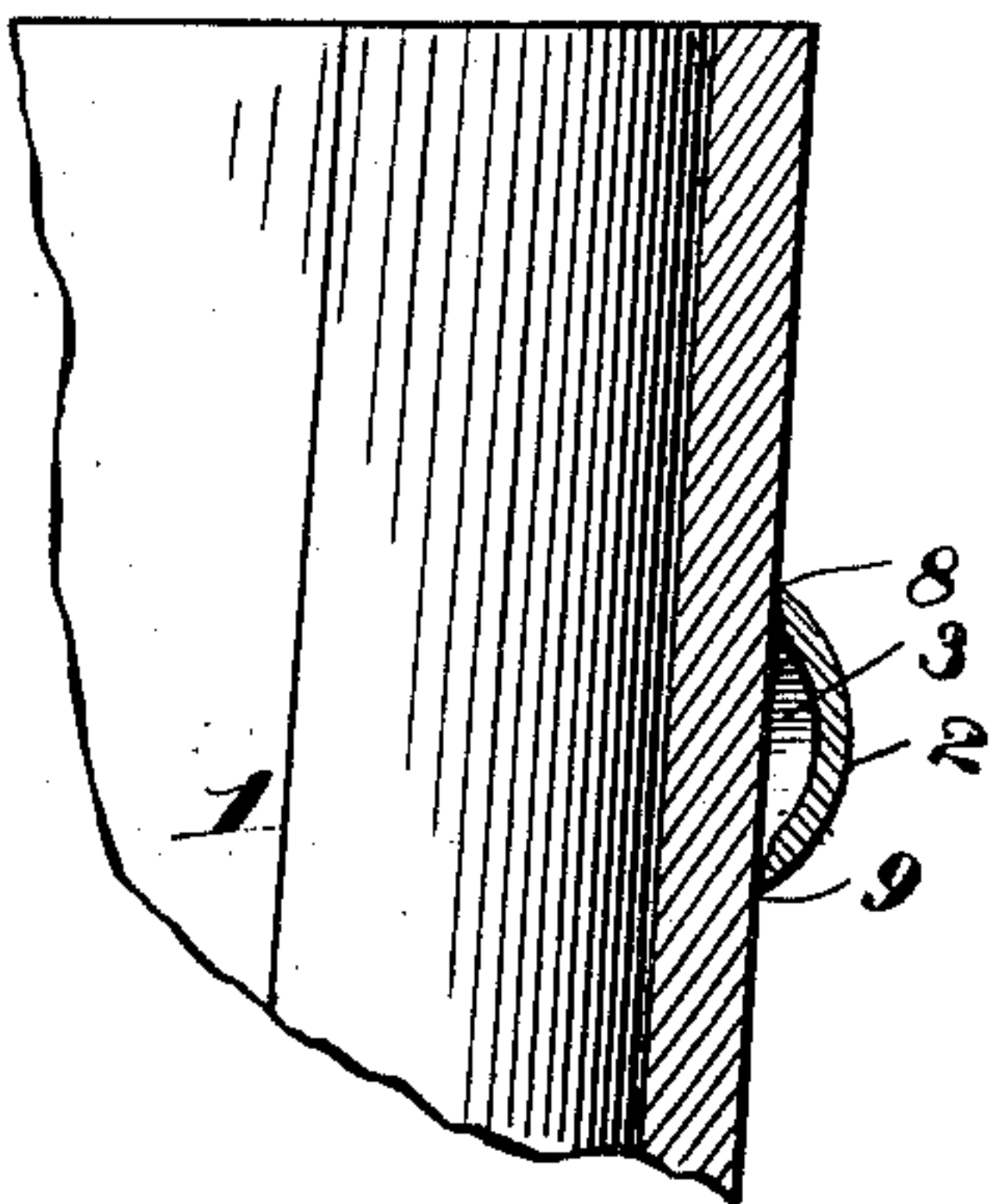
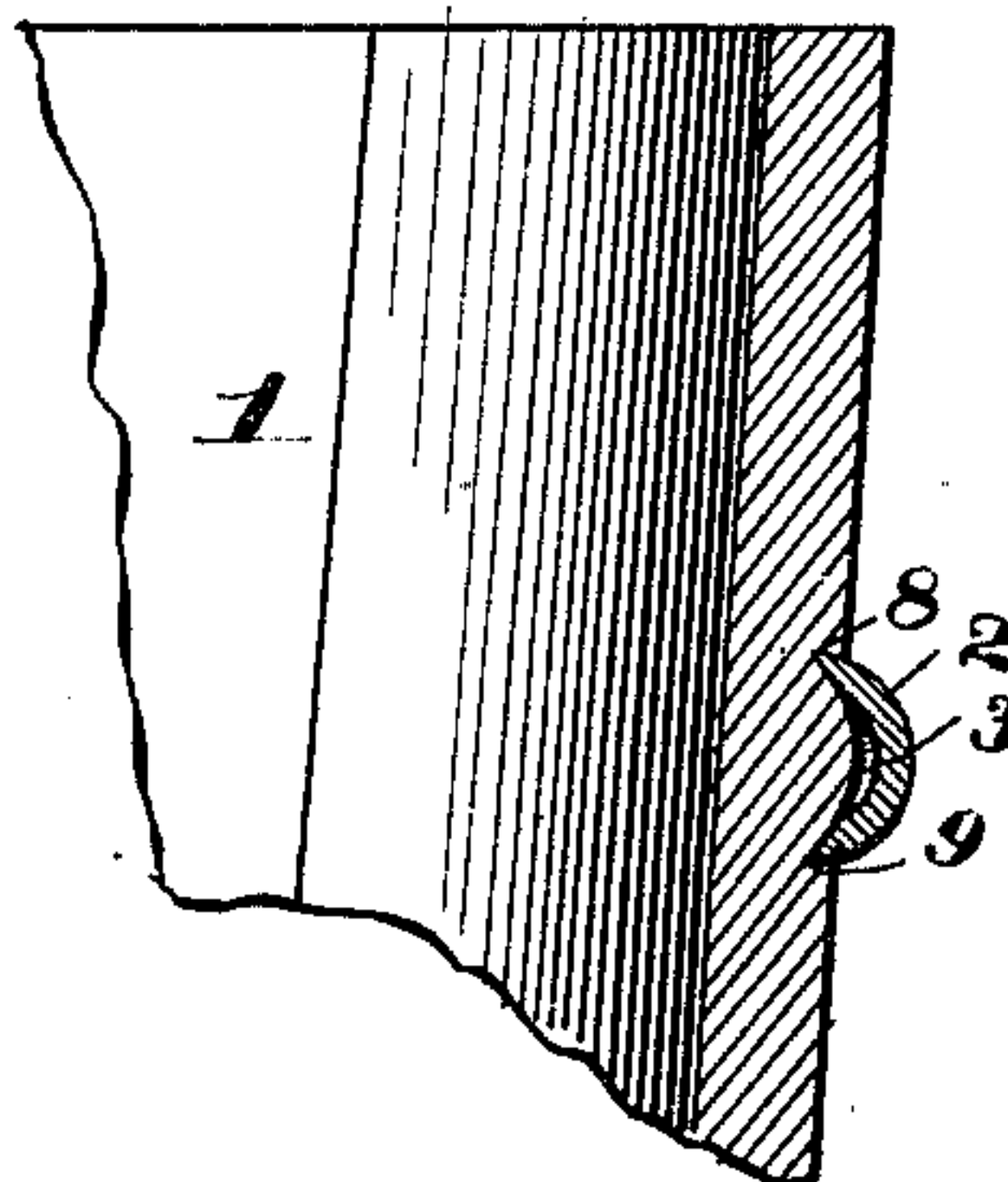


Fig. 4.



Witnesses

Anton S. Belt,
Geo. V. Kingsbury.

Inventor

Clarence Sidney Reams

Mason F. Smith & Lawrence,

By

Attorneys.

UNITED STATES PATENT OFFICE.

CLARENCE SIDNEY REAMS, OF RICHMOND, VIRGINIA.

BUCKET AND HOOP THEREFOR.

SPECIFICATION forming part of Letters Patent No. 672,808, dated April 23, 1901.

Application filed December 13, 1900. Serial No. 39,695. (No model.)

To all whom it may concern:

Be it known that I, CLARENCE SIDNEY REAMS, a citizen of the United States, residing at Richmond, in the county of Henrico and State of Virginia, have invented certain new and useful Improvements in Buckets and Hoops Therefor; 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 appertains to make and use the same.

My invention relates to improvements in buckets and other similar articles which are made with staves and provided with solid wire hoops.

The invention consists of the combination, with a bucket or other similar article, of a solid wire hoop provided with an internally-arranged continuous swaged groove and having biting edges on either side of the groove, the hoop being applied to the bucket from the smaller end thereof and forced onto the larger portion thereof, and the wood or other material constituting the bucket being pressed into the internal groove and the edges or corners of the hoop engaging the material of the bucket.

It also consists in means for holding the staves of a bucket in place, comprising a solid wire hoop provided with an internally-arranged continuous swaged groove and having biting edges on either side of the groove.

In the accompanying drawings, Figure 1 is a perspective view of a bucket constructed in accordance with my invention. Fig. 2 is an enlarged vertical section through a portion of the bucket and one of the hoops. Fig. 3 is a similar view showing a slightly-modified construction of hoop and before said hoop is finally forced onto the bucket. Fig. 4 is a similar view to Fig. 3, but showing the hoop in its final position on the bucket.

1 in the drawings represents a bucket which is constructed, preferably, of staves in the usual manner, except that in many buckets now on the market the staves are provided on their outer surfaces with depressions or grooves into which the hoops are seated. With my invention I do not employ such grooves, and it is to overcome the objections in such buckets that my invention is particularly designed. In buckets employing seating-grooves

for the hoops the hoops cannot be as firmly secured on such buckets as is desired or required, and after the buckets have been in use for some time and the wood is allowed to shrink the hoops come out of the grooves and fall off the small end of the bucket. The reason of this is that in forcing the hoop over the shoulder or edge of the lower side of the groove the hoop is stretched and it never comes back to its original size, and the depression and groove, or rather the bottom thereof, being of less diameter than the largest portion of the bucket over which the hoop was forced does not hold the hoop perfectly tight and rigid. Furthermore, in this style of bucket water and other foreign substances are permitted to collect between the hoop and the bucket and rot out the staves at these points. As stated above, my invention is designed to overcome these defects. There being no seating-grooves in the bucket for the hoop there is nothing to stretch the hoop in its application to said bucket, and the hoop can be applied to the bucket with considerable force at the point where it is to finally remain, and the wood of the bucket being softer than the metal hoop will be forced into the internal groove thereof and the edges of the hoop will be caused to bite into the wood, as clearly shown in Fig. 2.

Any number of hoops 2 may be employed, and said hoops are constructed of solid heavy wire, which is formed semicircular in vertical cross-section and provided with an internal groove 3 and with sharp cutting or biting edges 4 5 6 7. The material for a hoop is cut into proper length and the end electrically welded, so as to form a continuous or seamless hoop before being applied to the bucket or other similar article. The bucket proper is made in the usual manner, and after the staves have been properly set up and planed off, and while the bucket in this condition is still in the lathe, it is caused to revolve, and while revolving the hoops are applied to the bucket from the smaller end thereof and forced onto the same with considerable pressure. This action causes the wood of the bucket to be forced outward into the internal recess or concavity and also causes the biting edges or corners 4, 5, 6, and 7 to impinge against and bite into the surface

of the wood, as clearly shown in Fig. 2. By this construction and arrangement it is practically impossible for the hoop to become loose and drop off the bucket. Another important

5 feature of this construction is that by reason of the tapering shape of the bucket the corner or edge 4 of the hoop is embedded a considerable distance in the wood of the bucket, and thus does not form an opening for the
10 entrance of water or any foreign substance.

In Fig. 3 I have shown a slightly-modified construction in that the corners or edges 8 and 9 of the hoop are made slightly sharpened, so as to facilitate their entrance into the wood
15 of the bucket. Fig. 4 shows such a construction of hoop embedded into the wood of the bucket, and Fig. 3 shows the same before it has been finally applied. The application of the construction of hoop shown in Figs. 3 and
20 4 may be facilitated by running a tool around the bucket, which tool is provided with rollers which will straddle the hoop and force its edges 8 and 9 into the bucket.

The advantage of employing a solid heavy
25 wire for the hoop as contrasted with a sheet-metal hoop is that the said hoop can be forced onto the bucket and caused to bite into the same without changing its shape and without requiring to be held on by auxiliary fasten-
30 ing means.

My invention also differs materially from a thin sheet-metal hoop which is bent to give the same a semicircular shape in vertical cross-section, for the reason that by employ-
35 ing a solid heavy wire hoop provided with a continuously-extending internally-arranged swaged groove provision is secured for the reception of the material of the bucket, which is forced outwardly, and at the same time
40 biting edges are secured on either side of the groove, which impinge upon and enter the material of the bucket in the act of applying the hoop thereto. With my construction and arrangement no matter how much pressure
45 is brought to bear upon the solid hoop its shape is not changed nor its biting edges destroyed or turned inward; but, on the contrary, the more firmly will the material of the bucket be gripped and a portion of the ma-
50 terial forced into the groove in the hoop. As stated above, with my construction no auxiliary means are required for securing the hoop to the bucket, and in the act of applying the hoop to the bucket it is not stretched
55 and allowed to seat itself in a previously-

formed groove in the bucket, the bottom of which is of less diameter than the highest point over which the hoop is stretched, as in the case of such previously-grooved buckets.

I have shown in the drawings a bucket con- 60
structed in accordance with my invention; but it is obvious that the invention may extend to such devices as churns, the tubs of washing - machines, washtubs, ice - cream
65 freezers, measures, and any other cylindrical wooden structure of this character.

Having now described the invention, what is claimed, and desired to be secured by Letters Patent, is—

1. A bucket or other similar article provided 70
with a solid wire hoop provided with an internally - arranged continuously - extending swaged groove and having biting edges on either side of the groove, the material of the bucket projecting into the groove of the hoop, 75
and the edges of the hoop impinging against and extending into the material of the bucket, substantially as described.

2. A bucket or other similar article provided 80
with a solid wire hoop provided with an internally - arranged continuously - extending swaged groove and having biting edges, the material of the bucket projecting into the groove of the hoop and the biting edges of the hoop extending a considerable distance into 85
the material of the bucket, so that water or other foreign substances will be prevented from collecting and rotting the bucket at this point.

3. A bucket or other similar article provided 90
with a solid wire hoop provided with an internally - arranged continuously - extending swaged groove and having upper and lower beveled biting edges, the material of the bucket projecting into the groove of the hoop 95
and the biting edges impinging against or extending into the material of the bucket.

4. Means for holding the staves of a bucket in place, comprising as a new article of manu- 100
facture a solid wire hoop provided with an internally-arranged continuously-extending swaged groove and having biting edges on either side of the groove, substantially as described.

In testimony whereof I hereunto affix my 105
signature in presence of two witnesses.

CLARENCE SIDNEY REAMS.

Witnesses:

OSCEOLA H. MARKHAM,
JAMES P. JONES.