J. H. RIVERS.
HOLLOW PULP ARTICLE.
APPLICATION FILED NOV. 2, 1904.

FIG. 1.

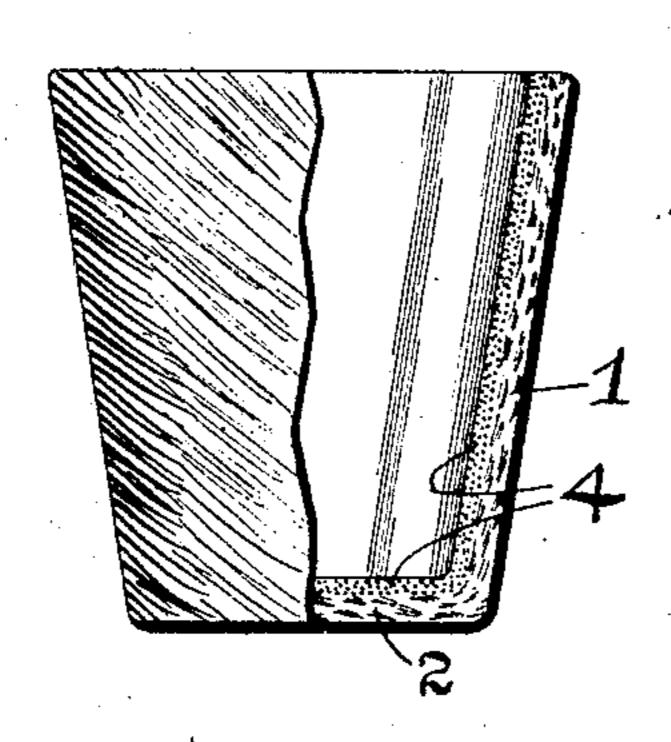


FIG. 2.

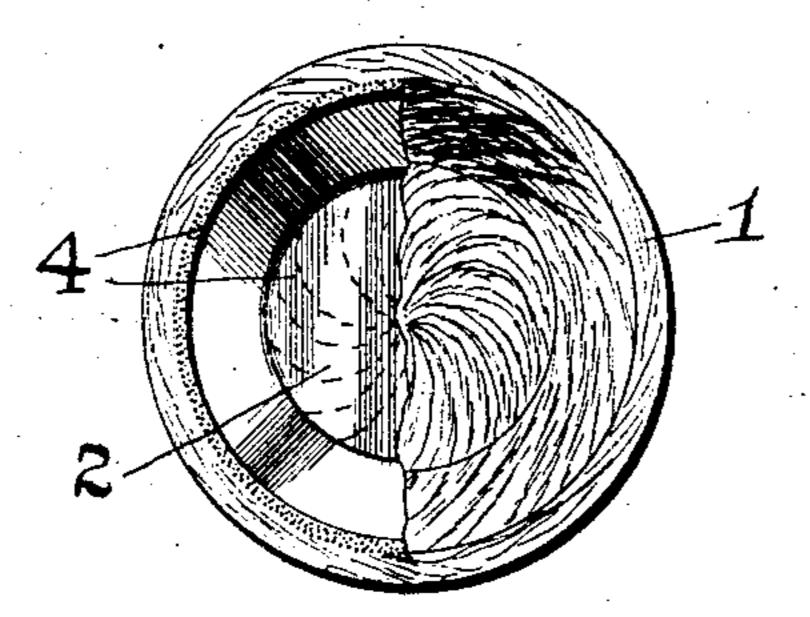
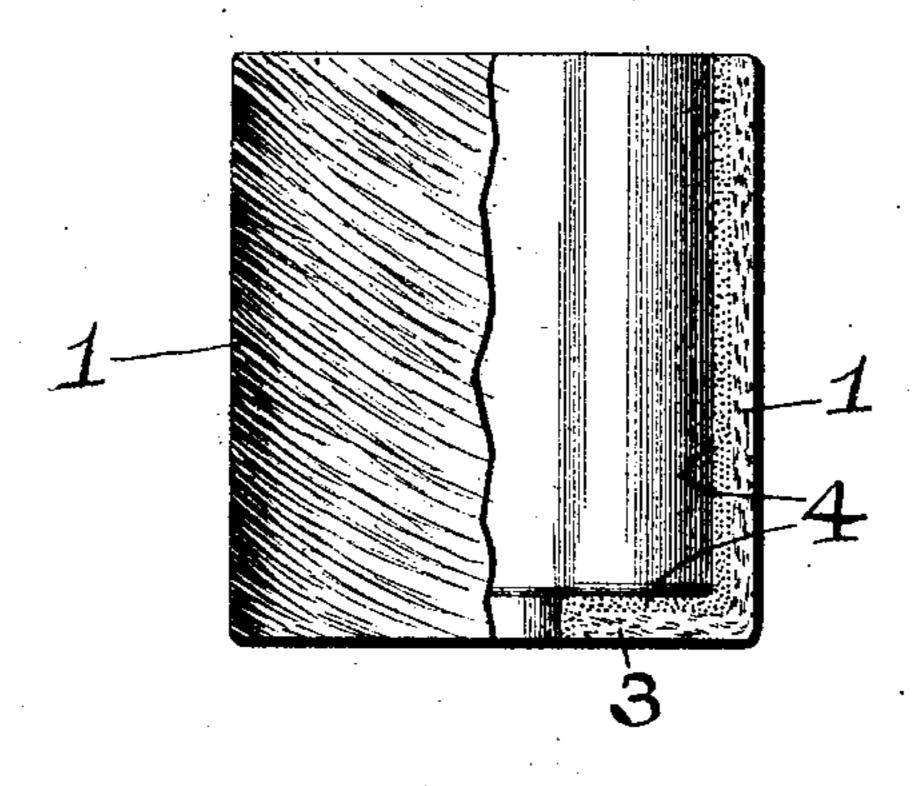


FIG. 3.



a.J. mcCauley.

J. Funk

Julian H. Rivers.
BY Bakewell Commune
ATTY'S.

United States Patent Office.

JULIAN H. RIVERS, OF ST. LOUIS, MISSOURI, ASSIGNOR TO UNITED STATES FIBER STOPPER COMPANY, OF ST. LOUIS, MISSOURI, A CORPORATION OF SOUTH DAKOTA.

HOLLOW PULP ARTICLE.

SPECIFICATION forming part of Letters Patent No. 785,683, dated March 21, 1905.

Original application filed February 6, 1904, Serial No. 192,377. Divided and this application filed November 2, 1904. Serial No. 231,108.

To all whom it may concern:

Be it known that I, Julian H. Rivers, a citizen of the United States, residing at St. Louis, Missouri, have invented a certain new and useful Improvement in Hollow Pulp Articles, of which the following is a full, clear, and exact description, 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, forming part of this specification, in which—

Figure 1 is a sectional view through my improved hollow pulp article. Fig. 2 is a top plan view, and Fig. 3 is a view showing a

15 modified form of my invention.

This invention relates to a new and useful improvement in hollow pulp articles, such as buckets and the like, being a division of a similar application filed by me February 6, 20 1904, and given Serial No. 192,377.

The object of the invention is to construct the article in such a way that its fibers are better interwoven and more compact than hith-

erto attainable.

With this object in view the invention consists in the construction, arrangement, and combination of the several parts, all as will be hereinafter described and afterward pointed out in the claims.

of the article, which, as shown, have their principal fibers lying in helical lines, while the bottom 2 has its principal fibers lying in spiral lines. In some cases it might be desirable to have the side walls straight instead of tapered,

and in lieu of the solid bottom an integrallyconnected flange 3 can be made, as shown in Fig. 3.

4 indicates an inner lining of some hard sub-

stance, such as cement, which is identified 40 with the fibrous structure in such a way as to form a facing thereof practically impervious to moisture. This facing is preferably in the form of hydraulic cement which, in the manufacture of the article after the fibers forming 45 the outer wall are laid, is admitted with the fibers in gradually increasing quantities until the desired thickness of fibers and cement is formed, after which the pure cement may be deposited to form a facing which becomes exceedingly hard when set. A finishing-tool may be employed before this facing is set to make a smooth finished surface.

Having thus described the invention, what is claimed as new, and desired to be secured 55

by Letters Patent, is—

1. As a new article of manufacture, a hollow pulp article having an integral bottom whose principal fibers lie in spiral lines; substantially as described.

2. As a new article of manufacture, a hollow pulp article having an integral bottom whose principal fibers lie in spiral lines, the principal fibers of the side walls lying in helical lines; substantially as described.

3. As a new article of manufacture, a bucket or the like composed of fibrous material, the fibers in whose side walls lie principally in a helical direction, said side walls being integrally connected to a bottom; substantially as 70 described.

In testimony whereof I hereunto affix my signature, in the presence of two witnesses, this 25th day of October, 1904.

JULIAN H. RIVERS.

Witnesses:

B. F. Funk, George Bakewell.