

P. L. GIBBS.
Annular Leather Washers.

No. 146,062.

Patented Dec. 30, 1873.

Fig. 1.

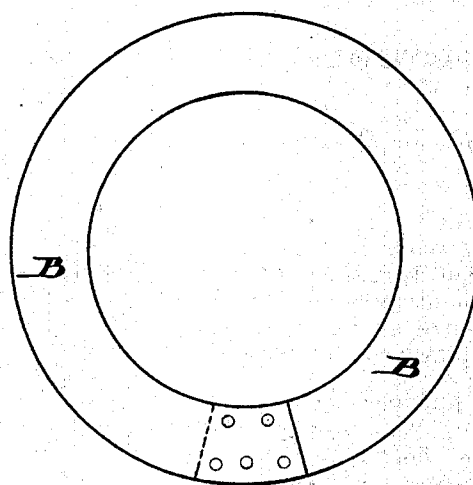
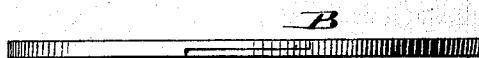


Fig. 3.

A

Fig. 2.



Witnesses.
John Docker
Fred Haynes

Pierre L. Gibbs
by his Attorneys.
Brown & Allen

UNITED STATES PATENT OFFICE.

PIERRE L. GIBBS, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN ANNULAR LEATHER WASHERS.

Specification forming part of Letters Patent No. **146,062**, dated December 30, 1873; application filed October 17, 1873.

To all whom it may concern:

Be it known that I, **PIERRE L. GIBBS**, of Chicago, in the county of Cook and State of Illinois, have invented an Improved Annular Leather Washer, of which the following is a specification:

Figure 1 is a face view of my improved leather washer; Fig. 2, an edge view thereof, and Fig. 3 a face view of the leather strap from which the washer is formed.

Similar letters of reference indicate corresponding parts in all the figures.

The object of this invention is to economize material in the construction of leather washers for journals for car-axes and other purposes. Washers for that purpose are usually cut out whole from pieces of leather of the requisite size, and a large percentage of leather is, therefore, necessarily wasted.

My improved washer is made out of a leather strap which is rolled or bent while wet, and brought to the requisite form, and then riveted or otherwise joined at the ends.

In the accompanying drawing, the letter **A** represents a strap of leather of proper length, which, when moistened and subsequently rolled or bent, is formed into the shape of an annular

washer, **B**. (Shown in Fig. 1.) The ends of the strap, when formed, may be caused to overlap, as in Fig. 2, and are then riveted, or otherwise bound together in suitable manner. By increasing the length of the strap **A**, a thick washer may be produced from the same single piece by rolling or bending the strap into several thicknesses on the washer.

It will be readily observed that by this method of making washers there is hardly any waste of leather, as the same can be cut up into narrow strips, and the whole material used to advantage.

What I claim as my invention is—

1. The annular washer **B**, made from a leather strap which is rolled or bent into form and joined at the ends, substantially as described.

2. An annular washer constructed of a single piece, in one or more thicknesses of leather, by bending or rolling a strap of the requisite length, substantially as specified.

PIERRE L. GIBBS.

Witnesses:

B. F. HEND,
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