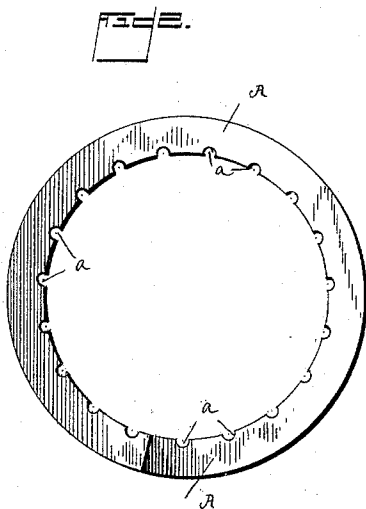
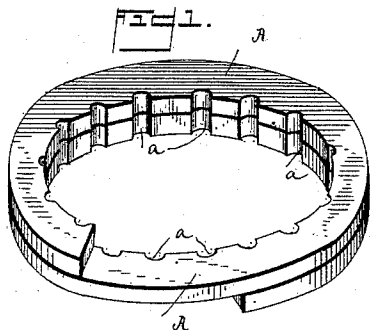


(No Model.)

N. M. BRINKERHOFF.
AXLE WASHER.

No. 477,639.

Patented June 28, 1892.



Witnesses

Chas. A. Ford.

Inventor

Nelson M. Brinkerhoff

By his Attorneys,

L. P. Nathaupt

Ca Snow & Co.

UNITED STATES PATENT OFFICE.

NELSON M. BRINKERHOFF, OF BLOOMVILLE, OHIO.

AXLE-WASHER.

SPECIFICATION forming part of Letters Patent No. 477,639, dated June 28, 1892.

Application filed July 8, 1891. Serial No. 398,787. (No model.)

To all whom it may concern:

Be it known that I, NELSON M. BRINKERHOFF, a citizen of the United States, residing at Bloomville, in the county of Seneca and State of Ohio, have invented a new and useful Axle-Washer, of which the following is a specification.

My invention relates to improvements in axle-washers, and has for its object to provide an axle-washer constructed with special reference for durability, and at the same time to provide a washer that is designed to catch and hold any surplus oil that may be on a spindle, and also any accumulation of dust that might work itself into the hub of the wheel; and with these objects in view the invention consists of an axle-washer constructed of strips of wood cut and bent into the requisite size, and which are provided with a construction that not only materially assists in the formation of the washer, but also attains the ends aimed for, all of which will be hereinafter fully described, illustrated in the accompanying drawings, and specifically pointed out in the appended claims.

In the accompanying drawings, Figure 1 is a perspective view of an axle-washer constructed in accordance with my invention. Fig. 2 is a side elevation of the same.

Referring to the accompanying drawings, A represents a strip of wood cut to the size desired to form the necessary thickness of washer. The same is formed by steaming the strips of wood and curving them over a cylinder to form them to fit the requisite diameter of axle, and when bent the wood strips are each arranged spirally, as illustrated, thus forming a flat bearing-surface on each side of the washer, and at the same time providing a contractile and expansible washer that will accommodate itself to other diameters of axles than that for which it was originally cut and shaped. The entire inner periphery of the coiled and spirally-arranged strip forming the washer is provided with a series of indentations, holes, or notches *a*, as illustrated in the drawings, which serve the important function of catching and holding accumulations of oil

and dust on the spindle and within the hub of the wheel.

Although the specific means described and illustrated are employed to provide for the reception of accumulations of sand, dirt, or gum, nevertheless it will be readily understood by those skilled in the art that the washer may be provided with other equally as simple means for the same purpose, this not being before contemplated by inventions of this character.

The construction and advantages of my improved washer are now thought to be apparent without further description.

The advantage of a wooden washer over the ordinary leather ones is quite palpable. Upon becoming saturated with oil the leather washer soon becomes soggy, spongy, and unfit for use, while on the other hand saturation with oil of a wooden washer increases its durability and causes a less degree of friction than at first, and, furthermore, it may be further observed that inasmuch as the washer is made of compressed wood chemically treated the same will not absorb the oil and dry up the spindle, as leather washers do.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. An adjustable wooden axle-washer closely fitting the spindle and having a receptacle opening onto the spindle to collect foreign accumulations, substantially as set forth.

2. In an adjustable axle-washer, a spirally-arranged wooden strip provided around its entire inner periphery with a series of grooves or notches for collecting and retaining accumulations of oil or dirt within the hub and on the axle-spindle, substantially as and for the purpose set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

NELSON M. BRINKERHOFF.

Witnesses:

N. R. FRANCE,
O. M. HOLCOMB.