

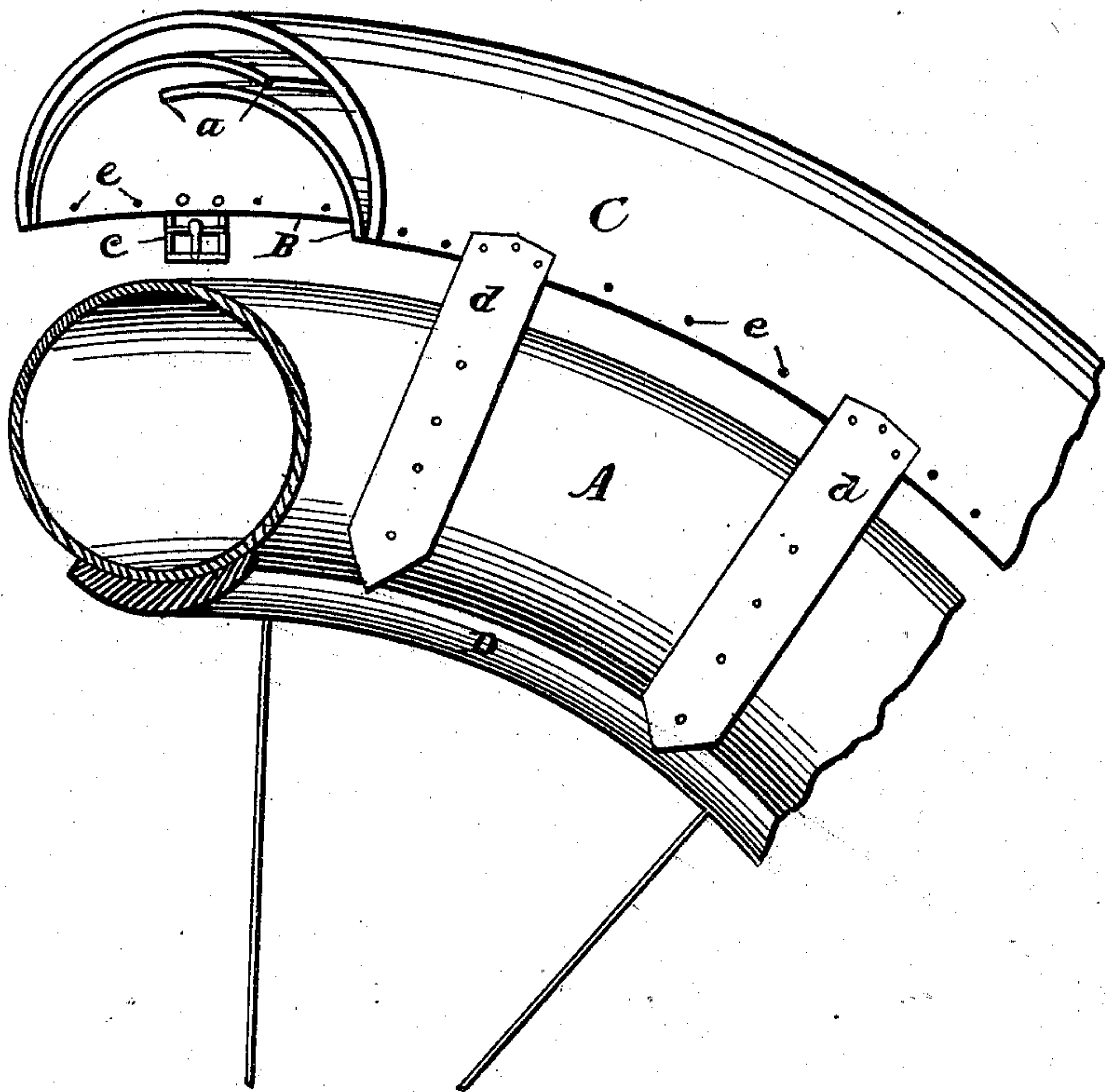
No. 647,213.

Patented Apr. 10, 1900.

R. BARRIE.  
BICYCLE TIRE.

(No Model.)

(Application filed Oct. 29, 1897.)



WITNESSES:

*Horace Smith*  
*E. L. Smith*

*Robert Barrie* INVENTOR

# UNITED STATES PATENT OFFICE.

ROBERT BARRIE, OF PHILADELPHIA, PENNSYLVANIA.

## BICYCLE-TIRE.

SPECIFICATION forming part of Letters Patent No. 647,213, dated April 10, 1900.

Application filed October 29, 1897. Serial No. 656,821. (No model.)

*To all whom it may concern:*

Be it known that I, ROBERT BARRIE, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a new and useful Improvement in Bicycle-Tires, of which the following is a specification.

My invention consists of a semicircular shoe or covering of flexible material lined with metal plates overlapping and continuing from end to end of said cover, both of which are alike in curvature, form, and being riveted or secured together for the purpose herein-after set forth.

The figure represents an isometrical view of my invention, showing the several parts and arrangement thereof.

A simple form of constructing my invention is as follows: I take a piece of rubber-lined cotton fire-hose G, in length somewhat longer than the circumference of a wheel-tire A. This I split into halves or into two pieces. I next select some sheet spring-steel, (gage about thirty or finer,) which I cut into pieces one-fourth the length of circumference of wheel-tire A. These I bend or compress by suitable dies into semicircular form and rivet them upon the inside of G, leaving the inner edges *a* free and overlapping each other, as seen in the figure. Along one edge of G, I secure straps *d*. Upon opposite edge I attach buckles *c*, although said strap and buckle, or either, may be buttoned upon the rivets *e*.

This completes construction, which may be applied as follows:

Measure the circumference of wheel and cut the cover to correspond. Proceed and place it onto the tire A, passing straps *d* around and underneath the rim D. Let the straps engage the opposite button *e*. Buckle *c* and draw tight, as required. It will now be evident that the outer material will receive and stand the wear, while the plates B will resist sharp substances, both serving to protect the tire A. This cover may be removed and replaced in a few moments and may be applied to various-sized wheels.

Being aware of the use of protective metal tubes and like contrivances, I hereby specify that which I claim as new and desire to secure by Letters Patent:

An endless semicircular flexible outer shoe or case having upon the under side thereof and made a part thereof a series of transversely arc-shaped rectangular quadrant resilient metal plates secured to the edges of casing, their free ends overlapping the tread portion of a wheel-tire to which it may be secured by means of straps passing under the wheel-rim substantially in a manner and for the purposes herein set forth.

ROBT. BARRIE.

Witnesses:

E. W. SMITH,  
HOUCK SMITH.