

No. 688,621.

Patented Dec. 10, 1901.

W. G. FORD.

PROCESS OF MAKING TIRE PROTECTORS.

(Application filed Mar. 22, 1900.)

(No Model.)

Fig. 1.

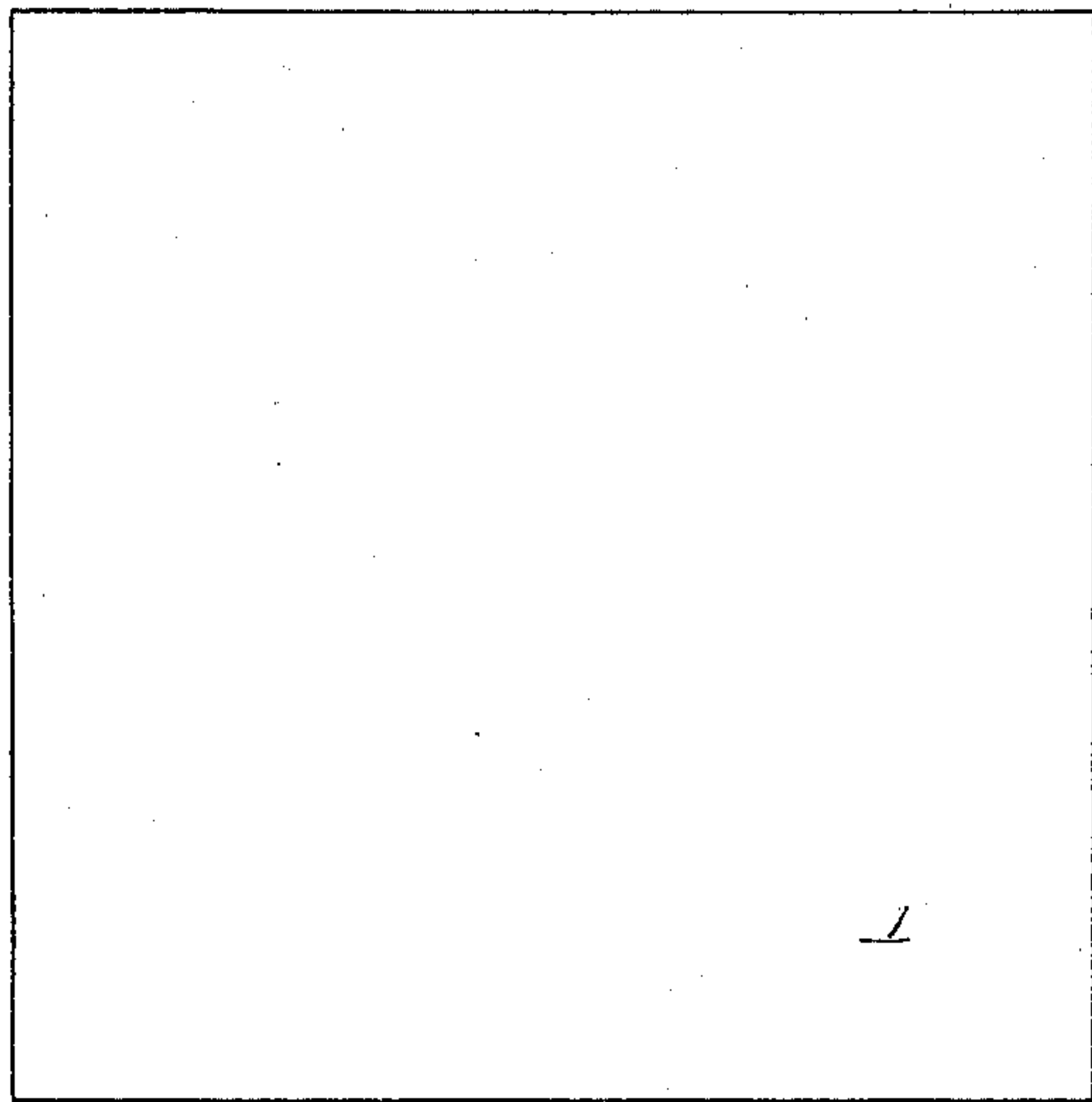


Fig. 2.

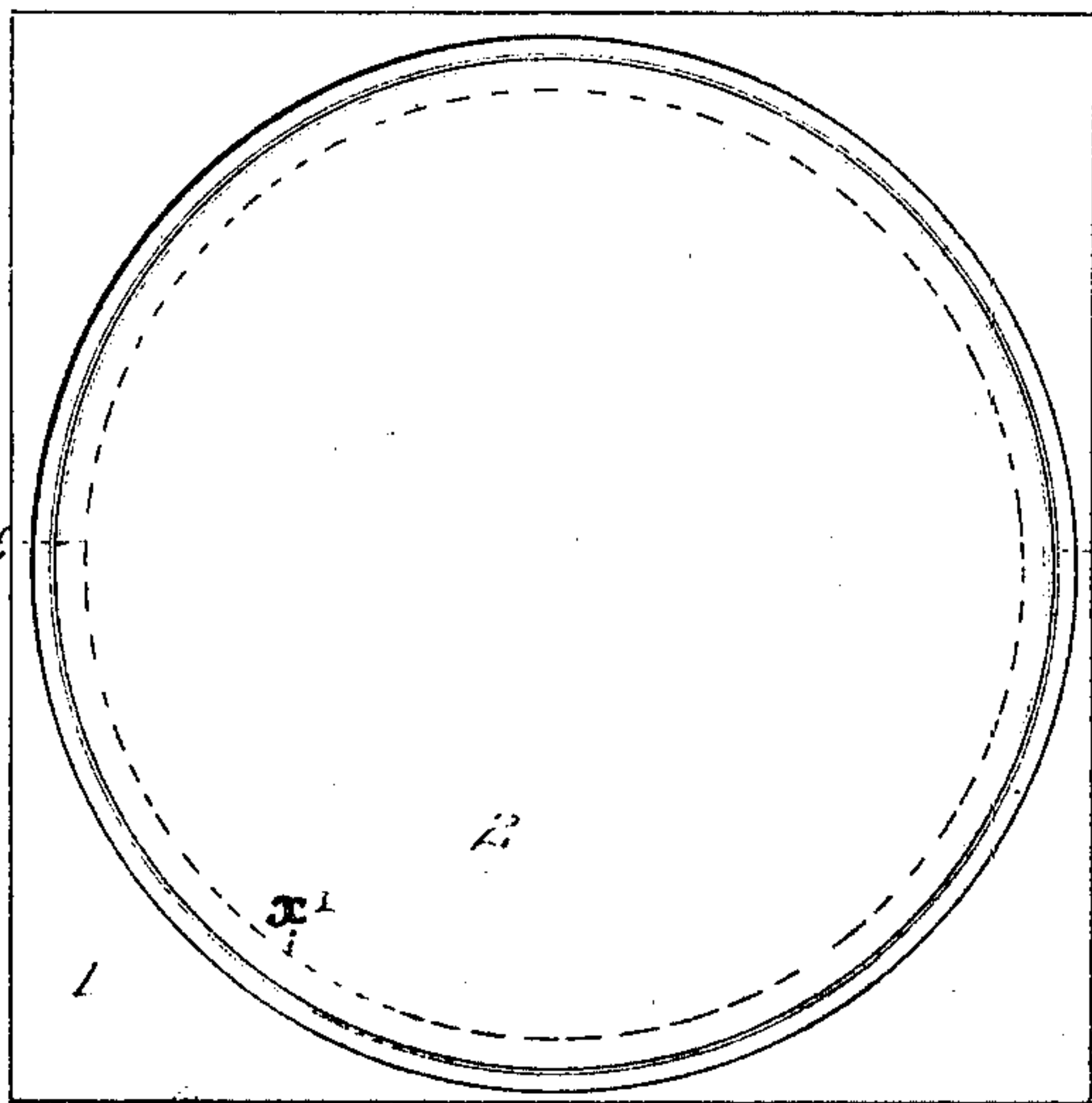


Fig. 3.

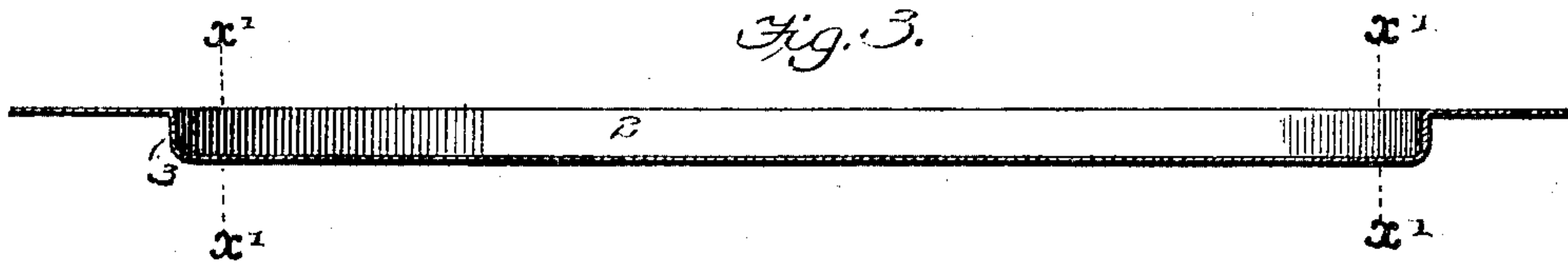


Fig. 4.

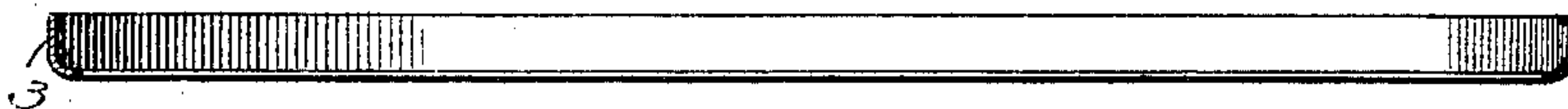


Fig. 5.

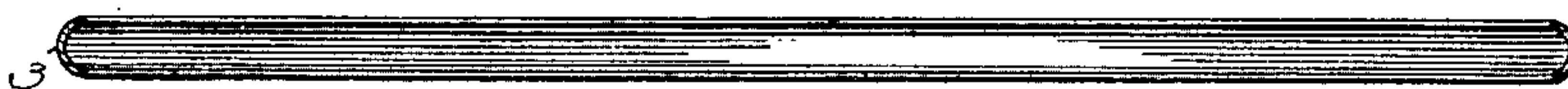
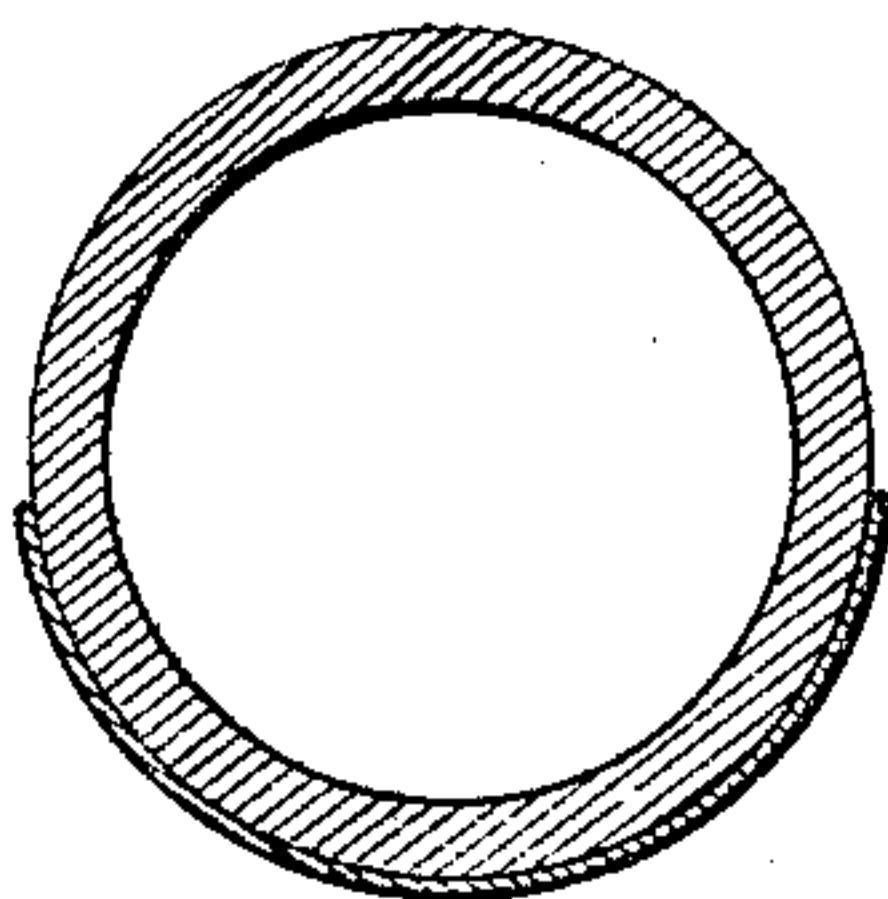


Fig. 6.



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PROCESS OF MAKING TIRE-PROTECTORS.

SPECIFICATION forming part of Letters Patent No. 688,621, dated December 10, 1901.

Application filed March 22, 1900. Serial No. 9,774. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM GEORGE FORD, a citizen of the United States, residing at Baltimore, in the State of Maryland, have invented new and useful Improvements in Processes of Making Tire-Protectors, of which the following is a specification.

My invention relates to improvements in process or method of making continuous integral tire-protectors; and the object is to produce by a series of successive steps a continuous integral tire-protecting ring, as hereinafter specified and particularly pointed out and distinctly claimed.

The product or article is intended for use in a well-known manner upon the wheels of bicycles and other vehicles where elastic tires are employed. The varying stages or steps employed in the production of my improved tire-protector and the results are illustrated in the accompanying drawings, wherein—

Figure 1 is a plan view of a metallic plate or blank from which the protector is cut. Fig. 2 is a plan view of the blank or plate after the circular depression or recess has been formed therein, the line x' of severance of the bottom of the depression being indicated in dotted lines. Fig. 3 is a transverse central section taken on the line xx of Fig. 2, the line of severance of the bottom being indicated by the dotted line x' . Fig. 4 is a sectional view of the ring-blank after severance from the plate, showing the contour in cross-section. Fig. 5 is a sectional view of the ring or tire-protector after having been shaped to semicircular contour in cross-section. Fig. 6 is a transverse sectional view of a rubber tire with the ring or protector as applied thereto.

Referring to the drawings in connection with the following description, it will be perceived that the purposes of the invention are

accomplished by first taking a metallic plate 1, of such dimensions as may be required to form the ring therefrom. In this plate 1 is then formed a circular depression 2, having a diameter substantially of that of the ring to be produced and the annular wall 3 of which stands substantially vertical and is designed to form one-half of the ring or protector. Having thus formed the circular depression 2, I then cut out the bottom of the depression on a line adjacent to the base of the wall, leaving a flange substantially equal to the height of the wall, and then I cut the rim of the wall free from the plate, producing an integral ring of the shape in cross-section of that indicated in Fig. 4 of the drawings. This ring is then dressed up and shaped semicircular in cross-section, as indicated in Fig. 5 of the drawings, by any proper well-known means.

It will be readily perceived that by a series of simple steps I attain a desirable and valuable result.

Having described the invention, what I claim is—

The process herein described for making continuous integral tire-protectors consisting in forming in a plate of suitable metal a circular depression having an annular wall to constitute a portion of the protector, then cutting a circular disk from the bottom of the depression on a line adjacent to the base of the wall, then cutting the upper edge of the wall from the plate, and then shaping the severed ring semicircular in cross-section.

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

WILLIAM GEORGE FORD.

Witnesses:

FELIX R. SULLIVAN,
LOUIS A. KATZENBERGER.