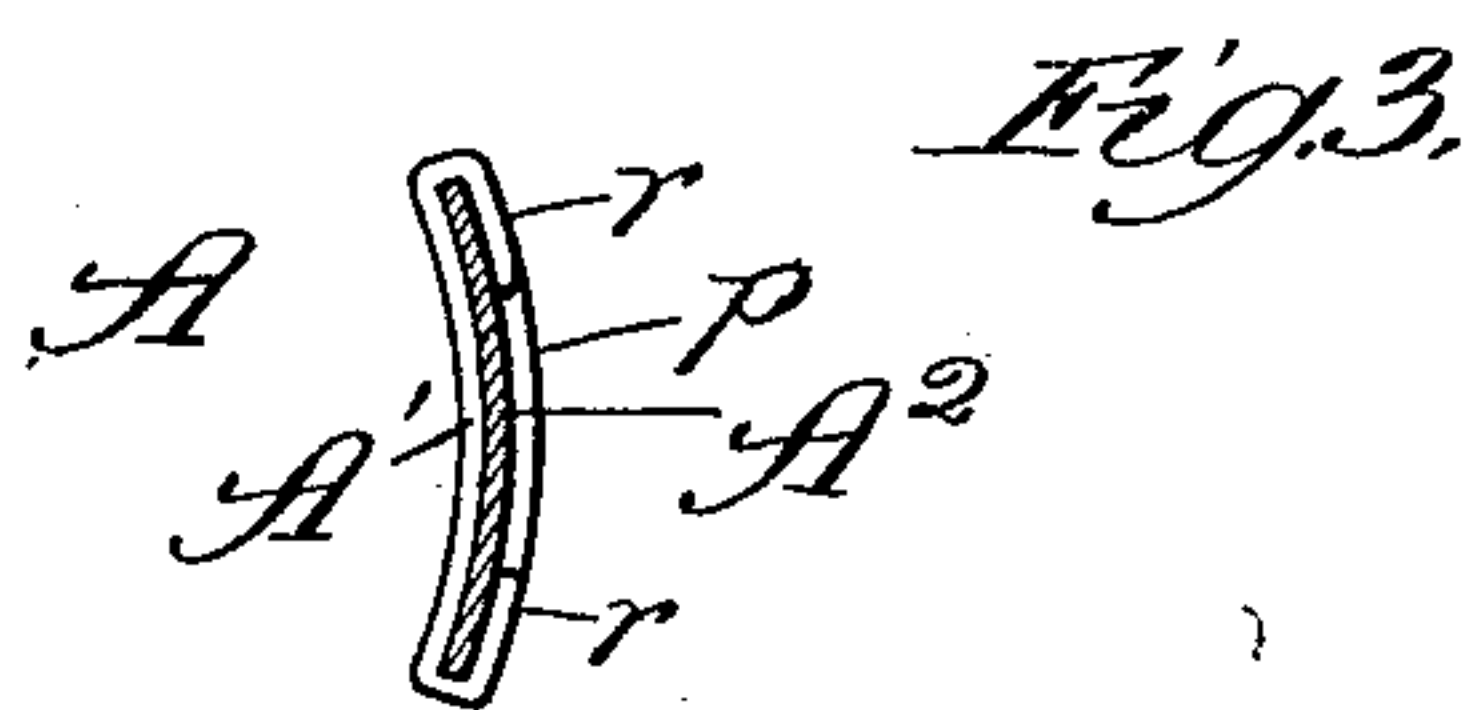
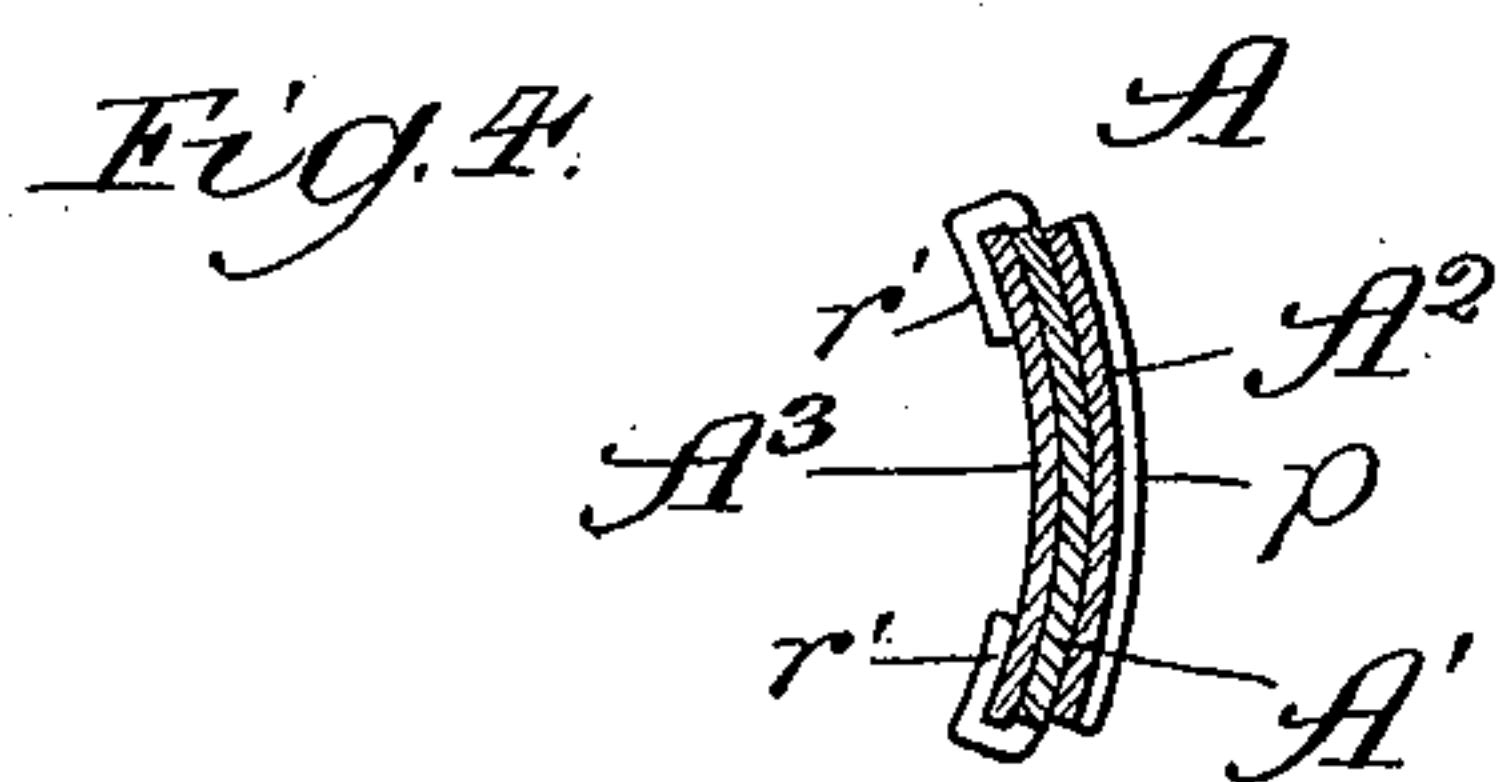
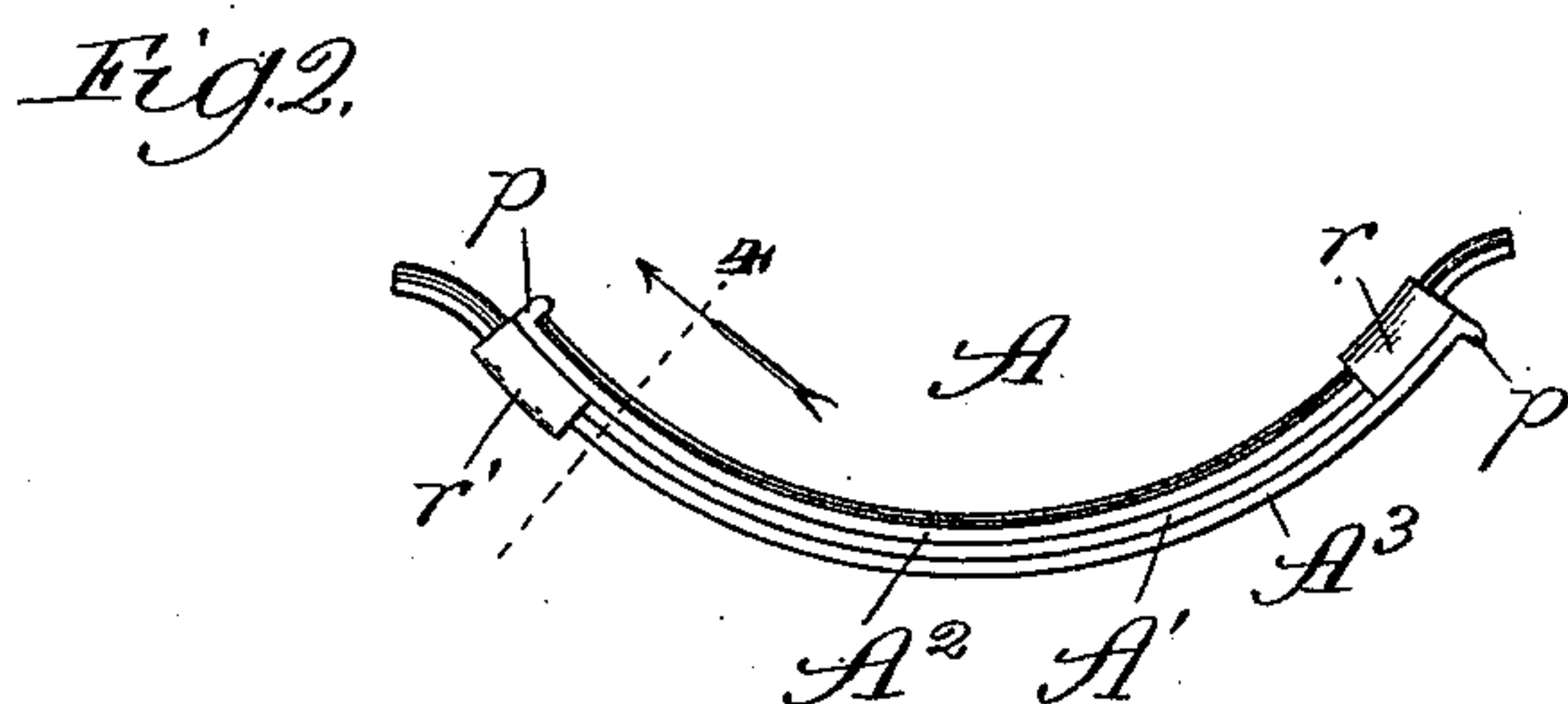
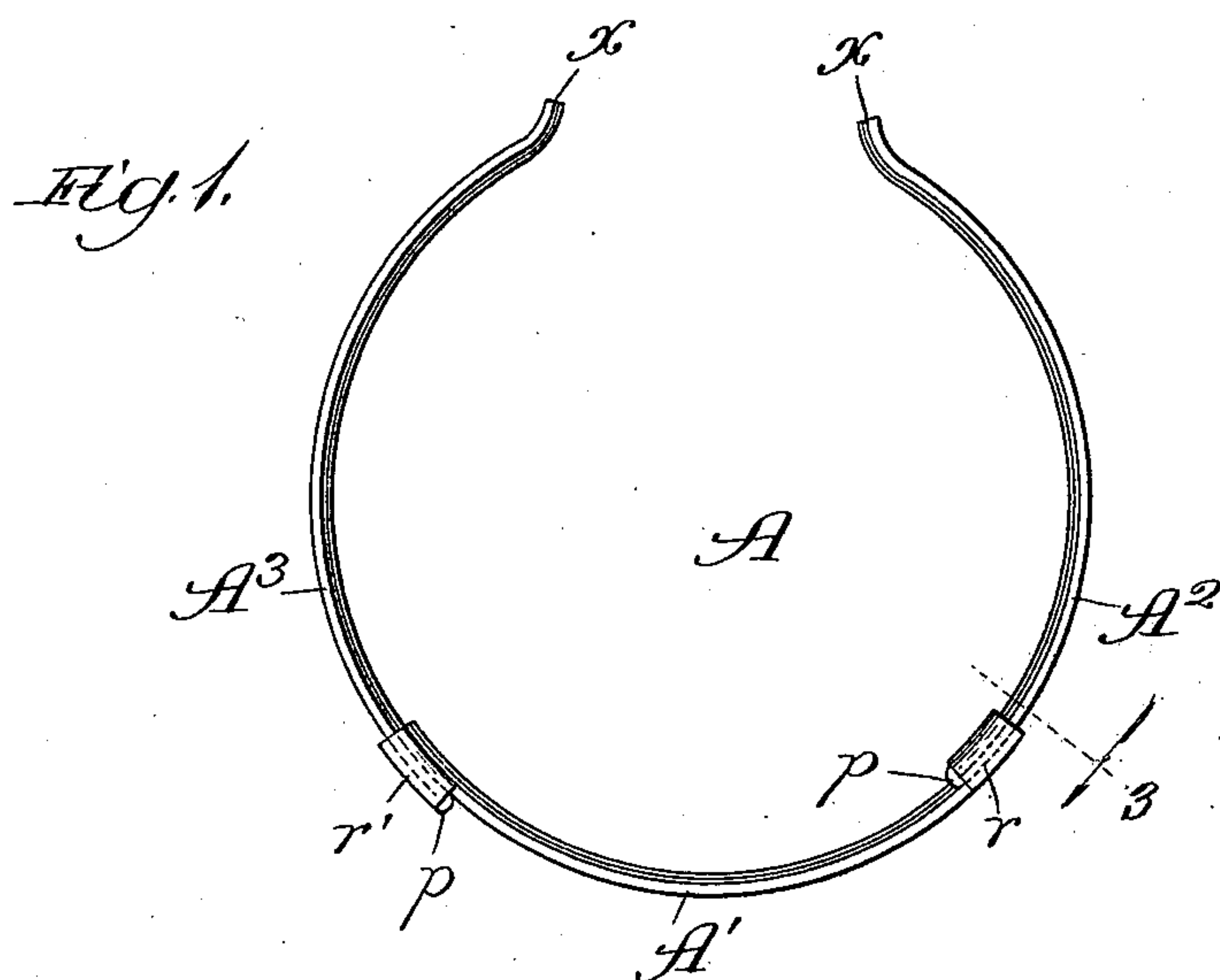


(No Model.)

L. P. CONVERSE.  
TROUSERS CLAMP FOR BICYCLE RIDERS.

No. 587,280

Patented July 27, 1897.



Witnesses:  
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# UNITED STATES PATENT OFFICE.

LYMAN P. CONVERSE, OF CHICAGO, ILLINOIS.

## TROUSERS-CLAMP FOR BICYCLE-RIDERS.

SPECIFICATION forming part of Letters Patent No. 587,280, dated July 27, 1897.

Application filed November 29, 1895. Serial No. 570,449. (No model.)

*To all whom it may concern:*

Be it known that I, LYMAN P. CONVERSE, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Trousers-Clamps for Bicycle-Riders, of which the following is a specification.

My invention relates to an improvement on the spring-clamp commonly used by bicycle-riders to hold the lower folded ends of their trousers-legs while riding. The clamp hitherto commonly used for this purpose is a bowed flat metal spring formed in one piece and adapted to fit about the leg of the user in the region of the ankle to clamp the lapped lower end of his trousers-leg and hold it against being pulled upward. The necessary size of this clamp, however, renders it inconvenient for carrying about the person to have it accessible when required for use, as it is too long to be introduced into a vest-pocket or to be carried conveniently in any other pocket of the clothing. I overcome this objection by my improved construction of trousers-clamp hereinafter described.

In the accompanying drawings, Figure 1 shows my improved trousers-clamp by an edge plan view with the folding sections in their distended relation. Fig. 2 is a similar view of the same with the sections compacted by folding; Fig. 3, a section taken at the line 3 on Fig. 1 and viewed in the direction of the arrow, and Fig. 4 a section taken at the line 4 on Fig. 2 and viewed in the direction of the arrow.

A is a spring-clamp formed of the bowed sections  $A^1$ ,  $A^2$ , and  $A^3$ , of spring-steel, each made, by preference, slightly concavo-convex longitudinally for a purpose hereinafter described, with the sections all of the same or substantially the same length and width. The intermediate section  $A^1$  is provided on one end with a loop  $r$  and on its opposite end with a loop  $r'$ . These loops may be formed integral with the section by leaving thereon near its opposite ends in stamping it out lateral enlargements, those at one end of the section being bent toward each other over one surface of the section to form one of the loops and those at the other end being bent toward each other over the opposite surface

of the section to form the other loop. Each of the sections  $A^2$  and  $A^3$ , which is formed to describe an arc like or approximately like that described by the central section, has formed on one end, as by there turning it up, a stop  $p$ , and at their opposite ends these outer sections should be slightly bent outward, as shown at  $x$  in Fig. 1, to afford grips and facilitate gripping them between the thumbs and forefingers of the hands.

The section  $A^2$  is confined to slide against the inner surface of the section  $A^1$  by the loop  $r$ , being obstructed against separation therefrom, in distending it, by the respective stop  $p$  abutting against the loop, and the section  $A^3$  is confined to slide against the outer surface of the middle section by the loop  $r'$ , being obstructed against separation therefrom, in distending it, by the respective stop  $p$  abutting against that loop. The fit of the sections together and their connection by the loops is such as to render the clamp formed by them, when distended, as stiff and springy as though it were made of one continuous piece of spring-steel.

By forming the sections longitudinally concavo-convex, as described, they fit together the better when folded, and more especially they form guideways for each other in folding them, besides stiffening the bowed sections.

To distend the sections from their mutually overlapping or folded condition (shown in Fig. 2) into the condition for use, in which they are represented in Fig. 1, it is only necessary to grasp the ends at  $x$  and pull them out, when the clamp may readily be applied by the user to its operative purpose and will perform its function as effectively as the old form of trousers-clamp. To fold the sections together and thereby compact the clamp for storing away into a conveniently-accessible place of safety while out of use, as in a vest-pocket, it is only necessary to slide the sections  $A^2$  and  $A^3$  together on the section  $A^1$ .

What I claim as new, and desire to secure by Letters Patent, is—

1. A trousers-clamp comprising bowed sections  $A^1$ ,  $A^2$  and  $A^3$ , of spring metal, the section  $A^1$  having loops  $r$  and  $r'$  on its opposite ends, and the sections  $A^2$  and  $A^3$  being slid-



ingly confined in said loops and provided with stops  $p$  on their adjacent ends, substantially as and for the purpose set forth.

2. A trousers-clamp comprising bowed longitudinally concavo-convex sections  $A'$ ,  $A^2$  and  $A^3$ , of spring metal, the section  $A'$  having loops  $r$  and  $r'$  on its opposite ends, and the sections  $A^2$  and  $A^3$  being slidingly con-

fined in said loops and provided with stops  $p$  on their inner ends and with grips  $x$  on their outer ends, substantially as and for the purpose set forth.

LYMAN P. CONVERSE.

In presence of—

J. H. LEE,

RICHARD SPENCER.