

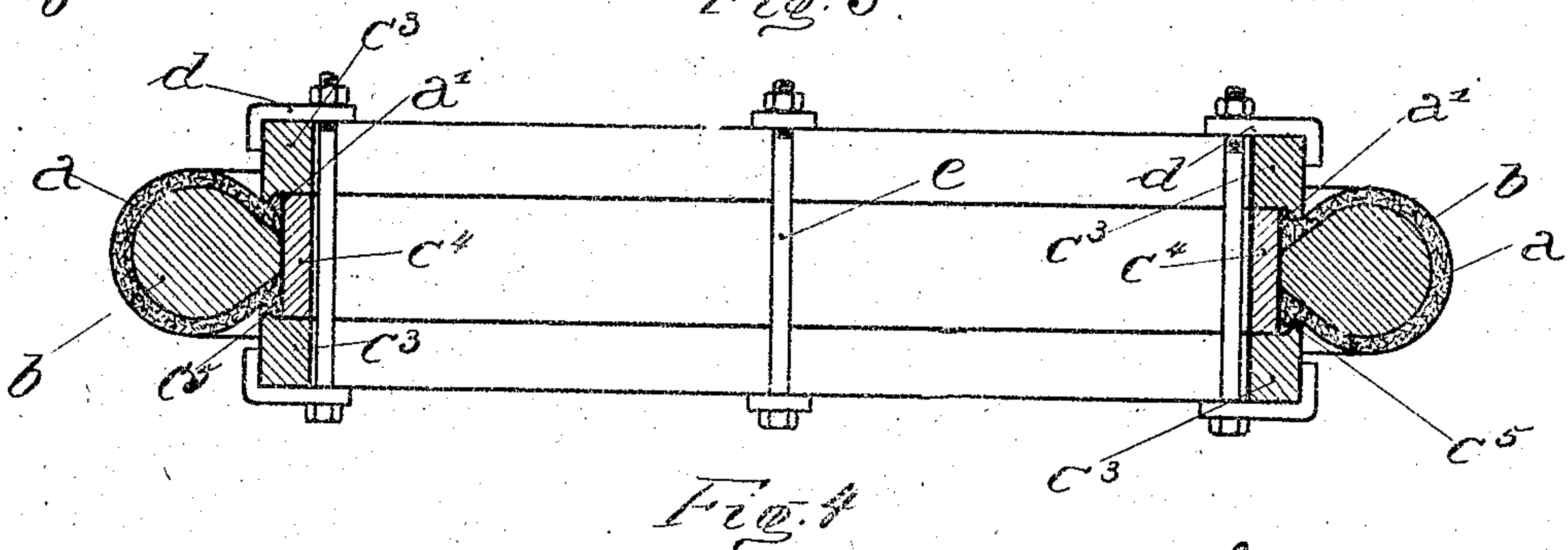
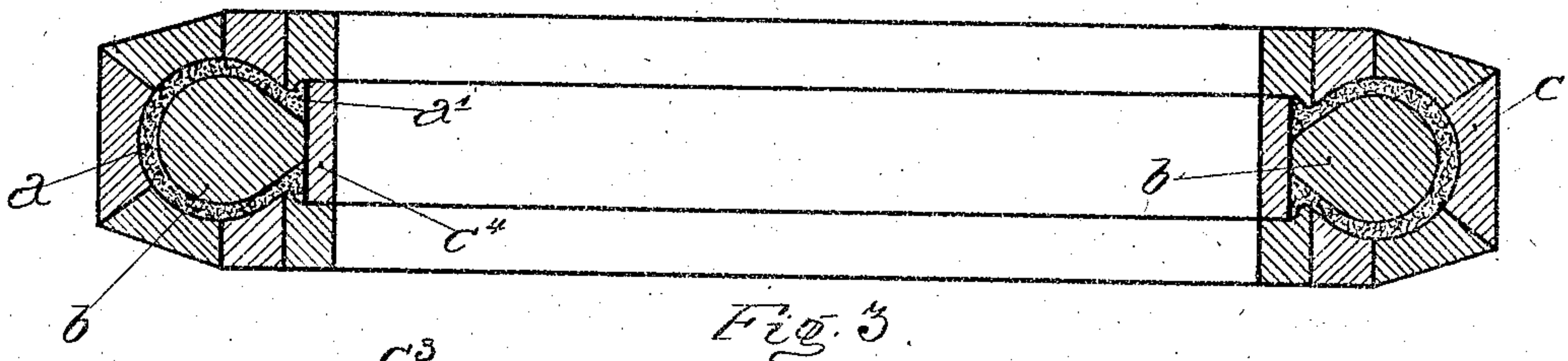
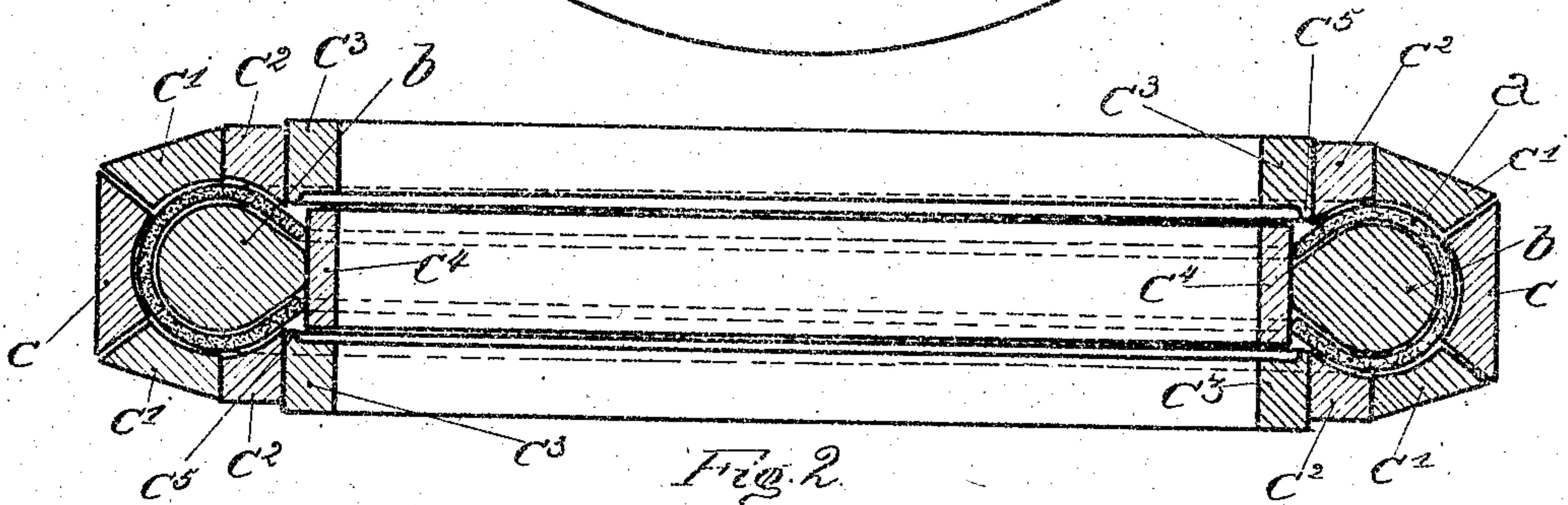
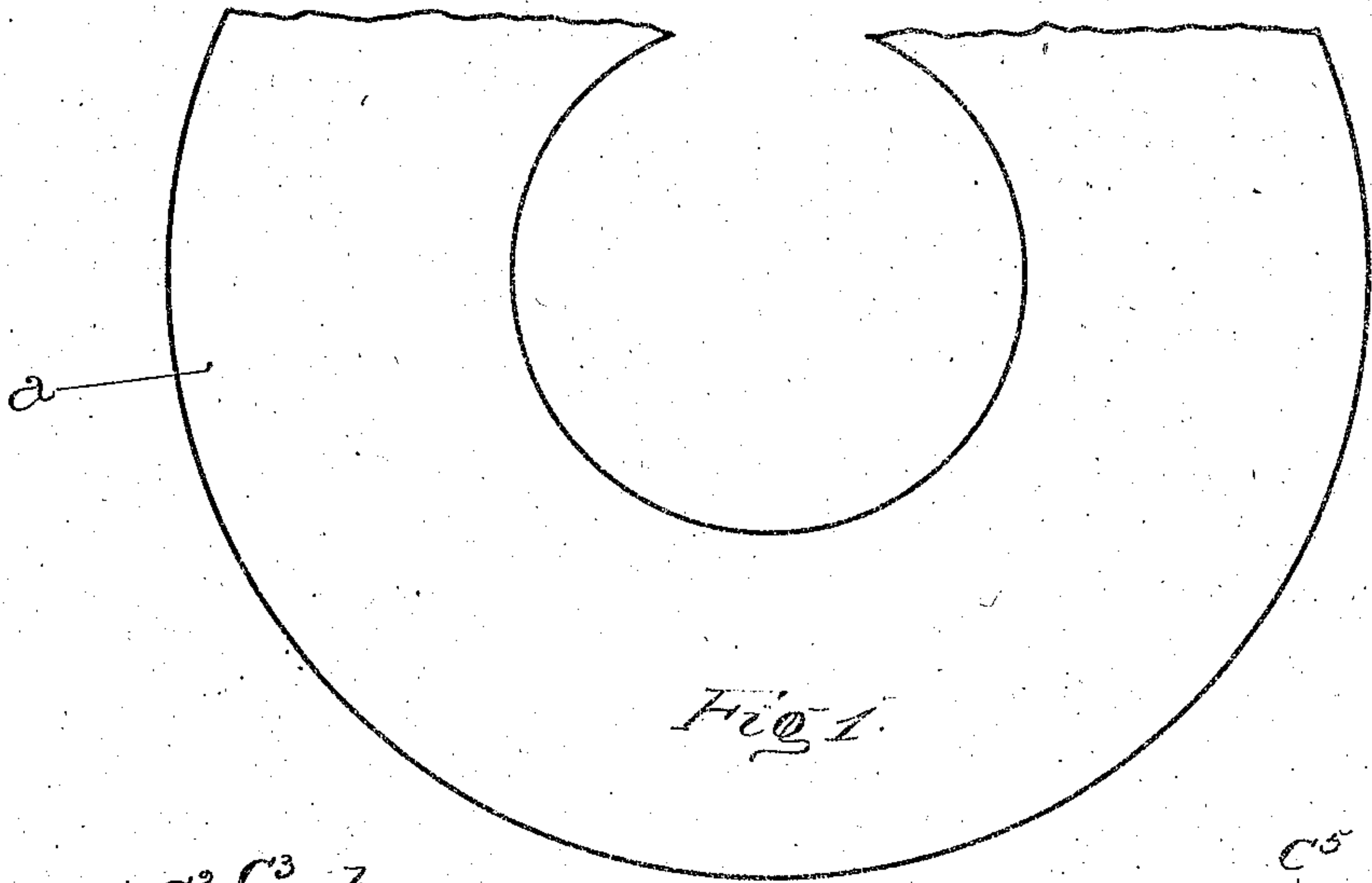
No. 827,404.

PATENTED JULY 31, 1906.

E. ZOHLEN.

PROCESS OF MANUFACTURING TIRE COVERS.

APPLICATION FILED SEPT. 13, 1904.



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UNITED STATES PATENT OFFICE.

EMIL ZOHLN, OF CREFELD, GERMANY.

PROCESS OF MANUFACTURING TIRE-COVERS.

No. 827,404.

Specification of Letters Patent.

Patented July 31, 1906.

Application filed September 13, 1904. Serial No. 224,347.

To all whom it may concern:

Be it known that I, EMIL ZOHLN, a subject of the German Emperor, and a resident of Crefeld, Germany, have invented certain new and useful Improvements in Processes of Manufacturing Tire-Covers, of which the following is a specification.

The present invention relates to processes of manufacturing tire-covers, especially tire-covers for automobiles.

The essential feature of the improved process of manufacturing such tire-covers consists in cutting out of a hide concentric rings, which are then pressed on suitable machines into the form required for the cross-section of the cover and thereupon submitted to a chrome tanning process. It is advisable during this process to protect the projections of the cover, which engage the rim of the felly against coming in contact with the tanning liquid, so that when the cover has been put on the projections will possess the necessary power of resistance. During the pressing the rings cut out of the hide are preferably placed around a suitably-shaped pressing-ring while the material is still in a soft state. Thereupon correspondingly-shaped pressing-cheeks or pressing-pieces are pressed against the pressing-ring in such a manner that the hide between the two parts is heaped up on the edges of the ring in order to supply the necessary material for the projections. As hereinbefore stated, the projections engaging the rim of the felly must be protected against the tanning liquid during the tanning process, and to this end the parts of the mold serving to mold the projections are allowed to remain on the pressed hide when the same is immersed into the tanning liquid, so that these parts protect the projections against the action of the tanning liquid.

In the accompanying drawings, Figure 1 shows the ring from which the cover is made, and Figs. 2, 3, and 4 show various steps in the process of producing the improved tire-cover.

Out of the hide is cut a concentric ring *a*, as shown in Fig. 1. The ring is placed around the pressing-ring *b*, Fig. 2, while the material is still in a soft state, and owing to this condition it easily conforms itself to the shape of the pressing-ring *b*, so that it lies closely on

it in every part. Thereupon pressing pieces or checks are forced from the outside against the ring *b*, so that the hide takes the form corresponding to the cross-section of the cover to be produced. The pressing-pieces *c c* are first moved from the position shown in Fig. 2 into that shown in Fig. 3, so that the material is first pressed in the middle on the ring *b*. Then the pressing-pieces *c' c'* are pressed in the same manner and then the pressing-pieces *c² c²*. In this way the material is pressed into the space which exists between the pressing-pieces *c³, c³*, and *c⁴*, as seen in Fig. 2. Now if finally the pressing-pieces *c³*, provided with projections *c⁵*, are pressed against the hide, the projections *a'* of the cover for the rim of the felly are formed. Any suitable mechanical means may be used for moving and guiding the pressing-pieces.

When the hide is pressed so far as shown in Fig. 3, it is taken out of the mold and immersed into the tanning liquid. During the tanning process the projections *a'* are to be protected, as already stated, against coming in contact with the tanning liquid, and the most simple means to attain this is to place the parts *c³ c³ c⁴* of the mold, which serve to form the projections, with the hide into the tanning apparatus. The pressing-pieces *c³ c³ c⁴* may be held together by any suitable means, such as clamps *d* and screws *e*. The pressing-ring *b*, as well as the pressing-pieces *c*, must be composed of single parts, so that after the pressing they can be easily taken off or out of the pressed ring.

What I claim as my invention, and desire to secure by United States Letters Patent, is—

1. The herein-described process of manufacturing tire-covers, which consists in forming from a hide a concentric ring, then imparting to the ring the form for the cover to be produced, then protecting the edges of the ring, and finally subjecting the ring to the action of a tanning liquid.

2. The herein-described process of manufacturing tire-covers, which consists in forming from a hide a concentric ring, then placing the ring in a suitable mold and imparting to the ring the form for the cover to be produced, then removing the parts of the mold covering the central portion of the ring, and finally immersing the ring into a tanning

liquid while the edges of the ring are still in the mold.

3. The herein-described process of manufacturing tire-covers, which consists in forming from a hide a concentric ring, then imparting to the ring the form for the cover to be produced, then bunching the ring at the edges, then protecting the edges of the ring,

and finally subjecting the ring to the action of a tanning liquid.

The foregoing specification signed at Cre-
feld, Germany, this 29th day of August, 1904.

EMIL ZOHLÉN.

In presence of—

WALTER VON AUER,

W. BRUCE WALLACE.