

(No Model.)

C. L. EASTMAN.

PACKING RING AND PROCESS OF MAKING THE SAME.

No. 436,652.

Patented Sept. 16, 1890.

Fig. 1.

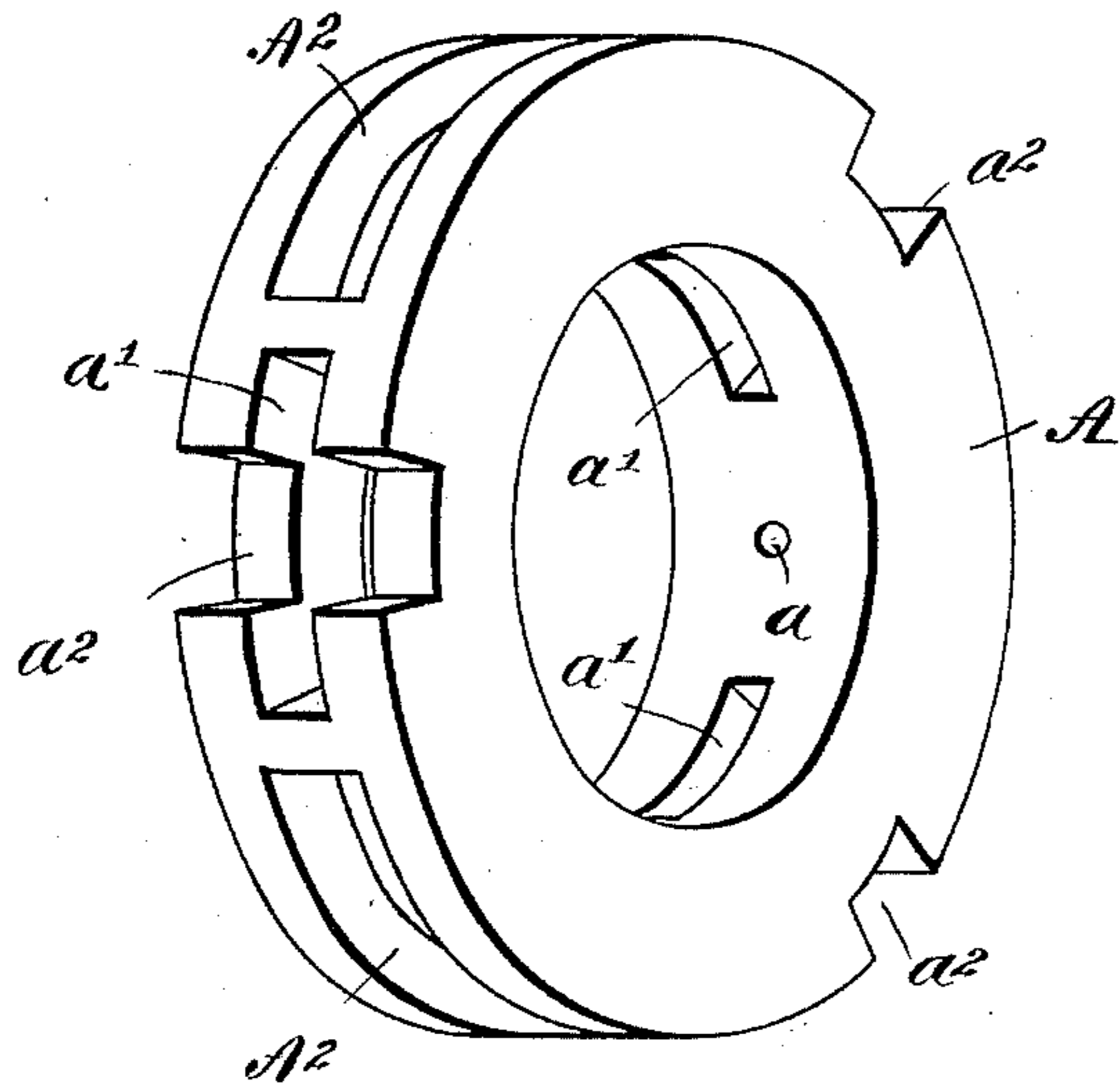


Fig. 3.

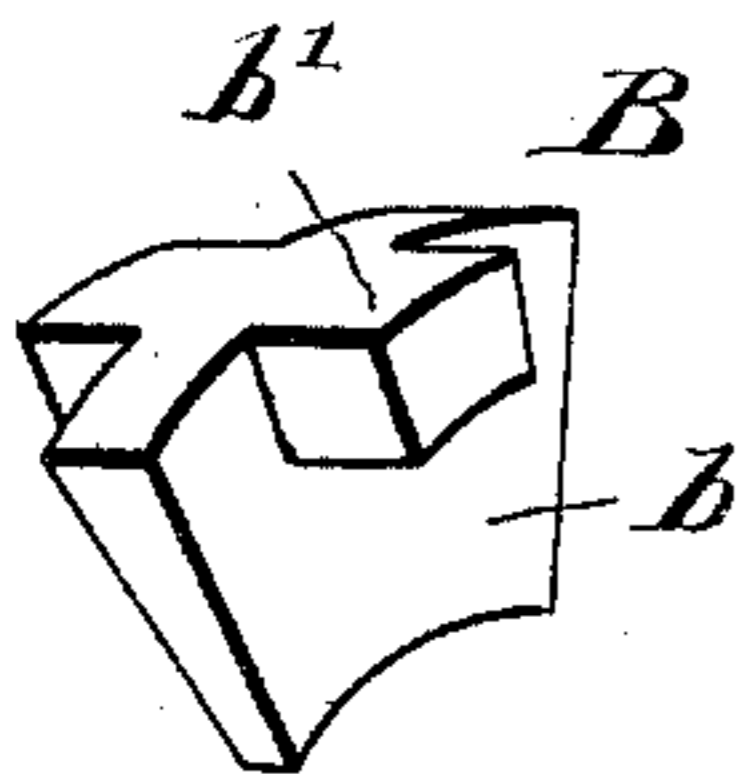


Fig. 2.

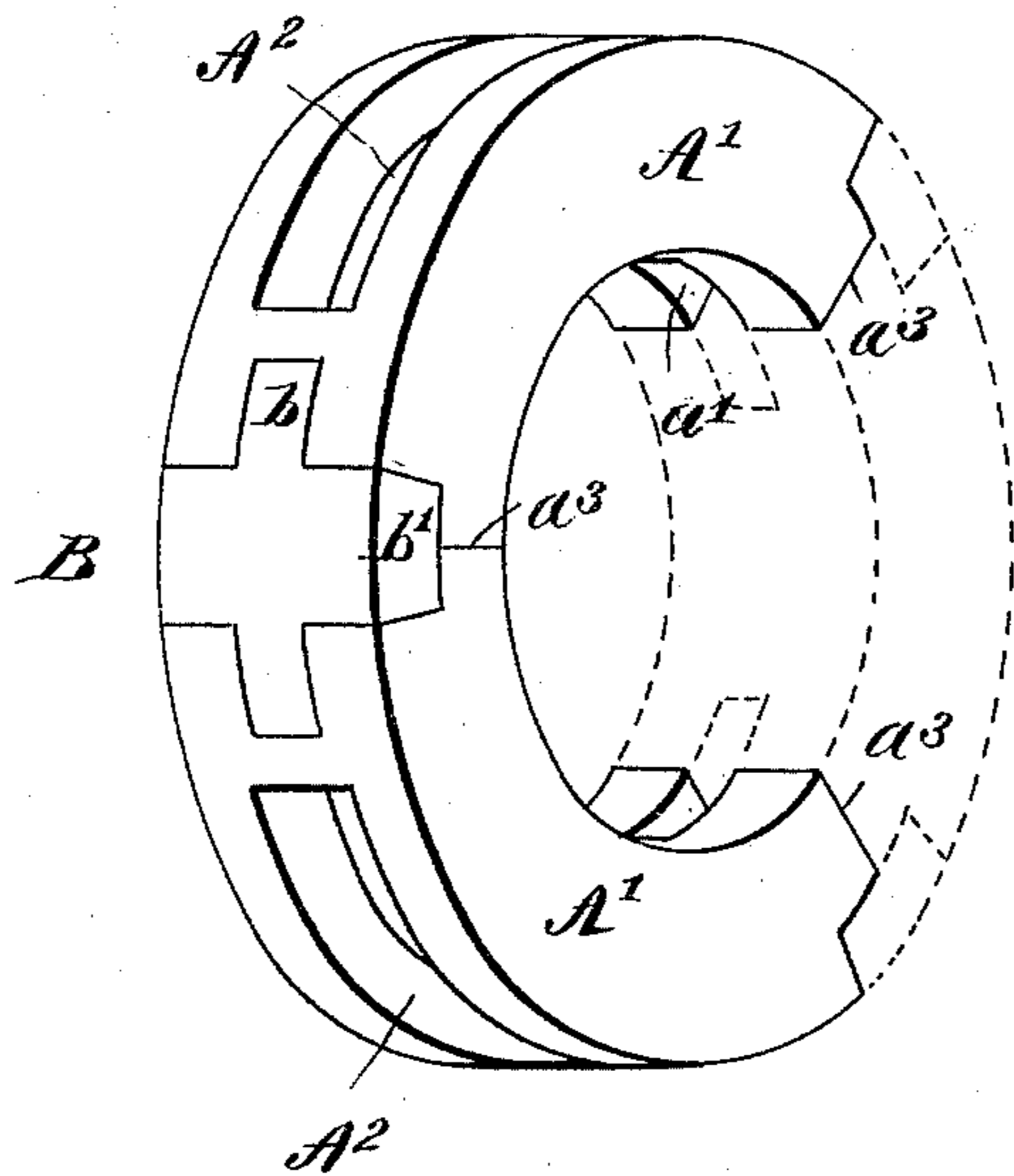
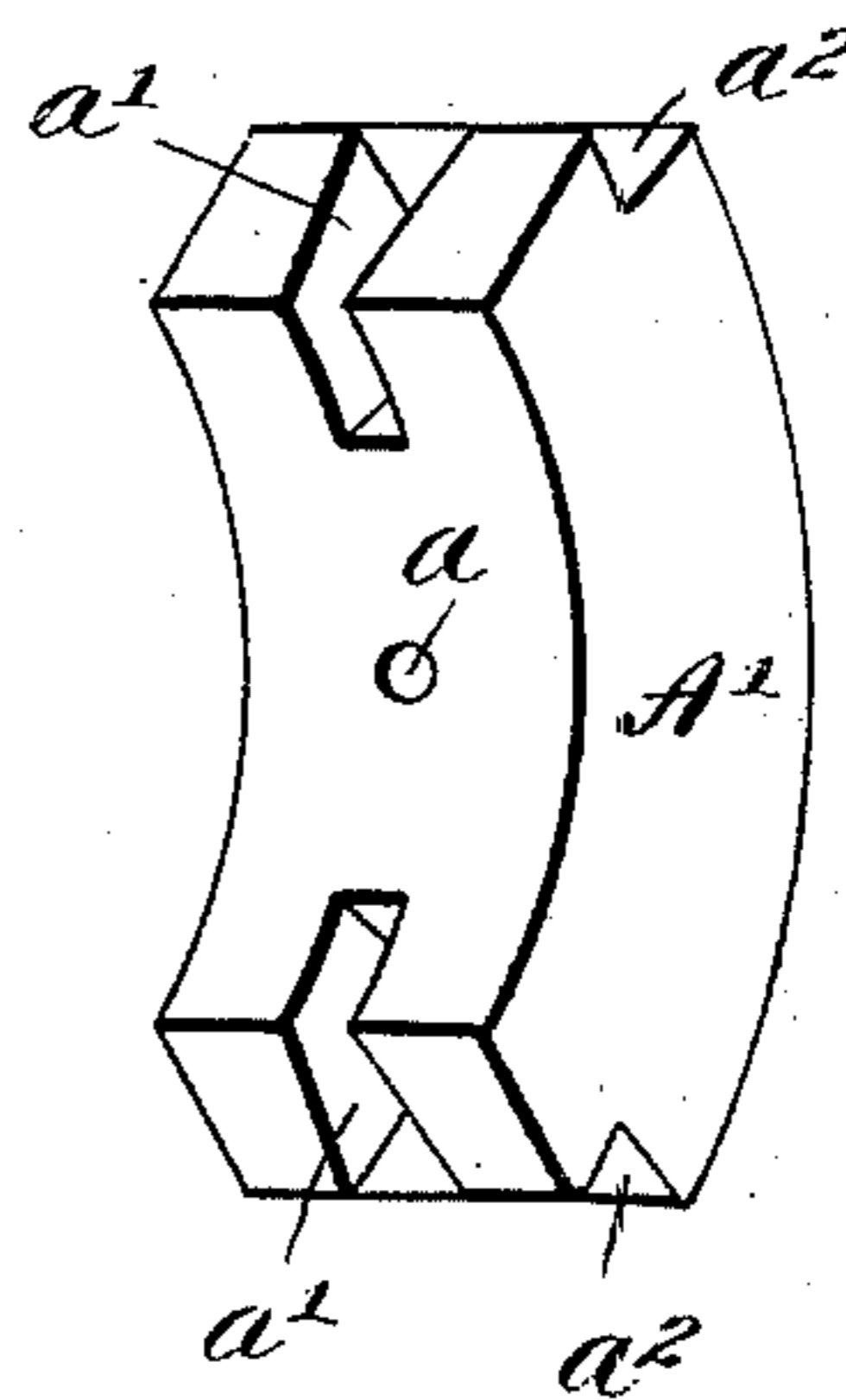


Fig. 4.



WITNESSES:

Donn Twitchell
E. M. Clark

INVENTOR:

C. L. Eastman
BY *Munro & Co.*
ATTORNEYS

UNITED STATES PATENT OFFICE.

CHARLES L. EASTMAN, OF BROOKLYN, NEW YORK.

PACKING-RING AND PROCESS OF MAKING THE SAME.

SPECIFICATION forming part of Letters Patent No. 436,652, dated September 16, 1890.

Application filed July 28, 1890. Serial No. 360,230. (No model.)

To all whom it may concern:

Be it known that I, CHARLES L. EASTMAN, of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Packing-Ring and Process of Making the Same, of which the following is a full, clear, and exact description.

My invention relates to improvements in cylinder packing-rings and in a process of making the same; and the object of my invention is to produce an expansible ring that will fit nicely within the cylinder, and to construct the ring in such a manner that it will fit as well as if made from a single piece.

To this end my invention consists in a packing-ring and process of making the same, which will be hereinafter fully described, and then pointed out in the claim.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a perspective view of the ring embodying my invention before the ring is cut into segments and before the coupling-pieces are inserted therein. Fig. 2 is a detail perspective view of the ring after being cut and with one of the coupling-pieces in place and one of the segments removed. Fig. 3 is a detail perspective view of one of the coupling-pieces for uniting the segments of the ring, and Fig. 4 is a detail perspective view of one of the segmental parts of the ring.

The ring A is formed or cast in a single piece with slots a' extending through the ring and with transverse slots a^2 extending across the outer surface of the ring at right angles to the slot a' , said slots tapering from all sides toward the center. The ring is also provided in its outer portion with chambers A^2 and with openings a from the inner side of the ring to the chambers, so that the steam will pass through the openings a into the chambers and thus maintain an equal pressure on the outer and inner sides of the ring. This forms no part of my invention, however,

as the chambers and openings have been heretofore patented. After the ring is cast the central opening and the slots in the ring are trued up and finished, and Babbitt or other metal that may be easily melted is run into the slots a' and a^2 and allowed to cool. The ring is then finished, the coupling pieces removed, and the ring is cut into segments, the cuts being made at the points a^3 opposite the central portions of the slots a' and a^2 . The coupling-pieces B will exactly correspond to the slots a' and a^2 , having a wedge-shaped portion b to fit the slot a' and a lateral portion b' to fit the slots a^2 . By forming the coupling-pieces in the method above described they will exactly fit the ring, and by being made before the ring is cut when the segments of the ring are put together the ring will be of its original size. This makes a very inexpensive process of manufacturing the ring, and the ring when constructed in the above manner fits perfectly and is practically a continuous ring.

I have shown the ring cut into three segments A' ; but it is obvious that it may be cut into any desired number of segments, and the slots a' and a^2 should be made opposite the points where the cuts are to be made.

While the ring is especially designed as a packing for cylinders, it may be used for other purposes as well.

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

The herein-described process of manufacturing packing-rings, which consists in casting or forming the ring with radial slots and with transverse slots crossing the radial slots, filling the slots with melted metal, cooling the same, and then cutting the ring into segments, the cuts being made at points opposite the slots, substantially as described.

CHARLES L. EASTMAN.

Witnesses:

W. B. HUTCHINSON,
E. M. CLARK.