

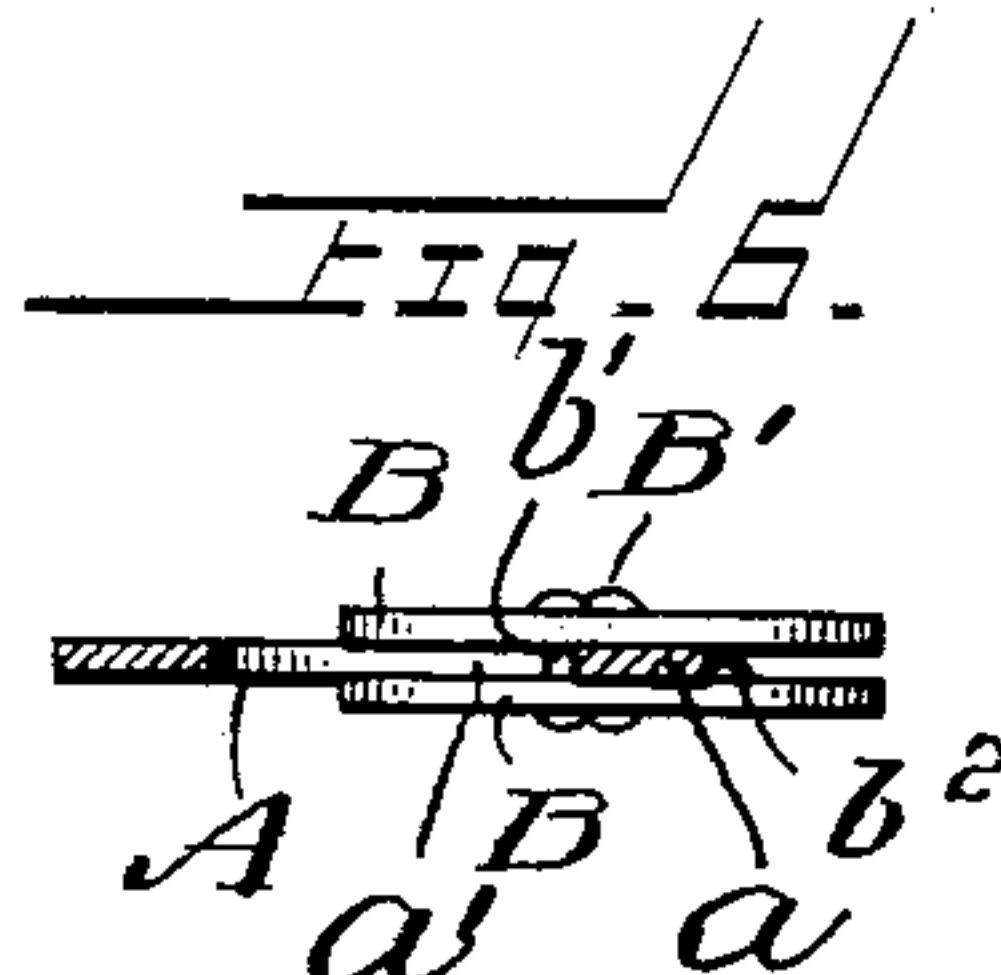
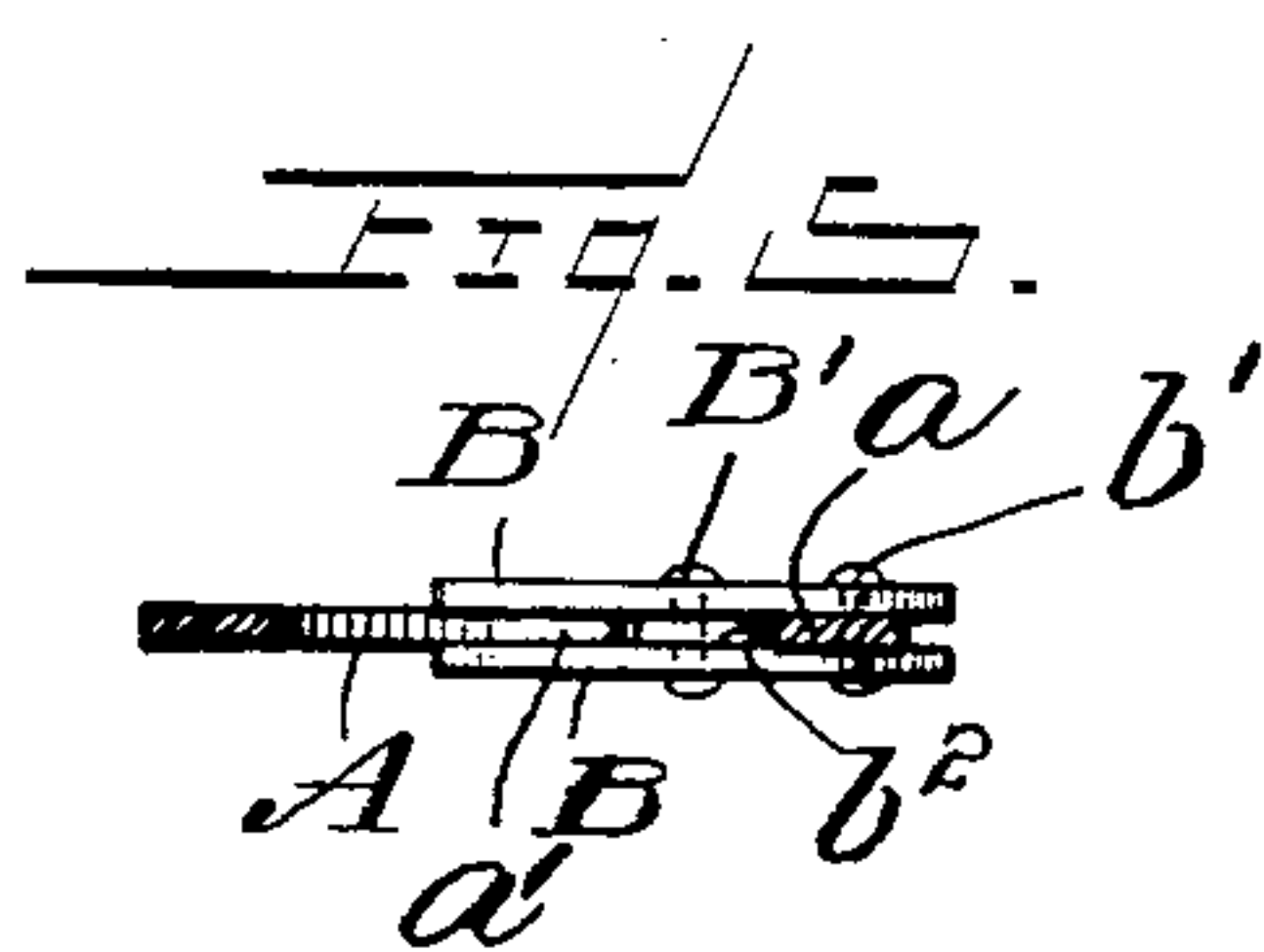
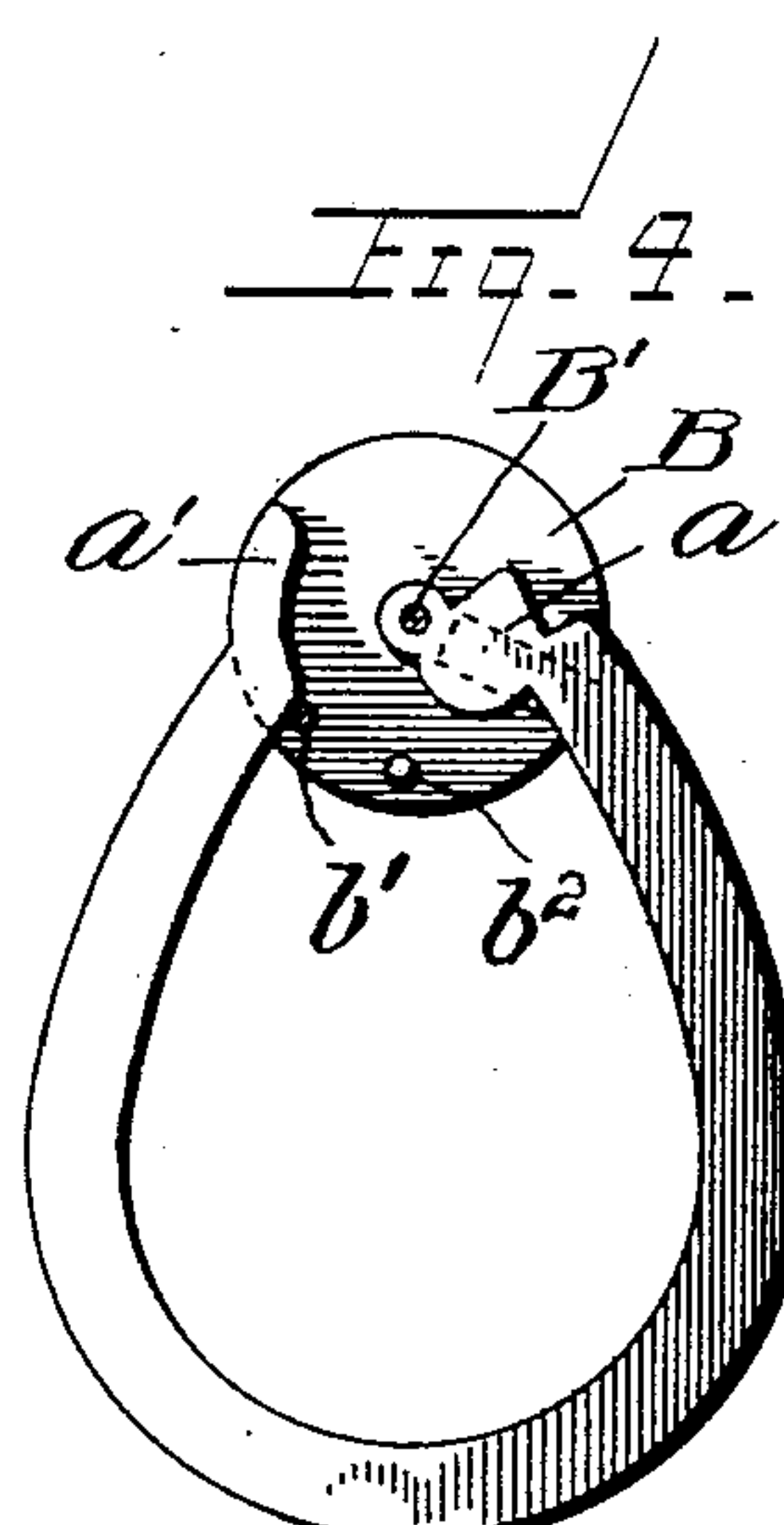
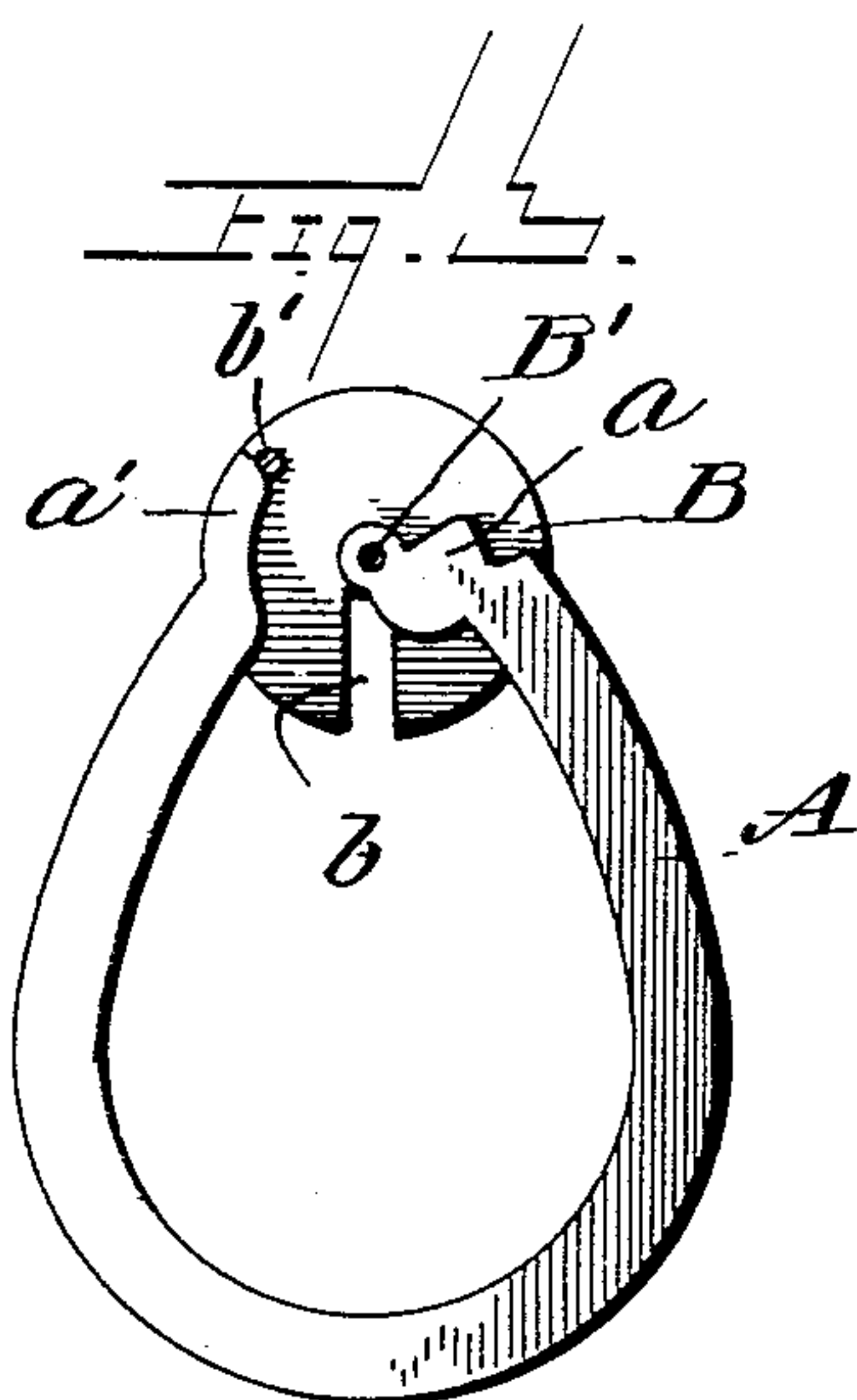
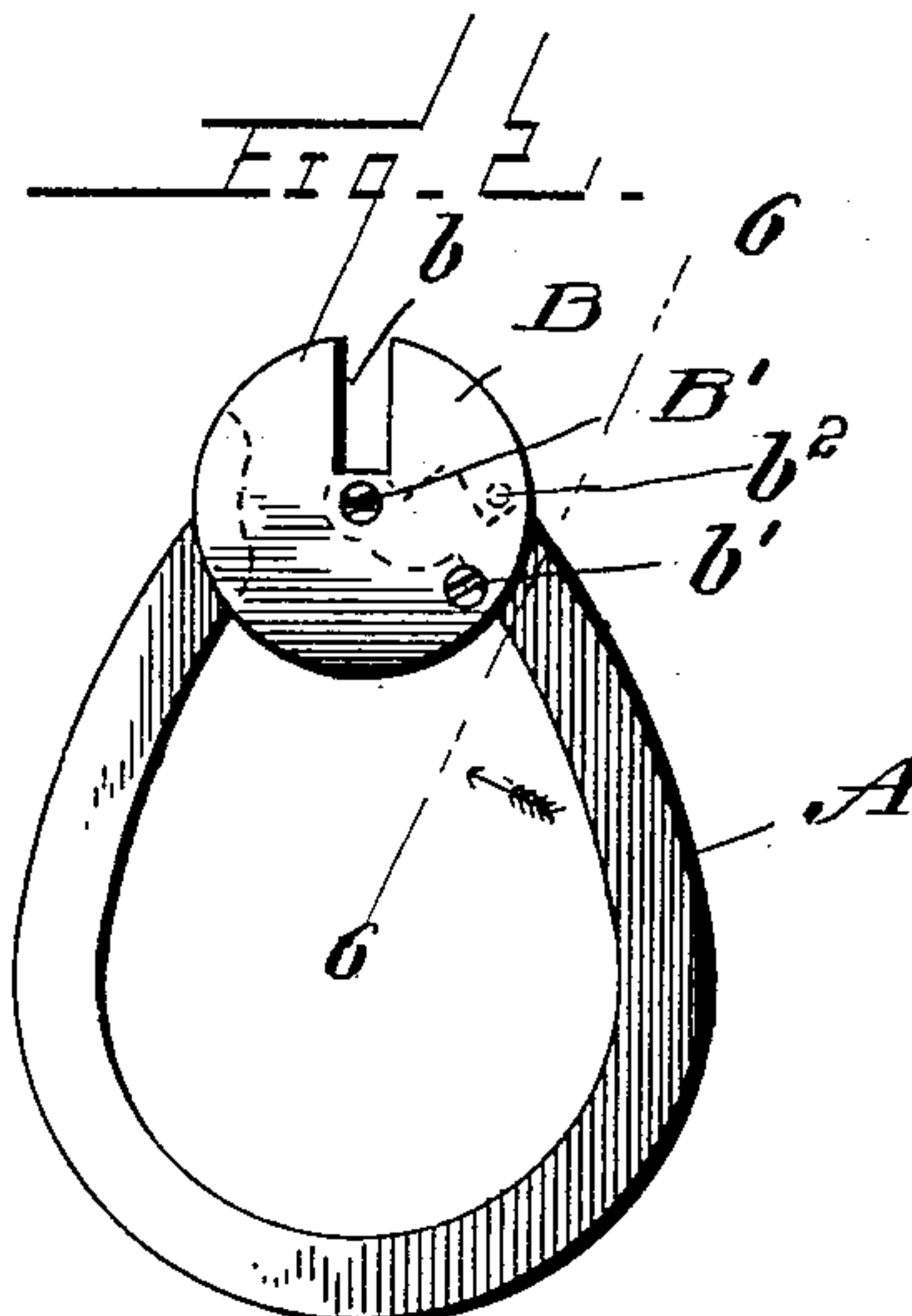
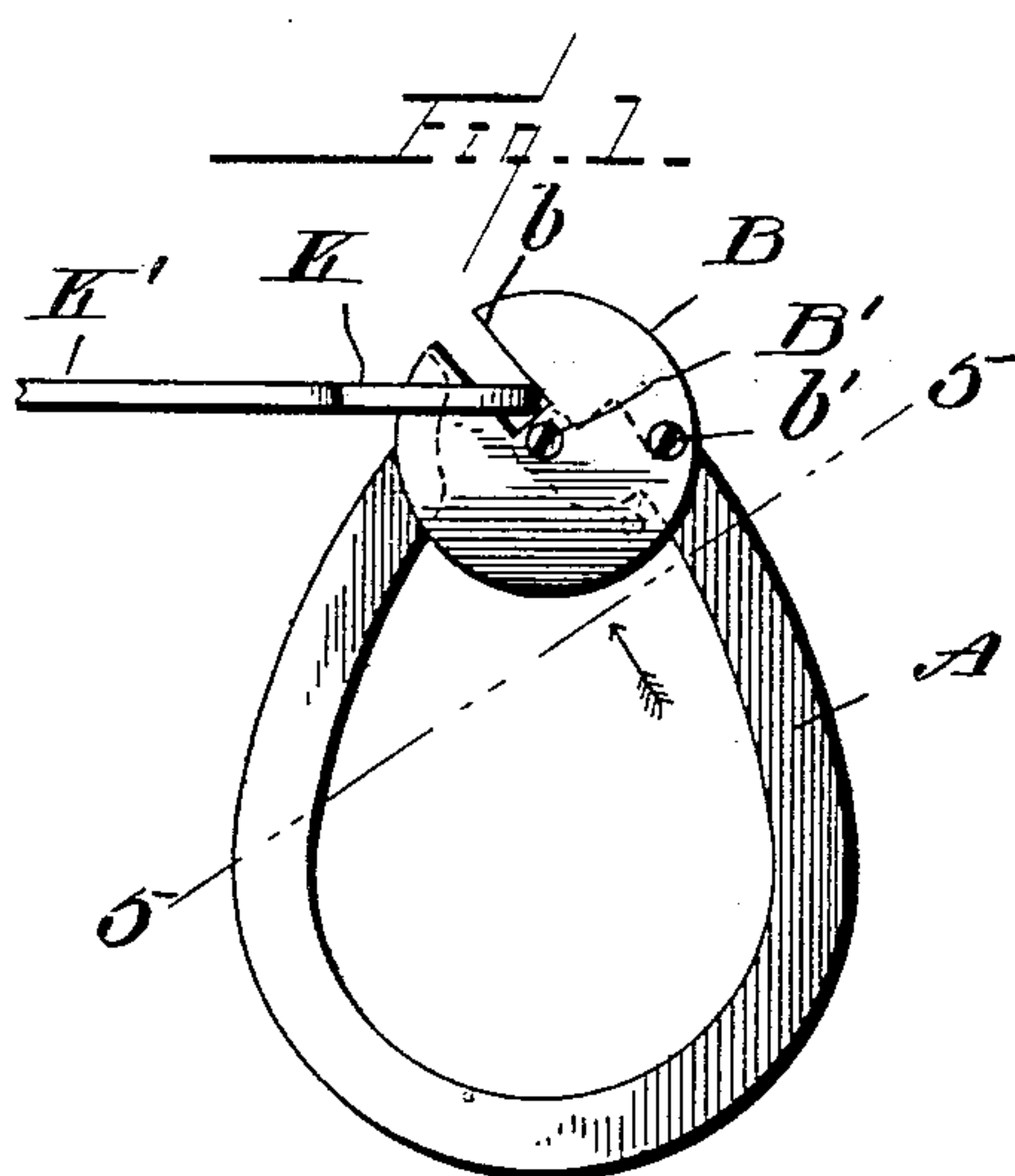
No. 751,643.

PATENTED FEB. 9, 1904.

T. HENTGEN.
KEY RING.

APPLICATION FILED SEPT. 28, 1903.

NO MODEL.



WITNESSES

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UNITED STATES PATENT OFFICE.

THEODOR HENTGEN, OF NEW YORK, N. Y.

KEY-RING.

SPECIFICATION forming part of Letters Patent No. 751,643, dated February 9, 1904.

Application filed September 28, 1903. Serial No. 174,962. (No model.)

To all whom it may concern:

Be it known that I, THEODOR HENTGEN, of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Key-Rings; and I hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, which form part of this specification.

This invention is an improvement in key-rings; and its object is to provide a simple but safe ring in which the keys will be securely locked when the parts are properly positioned and which will require knowledge of its construction and manipulation to enable any one to place keys thereon or remove same therefrom.

The invention is a key-ring of the class in which a split ring or body is employed with adjacent notched disks to close the slot in the ring and has the external appearance of the common well-known key-ring; but because of its peculiar construction it cannot be manipulated like such rings, nor can the disks shift accidentally into positions where the keys can be removed.

The invention will be clearly understood from the drawings, which I will now describe.

Figure 1 is a view with disks in unlocked position, so that keys can be readily removed or replaced. Fig. 2 is a view with disks in locking position, so that keys cannot be removed or replaced. Fig. 3 is a view like Fig. 1 with top disk removed and showing the disk in position for removal of a key. Fig. 4 is a view like Fig. 2 with top disk removed, showing the disks in another locking position. Fig. 5 is a section on line 5 5, Fig. 1, looking in the direction of the arrow. Fig. 6 is a section on line 6 6, Fig. 2, looking in the direction of the arrow.

The body A of the ring is of any desired shape, being shown in oblong ring form, with an opening between its ends for the passage of the keys. One end *a* of this body is provided with an aperture for the passage of the pivot-pin or rivet B', by which the two opposite similar disks B B are attached to the body. Said disks are of such diameter that they will

close the opening in the ring. Said disks are provided with similar radial slots *b* for the introduction of the eye K of a key K', and after this eye is in slots *b* when the disks are in the position shown in Figs. 1 and 3 the disks may be turned, so that the key will pass onto the body of the ring over the projecting end *a'* thereof opposite the end *a*, to which the disks are pivoted, just as the keys are placed on ordinary key-rings. The disks B B are connected together to hold their slots *b* parallel and cause them to turn together by means of a stud or pin *b'*, and it will be observed that in Figs. 1 and 3 this pin *b'* stands outside the body of the ring and does not interfere with the insertion or removal of the keys, the disks only having to move about a quarter-turn in placing keys on or taking them off the ring. This pin *b'* strikes against the projecting end *a'* of the body when the disks have made a partial turn (see Fig. 3) and prevents the disks turning farther inward unless sufficient force is exerted upon the disks to cause the pin to spring the ends of the frame apart and crowd through the opening to the position shown in Fig. 4, which is one locked position of the disks, since they cannot be turned back unless sufficient pressure is exerted thereon to again spread the ends of the body A apart and let the pin crowd out through the opening.

This is the secret of the ring. When the disks are turned into the position shown in Fig. 3, they can be partly rotated freely between the extremes indicated in Figs. 1 and 3, which will admit the ready insertion or removal of keys. After keys are on the ring by forcibly rotating the disks to the position shown in Fig. 4 the ring is securely locked, and its movement is then limited by pin *b'* between the extremes indicated in Figs. 2 and 4, the pin stopping the movement of the disks in one direction by abutting against end *a* of the body and in the opposite direction by abutting against end *a'* thereof. One of the disks is shown provided with a slight protuberance *b²*, (see Figs. 4 and 6,) which when the disks are in the positions indicated in Fig. 2 will bind against the edge or side of the body A sufficiently to prevent the disks casually turning at all, holding the disks with

slots b outermost apparently ready to receive a key. In this condition if any one attempts to place a key on the ring the key-loop k will bind against the body and absolutely prevent
 5 threading of the key, and until the disks are forcibly turned to the position indicated in Figs. 1 or 3 it will be impossible to remove a key. The protuberance b^2 , however, can pass over or under the body A if the disks
 10 are forcibly turned. The device, while forming an efficient reliable safe key-ring, can be used as a puzzle, as the owner having the disks in the position shown in Fig. 1 can slip keys on and off the ring with facility and in
 15 handing it to another party to do so can deftly turn the disks to the position shown in Fig. 2, which will render it impossible for the latter to ring the keys until he has found out the secret of the device. The ring would
 20 act effectively with only one disk B and pin or lug b' ; but the two disks make a neater finish and conceal the construction.

Having thus described my invention, what I therefore claim as new, and desire to secure
 25 by Letters Patent thereon, is—

1. A key-ring having a body with an opening between its ends, a disk pivoted to one end and covering the opening, said disk having a slot or notch for the insertion and re-
 30 moval of the keys, and a pin or lug on said disk adapted to engage either side edge of the end to which the disk is pivoted, to limit the rotary movement of the disk in both directions, substantially as described.

35 2. A key-ring having a body with an opening between its ends, a disk pivoted to one end and covering the opening, said disk having a slot or notch for the insertion and re-

moval of the keys, and a pin or lug on said disk adapted to engage either side edge of the
 40 end to which the disk is pivoted, to limit the rotary movement of the disk in both directions, and means for preventing casual turning of the disk, substantially as described.

3. A key-ring having a body with an opening between its ends, a pair of opposite similar disks pivoted to one end of the body and covering the opening therebetween, and provided with notches or slots for the insertion and removal of the keys; and a pin or lug be-
 50 tween the disks adapted to engage with either side edge of the end to which the disks are pivoted to limit the movements of the disks in both directions, said pin being forced through the opening by turning the disks
 55 from one extreme position to the other, substantially as described.

4. The herein-described key-ring, comprising a body bent into a loop with a slight opening between its ends, a pair of disks pivoted
 60 to one end of the body and closing the opening therebetween, said disks having coincident radial notches, a pin connecting the disks and adapted to engage either side edge of the
 65 end to which the disks are pivoted, to limit their rotary movements in both directions, and means for preventing casual turning of the disks, substantially as and for the purpose described.

In testimony that I claim the foregoing as
 70 my own I affix my signature in presence of two witnesses.

THEODOR HENTGEN.

In presence of—

JACQUES MERSCH,
 T. H. ALEXANDER.