

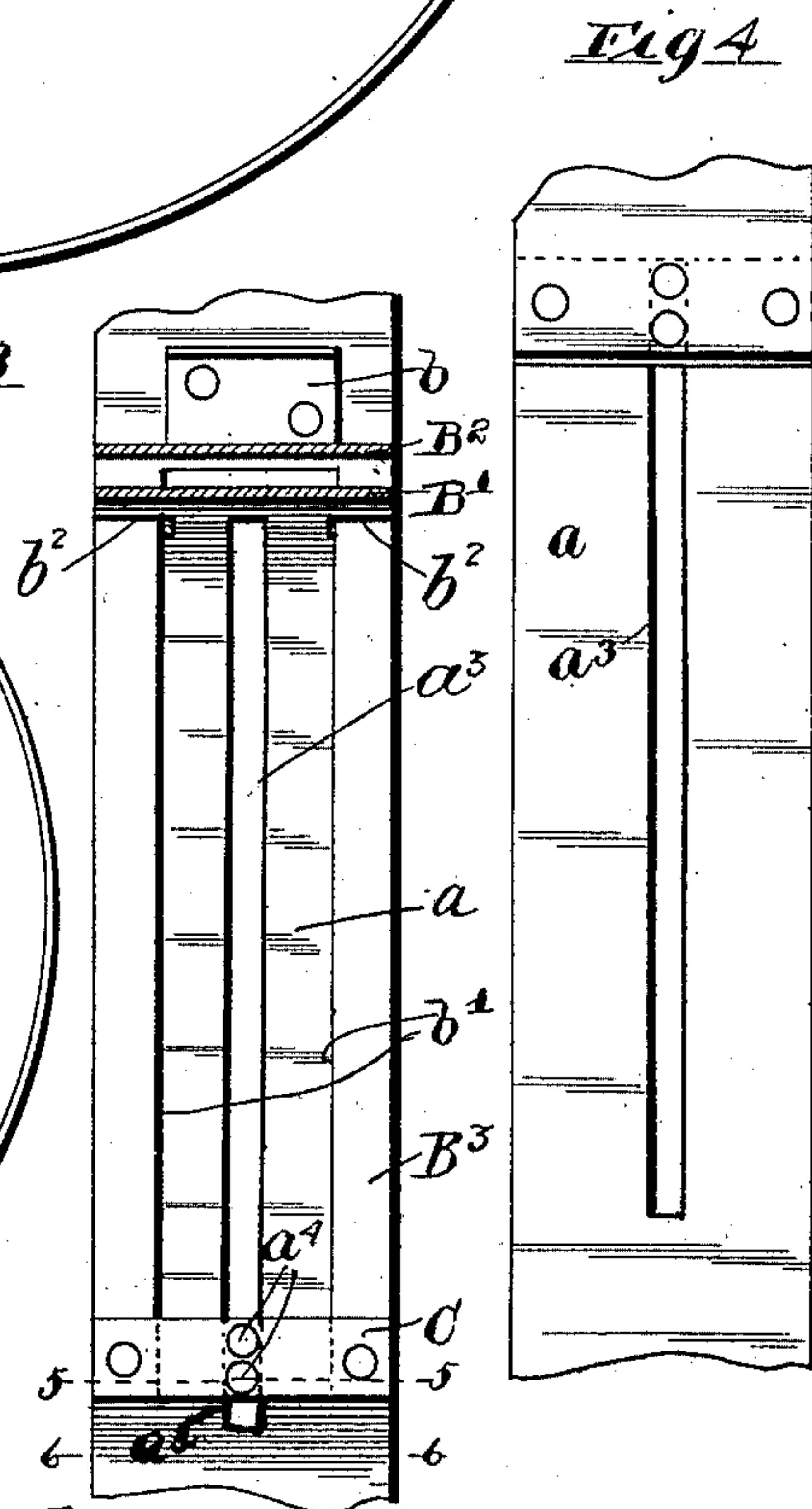
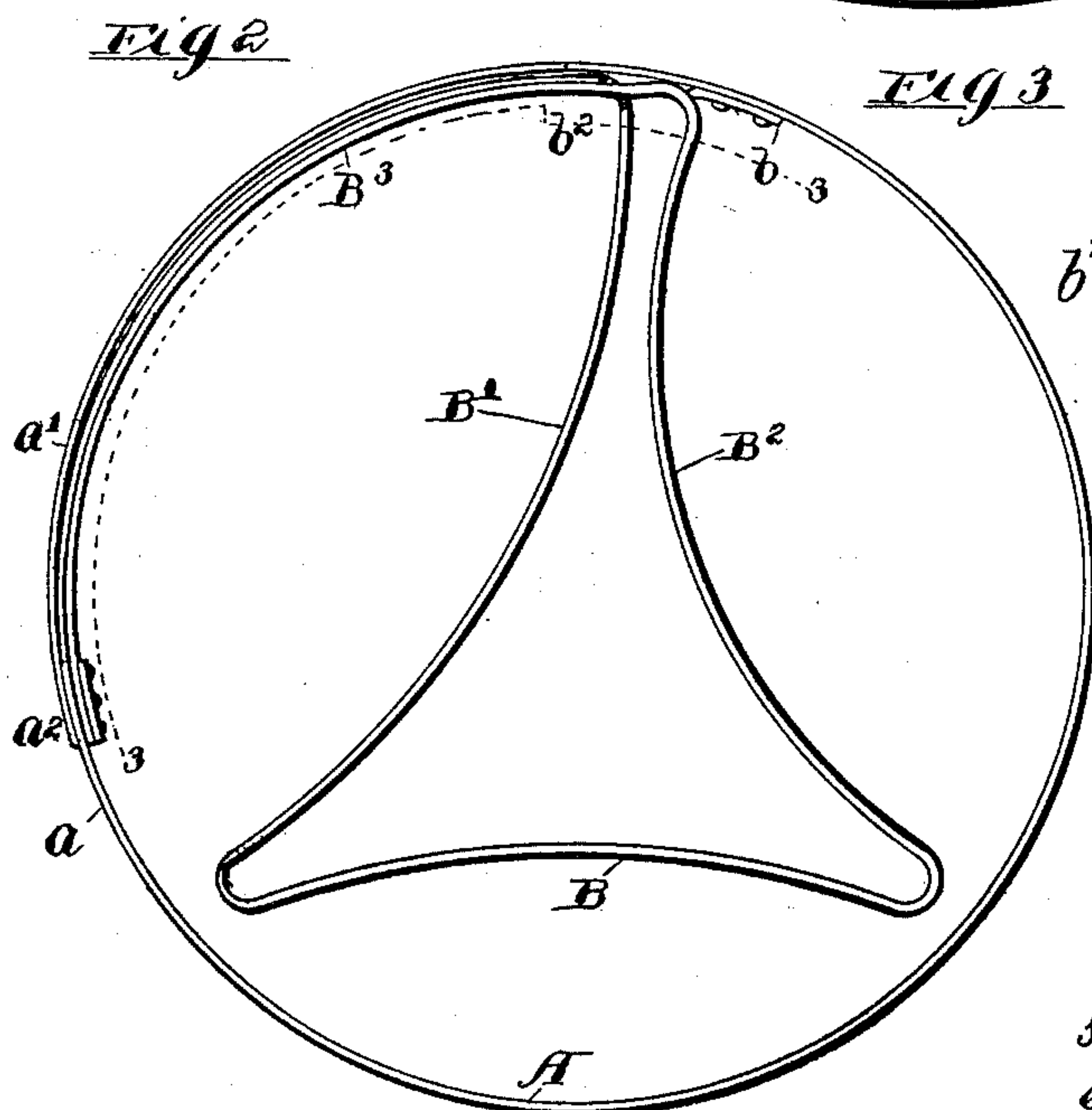
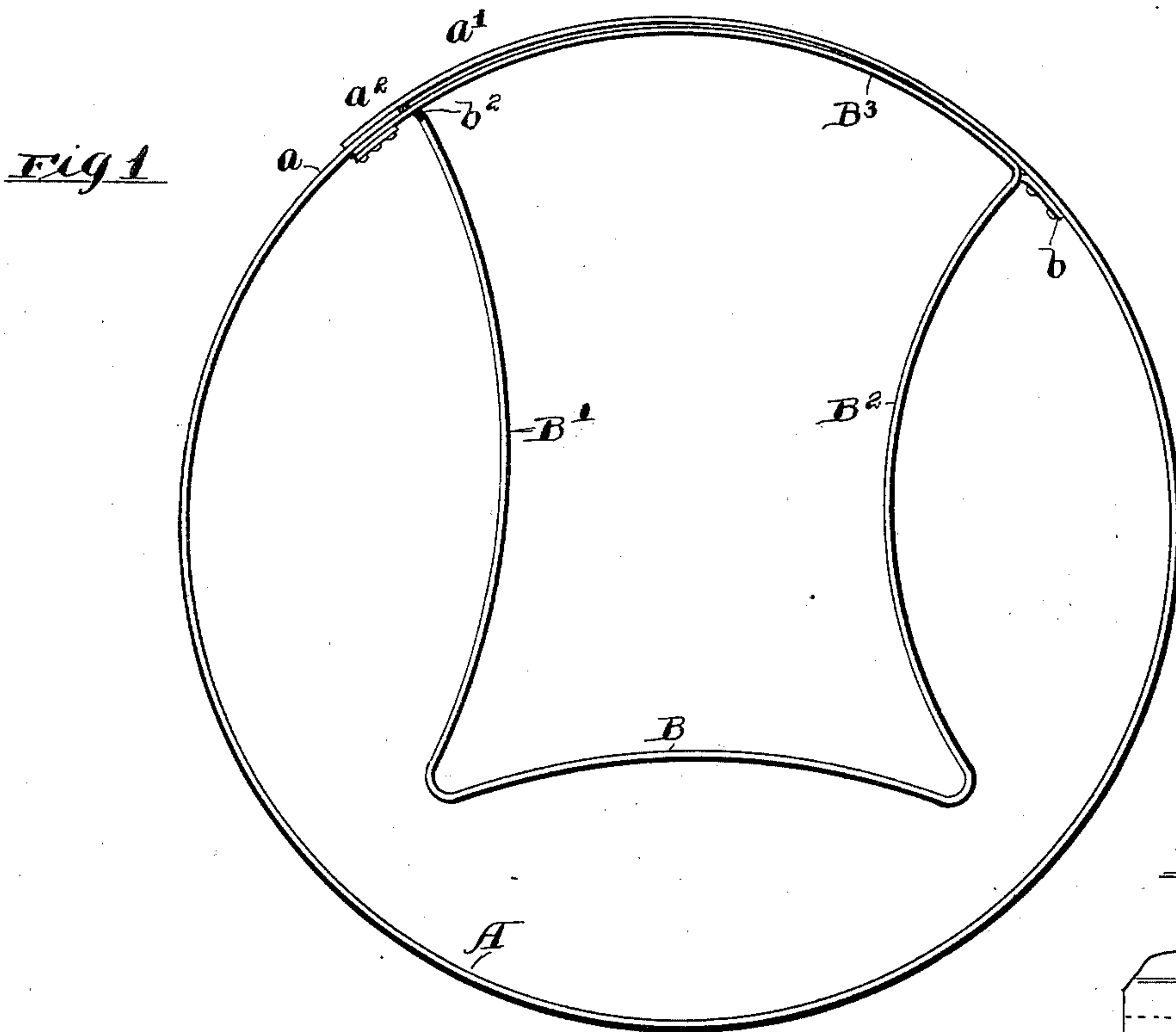
No. 716,545.

Patented Dec. 23, 1902.

H. H. HERR.
SHIRT NECKBAND EXPANDING RING.

(Application filed Jan. 24, 1902.)

(No Model.)



Witnesses:-

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Fig 6

Inventor:-

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His Attorneys

UNITED STATES PATENT OFFICE.

HENRY H. HORR, OF CHICAGO, ILLINOIS.

SHIRT-NECKBAND-EXPANDING RING.

SPECIFICATION forming part of Letters Patent No. 716,545, dated December 23, 1902.

Application filed January 24, 1902. Serial No. 91,101. (No model.)

To all whom it may concern:

Be it known that I, HENRY H. HORR, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful
5 Improvements in Shirt-Neckband-Expanding Rings; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of
10 this specification.

This invention relates to a novel shirt-neck expanding ring for stretching the neckband of a shirt to facilitate ironing or pressing
15 the band, an example of which is shown in prior United States Letters Patent to Mount, No. 396,416, granted January 22, 1889.

The main or principal object of my invention is to produce an expanding-ring of this
20 character which may be more readily contracted for inserting the same in the neckband of a shirt than rings as heretofore constructed, whereby said ring may be collapsed or contracted with one hand of the person
25 using the same.

A further object of the invention is to cheapen the cost of producing such rings.

The invention consists in the matters hereinafter set forth, and more particularly pointed
30 out in the appended claims.

Figure 1 is an edge view of a shirt-band-expanding ring made in accordance with my invention, the same being shown in its expanded or enlarged position. Fig. 2 is a similar
35 view showing the ring contracted. Fig. 3 is an inner side view of the ring, taken on line 3 3 of Fig. 2. Fig. 4 is a fragmentary outside elevation of the ring when expanded. Fig. 5 is a cross-section taken on line 5 5 of Fig. 3.
40 Fig. 6 is a cross-section taken on line 6 6 of Fig. 3.

The ring herein shown consists of a continuous band A, made of a flexible and resilient metal—such, for instance, as sheet brass or
45 steel. Said band constitutes a complete circle and affords a continuous surface against which the shirt-band may be pressed, and the parts a a' of the band proper overlap at a^2 , as shown in Fig. 1, when the ring is expanded,
50 which overlapping parts are adapted to slide one upon the other to contract the ring. Said ring is adapted to be contracted through the

medium of a handle located inside of the band A, the handle consisting of a transverse end part B and inwardly-curved side portions
55 B' B^2 , which are connected with the overlapping parts of the band, and said members B' B^2 are adapted when pressed inwardly toward each other to contract the said band. As herein shown, the operating-handle of the
60 ring is made an integral or continuous part of the circumferential band proper. For this purpose the member B' of the handle is bent inwardly from or made integral with the part a of the band A, while the member B^2 of said
65 handle is attached by rivets or the like to the other part of the said band at a point some distance from the overlapping parts of the band when the ring is in its expanded position. Said part B^2 of the handle is pro-
70 vided with an integral flange b , turned backwardly therefrom and riveted to the band. The part a of the band next adjacent to the member B' of the handle is provided with an elongated slot a^3 , as more clearly shown
75 in Fig. 4. The member B^2 of the handle is continued from its point of attachment with the band toward the overlapping parts of the band at a^2 and curved to conform to the curvature of the band, as shown at B^3 , and the
80 free end of the said part B^3 is attached to the end of the part a' of the band by means of rivets a^4 , which are secured in a transverse plate C, attached to the inner face of the part
85 B^3 and to the end a' of the band, and extend through the slot a^3 in the part a of said band and through a relatively wide slot b' of the part B^3 . The part B^3 constitutes a guide-
90 strip between which and the part a' of the band the end a of the band passes when the ring is contracted. Said guide-strip prevents the part a of the band from being pulled inwardly away from the part a' thereof when the ring is contracted. In other words, said
95 guide-strip causes the part a of the band to follow a curved path corresponding to the curvature of the band proper in the contraction of the ring. The longitudinal slot b' of the guide-strip is shown in elevation in Fig.
100 3 and in cross-section in Figs. 5 and 6, and the part B' is cut away at its opposite sides, as indicated at b^2 , so as to enable said part to pass through said slot b' . Said slot is continued when making the device to the outer

end of the guide-strip, and said outer end of the slot is closed when the parts are assembled by the plate C, above mentioned, which extends transversely across the guide-strip and is attached thereto by rivets in the manner shown in Fig. 3, it being understood that the member B' of the handle is inserted into the slot b' before said plate C is fixed in place. Said slot b' extends throughout the length of the guide-strip B³, so that the arms or members B' B² of the handle may be brought together in contracting or closing the ring, as clearly shown in Fig. 2, and the slot a^3 in the part a of the band is made of corresponding length. The contact of one of the rivets a^4 with the end of the slot a^3 when the ring is expanded prevents separation of the overlapping parts of the ring and acts as a stop to limit the opening movement of said ring.

The operation or use of the ring described is obvious, said ring being inserted into the neckband of the shirt when contracted or closed, as shown in Fig. 2, and allowed to expand to stretch the shirt-band, so that the same may be properly pressed or ironed, the ring serving as a smooth continuous surface against which the neckband is pressed. By reason of the construction of the handle the ring may be readily closed or contracted by the use of one hand of the operator, said operator grasping the handle at the inwardly-curved parts of the side members B' B² and forcing the same inwardly or together into the position shown in Fig. 2. By placing the handle inside the band of the ring the same may be made small enough to be readily grasped by the hand, while at the same time permitting ample movement of the parts to adjust the ring to all sizes of shirt-bands, whereby a single ring may be used for all sizes of shirt-bands.

In a device of this character where pressure must be applied upon the outer rim or band of the ring radially inwardly to contract the same it is often necessary to use both hands to effect this result, as in many instances the reach of the hand of the operator is not sufficient to grasp the opposite sides of the ring to press the same together. When this occurs, it becomes necessary to use both hands to contract the ring, and therefore necessary to drop any article, such as an iron, which is held by the other hand of the laundress, which obviously is a more complicated operation and requiring more time in its performance than with the use of the expanding-ring herein shown.

While the handle is herein shown as made an integral part of the band of the ring, it is obvious that the same may be made separate therefrom and attached thereto, and it is furthermore obvious that so far as the band itself is concerned the parts thereof which overlap each other at a^2 constitute the effective portion of the band.

Other changes in the structural details may be made without departing from the

spirit of my invention, and I do not, therefore, wish to be limited to such details except as hereinafter made the subject of specific claims.

I claim as my invention—

1. A shirt-band-expanding ring comprising a continuous curved, resilient band having overlapping, slidably-connected parts, a handle within the band having resilient side members which are connected with the slidably-connected parts of the band, guiding means for the overlapping parts of said band, and means preventing separation of said slidably-connected parts of the band.

2. A shirt-band-expanding ring comprising a band having overlapping slidably-connected parts and constituting a complete ring, an operating-handle within the ring, and a guide for the slidably-connected parts, all made from a continuous strip of sheet metal, and means preventing separation of said slidably-connected parts.

3. A shirt-band-expanding ring comprising a continuous curved band having overlapping, slidably-connected parts, a handle within the band having side members which are connected with the slidably-connected parts of the band and a curved guide-strip continuous with one member of the handle and attached to one of said parts and between which part and the guide-strip the other part of the band passes when expanded or contracted.

4. A shirt-band-expanding ring comprising a continuous curved band having overlapping, slidably-connected parts, a handle within the band having side members which are connected with the slidably-connected parts of the band and a curved guide-strip continuous with one member of the handle and attached to one of said parts and between which part and the guide-strip the other part of the band passes when expanded or contracted, said guide-strip being slotted and one member of the handle extending through said slot.

5. A shirt-band-expanding ring comprising a continuous curved band having overlapping slidably-connected parts, one part of said band being turned inwardly to form a two-part, pressure-actuated, handle, one member of which is attached to the other part of said band, whereby, when the two members of the handle are pressed together, the band is contracted, and a guide-slot in one part of said band which is engaged by a guide projection on the other overlapping part or end of the band.

6. A shirt-band-expanding ring comprising a continuous curved band having overlapping slidably-connected parts, one part of said band being turned inwardly to form a two-part, pressure-actuated, handle, one member of which is attached to the other part of said band, whereby, when the two members of the handle are pressed together the band is contracted, and a guide between which and one part of the band the other part of said band slides.

7. A shirt-band expander comprising a continuous curved band having overlapping slidably-connected parts a a' , the part a of said band being turned inwardly to form a pressure-actuated, two-part, handle, one member of which is attached to the part a' of the band, said attached member of the handle being continued to form a curved guide between which and the part a' of the band the part a slides.

8. A shirt-band expander comprising a continuous curved band having overlapping, slidably-connected parts a a' , the part a of said band being turned inwardly to form a pressure-actuated, two-part, handle, one member of which is attached to the part a' of the band, said attached member of the handle being continued to form a curved guide between which and the part a' of the band the part a slides, and said part a being provided with a guide-slot which is engaged by a guide projection, as the rivet a^4 , on the other part of the band.

9. A shirt-band expander comprising a continuous curved band having overlapping, slidably-connected parts a a' , the part a of said band being turned inwardly to form a pressure-actuated, two-part handle, one member of which is attached to the part a' of the band, said attached member of the handle being

continued to form a curved guide between which and the part a' the part a thereof slides, said curved guide being slotted, and the part of the handle connected with the part a of the band being located in and passing through said slot.

10. A shirt-band expander comprising a continuous curved band having overlapping, slidably-connected, parts a a' , the part a of said band being turned inwardly to form a pressure-actuated, two-part, handle, one member of which is attached to the part a' of the band and is continued toward the end of said part and connected therewith by rivets to form a curved guide B^3 , which is provided with a guide-slot between which and the part a' of the band the part a slides, said part a of the band being provided with a guide-slot and said rivets passing through said slot, and the part of the handle connected with the part a of the band extending through the slot of said guide.

In testimony that I claim the foregoing as my invention I affix my signature, in presence of two witnesses, this 17th day of January, A. D. 1902.

HENRY H. HERR.

Witnesses:

WILLIAM L. HALL,
GERTRUDE BRYCE.