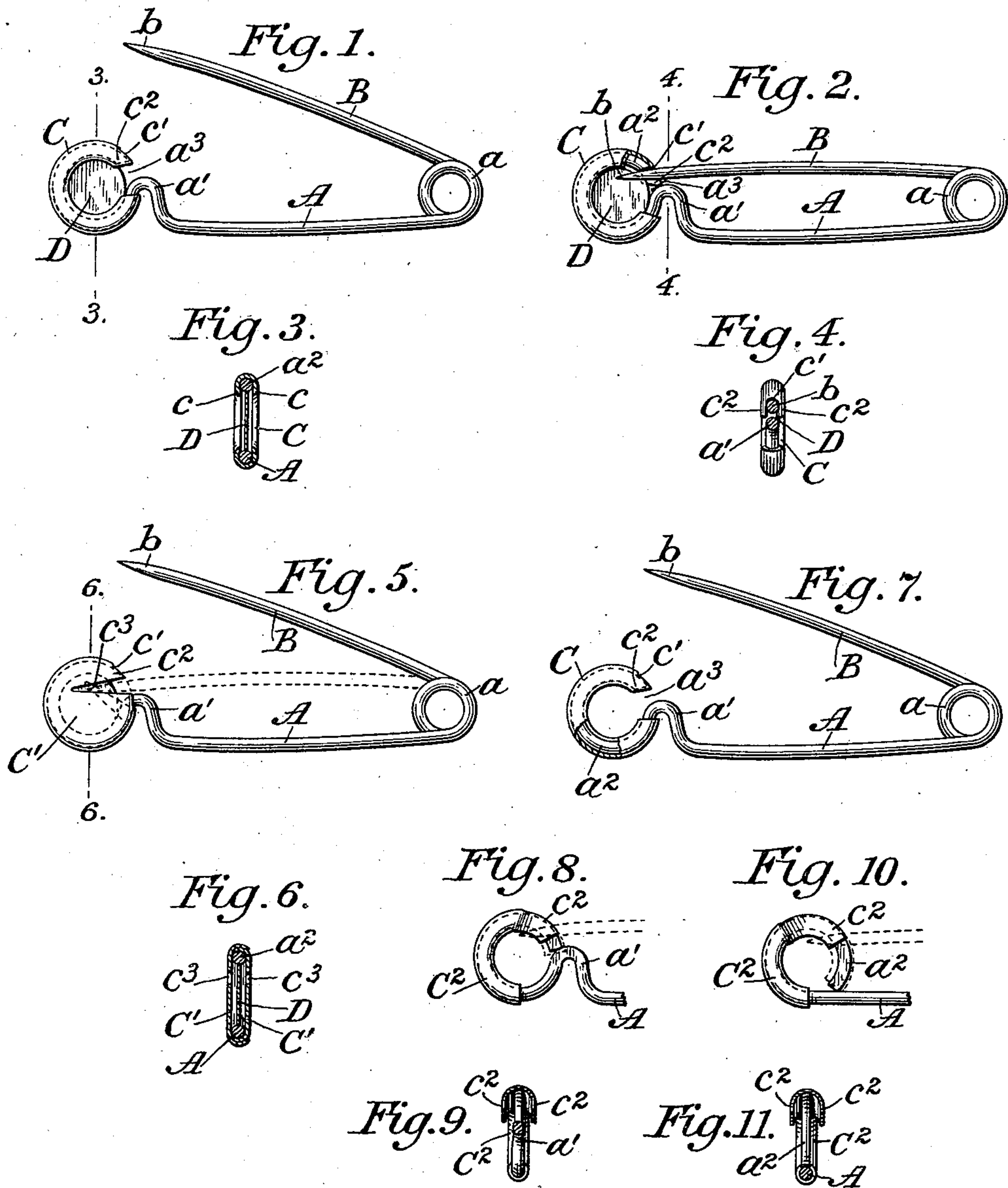


(No Model.)

C. A. BRYANT.
SAFETY PIN.

No. 561,199.

Patented June 2, 1896.



Attest:
A. N. Jesbera
Chas. E. Epworth

Inventor:
Charles A. Bryant
by *Redding & Kiddle*
Attys.

UNITED STATES PATENT OFFICE.

CHARLES A. BRYANT, OF WAKEFIELD, MASSACHUSETTS, ASSIGNOR TO THE
CONSOLIDATED SAFETY PIN COMPANY, OF BLOOMFIELD, NEW JERSEY.

SAFETY-PIN.

SPECIFICATION forming part of Letters Patent No. 561,199, dated June 2, 1896.

Application filed February 6, 1896. Serial No. 578,212. (No model.)

To all whom it may concern:

Be it known that I, CHARLES A. BRYANT, of Wakefield, in the county of Middlesex and State of Massachusetts, have invented certain
5 new and useful Improvements in Safety-Pins, of which the following is a specification, reference being had to the accompanying drawings, forming a part hereof.

In Letters Patent of the United States No.
10 531,458, issued December 25, 1894, I have shown and described certain improvements in safety-pins and other devices of like character, which have for their object to prevent
15 positively the accidental disengagement of the point of the pin from the hood by which it is retained when in use. As described in said Letters Patent, the pin had a circular hood or shield secured in fixed position upon the pin-wire and combined with the rotary
20 guard having an opening to permit the passage of the pin-point therethrough. This device afforded effective means for locking the pin-point within the hood or shield when desired; but it was defective in this—namely,
25 that it permitted the pin-point to be introduced into the hood or shield from one side only, whereas safety-pins which permit the point to be introduced from either side are generally preferable.

30 It is the object of my present invention to produce a double safety-pin with a rotary locking device, and I have accomplished this object, as more fully described hereinafter with reference to the accompanying drawings, in which—
35

Figure 1 is a side view of one form of a safety-pin embodying the invention, the parts being in position for the engagement of the pin-point with the hood or shield. Fig. 2 is
40 a similar view of the same pin with the pin-point engaged in the hood or shield and the latter moved to prevent positively the disengagement thereof, said hood or shield being partly broken away to exhibit the construction more clearly. Fig. 3 is a section on the
45 plane indicated by the line 3 3 of Fig. 1. Fig. 4 is a section on the plane indicated by the line 4 4 of Fig. 2, looking toward the left. Fig. 5 is a view similar to Fig. 1, but illus-

trating a slightly-different form of the hood 50 or shield, the position of the parts when the pin-point is locked in the hood or shield being indicated by dotted lines. Fig. 6 is a section on the plane indicated by the line 6 6 of Fig. 5. Fig. 7 is a view similar to Fig. 1, 55 but illustrating still another form of the hood or shield, the latter being partly broken out to exhibit the construction. Figs. 8 and 9 are respectively a side view and a section of the hood end of a pin, showing another 60 slightly-different form of the improvement; and Figs. 10 and 11 are similar views illustrating still another form.

The safety-pin or other device of like character to which my present improvement is 65 applied may be of any ordinary or convenient form, except as hereinafter specified, and comprises a member A and a member B, the two being preferably connected by a spring-coil a . The member A carries the hood or 70 shield C, with which the pin-point or end b of the member B is adapted to be engaged. As clearly represented in Figs. 1, 2, 5, 7, and 8 of the drawings, the outer portion of the member A is bent upward, as at a' , nearly to 75 the position occupied by the member B when the pin is in use, and is then bent downward upon itself and around in the form of a circle a^2 , as clearly represented by full and dotted lines in the said figures. The circle, as 80 represented in these figures, is not completed; but between the end of the portion a^2 and the bend a' is left a space a^3 , which is sufficient for the passage of the pin-point b , the curved wire a^2 forming substantially seven- 85 eighths of a true circle in order to afford the proper bearing and support for the hood or shield which is mounted thereon.

As represented in Figs. 1, 2, 3, and 4, the hood C is annular in form, being struck up or 90 otherwise formed in any suitable manner and completed after its application to the circle a^2 , so that the two lips or edges c of the hood or shield shall embrace the wire a^2 and retain the hood or shield in position thereon while 95 permitting it to be partially rotated, preferably with some frictional resistance. The hood or shield is not a complete annulus, but

is cut away between its ends to form a passage corresponding and adapted to register with the passage a^3 , hereinbefore referred to, and permitting the partial rotation of the hood or shield. The movement of the hood or shield is limited by contact of one end or the other with the member A of the pin between the bend a' and the circle a^2 . Furthermore, the upper end of the hood or shield is slotted or notched in the plane of the hood or shield, as at c' , to form two ears or guards c^2 , between which the pin-point may be received, as represented clearly in Figs. 2 and 4. If it is desired to prevent the pin-point, in the construction referred to, from passing through the guard or shield from one side to the other, a stop-plate D may be placed within the circle a^2 . This stop-plate may be fastened in place by solder, if desired; but if it substantially fits within the circle a^2 it will be retained in place by the edges $c c$ of the hood or shield C, and may yet be free to move from side to side to permit the introduction of the pin-point b from either side, as indicated in Fig. 4.

Fig. 7 represents the pin as completed without the stop-plate, the construction shown being in other respects the same as that shown in Figs. 1 and 2.

If greater strength is desired than would be afforded by an annular hood or shield, such as that shown in Figs. 1, 2, and 7, or for the sake of appearance, or for any other reason, the hood or shield might be made in two disk-like parts $C' C'$, which may be secured together to embrace the circle a^2 , as represented in Figs. 5 and 6. In this case each side or part of the hood or shield is formed with an opening c^3 for the passage of the pin-point b , and the completed hood or shield is also notched at c' , as before, to form ears or guards c^2 , which shall engage the pin-point when the parts are in the positions represented by dotted lines in Fig. 5. It is obvious that this form of hood or shield is in all essential respects the same as that shown in Figs. 1, 2, and 7. The stop-plate D may or may not be used with this form of hood or shield, as may be desired.

In the construction represented in Figs. 8 and 9 the member A of the pin is formed, as before, with the bend a' , but the curved extension a^2 is continued to meet the bend a' , thereby forming a bar to prevent the passage of the pin-point from side to side. In this case the hood or shield C^2 has its ears or guards c^2 spread apart to accommodate the pin-point on either side of the portion c^2 of the wire, as clearly represented in Fig. 9.

In the construction shown in Figs. 10 and 11 the member A is formed without the bend a' and the curved wire a^2 is continued to meet the main wire A. The hood or shield C^2 is formed with wide-spread ears or guards c^2 , as in the construction shown in Figs. 8 and 9. In both of these constructions the edges $c c$ of the hood are turned in to embrace the curved wire a^2 somewhat closely.

The mode of use of my improved pin will be readily apparent from the foregoing description. When the hood or shield is in the position represented in Figs. 1 and 7 and by full lines in Fig. 5, the pin-point may be introduced from either side. When the pin-point has been introduced and is held in the plane of the hood or shield, either by the fingers alone or by the fingers in cooperation with the stop-plate, the hood or shield is partially rotated upon the circular track or support formed by the wire a^2 to cause the ears or guards c^2 to embrace the pin-point and to stand in close proximity to or to embrace the wire a' or A, thereby preventing positively the disengagement of the pin-point from the hood or shield.

It will be evident that my improved pin, especially in the construction shown in Figs. 1, 2, 5, and 7, need be no thicker through the hood or shield than the ordinary double pin and that it has all the advantages and conveniences of such pin with the added advantage of a provision for positive locking of the pin-point to prevent its accidental disengagement.

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

1. In a safety-pin or other device of like character, the combination with one member having its outer portion bent to form a circular track or support, of a hood or shield having its edge turned over to embrace said bent portion and thereby to be retained thereon but with freedom to rotate bodily on said bent portion as a track or support, said hood or shield being formed with a passage to permit the introduction of the pin-point from each side and being slotted or notched to form lateral ears or guards to embrace the pin-point between them, whereby a partial rotation of said hood or shield prevents or permits the disengagement of the pin-point from between said ears or guards, substantially as shown and described.

2. The combination with a safety-pin or other device of like character having one member bent upward toward the other and then backward upon itself and around to form a circular track or support, of a hood or shield having its edge turned over to embrace said bent portion and thereby to be retained thereon but with freedom to rotate bodily on said bent portion as a track or support, said hood or shield having a passage to permit the introduction of the pin-point from each side and having also lateral ears or guards to embrace the pin-point between them, substantially as shown and described.

3. The combination with a safety-pin or other device of like character having one member bent to form a circular track or support at its outer end, of a hood or shield formed to embrace said circular track or support and mounted to rotate thereon, said hood or shield being formed with a passage to per-

mit the introduction of the pin-point from
each side and having lateral ears or guards
to embrace the pin-point between them, and
a stop-plate supported within said hood or
5 shield to prevent the passage of the pin-point
through said hood or shield from side to side,
substantially as shown and described.

This specification signed and witnessed this
4th day of February, A. D. 1896.

CHARLES A. BRYANT.

In presence of—

FREDERIC S. HARTSHORNE,
PHILIP J. FLANDERS.