

No. 627,469.

Patented June 27, 1899.

F. P. AYER.
HOOK AND EYE.

(Application filed Jan. 27, 1898.)

(No Model.)

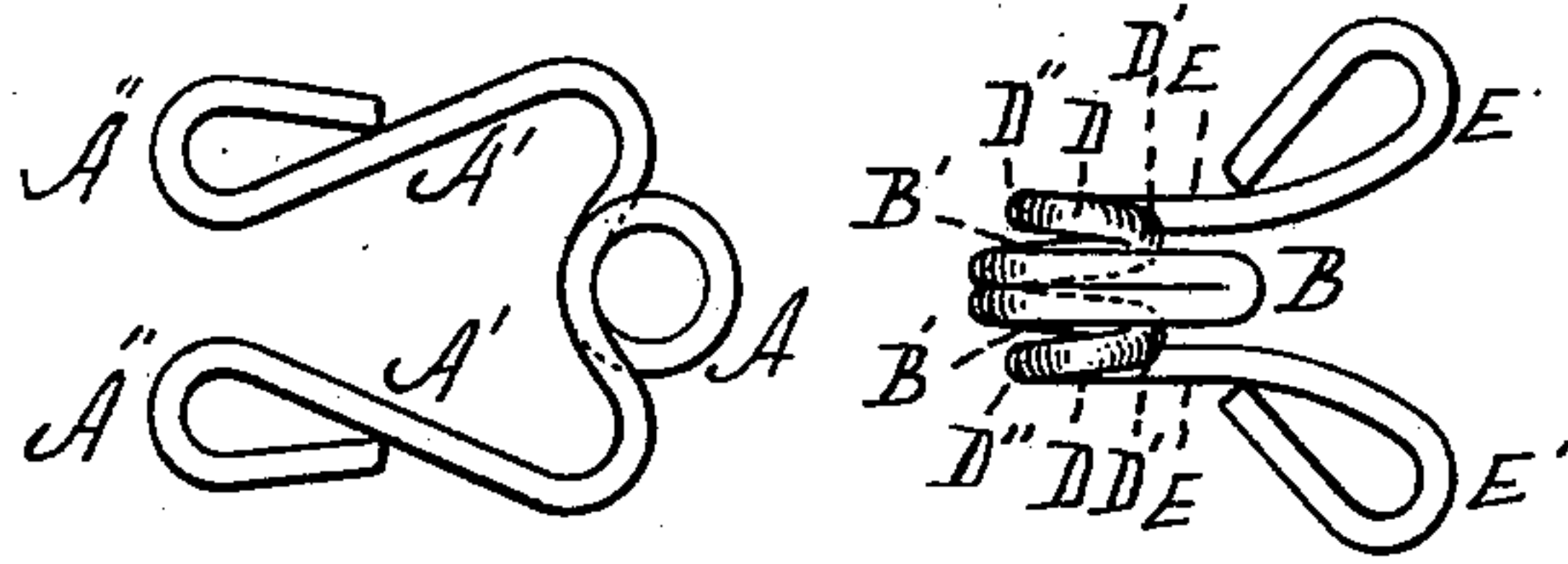


Fig. 1.

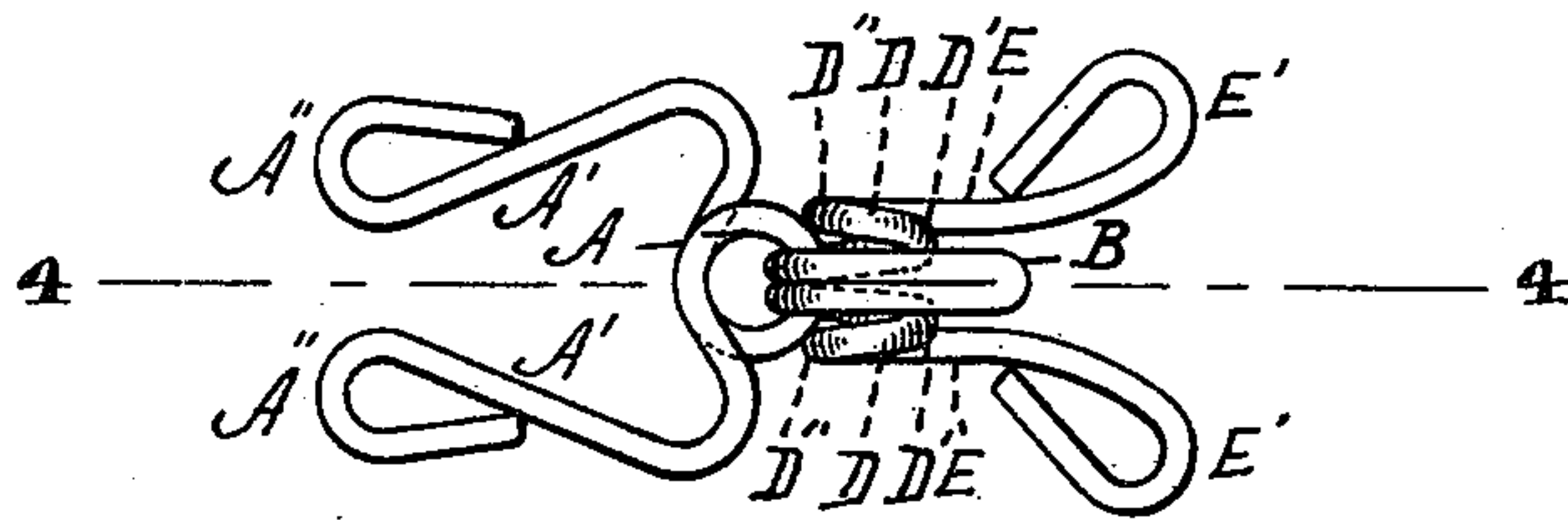


Fig. 2.

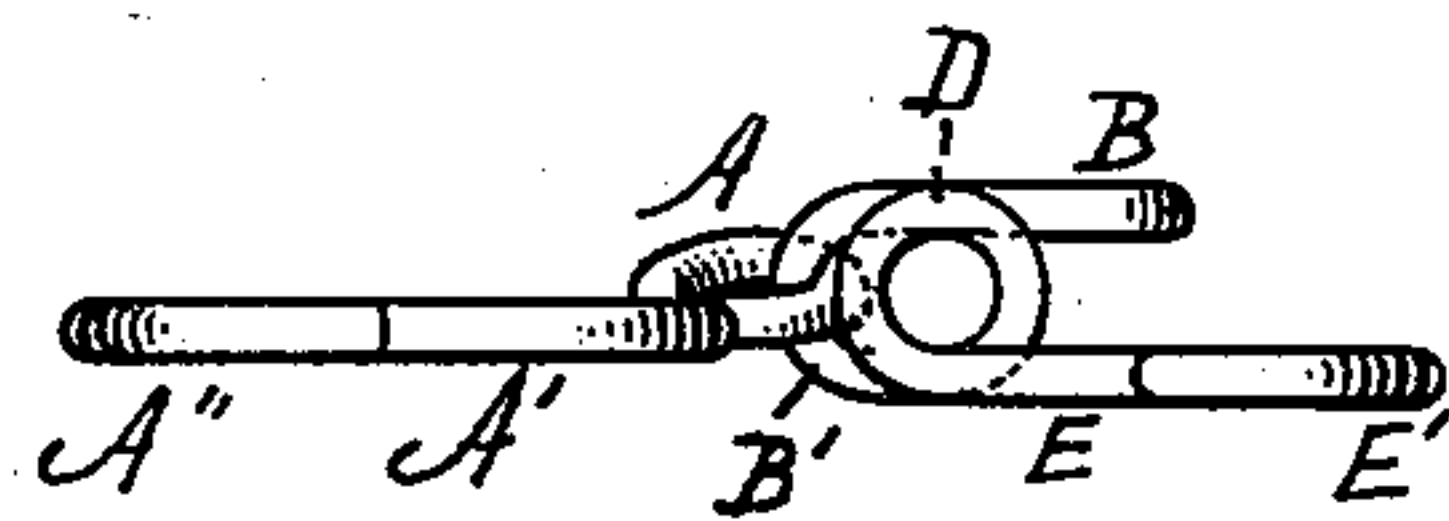


Fig. 3.

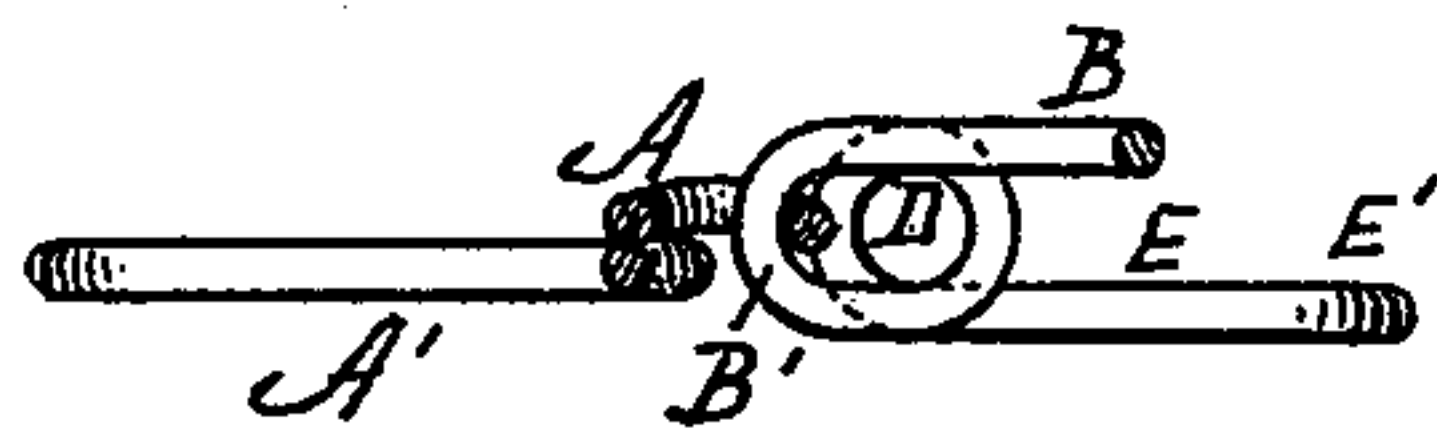


Fig. 4.

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FERNANDO P. AYER, OF NASHUA, NEW HAMPSHIRE.

HOOK AND EYE.

SPECIFICATION forming part of Letters Patent No. 627,469, dated June 27, 1899.

Application filed January 27, 1898. Serial No. 668,146. (No model.)

To all whom it may concern:

Be it known that I, FERNANDO P. AYER, a citizen of the United States, residing at Nashua, in the county of Hillsborough and State of New Hampshire, have invented a new and Improved Hook and Eye, of which the following is a specification.

This invention relates to a novel construction, fully described below, whereby when the hook and eye are in engagement they cannot be separated except by direct manual action and there can be practically no relative play, inasmuch as that part of the eye which is in engagement with the hook is held in a position at the bend of the hook by diagonally-set spring-coils integral with the hook and bearing normally against the tongue thereof, and hence cannot slip toward the outer end thereof.

In the accompanying drawings, in which similar letters of reference indicate corresponding parts, Figure 1 is an enlarged plan of my improved hook and eye separated. Fig. 2 is a similar view with the hook and eye in engagement. Fig. 3 is a side elevation of the same. Fig. 4 is a section taken on line 4, Fig. 2.

The eye consists of a wire whose central portion is bent into the substantially round loop A and thence outwardly in opposite directions into the main portion A', the ends of said wire being formed into the ordinary fastening-loops A².

The hook consists of a piece of spring-wire bent back upon itself at its central portion so as to form the tongue B, the two parts being thence bent downward on a suitable curve at B', from which point the two parts are bent upward and outward, thus separating from each other into the loops or coils D. These coils extend up to the same height as the tongue B and on opposite sides thereof and are bent at opposite acute angles with the tongue and come in contact with it at their rear portions D', while the front portions D'' are at some distance from the tongue, as indicated in Figs. 1 and 2. After the wire has been formed into the opposite loops or coils D it is bent into the main separated portions E, which constitute the base, and said portions terminate in the ordinary fastening-loops E'.

When the loop A is slipped over the end of the tongue B in order to place the hook and eye in engagement, it strikes the rear or outer

edges D' of the spring-coils D. A moderate pull on the eye causes the loop A to force outward the coils D, and thus to attain the position indicated in Figs. 2, 3, and 4. In this position the loop A is at the bend or inner end of the tongue B, and is held in such position by the spreading or diagonally-set coils D, so that it not only cannot slip over the tongue out of engagement, but it cannot play back and forth on the tongue. Thus relative longitudinal play is prevented and even lateral play, inasmuch as the loop A is held on both sides by the flanking-coils D. To disengage the parts, the loop A is pressed against the coils D until they spread sufficiently to allow it to slip over the end of the tongue.

In securing the hook and eye to the garment the hook is applied not only at E', but also by sewing it at or near the front portions D'' of the coils D, and the eye is applied by sewing it not only at A'', but also at the opposite front or outer portions of the main portion A' on opposite sides of the closed loop A. Thus the hook and eye are secured to the garment very near to their point of engagement with each other, and hence there can be very little play with relation to the garment, the inner ends of the hook and eye being held closely down thereupon.

Having thus fully described my invention, what I claim, and desire to secure by Letters Patent, is—

In a hook and eye, the hook consisting of spring-wire formed centrally into the tongue B, bent downward from said tongue into the curved portion B', the two portions of the wire being bent upward and formed into the opposite coils D set on opposite sides of the tongue close to and at acute angles therewith, said coils D being set with their forward edges D'' but slightly to the rear of the forward edge of the tongue B, and said portions being further bent into the main portion or base E and formed at their ends into suitable fastening-loops; and the eye consisting of wire bent centrally into the closed loop A and thence outwardly into the spreading main portion A' and rearwardly into suitable fastening-loops, substantially as set forth.

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Witnesses:

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