

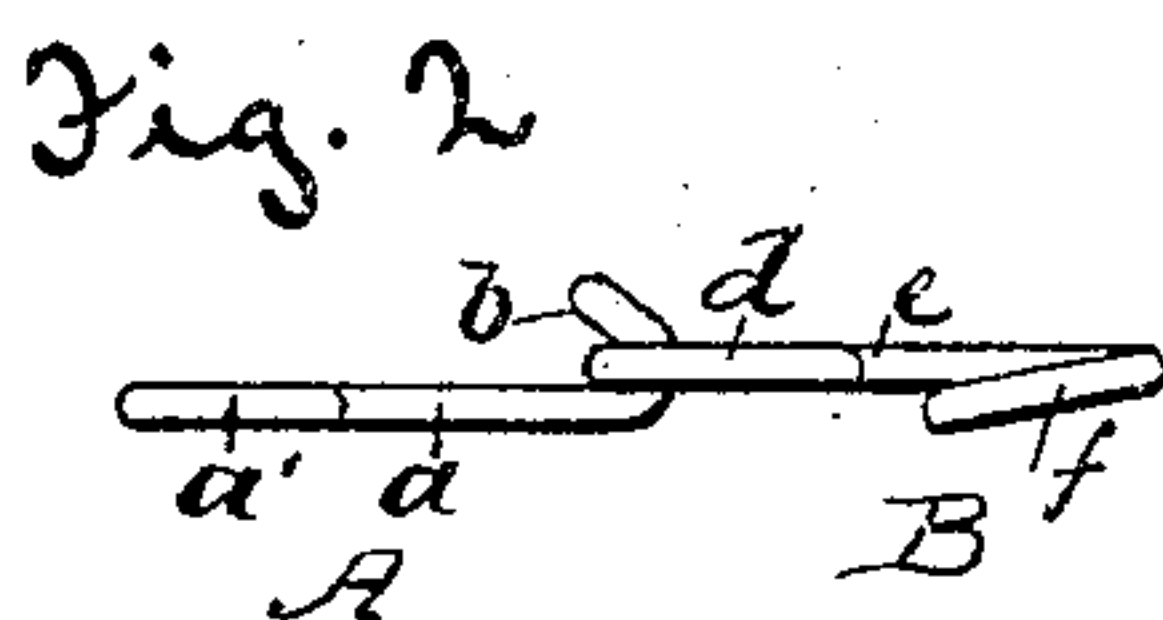
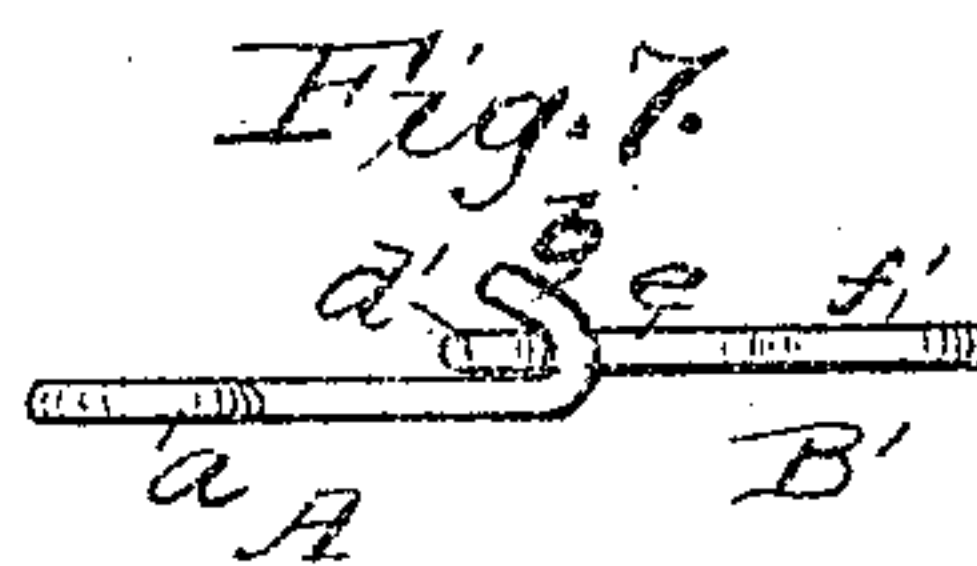
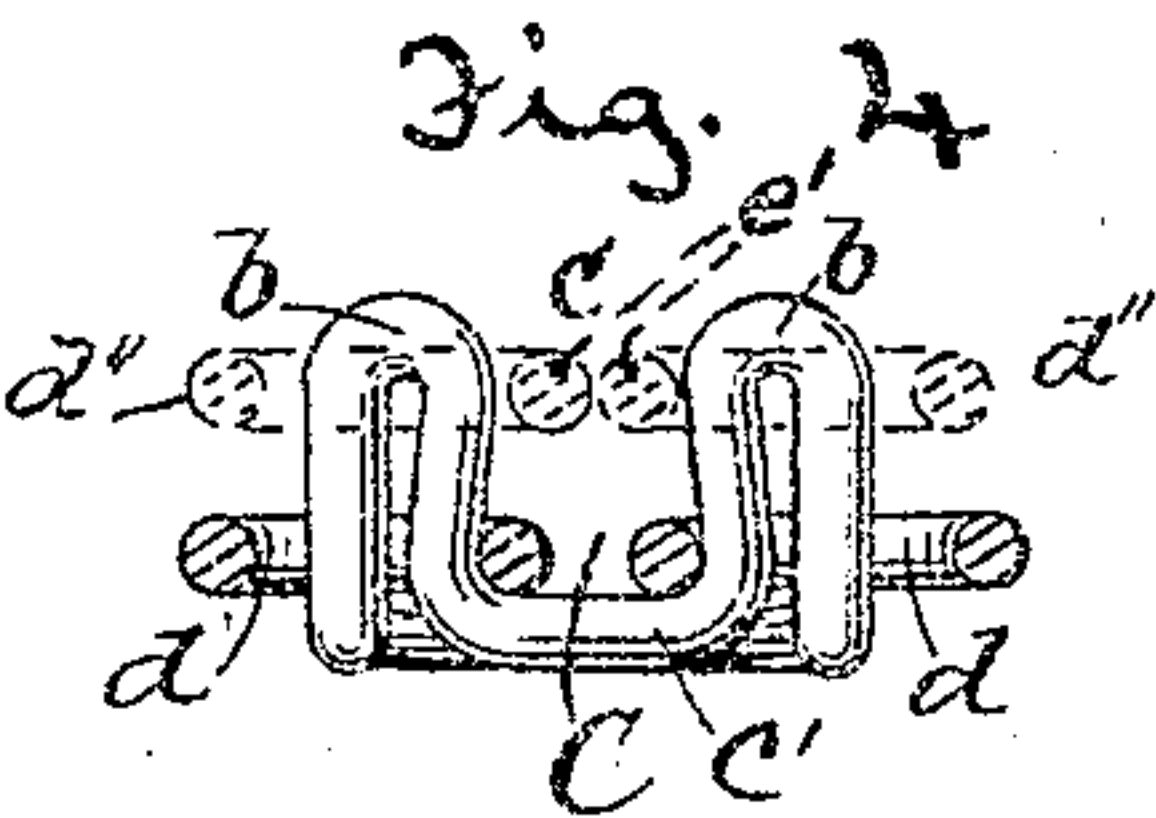
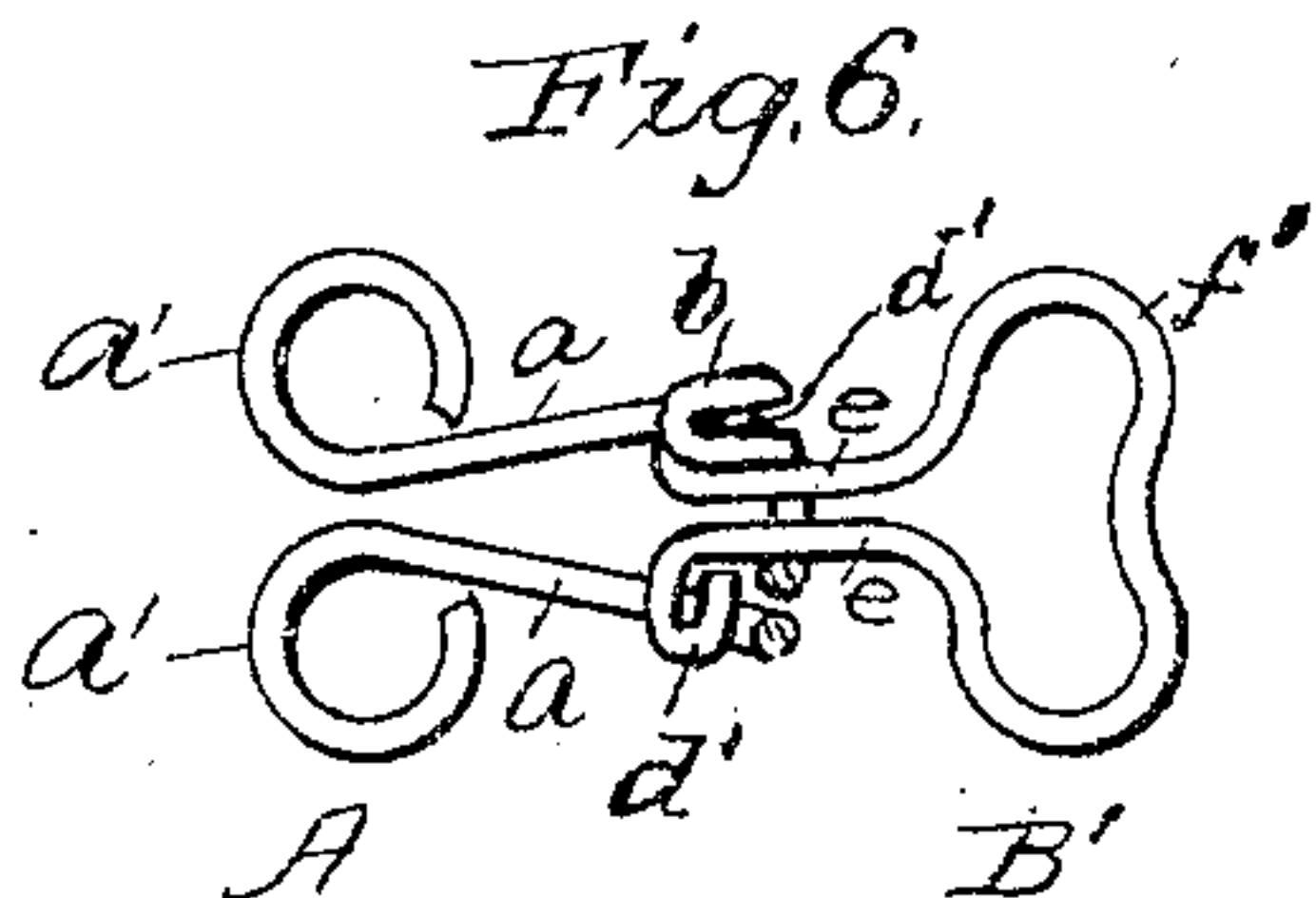
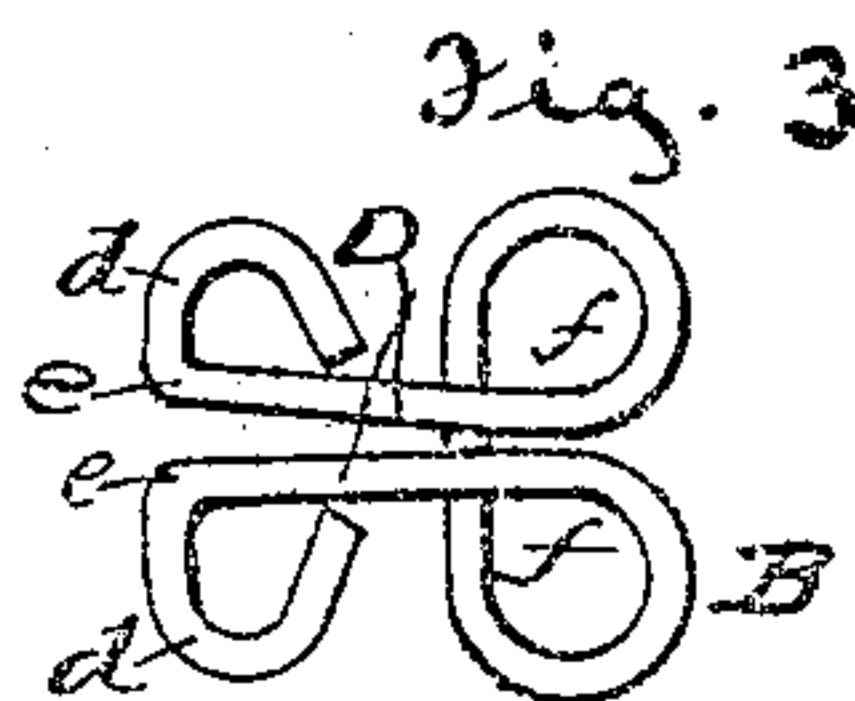
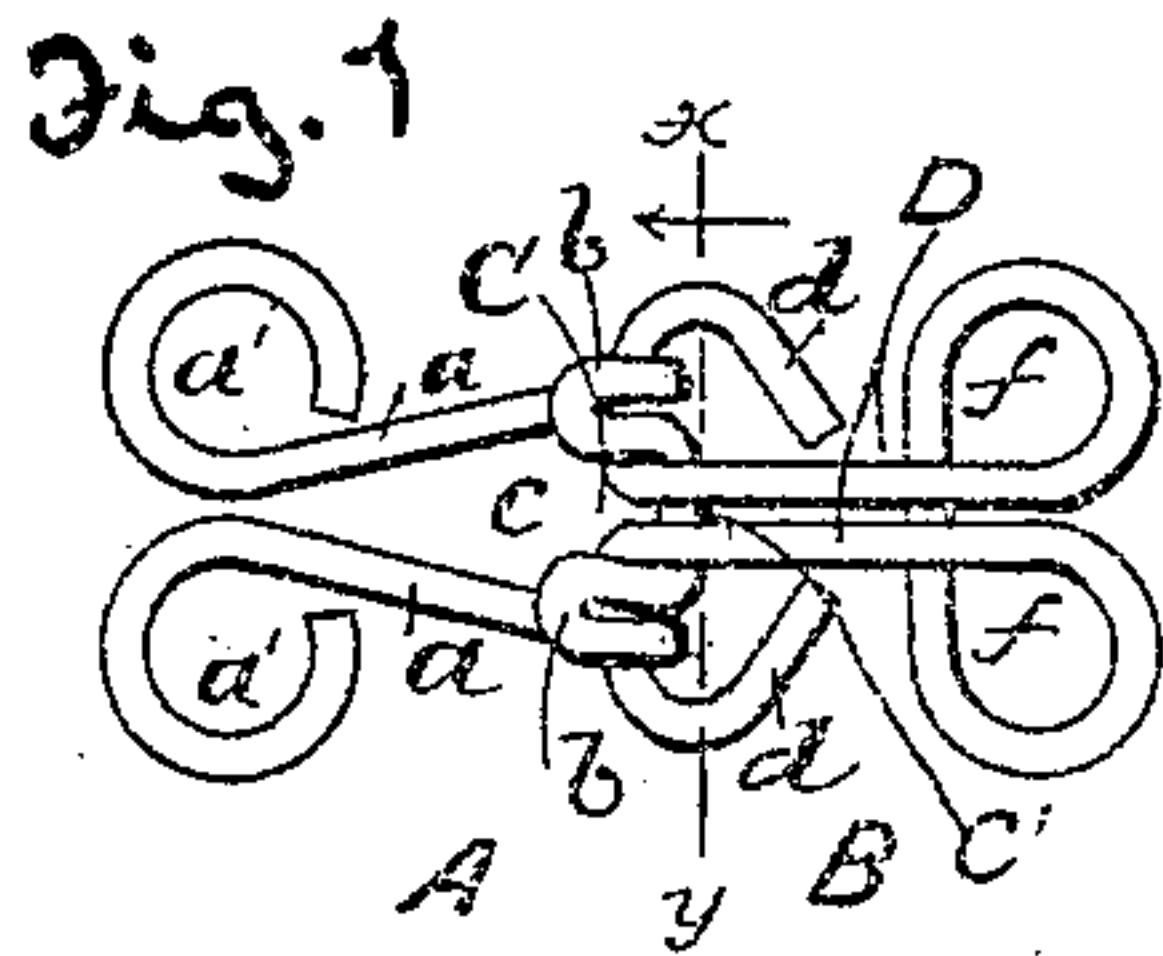
No. 778,574.

PATENTED DEC. 27, 1904.

B. FREEDLANDER.

## HOOK AND EYE.

APPLICATION FILED DEC. 26, 1903.



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Frank M. Chandler  
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# UNITED STATES PATENT OFFICE.

BENJAMIN FREEDLANDER, OF BUFFALO, NEW YORK.

## HOOK AND EYE.

SPECIFICATION forming part of Letters Patent No. 778,574, dated December 27, 1904.

Application filed December 26, 1903. Serial No. 186,687.

*To all whom it may concern:*

Be it known that I, BENJAMIN FREEDLANDER, a citizen of the United States, residing at Buffalo, in the county of Erie and State of New York, have invented a new and useful Hook and Eye, of which the following is a specification.

This invention relates to improvements in garment-fasteners, such as are known as "hooks and eyes."

The object of my improvement is the production of a fastener in which the parts engaged are locked against accidental detachment and at the same time may be easily disengaged.

In the accompanying drawings, Figure 1 is a plan view representing the hook and eye engaged with each other. Fig. 2 is an edge view of the same. Fig. 3 is a plan view of the eye. Fig. 4 is an end view, on enlarged scale, of the hook member and a transverse section of the eye member on the line  $x y$  looking in the direction pointed by the arrow. Fig. 5 is a plan view showing a modification of the eye member. Fig. 6 is a plan view showing hook A and eye B' engaged, the hook shown partly in section; and Fig. 7 is an edge view or elevation of hook A and eye B' shown engaged.

Similar characters refer to similar parts throughout the various views.

A represents the hook, and B and B' the eyes. The hook is preferably formed from a single length of wire. It is provided with two side members  $a$  and at the rear with the usual eyelets  $a'$  for sewing or otherwise attaching it to a garment. The middle section of the wire is bent to provide two double-strand hook-bills  $b b$ , arranged in the same plane and disposed at preferably an acute angle to the plane of the side members  $a$ , substantially as represented at  $b$ , Fig. 2, said bills connected together by an integral cross-bar  $c'$ , extending from the base of one to the base of the other, said bills spaced apart to form with said cross-bar a recess C. The sides of recess C are convergent from base  $c'$  to inlet  $c$ . The width of inlet  $c$  is proportioned to the width of shank D. Preferably it is only sufficiently wide to permit entrance

of said shank when its members  $e e$  are pressed together, as represented at  $e'$ , Fig. 4, by dotted lines  $d''$ . Recess C is provided to serve as a receptacle for containing shank D when the hook and eye are engaged. It also serves to prevent accidental disengagement of said hook and eye, as will be more fully hereinafter explained. The depth of recess C (measured perpendicularly from the plane of members  $a a$ ) is preferably made but little more than equal to double the diameter of the wire composing eye B for such uses as fasteners for ladies' dress-waists; but for many uses the depth may be made proportionally greater than that described. Eye B, forming the other part of the fastening, is composed of a single length of wire and is provided with spring-eyelets  $f f$  for attaching to a garment. The ends of the wire extend forwardly from the eyelets and form a shank D, having two inwardly-yielding members  $e$ , each of which terminates in a bow-loop  $d$ , said shank members  $e$  and bow  $d$  being in the same plane.

When the members  $e$  are in their normal position, as represented in Fig. 3, shank D is wider than inlet  $c$  of recess C, so that members  $e$  must be first sprung toward each other to enable shank D to either enter or leave said recess. This provision prevents accidental disengagement of the hook and eye when engaged. Preferably members  $e$  are disposed so far apart relative to the breadth of recess C that when the hook and eye are engaged said members  $e$  will exert, through action of springs  $f$ , a constant pressure against the sides of recess C. Obviously the greater the pressure so exerted the greater the resistance against this engagement.

In effecting an engagement of hook and eye A and B the bows of the eyes are first placed at the rear of bills  $b$  and shank D, with members  $e$  pressed together, as shown in Fig. 4 at  $e'$  by dotted lines.  $d''$  is then inserted through inlet  $c$  into recess C, and the engagement is completed. A disengagement of the hook and eye is effected by lifting shank D out of recess C, the disengagement meeting in so doing a certain resistance afforded by spring-loops  $f f$ .

Fig. 5 illustrates certain modifications of



the eye member that may obviously be made without departing from the spirit of the invention. Single fastening-loop  $f'$  is substantially the same as loops  $f$  in relation to members  $e$ . As only the front portion or bow of each loop  $d$  is joined with the corresponding bill of the hook in operating the hook and eye A and B, it will be seen that the rearward and inward extension of the end of the wire is not an essential feature and that the same bent back, as represented at  $d'$ , Fig. 5, affords a two-strand bow equally operative, same as bow  $d$ , as illustrated in Figs. 6 and 7.

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

1. A hook member of a hook-and-eye fastening for garments, consisting of a single length of wire bent to provide two side members terminating each at the rear end in a fastening-loop formed substantially in the plane of the side members, the middle section of said wire bent to provide two double-strand bills disposed in one plane, said bills connected together by an integral cross-bar extending from the base of one bill to the base of the

other bill, said cross-bar in conjunction with said bills forming a recess, intermediate said bills, the inlet to the recess being of less width than the body of said recess. 30

2. The combination with a hook member having two double-strand hook-bills and a recess—intermediate said bills—the inlet of the recess being of less width than the body of said recess, of an eye member formed of a single length of wire and comprising two fastening-loops, two inwardly-yielding shank members having each at its front end a bow-loop, said loops formed in one plane, said shank members arranged side by side and spaced apart so that the width of the shank is greater than the width of the recess of the hook member into which it is forced whenever said hook and eye are being engaged. 40

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses. 45

BENJ. FREEDLANDER.

Witnesses:

ALICE McMASTER,  
FRANK M. CHANDLER.