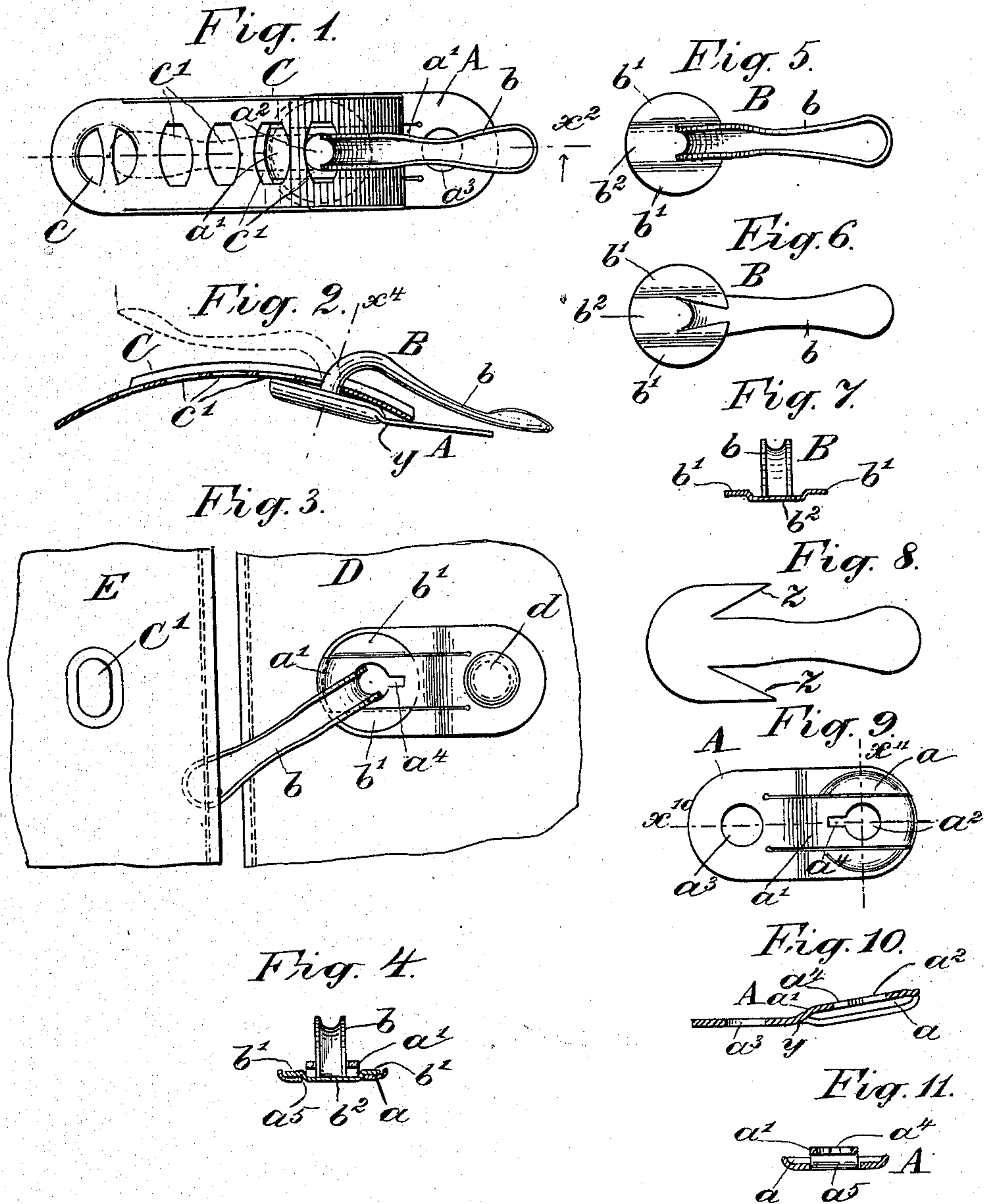


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FASTENER.

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NO MODEL.



WITNESSES:

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## FASTENER.

SPECIFICATION forming part of Letters Patent No. 736,165, dated August 11, 1903.

Application filed December 4, 1902. Serial No. 133,835. (No model.)

*To all whom it may concern:*

Be it known that I, EDWIN BALL STIMPSON, a citizen of the United States, residing in the borough of Brooklyn, in the county of Kings and city and State of New York, have invented certain new and useful Improvements in Fasteners, of which the following is a specification.

This invention relates to the class of fastening devices wherein the active member of the device has a hinged or pivoted hook or hook-arm, the other member being merely an apertured plate or eyelet to be engaged by said hook-arm.

The object of the present invention is in the main to provide a fastening device of this general character having an engaging hook-arm which is pivotally mounted on a base-plate in such a manner that the axis of rotation is substantially at right angles to said base-plate, whereby the hook or hook-arm swings about laterally. Means are provided for holding the arm steady when engaged and turned to the locking position and for bringing the free end of the arm down close to the attaching-base when in this position.

In the drawings, which serve to illustrate an embodiment of the invention, Figure 1 is a plan of the device as embodied and utilized in a "take-up" or fastener for arctics, and Fig. 2 is a longitudinal section of same in the plane indicated by line  $x^2$  in Fig. 1. Fig. 3 shows the device applied in another utilization. Fig. 4 is a cross-section of the device at line  $x^4$  in Fig. 2. Figs. 5, 6, and 7 are views of the hook-arm detached, Fig. 5 being a plan, Fig. 6 an under side view, and Fig. 7 a cross-section. Fig. 8 is a plan view of the blank from which the hook-arm is made. Figs. 9, 10, and 11 show the base-plate of the device detached, Fig. 9 being a plan and Figs. 10 and 11 sections taken, respectively, at lines  $x^{10}$  and  $x^{11}$  in Fig. 9.

The active member of the fastening, or that having on it the operative movable hook-arm, is the same throughout the drawings, and said member will now be particularly described with reference to Figs. 5 to 11. This member comprises, essentially, two major parts—namely, a base-plate A and a hook-arm B. The base-plate A will be by preference stamped up from sheet metal and will have

in its upper face a depressed circular recess  $a$  and an elevated guard-plate  $a'$ , formed integrally with the main portion of the plate by slitting the latter and elevating the strip freed by such slitting. In the guard-plate is an aperture  $a^2$ , and in the main plate is an aperture  $a^3$  to receive a securing-rivet or other means for attaching the member to the fabric. The hook-arm or part B comprises the arm or hook proper,  $b$ , and the disk-like foot  $b'$  of the arm  $b$ . The middle portion  $b^2$  of the disk is depressed, as clearly seen in Figs. 4 and 7, for reasons that will be hereinafter explained. The arm  $b$  is arched, as shown in Fig. 2, and is fluted to impart strength and stiffness. In assembling the two parts A and B to form this main member of the fastener the arm  $b$  is passed through the aperture  $a^2$  in the plate  $a'$ , and the disk  $b'$  is placed in the recess  $a$ , with the depressed portion  $b^2$  of the disk engaging the slot in the base-plate formed by the removal of the elevated plate  $a'$ . Thus the disk is provided with a rotative bearing in the base-plate, and the stem or neck of the arm  $b$  has a rotative bearing in the aperture  $a^2$ . Fig. 4 shows the positions of the parts when thus assembled. If the free end of the arm  $b$  shall be too wide to pass through the aperture  $a^2$ , this aperture may have a lateral slot  $a^4$  to provide the necessary room. After the parts are assembled the guard-plate  $a'$  will be pressed down into place by dies or otherwise, so as to cage the disk  $b'$  in the bearing-recess  $a$ . In Fig. 10, for illustration, this plate is shown in its final position, although it will not be actually pressed down into this final position in practice until the part B is in place.

The device being made from sheet metal and preferably of sheet-steel, there will be a certain spring or resiliency of the parts, and the engagement of the rib or depressed part  $b^2$  on the disk  $b'$ , with the slot  $a^5$  in the base-plate, will hold the arm  $b$  quite firmly and steadily in its locked position, (seen in full lines in Figs. 1 and 2,) and also in its opposite position, (indicated in dotted lines in these figures;) but a slight effort will enable the arm  $b$  to be turned, the parts spreading or yielding to permit of this.

Referring now to Figs. 1 and 2, C is the other or non-active member of the fastener.



This is a curved plate having means at *c* for securing it to the arctic or overshoes and a series of apertures *c'* to receive the hook-arm *b* of the other member. The plate *C* has apertures *c'*, wider at their middles than at their ends, so as to provide room for the arm *b*.

In Fig. 3, *D* designates a part to which the member *A B* is attached—as by a rivet *d*, for example—and *E* designates a flap of said part to be held down by the fastening device. In this flap *E* is an eyelet *C'* to receive the arm *b*. This eyelet performs the same function as the apertures *c'* in the part *C* of Figs. 1 and 2.

The base-plate *A* will be or may be bent at *y*, Figs. 2 and 10, so as to cause the parts of the said plate in which the hook-arm is mounted to occupy a position a little oblique to the surface on which the member is mounted. The purpose of this is to impart a slight obliquity to the axis about which the arm *b* turns, so that, as seen in Fig. 2, the free end of the arm when in its locking position will be close down to the surface of the material or to the base-plate, while, on the other hand, said free end will stand off clear when the arm is turned to the position required (see dotted lines in Fig. 2) when the engagement of the arm is to be effected.

It will be understood that the present invention is not restricted to the application of the fastening device to any special use or article requiring a fastening. It may be used as a buckle for a belt, for example, and in Fig. 3 the parts *D* and *E* may be considered as the respective ends of a belt. The manner of making the device does not enter materially into the invention; but Fig. 8 illustrates the preferred manner of producing the part *B*. The blank is cut or punched from sheet metal in the form shown, and after the arm is bent up and shaped the points *z* in this figure are bent inward, (see Fig. 6,) so as to impart a circular form to the disk.

Having thus described my invention, I claim—

1. In a fastening device, a member comprising a base-plate provided with a circular recess and an apertured guard-plate above said recess and integral with the base-plate, and

a hook-arm having a disk integral therewith, the said disk occupying the recess in the plate and caged therein by said guard-plate, and the arm adjacent to the disk rotatably engaging the aperture in the guard-plate.

2. In a fastening device, a member comprising a base-plate provided with a circular recess and an apertured guard-plate, and a hook-arm having a disk which occupies and turns in the recess in the plate, the neck of the hook-arm engaging and rotatable in the aperture in the guard-plate.

3. In a fastening device, a member comprising two parts, namely, a base-plate having a circular recess *a*, and an apertured guard-plate *a'*, and a part having a hook-arm *b*, and a disk *b'*, the disk occupying the recess *a* in the other part of the member, and the neck of said arm, adjacent to the disk, being rotatively engaged with the aperture *a'* in the guard-plate *a'*, substantially as set forth.

4. In a fastening device, a member comprising two parts, namely, a base-plate having a circular recess *a*, having a slot *a<sup>5</sup>* in its bottom, and an elevated guard-plate *a'* having in it an aperture *a<sup>2</sup>*, and a part having a curved hook-arm *b*, and a circular disk *b'* thereon provided with a depressed rib *b<sup>2</sup>*, said disk occupying the recess *a* in the base-plate, said rib adapted to engage the slot *a<sup>5</sup>* in the base-plate, and said arm engaging the aperture in the guard-plate *a'*, substantially as set forth.

5. In a fastening device, a member *A* thereof which forms the base-plate, said member having an attaching portion, and having in it a bend *y*, whereby the said attaching portion is made to occupy a position oblique to the other or free portion of the base-plate, and a hook-arm mounted rotatively in the last-named or free portion of the base-plate, the axis of rotation of the said hook-arm being substantially at right angles to the portion of the base-plate in which it is mounted.

In witness whereof I have hereunto signed my name, this 3d day of December, 1902, in the presence of two subscribing witnesses.

EDWIN BALL STIMPSON.

Witnesses:

HENRY CONNETT,  
PETER A. ROSS.