

Dec. 29, 1925.

1,567,129

I. C. FIFE

FASTENER

Filed Jan. 18, 1924

Fig. 1.

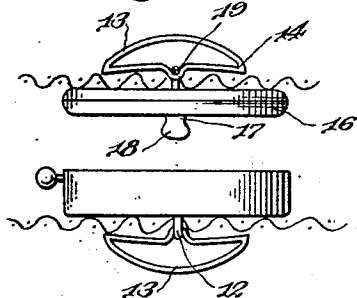


Fig. 2.

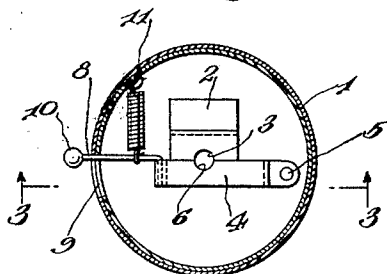


Fig. 3.

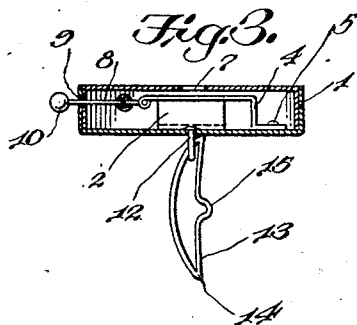


Fig. 4.

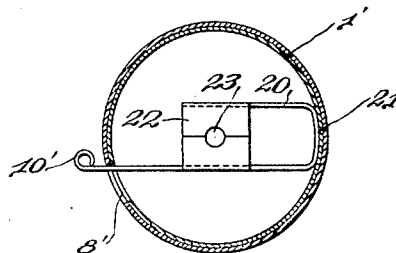
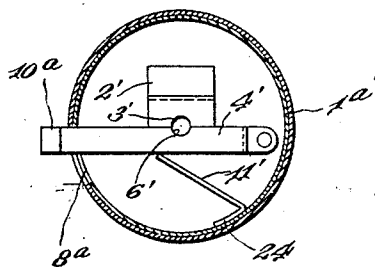


Fig. 5.



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UNITED STATES PATENT OFFICE.

IKLEY C. FIFE, OF CHICAGO, ILLINOIS.

FASTENER.

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To all whom it may concern:

Be it known that I, IKLEY C. FIFE, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented new and useful Improvements in Fasteners, of which the following is a specification.

This invention relates to new and useful improvements in garment fasteners and more particularly to a garment fastener of the separable type. The main object of the present invention is the provision of a garment fastener of the above type which can be quickly and readily applied to the fabric of the garment and normally retained in operative position.

Another object of the present invention is the provision of a garment fastener of the separable type wherein the attaching means which fasten both the male and female portions to the fabric of the garment is similar in construction and is of such form to permit the quick attachment of both portions as well as to permit them to be quickly removed if so desired.

A further object of the invention is the provision of a garment fastener of the separable type wherein the female portion of the fastener is so constructed and arranged as to readily permit the male portion to be engaged with the female portion and securely retained in this position until manually released.

A further object of the invention is the provision of a garment fastener of the detachable type which will eliminate the necessity of sewing buttons on the garment or making the usual button holes thus reducing the cost of manufacture of garments at the present time.

With the above and other objects in view the invention consists in the novel features in construction, the combination and arrangement of parts hereinafter more fully set forth, pointed out in the claims and shown in the accompanying drawings in which:—

Fig. 1 is a side elevation of a garment fastener constructed in accordance with my invention.

Fig. 2 is a horizontal sectional view taken through the female portion of the fastener.

Fig. 3 is a transverse sectional view taken on the line 3—3 of Fig. 2.

Fig. 4 is a horizontal sectional view illustrating a slight modified form of the invention.

Fig. 5 is a horizontal sectional view illustrating still another form of the invention.

In carrying out my invention the female portion of the fastener includes a cylindrical casing 1 having fixed therein an angular plate 2 having one flange secured to the rear wall of the casing and the other flange spaced from the walls of the casing and having an arcuate recess 3 formed in its outer edge and pivotally mounted within the casing 1 is a movable arm 4, said arm being offset at one end and pivotally connected to the rear wall of the casing as shown at 5 while the main portion of the arm is disposed in the same plane as the flange of the plate 2 which is spaced from the walls, whereby the opposed edges of the plate 2 and the arm 4 will be arranged for abutting engagement with the same as shown in Fig. 2.

The arm 4 is provided with an arcuate recess 6 which cooperates with the recess 3 to form an opening arranged in alignment with the opening 7 formed in the front wall of the casing 1. Attached to the free end of the arm 4 is a rod 8 which projects through a slot 9 formed in the side of the casing 1 and has a finger piece 10 upon its outer end whereby the rod 8 may be readily manipulated for moving the arm 4 upon its pivot preferably in a direction away from the horizontal portion of the plate 2 and in order to normally retain the arm 4 in abutting relation with the edge of the horizontal portion of the plate 2 a coil spring 11 is attached at one end to the rod 8 and the other end attached to the inner wall of the casing 1 as shown in Fig. 2 whereby the tension of said spring will normally retain the arm 4 in abutting engagement with the plate 2 so as to normally form an opening through the opposed positions of the recesses 3 and 6.

The casing 1 is provided upon one side thereof with a loop 12 having a fastening member 13 engaged therewith, said fastening member comprising an elongated loop,

the ends of which are preferably tapered as shown at 14 to form penetrating points which may be readily inserted through the fabric of the garment and after the loop has been inserted through the fabric of the garment the same is moved to a transverse position with respect to the casing 1 as shown in Fig. 1 so that the loop 15 formed in one side of the main loop 13 will be engaged with the loop 12 carried by the casing 1, and this will retain the casing 1 in engagement with the fabric of the garment.

The male portion of the fastener includes a body plate 16 having a shank 17 with a head 18, said shank and head being preferably positioned centrally of the plate 16 and so positioned with respect to the garment that when two portions of the garment are overlapped, this head portion 18 may be readily inserted through the opening 7 in the casing 1 and through pressure exerted upon that portion of the garment to which the plate 16 is attached the head will be forced inwardly to engage the arcuate recesses 3 and 6 and move the arm 4 laterally to permit the head 18 to pass beyond the edges of the plates 2 and 4 after which the tension of the spring 11 will return the arm 4 to its normal position abutting the plate 2 so that the shank portion 17 will be arranged within the opening formed by the recesses 3 and 6 and due to the tension of the spring 11 the male portion of the fastener will be securely retained in engagement with the female portion until manually released by manipulating the rod 8 to move the arm 4 away from the plate 2.

The plate 6 is provided upon one face opposite the shank 17 with a loop 19 and engaged with this loop 19 is a second loop 13 of the same construction and arrangement as the loop which fastens the female portion of the fastener to the body of the garment and is operated in the same manner.

In Fig. 4 I have illustrated a slightly modified form of the invention wherein a U shaped member 20 is positioned transversely of the casing 1' with its intermediate portion welded or otherwise secured to the side wall of the casing as shown at 21. Connected to the side arms of the U member 20 are the plates 22 the inner edges of which are normally arranged in abutting relation as shown in Fig. 4 and are provided with opposed arcuate recesses 23 which form a suitable opening when the inner edges of the plate are in their normal abutting positions.

One of the side arms of the U member 20 is considerably longer than the other arm and extends out through the recess 8' formed in the side wall of the casing 1' and is provided with a finger piece 10' at its outer end whereby this arm may be moved laterally with respect to the other arm of the

U member for moving one of the plates 22 away from the other so as to enlarge the opening formed by the recesses 23 and permit the withdrawal of the head 18 of the male fastener.

In Fig. 5 I have illustrated still another form of the invention wherein the arm 4' is extended out through the side wall of the casing 1^a and is provided with a finger piece 10^a whereby the arm may be readily manipulated against the tension of the spring 11'. The outer end of the arm 4' extends through the slot 8^a in the side wall of the casing 1^a to permit lateral movement of the arm 4' with respect to the horizontal portion of the plate 2'.

The spring member 11' is formed in the shape of a flat leaf spring one end of which is attached to the inner wall of the casing 1^a as shown at 24 while the body of the spring is disposed at an acute angle with respect to the wall of the casing and the arm 4' with its outer end normally bearing against the arm 4' as shown in Fig. 5 so as to normally retain the arm 4' in abutting engagement with the edge of the horizontal portion of the plate 2'. The arm 4' and the horizontal portion of the plate 2' are provided with the arcuate recesses 3' and 6' as shown, to form a suitable opening and operates in the same manner as in the preferred form of the invention.

From the foregoing description taken in connection with the illustration it will be readily apparent that I have provided a comparatively simple garment fastener of the separable type wherein the male and female portions are secured to the fabric of the garment in the same manner and the male portion may be readily engaged with the female portion of the fastener and securely retained in an engaged position until manually released.

While I have shown and described the preferred form of my invention I wish it to be understood that various changes and alterations may be carried out during the manufacture of the same without departing from the spirit of the invention or the scope of the appended claim.

Having thus described my invention what I claim is:

A fastener including a casing having an opening in one wall and a slot in the side of said casing, an angular plate in the casing having one flange secured to the wall of the casing opposite the opening and the other flange spaced from the walls of the casing and having an arcuate recess in the outer edge thereof, a movable arm arranged parallel with the aligning flange of the angular plate, said arm having one end offset and pivotally connected to the wall of the casing to which the angular plate is attached, an arcuate recess in one edge of the

arm cooperating with the first recess to normally form an opening aligning with the opening in the wall of the casing, a rod attached to the free end of the arm, said rod
5 being movable in the slot, and a coil spring connected to the rod and to the casing whereby to normally retain the arm in abut-

ting relation with the flange of the angular plate which is spaced from the walls of the casing.

In testimony whereof I affix my signature.

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IKLEY C. FIFE.