Jan. 30, 1934. R. EINSELE 1,945,266

FASTENER FOR BRACELETS ADJUSTABLE IN SIZE

Filed Feb. 26, 1932 2 Sheets-Sheet 1

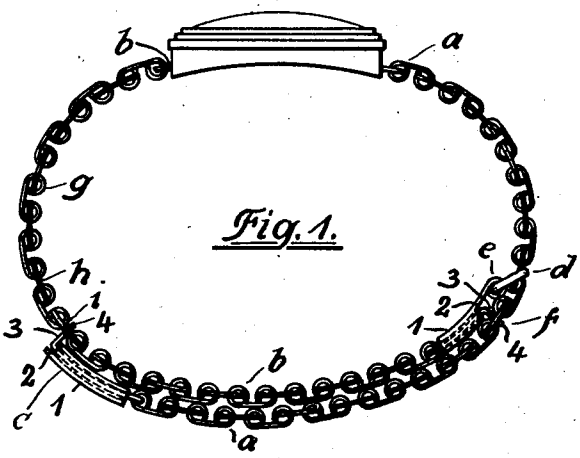


Fig. 1.

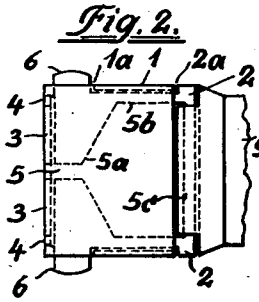


Fig. 2.

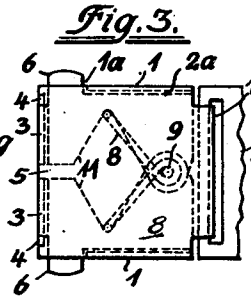


Fig. 3.

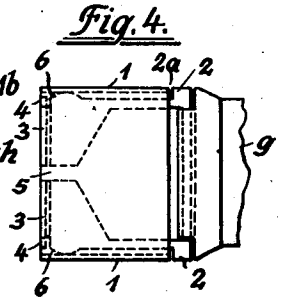


Fig. 4.

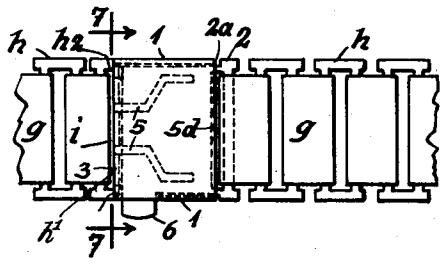


Fig. 5.

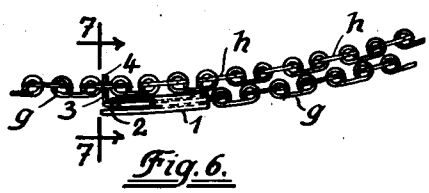


Fig. 6.

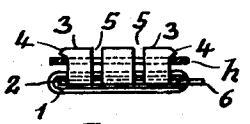


Fig. 7.

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FASTENER FOR BRACELETS ADJUSTABLE IN SIZE

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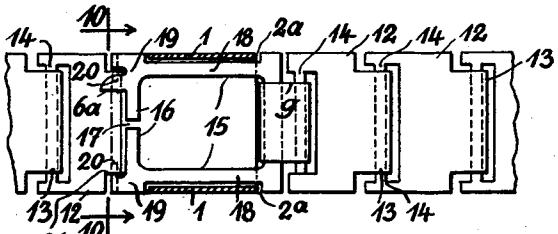


Fig. 8.

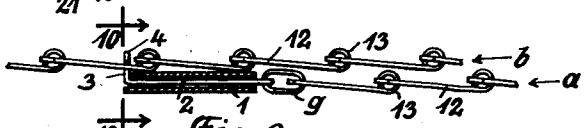


Fig. 9.

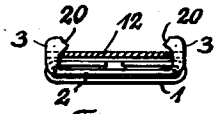


Fig. 10.

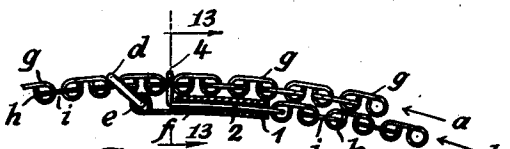


Fig. 11.

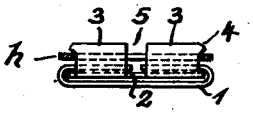


Fig. 13.

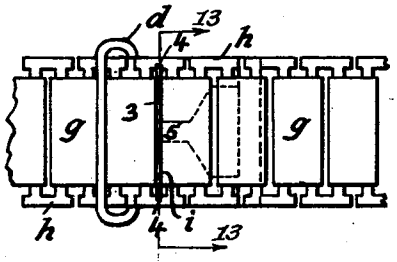


Fig. 12.

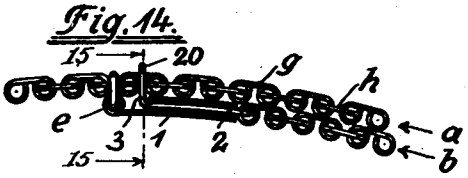


Fig. 14.

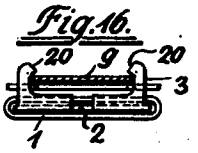


Fig. 16.

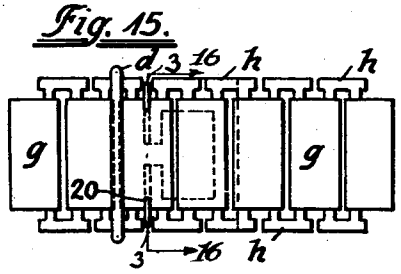


Fig. 15.

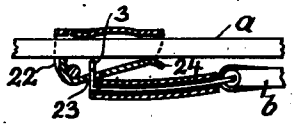


Fig. 17.

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# UNITED STATES PATENT OFFICE

1,945,266

## FASTENER FOR BRACELETS ADJUSTABLE IN SIZE

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Application February 26, 1932, Serial No. 595,360, and in Germany June 23, 1931

7 Claims. (Cl. 24—206)

This invention relates to a fastener for bracelets, watch bracelets and the like which are adjustable in size.

According to the invention the fastener consists of a closing element mounted in a flat sleeve, resilient in the width on its front edge bent down at right angles, undercut extensions provided on the side edges and presser extensions provided on the longitudinal sides of the front edge. The fastening element may be formed of a plate rendered resilient in the width by one or more incisions or of two levers spreadable in width by an interposed V-shaped spring. The presser extensions may extend through apertures in the sides of the flat sleeve or bear against the inner side thereof. Moreover, only one presser extension may be provided. Such a fastener is secured on one free end of the two superposed rear ends of two bracelet parts. Similar fastener parts may however be arranged on the ends of both parts of the bracelet. In this instance the fastener part of the lower bracelet end is arranged between same and its end loop, and for this purpose a hinge is provided on the front edge of the sleeve for connecting to the loop. In the case of smooth bracelets, a slot for attaching the fastener may be arranged on a slide fixable at any desired point on the bracelet.

One end of the downwardly bent front edge of the fastener is inserted in a slot or a recess in the bracelet part situated below it or in the slide arranged on same, and, on pressure being exerted on the presser extension situated on the free side or on the corresponding side of the flat sleeve, this presser is pressed entirely into the slot or recess, the undercut extensions of the side edges of the downwardly bent front edge gripping around or under the end edges of a slot from the inner side or under the outer edge of a link from the outer side. For detaching the fastener it is only necessary, to disengage one of the fastener catches by exerting pressure on the presser extension and to then remove the fastener. Therefore, only a single, very simple operation is necessary both for inserting and also for disengaging the fastener, so that one gripping extension would be sufficient. In the case of bracelets with only one fastener fixed on the upper bracelet part, the fastening edge of this fastener, after folding over and adapting the bracelet parts united by an end loop on the lower bracelet end, is inserted in the slot or recess actually lying below it. In the case of bracelets with two fastening elements the bracelet is adjusted to the arm by pulling the upper bracelet part through the loop of the lower bracelet part, and the fastening element of the inner bracelet part is fixed in the recess or the slot in the upper bracelet part situated over its fastening edge and then, after folding over the upper bracelet part, its fastening element is fixed in a similar manner on the lower bracelet part. In the case of a bracelet with slide, this must first be adjusted to the required bracelet size, after which the fastener element is inserted in the slot of the slide in the manner described.

Several embodiments of the invention are illustrated by way of example in the accompanying drawings, in which:—

Fig. 1 shows a watch bracelet with two fasteners in top plan view.

Figs. 2 to 7 show in front elevation different forms of construction of a fastener with outwardly directed catch extensions,

Fig. 2 with a resilient plate and two presser extensions,

Fig. 3 with two levers and a V-shaped spring,

Fig. 4 with presser extensions arranged within the sleeve,

Fig. 5 with only one presser extension projecting through the sleeve.

Fig. 6 is a top plan view of Fig. 5.

Fig. 7 is a cross section on line 7—7 of Fig. 5.

Figs. 8 to 10 show a fastener with inwardly directed fastening notches,

Fig. 8 being a front elevation with the sleeve cut open.

Fig. 9 is a top plan view, the sleeve shown in longitudinal section.

Fig. 10 is a cross section on lines 10—10 of Fig. 8.

Figs. 11 to 16 show two fasteners for one bracelet, Figs. 11 to 13 with a fastener with outwardly directed fastening notches,

Fig. 11 being a top plan view partly in section,

Fig. 12 a top plan view and

Fig. 13 a cross section on line 13—13 of Fig. 12.

Figs. 14 to 16 show a fastener with inwardly directed fastening notches,

Fig. 14 being a top plan view partly in section,

Fig. 15 a top plan view and

Fig. 16 a cross section on line 16—16 of Fig. 15.

Fig. 17 shows in top plan view partly in section a slide adjustable on a bracelet without slots or recesses and having a fastener element attached in a slot thereof.

The two parts *a* and *b* of a watch bracelet are arranged with their ends overlapping, and the outer part *a* is attached to the inner part *b* by means of a fastener element *c* and is guided in an end loop *d* of the inner part *b* and, if necessary,

connected thereto a second time by a similar fastener element *f*. The bracelet illustrated is composed of so-called rolled links, that is links *g* formed by rolling in the vertical edges of a rectangular plate, and of frame-shaped links *h* connecting the rolled links *g*. The fastener element *c* consists of a flat sleeve 1 in which a plate 2 is accommodated and secured in position by the sleeve engaging lateral recesses 2*a* in the plate 2. The front edge 3 of the plate 2 is downwardly bent at right angles to the main portion of the plate and provided on its outer edges with undercut notches 4. The plate 2 is split by a single incision 5 in the front edge 3, this incision extending in the plate 2 to an incision 5*a* so that on each longitudinal side of the plate 2 a narrow resilient arm 5*b* and on the rear edge a bridge 5*c* remain, by which the plate 2 can be connected to one of the rolled links *g* of the bracelet part *a* (Figs. 2 and 4). By providing two incisions 5, the aperture can be reduced to a slot 5*d* (Fig. 5). On the front ends of the side edges of the plate 2 presser extensions 6 are arranged which project outwards through apertures 1*a* in the sleeve 1 (Figs. 2, 3 and 5).

The fastening plate 2 may be inserted with its downwardly bent front edge 3 in a gap *i* between two rolled links *g* and first one catch extension 4 can be brought from the inside under the inner lateral edge *h*2 of the aperture *h*1 of a frame link *h*, and, after exerting pressure on the presser extension 6 on the side which is still free and at the same time pressing from above, the plate 2 is engaged entirely into the transverse slot *i*, and its other catch extension 4 engages under the other lateral inner edge *h*2 of the frame link *h*. The fastener element is held in this position by the resilient arms 5*b* of plate 2 in an outward direction. By exerting pressure on one of the presser extensions 6 from the side and from below, the fastener element can be instantaneously disengaged (Figs. 2, 6 and 7).

Instead of employing the plate 2, two spreadable levers 11 may be arranged in the sleeve 1, said levers 11 spreadable in outward direction being mounted together with a V-shaped wire spring 8 on a common pin 9 (Fig. 3), said levers 11 having downwardly bent front edges 3 with outer fastening notches 4 and leave a sufficiently wide gap 5 between them, to enable the fastening edges 3 to be inserted in one of the gaps *i* in the bracelet part *b* by exerting pressure on the presser extensions 6. In this form of construction a hinge 1*b* is formed by rolling on the sleeve 1 for connecting to a frame link *h*.

In the form of construction illustrated in Fig. 4 the presser extensions 6 do not project through apertures 1*a* in the sleeve 1 but bear against the inner side of the continuous sleeve 1. In this instance the fastening edges 3, after being inserted, can be pressed together by exerting pressure on the free side of the sleeve and brought into engagement with the bracelet part *a* and released therefrom in a similar manner.

Figs. 5, 6 and 7 show a fastening, which has only one presser extension 6, but in other respects is exactly like that shown in Fig. 2, except that the plate 2 is provided with two incisions 5. As mentioned above in connection with the fastening illustrated in Figs. 2 and 4, the fastening can be attached and detached by actuating only one presser extension. Consequently, it suffices to provide the fastener plate with a presser extension only on one side edge.

In this instance the fastener is attached to the bracelet by first slipping the notch on the side remote from the presser extension 6 under the lateral edge $h^2$ of the frame link *h* and, when pressure is applied to the presser extension 6, the notch on the same side of the plate 2 as the presser extension 6 can be inserted in the gap and when the extension is released, this notch engages under the other lateral edge of the frame link opposite the edge $h^2$. For disengaging the plate 2 from the frame link, it is only necessary to grip the sleeve and exert pressure on the presser extension 6 when the notch adjacent the extension disengages from the frame link so that this sleeve 1 can be lifted on this side, whereupon the notch on the other side of the plate is disengaged from the edge $h^2$ of the frame link by merely shifting the sleeve laterally.

The fastener according to Figs. 8 to 10 is intended for a bracelet with uniform links. The links 12 are rolled at their rear edge to form a hinge 13 which surrounds a bridge 14 formed on the front edge of the next following link. In this instance the fastening element consists of a frame 19 guided in the sleeve 1 and having a rectangular aperture 15, the front arm 16 of this frame being subdivided by an incision 17. The sleeve 1 engages tightly in recesses 2*a* in the longitudinal arms 18, and the frame is provided at both front corners with downwardly bent inwardly directed catch extensions 20, the outer edges 21 of which embrace the hinge part 13 of the link 12 and which has on one part of the arm 16 a grip extension 6*a*, by means of which the arms 18 can be pulled apart for the purpose of inserting or removing the fastener.

Figs. 11 to 16 show two forms of construction of the second inner fastener element *f* of the bracelet parts *a* and *b*. In this instance the plate-shaped fastener element 2 is also arranged in the flat sleeve 1 and has a downwardly bent front edge 3 which, in the form of construction illustrated in Figs. 11 to 13, has outwardly directed catch extensions 4 and in the form of construction illustrated in Figs. 14 to 16 inwardly directed catch extensions 20 and in the first instance engages in the gap *i* of a frame link *h* and in the second instance around the side edges of a rolled link *g*. This fastener is inserted between the end of the inner bracelet part *b* and its end loop *d*. For this purpose an extension *e* rolled in to form a hinge is provided on the front edge of the sleeve 1, in which extension the loop *d* is suspended. After placing the bracelet on the wrist, the size of the bracelet can be adjusted to the thickness of the arm by pulling the free upper bracelet part *a* through the lower bracelet part *b*, after which the upper bracelet part *a* is first connected to the end fastener element *f* of the lower bracelet part *b* and then, by its own end fastening element *c*, to the lower bracelet part *b* so that the bracelet is thus locked at two points.

Fig. 17 shows the employment of the fastener on a bracelet without slots, gaps or the like, for example on a plaited bracelet. In this instance a slide 22, fixable in any suitable manner for example by means of a clamping lever 24, is provided which has a transverse slot 23 for inserting the fastener.

I claim:—

1. A fastener for bracelets adjustable in size, comprising in combination a flat continuous sleeve, a flat fastener element guided in said sleeve and resilient in width, a downwardly bent

front edge on said element provided with undercut notches on its side edges, and lateral presser extensions on said element adapted to compress said element to shift said notches into disengaging position.

2. A fastener as specified in claim 1, in which the fastener element consists of a plate rendered resilient in width by incising.

3. A fastener as specified in claim 1, in which the notches are arranged on the outer side edges of the downwardly bent front edge, said notches adapted to engage under the lateral inner edges of a transverse slot of the bracelet.

4. A fastener as specified in claim 1, in which the presser extensions bear against the inner side of the continuous sleeve.

5. A fastener as specified in claim 1, in which the ends of the bracelet overlap and an outer fastener element is fitted on the end of the outer bracelet part, and a similar fastener element on the end of the inner bracelet part and fixed in the outer bracelet part.

6. A fastener as specified in claim 1, in which the ends of the bracelet overlap and the fastener element is fitted on the inner bracelet part between the end of the bracelet and a loop guiding the outer bracelet part, and a hinge is provided on the front edge of the sleeve for accommodating the loop.

7. A fastener as specified in claim 1, in which the ends of the bracelet overlap and the fastener is connected to the end of the outer bracelet part and engages in a transverse slot in a slide adjustable on the inner part of the bracelet.

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