March 22, 1932. C. H. KESTENMAN 1,850,722

FASTENING DEVICE FOR WRIST WATCH STRAPS, BANDS, BRACELETS, AND THE LIKE

Filed Oct. 23, 1929

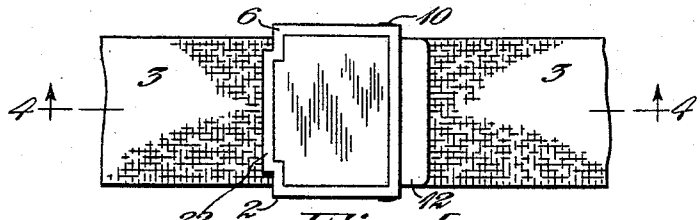


Fig. 1.

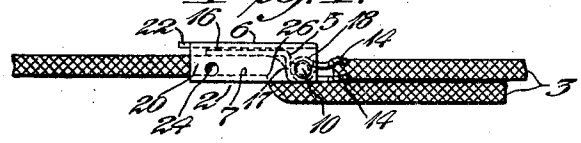


Fig. 2.

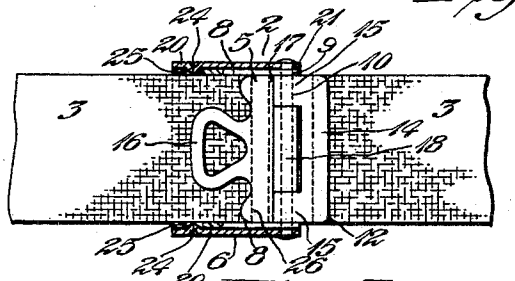


Fig. 3.

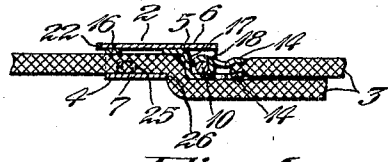


Fig. 4.

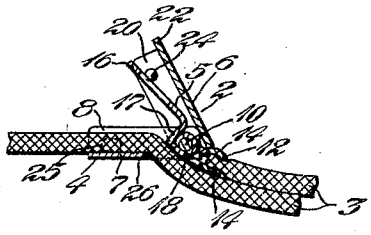


Fig. 5.

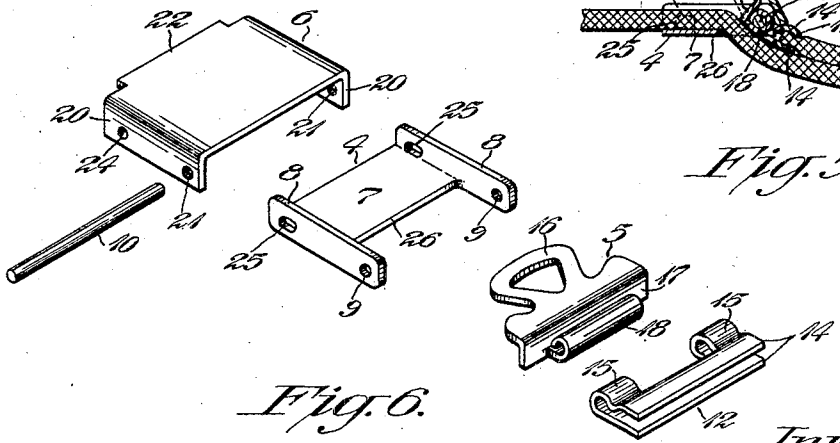


Fig. 6.

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UNITED STATES PATENT OFFICE

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FASTENING-DEVICE FOR WRIST-WATCH STRAPS, BANDS, BRACELETS, AND THE LIKE

Application filed October 23, 1929. Serial No. 401,870.

This invention relates to improvements in clasps, buckles or similar fastening-devices for adjustably securing the ends of wrist-watch straps, bands, bracelets and the like.

A principal object of the invention is to provide a simple and efficient device for the purpose specified which is comprised of a minimum number of parts adapted for economical manufacture from sheet-metal, and which may be easily assembled without the use of solder, screws, rivets or other extraneous parts.

Another object of the invention is to provide a clasp of the type specified which will effect a more secure joinder between the ends of the strap, band or the like without chance of their becoming accidentally unclasped or detached.

Another object of the invention is to provide a clasp which is less bulky in size, neater in appearance and free from unsightly projections or exposed sharp edges liable to catch in the garments or to scratch or injure the flesh of the wearer.

Another object of the invention is to provide a clasp which may be easily adjusted to meet the requirements of the wearer and which may be readily unclasped to effect a convenient removal of the strap or band from the wrist.

Further objects of the improvement are set forth in the following specification which describes a preferred form of construction of the invention as illustrated by the accompanying drawings. In the drawings:

Fig. 1 is a plan view of the improved clasp showing it as applied to use for connecting the ends of a strap, band or bracelet;

Fig. 2 is a side view of the same;

Fig. 3 is a plan view of the clasp, shown partly in section to illustrate the operating parts of the device;

Fig. 4 is a longitudinal sectional view of the clasp taken on line 4—4 of Fig. 1, showing its parts in closed relation and illustrating the manner of gripping or holding the free end of the strap or band;

Fig. 5 is a view similar to Fig. 4, showing the parts in unclasped or open relation; and

Fig. 6 is a composite perspective view showing the several parts in disassembled relation.

The present improvements are directed particularly to a clasp of that type in which one end of the strap or band is permanently attached while the other free end is passed through the clasp from the opposite side to be gripped at any desired point to adjust the length of the band or bracelet. In the present improvement a more secure clasping of the ends of the strap or band is accomplished by bending the free end of the strap across a fixed abutment and clamping it thereto by means of an angular-shaped clamp.

The device is adapted for use on straps, bands or bracelets of any desired material such as fabric, leather or wire-mesh and in the drawings the improved clasp designated 2 is shown as applied to use on a woven wire band 3. The clasp 2 comprises three essential elements, a fixed member or base 4, a pivoted clamping-member 5 and a hinged top or cover 6. The main member 4, shown in perspective view in Fig. 6, is formed with a flat base-plate 7 and opposite parallel side flanges 8 folded upwardly therefrom. The side flanges 8 are extended beyond the rearward edge of the base-plate 7 and provided with holes 9 at their ends. A pin 10 extends across the space between the flanges 8 and passes through the holes 9 therein to serve as a means for attaching the fixed end of the strap or band 4.

Any suitable method may be employed for securing the fixed end of the strap or band to the main clasp-member 4 and, as herein shown, a bifurcated gripping-member 12 is provided for this purpose. The gripping-member 12, shown in detail in Fig. 6, is constructed from sheet-metal folded on itself to provide two opposite jaws 14, and cut away through the fold to form a pair of opposite loops or hinge-ears 15 adapted to receive the pin 10 which passes through the sides of the clasp-member 4. The end of the woven wire band 3 is inserted between the jaws 14 and soldered thereto, or the edges of the jaws may be bent around to frictionally grip the band, as illustrated in Fig. 5, to attach the latter without the use of solder.

The clamping-member 5, shown in perspective view in Fig. 6, is also constructed of sheet-metal, being formed with a flat top which is shaped to a suitable configuration to serve as a finger-lever 16, and this portion of the clamp may be pierced or cut away to enhance its artistic appearance and render it light in weight. Bent downwardly at right-angles to the top portion of the clamp 5 is a flange or lip 17, the lower edge of which is adapted to engage against the strap or band 3 to clamp it against the base-plate 7 of the member 4 of the clasp. A portion of the metal of the flange 17 is continued rearwardly and bent around in a loop 18 which forms a bearing or hinge for pivotally mounting the clamp 5 on the cross-pin 10. It will be noted by reference to Fig. 3 that the hinge 18 fits within the sides of the hinge-ears 15 on the gripping-member 12, the outer ends of said ears 15 being arranged to bear against the inner faces of the side flanges 8 on the main clasp-member 4 when the parts are in assembled relation.

The top or cover 6 consists of a flat plate of sheet-metal having side flanges 20 folded downwardly therefrom and provided with holes 21 at one end thereof. The holes 21 receive the ends of the pin 10 which project through the sides 8 of the member 4 and are headed over as shown in Fig. 3 to hold the parts in assembled relation. The forward edge of the cover 6 preferably has a lip or projection 22 to adapt the finger-nail to be inserted thereunder to lift the cover, and the top of the cover may be suitably embellished with engraving, pierced to provide an ornamental design, suitably enameled in colors or set with brilliants. At the forward end of the cover 6 its side flanges 20 are indented on the outside to form inwardly projecting protuberances 24, see Fig. 3, which snap into apertures 25 in the side flanges 8 of the main clasp-member 4 to hold the cover closed. The apertures 25 are preferably elongated to insure that the protuberances 24 will register therewith when the cover is closed down on the clasp.

It is to be particularly noted that the clamp 5 is pivoted to the main clasp-member 4 in such position that the bottom edge of its angular flange 17 will align with the base-plate 7 when the clamp is in closed position, whereby it cooperates with the rearward edge 26 of the plate 7 to deflect the strap thereabout to form a sharp bend or bight therein which effects a secure clamping action.

As above explained, the clamping action is effected by bending the strap or band 3 at substantially right-angles around the edge 26 of the base-plate 7 of the main clasp-member 4. The strap is first adjusted to the wearer's wrist by sliding its free end through the clasp to the desired position. The cover 6 is then closed down until the protuberances on its sides snap into the detent apertures 25 in the sides of the member 4. During this closing movement the under side of the cover 6 will bear against the top of the clamp 5 to swing the latter on its pivot to cause its clamping lip 17 to impinge against the strap to bend the latter around the edge 26 of the plate 7 on the member 4. The strap is thus deflected from its course and clamped against this edge or abutment to securely grip it in the clasp. A very secure hold on the strap is thus effected which will resist a longitudinal pull of considerable strength.

When it is desired to remove the strap from the wrist it is only necessary to insert the finger-nail under the lip 22 on the cover 6 to lift the latter, the detent protuberances 24 being readily released to allow the cover to swing upwardly. After the cover 6 has been raised the clamp member 4 may be swung upwardly by inserting the finger-nail under its forward portion 16 whereby to swing the clamping lip 17 away from the abutment or edge 26 as shown in Fig. 5 of the drawings. With the clamp thus released the end of the strap or band 3 is free to slide through the clasp to extend the length of the bracelet to allow it to be slipped over the wrist or to detach the ends where the strap is used in a single length instead of looped double.

It will be observe that the present improvement provides an extremely simple and efficient device for the purpose specified with the parts constructed from sheet-metal stampings to render them economical to manufacture. The various elements of the device may be assembled without the use of solder, screws or rivets, thus eliminating all extraneous parts liable to become loose and cause shackly joints. The mechanical parts of the clasp are entirely hidden from view when the cover 6 is closed and this element may be suitably embossed, engraved, pierced or otherwise ornamented to enhance the artistic appearance of the whole article.

A particular feature of the improvement consists in deflecting the band or strap at right-angles to its normal plane at the clamping point whereby to secure a more positive grip thereon to prevent its accidental or unwarranted release. This feature constitutes an improvement over previous devices of the present type in which the strap is merely clamped down against a flat surface without bending it across an abutment. Moreover, through this provision the present improved clasp is adapted for use with wrist-watch straps, bands or bracelets of fabric, leather or wire mesh with equal efficiency.

While I have herein shown and described a preferred embodiment of the clasp, it is to be understood that various modifications may be made in the form and structure of the parts of the device without departing from the spirit or scope of the invention.

Therefore, without limitation in this respect, I claim:

1. In a device of the type specified, the combination of a clasp-member comprising a substantially flat base-plate having sides bent upwardly therefrom and projecting beyond its rearward edge, means for fixedly securing one end of a strap, band or bracelet to the base-plate with its opposite end adapted to draw thereacross, an angular-shaped clamp pivoted between the sides of the base-plate and formed with a portion adapted to be turned down into position at right-angles to the plane of the base-plate in opposite relation to its edge whereby it will act on that portion of the strap drawn across the base-plate to bend it over the edge thereof and bind it thereagainst to secure the ends of the strap together, and a cover hinged on the pivotal axis of the clamp to adapt it to close down across the top of the latter to hold the clamp in closed position and to conceal it from view.

2. In a device of the type specified, the combination of a clasp-member having a base-plate, means for fixedly attaching one end of a strap, band or bracelet to said base-plate with the opposite end adapted to slide thereacross, a clamp pivoted to the base-plate and having a finger-piece extending forwardly from its pivot, and a clamping portion arranged eccentric to its pivotal axis to adapt it to impinge against that portion of the strap drawn through the clasp to cause the strap to be bent over the edge of the base-plate of said clasp-member and clamped thereagainst, a cover pivoted to the base-plate and adapted to close down across its top to cover and conceal the clamp, and means for latching the cover in closed position.

3. In a device of the type specified, the combination of a main clasp-member having a base-plate and opposite parallel sides, a clamp pivoted to the sides of said base-plate and having a finger-piece extending forwardly from its pivot and a lip projecting at right-angles thereto to adapt it to be swung down against a strap, band or bracelet passed through the clasp to clamp the strap against the base-plate, a cover hinged on the pivot of the clamp and having side-flanges adapted to close down over the sides of the base-plate, and detent-means for holding said cover in closed position with the clamp concealed therebeneath.

4. In a device of the type specified, the combination of a clasp-member having a relatively flat base-plate and opposite parallel sides projecting upwardly therefrom and extended beyond its rearward edge, a pin extending between the sides of said base-plate, a member swiveled on said pin and adapted for permanent attachment to the end of a strap, band or bracelet, an angular clamping-member also pivoted on the pin and having a lip arranged eccentric to its pivotal axis to adapt it to be swung down across the rearward edge of the base-plate of the clasp-member to bend the free end of the strap therearound to clamp it thereagainst, and a cover having sides hinged on the cross-pin and adapted to close down over the base-plate to cover and conceal the clamping-member.

In testimony whereof I affix my signature.

CHARLES H. KESTENMAN.