Dec. 27, 1932. C. H. KESTENMAN 1,892,350

CLASPING DEVICE FOR BRACELETS

Filed Dec. 26, 1930

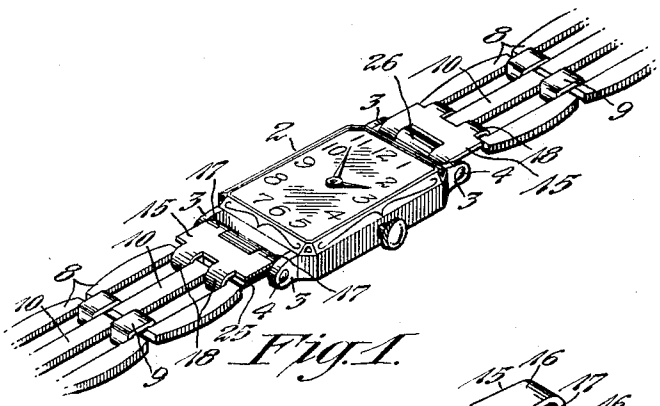


Fig. 1.

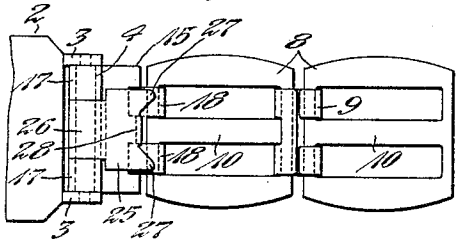


Fig. 2.

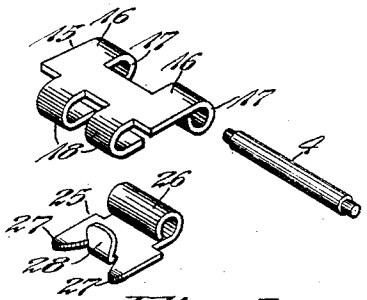


Fig. 5.

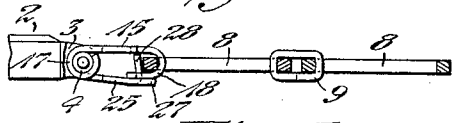


Fig. 3.

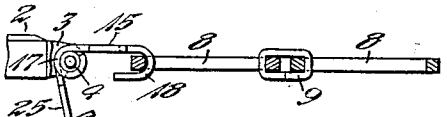


Fig. 4.

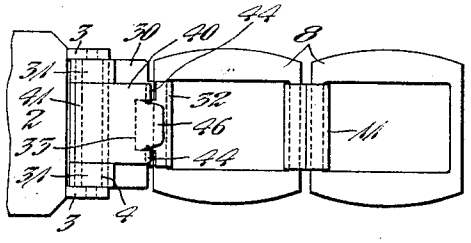


Fig. 6.

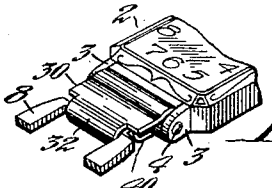


Fig. 10.

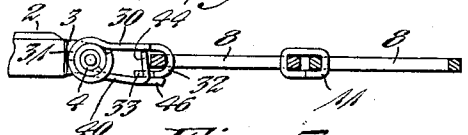


Fig. 7

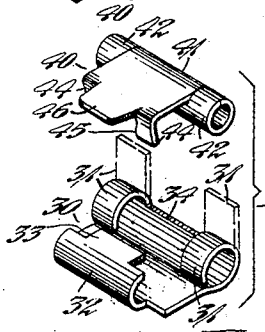


Fig. 9.

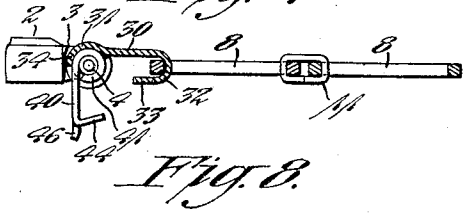


Fig. 8.

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UNITED STATES PATENT OFFICE

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CLASPING DEVICE FOR BRACELETS

Application filed December 26, 1930. Serial No. 504,704.

This invention relates to clasps or connectors for watch-bracelets or other articles of jewelry and consists of improvements in the construction of the same.

One object of the invention is to provide a clasp of the type specified for fastening the bracelet to a watch or other article and one which is simple in construction, economical to manufacture and efficient in use.

Another object of the invention is to provide a clasp which may be easily attached to the bails of the watch-case and which will be securely held from accidental unfastening, while being durable in use and proof against derangement or getting out of order.

Another object of the invention is to provide a clasp of the type specified which may be manufactured from sheet-metal parts struck up in dies and assembled with a minimum of hand operations.

Another object of the invention is to provide a clasp of the type specified wherein the clasping or locking parts are entirely concealed from view and the device free from unsightly joints or obtrusive mechanical projections.

Further objects of the improvement are set forth in the following specification which describes two embodiments of the invention, by way of example, as illustrated by the accompanying drawing. In the drawing:

Fig. 1 is a perspective view of a wrist-watch having sections of a bracelet attached to its bails by means of the present improved clasp;

Fig. 2 is an enlarged bottom plan view of one form of construction of the device, showing the parts in clasped relationship;

Fig. 3 is an edge view of the same also showing the parts in clasped position;

Fig. 4 is a similar view showing the parts in open or unclasped relationship;

Fig. 5 is a composite perspective view of the several parts of the clasp;

Fig. 6 is a view similar to Fig. 2 showing a modified form of construction of the device;

Fig. 7 is an edge view of the same showing the parts in locked or clasped position;

Fig. 8 is a similar view showing the device as unclasped to permit the attaching of the end-link of the bracelet thereto or its disconnection therefrom;

Fig. 9 is a composite perspective view of this latter form of clasping device showing the parts in inverted position; and

Fig. 10 is a perspective view of a portion of a wrist-watch showing a clasp of the type illustrated in Figs. 6 to 9 as attached thereto.

The present improved clasp comprises, in general, a pair of jaw-like members adapted for pivotal attachment to the cross-bar or bail on the side of the wrist-watch case or other article of jewelry. The upper jaw member is provided with a hook or hooks at its free end for connection with the end-link of the bracelet and the bottom jaw has detent-means at its free end for engaging the sides of the hooks of the upper member to securely clasp the two members together to prevent accidental or unwarranted release.

Referring to the drawing, 2 designates a wrist-watch of conventional type having ears or lugs 3 on the sides of its case provided with holes in which the ends of a cross-pin or bail 4 is held. The cross-pin 4 is of usual construction, being tubular in form with spring-pressed pintles at its ends for insertion into the holes in the lugs 3 on the watch-case, whereby it may be conveniently applied thereto or removed therefrom.

The watch bracelet as herein illustrated comprises main links 8 connected by smaller loop-like links 9 bent around the adjoining end-bars of the main links. In the embodiment of the invention shown in Figs. 1 to 5, the links 8 have centrally disposed bars 10 extending longitudinally thereof and the connecting-links 9 are of bifurcated form for the purpose of straddling the central bars. In the bracelet shown in Figs. 6 to 8 the main links are without center-bars, and with this form of linkage, continuous tubular connector-links 11 are employed. While only two types of bracelet links are herein shown and described, it is to be understood that the present improved clasp is adaptable for bracelets having other forms of links and the present invention is therfore not limited with respect to any precise method of application to use.

Referring first to Figs. 1 to 5, the improved clasp comprises an upper member or jaw 15 and a lower jaw 25 adapted to be pivotally mounted on the cross-bar or bail 4 of the watch-case. The upper member 15, as best shown in Fig. 5, comprises a sheet-metal strip formed with a pair of projections or ears 16 at one end. The ears 16 are bent downwardly and curled around to provide loops or bearings 17 for receiving the cross-bar 4. At its opposite end the member 15 is provided with spaced projections or tabs bent downwardly and extended toward the loops 16 to form hooks 18, see Fig. 5. The hooks 18 form the means for attaching the clasp to the end-link of the bracelet.

The lower jaw member 25 is constituted by a flat sheet-metal strip or plate having a slightly narrowed portion at one end which is bent upwardly and curled over to form a loop or bearing 26 for pivoting it on the cross-bar 4. The width of the loop 26 is slightly less than that of the space or opening between the bearings 17 of the member 15 in order that it may be positioned therebetween to adapt the member 25 to swivel or pivot with respect to the member 15. The forward end of the member 25 is slitted to form a pair of projections or finger-pieces 27 at its sides, and bent upwardly between the projections 27 is a detent-latch 28. The end of the detent-latch 28 is made slightly wider than the opening between the hooks 18 on the upper member 15 and its edges are curved or rounded to adapt them to snap into place between the hooks and frictionally engage their edges to clasp the members together.

Fig. 4 shows the two members or jaws 15 and 25 in unclasped relationship with the jaw 25 swung open. When in this position the end-link 8 of the bracelet may be attached to the upper member by placing its lateral end-bar within the hooks 18. The member 25 is then swung upwardly toward the member or jaw 15 to close the clasp and the enlarged end of detent-latch 28 will snap into place between the hooks 18 in position at the rear of the cross-bar of the end-link 8, see Fig. 3, whereby to clasp the parts together. It will be noted that when the clasp is closed the detent-latch or finger 28 abuts the end of the bracelet link 8 so that it cannot slide or press against the lower jaw 25 to cause its release. To remove the bracelet from the watch the fingernail is inserted under the projections 27 on the lower jaw 25 to swing it away from the upper jaw 15. The pressure of the finger causes the detent-latch 28 to be disengaged from the edges of the hooks 18 to effect the unclasping of the device. When the jaws 15 and 25 are thus opened the end-link 8 of the bracelet may be detached from the hooks 18.

In the modified form of construction illustrated in Figs. 6 to 10 the upper member or jaw 30 consists of a plate formed at one end with a pair of loops or bearings 31 of appropriate diameter to receive cylindrical projections 42 at the sides of the lower jaw member 40, to be later described. The opposite end of the member 30 is formed with a hook 32 of less width than its main portion and narrowed again at its end to form a straight projection 33. The edges of the projection 33 are adapted to be straddled and engaged by a pair of detent-latches 44, to be later described, on the lower jaw 40. Referring to Fig. 9, the member 30 has its top-portion curved or bent around at 34 between the bearings 31 to cover and conceal that portion of the lower jaw 40 which extends thereunder, thus giving a neater and more finished appearance to the article.

The lower member 40, shown in inverted perspective view in Fig. 9, is constructed from a plate or strip of sheet-metal formed with a cylindrical bearing portion 41 for pivoting this member on the bail or cross-bar 4 of the watch-case. The bearing 41 is formed by bending the end of the strip into a cylinder, with the projecting portions of the metal at the sides forming bearings 42, previously referred to, which are received in the side bearings 31 on the member 30. The opposite end of the member 40 is slitted adjacent its lateral edges and the two tabs or ears thus formed are bent upwardly to form a pair of detent-latches 44. The detent-latches 44 have rounded projecting edges 45 which snap across the edges of the projection 33 on the hook 32 of the member 30. The portion of the member 40 lying between the detent-latches 44 has its forward edge curled over to provide a finger-piece 46 under which the fingernail may be inserted to open the jaws to unclasp the device.

The two members 30 and 40 are assembled before the bearings 31 on the upper member are completely formed. That is to say, the portions of the member 30 forming the bearings 31 are initially bent at right angles to its main portion, as indicated by the dash lines in Fig. 9, so that the bearings 42 of the lower member may be placed in position thereagainst. The straight portions of the bearings 31 on the member 30 are then bent around the bearings 42 to form a pivot joint between the parts. It is to be noted that the bearings 31 are spaced at a suitable distance apart to allow the flat portion of the member 40 to swing therebetween as it is opened with respect to the upper member 30.

The method of operation of this form of device is substantially the same as previously explained in connection with the first embodiment of the invention. When the parts are in open or unclasped position, as illustrated in Fig. 8, the end-bar of the link 8 of the bracelet may be inserted into the hook 32 of the upper member 30. To clasp the

members 30 and 40 together the lower jaw is swung upwardly until the enlarged rounded edges of its detent-latches 44 snap across the edges of the projection 33 on the hook 32 and engage frictionally therewith to maintain the parts in clasped relationship as shown in Figs. 6 and 7. To unclasp the bracelet the lower member 40 is swung downwardly with respect to the upper member 30 by inserting the fingernail under the finger-piece 46 to pry the jaws apart. The detents 44 are thus disengaged from the sides of the projection 33 and the two members or jaws are opened as shown in Fig. 8, so that the end-link may be disconnected therefrom for a purpose as later explained.

Referring particularly to Fig. 10, it will be seen that with the device made in accordance with the last described form of construction all unsightly and mechanical joints are hidden from view.

It will be observed from the foregoing that my invention provides a particularly simple and neat connector or fastening-device for attaching bracelets or linkages of various types to the bails of wrist-watches; the connector being readily unclasped to permit removal of the bracelet for shortening or lengthening it by removing links therefrom or adding them thereto, as the case may be, to adapt it to fit the wrist of the wearer. The detent-latches provide secure clasping-means for retaining the parts connected to prevent accidental or unwarranted release of the bracelet. By locating the finger-piece beneath or on the bottom of the clasp all danger of its being caught in the garments of the wearer is eliminated and the clasping-means rendered more secure.

The parts of the device may be constructed of sheet-metal, struck up in suitable dies and assembled with a minimum of hand operations. No unsightly seams, joints, shoulders or projecting mechanical elements are visible to mar the smooth and finished appearance of the device and detract from the artistic effect of the watch-case or other article of adornment with which the clasp is used.

Moreover, the improved clasp is extremely simple in structure and economical to manufacture besides being proof against derangement or getting out of order and thus more durable in use over long periods.

While the improved clasp is herein shown as applied to the bail of a wrist-watch case, it is also adapted for attachment to various other articles of jewelry such as extendible fastening-devices and buckles or the like.

While I have herein described and illustrated the device as embodied in two preferred forms of construction, it is to be understood that modifications may be made in the structure and arrangement of the parts without departing from the spirit or scope of the invention.

Therefore, without limiting myself in this respect, I claim:

1. In combination with the bail of a wrist-watch, a pair of members having alining bearings adapted to receive the bail on the watch to pivotally connect said members thereto, a hook at the end of one member for engaging with the end link of a bracelet, and a detent-latch projecting from the opposite member in position to extend across the mouth of the hook on the first member and shaped to adapt it to snap over the edge of said hook and engage therewith to retain the two members in clasped relationship with the end link held in the hook.

2. In a clasp or connector, the combination of a member having a tubular portion at one end and a hook at its opposite end, and a second member having a tubular portion disposed for pivotal connection with the tubular portion of the first member, said second member provided with a detent-latch extending at an angle from its main portion to adapt it to project across the mouth of the hook on the first member when said members are closed together and formed with a camming surface for engaging with an edge of said hooked member to retain said members in clasped relationship.

3. In a device of the type specified, the combination of a plate-like member provided with a hook at one end and a tubular bearing portion at its opposite end, and a second plate-like member having a tubular bearing portion arranged in axial alinement with the bearing portion of the first member for pivotal connection therewith, said second member being provided with a detent-latch projecting at an angle from its plate-portion and formed with a camming edge adapted to snap across an edge of the first member to close its hook and releasably secure the members in clasped relationship.

4. In a device of the type specified, the combination of a sheet-metal member formed with a hook at one end and a cylindrical bearing portion at its opposite end, and a second sheet-metal member formed with a cylindrical bearing portion adapted to be pivotally connected with the bearing on the first member and provided with a detent-latch projecting at an angle from its main portion to adapt it to extend across the open end of the hook on the first member to close the latter and formed with a cam-portion adapted to snap into engagement with an edge of the hooked member to releasably secure the members in clasped relationship.

5. In a device of the type specified, the combination of a member having a tubular portion forming spaced cylindrical bearings at its sides and provided with a hook on its forward end, and a second member formed with a tubular portion extended in cylindrical projections at its sides, said cylindrical

projections being received within the cylindrical bearings of the first member to form a pivotal connection between the two members and said second member being provided with a detent-latch formed with a rounded edge adapted to snap across the lateral edge of the hook on the first member to hold the parts in clasped relationship.

6. In a device of the type specified, the combination of a sheet-metal jaw member comprising a top plate formed with a part-tubular portion at one end continued in spaced-apart cylindrical bearings and having a portion of its top plate extended from the opposite end and bent into a hook, and a second jaw member comprising a flat bottom plate formed into a tubular portion at one end with cylindrical extensions thereof projecting from its sides, said cylindrical extensions being received within the cylindrical bearings of the first jaw member to provide a pivotal connection between the two members, said second jaw member having spaced-apart detent-latches extending at right-angles to its bottom plate and formed with curved edges adapted to snap across the lateral edges of the hook on the first member to clasp the parts in closed relationship.

7. In a device of the type specified, the combination of a jaw member having a flat top bent into part-tubular form at one end with extensions of the metal curled around to provide spaced-apart cylindrical bearings and with the forward portion of its top plate reduced in width and bent around to form a hook, and a second jaw member comprising a flat plate bent into tubular form at one end and continued in cylindrical bearings projecting from its sides, said cylindrical bearings being received within the bearings on the first member to provide a pivotal connection between the two members, said flat portion of the second member being slitted adjacent its lateral edges and the metal bent at right-angles to form upstanding detent-latches adapted to snap across the edges of the rearwardly-projecting portion of the hook on the first member.

In testimony whereof I hereunto affix my signature.

CHARLES H. KESTENMAN.