Nov. 11, 1941. S. RITTER 2,262,623

BRACELET CONNECTOR

Filed Aug. 13, 1937

Fig. 1.

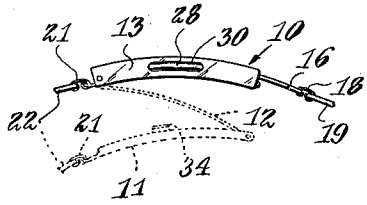


Fig. 2.

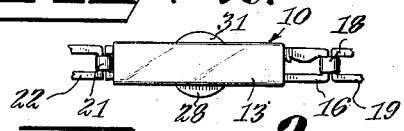


Fig. 3.

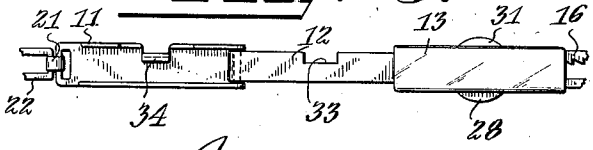


Fig. 4.

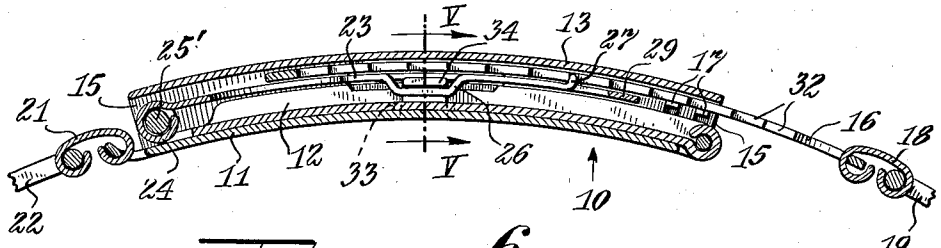


Fig. 6.

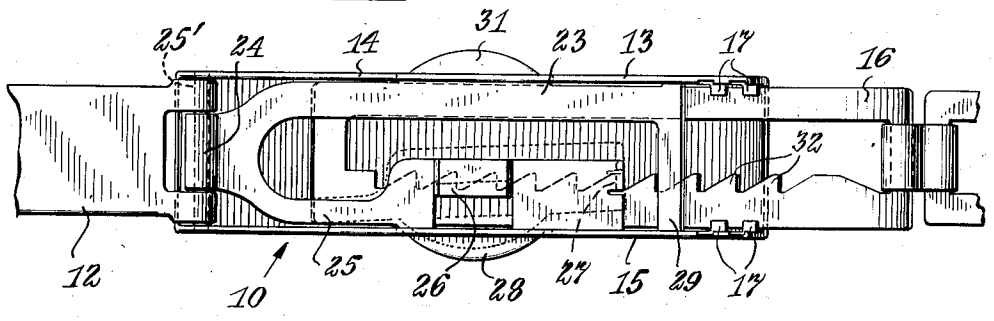


Fig. 7.

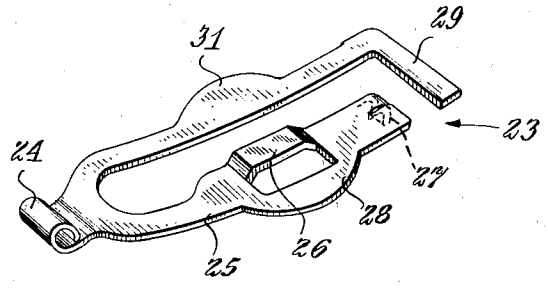
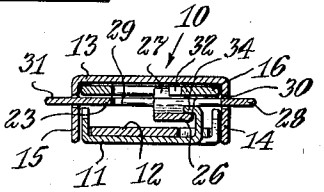


Fig. 5.



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BRACELET CONNECTOR

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Application August 13, 1937, Serial No. 158,826

6 Claims. (Cl. 24—71)

This invention relates to bracelet connectors and relates more particularly to attachments of the extensible type for watch bracelets or the like.

It is an object of the invention to provide an improved extensible attachment or connector so constructed and arranged that it may be open for removal while simultaneously extended.

Another object of the invention is to provide a bracelet connector of the foldable type in which the foldable members are positively locked when folded by means which may be manually released for unfolding.

Other objects and advantages of the invention will be more clearly understood from the following description together with the accompanying drawing, in which—

Fig. 1 is a side elevational view of my bracelet connector;

Fig. 2 is a top plan view of the connector;

Fig. 3 is a view showing the foldable members in extended positions;

Fig. 4 is an enlarged longitudinal sectional view of the connector when in folded position.

Fig. 5 is a view taken on line V—V of Fig. 4;

Fig. 6 is an enlarged plan view of the internal operating structure of the connector member, and

Fig. 7 is a perspective view of a combined ratchet and latch.

It is well known that the popular type of wrist watch strap comprises several foldable members which are hingedly connected and which when open extend the length of the strap for removal over the hand, but when the said members are closed or folded they serve to snugly bind the bracelet or band to the wrist.

Numerous constructions have been employed for this type of connector and certain disadvantages have been found in practice as for example, it has been difficult to provide a structure wherein the foldable members may be easily and effectively retained in foldable or closed relation.

Furthermore, it has heretofore been necessary when unfolding connectors to insert the thumb nail under one end which operation had obvious disadvantages. On the other hand the means which retain the foldable members in folded relation usually comprise a number of notches formed in a side wall of one of the members which notches were subject to wear so that in time it became impossible for the user to effectively hold the members in the desired folded relation as is necessary to secure a wrist watch in place on the wrist.

In addition to providing foldable members to take up slack, devices of the present character usually included an extensible member which could be retained in any adjusted extended or retracted position.

In accordance with the present invention I provide a bracelet connector comprised of a plurality of foldable members, one of which serves to retain a slidable or extension member, and latch means on one member for engaging another of the foldable members to positively retain the members in their folded relation. The latch means provided to hold the foldable members in their closed positions is so arranged as to be operable manually by pressure of the finger and so constructed that upon release of the latching means the extensible member is released from any pre-adjusted position.

In the selected embodiment of the invention as disclosed in the drawing, a connector member **10** is provided, comprising foldable members **11**, **12** and **13**. The member **13** is constructed in the form of a housing having side walls **14** and **15** to receive an extension member **16** which is slidable between lugs **17** formed from or otherwise provided on the walls **14** and **15**. Extension member **16** may be hinged at **18** to one end of a band **19** and member **11** may be connected at **21** to one end of a band **22**. The bands **19** and **22** may be of any desired form, as for example, sections of a link chain or strap which sections are connected in the usual way to a wrist watch.

As shown in Fig. 4 the housing **13** is provided with a combined latch and pawl member **23** more clearly shown in Fig. 7. This member is provided with a tubular end **24** which is rigidly secured to a cross bar **25'** so that the member **23** is held in position within the housing. The said member **23** is shown in the form of double arm elements and arm **25** thereof may be constructed to constitute a spring which carries a latch member **26** and a pawl member **27**. When positioned in the housing a finger piece **28** extends through a slot **30** in the housing so that when the finger piece is pressed the latch member and the pawl are actuated.

For the purpose of steadying the latch and ratchet member the member **23** is provided with an arm or cross piece **29** which fits between the walls of the housing and with an extension or dummy fingers piece **31** which extends through the wall of the housing opposite to the finger piece **28**. When the pawl and latch member **23** is in position the extension member which is provided with teeth **32** slides over the latch mem-

ber, that is, between the latch member and the top wall of the housing. Thus the extension member may be moved inwardly and the teeth thereof are so arranged that they engage with the pawl **27** to retain the extension member in any selected position.

When the folding members are closed the latch member **26** extends past the folding member **12** by reason of a slot **33** and engages a ward or lug **34** on member **11**. When the connector member is closed, that is, when the foldable members are in their folded relation, the ward **34** snaps over the latch **26** thus holding the foldable members in their folded positions and maintaining the connector in position to hold a wrist watch snugly against the wrist of the wearer.

Any slight difference or slack may be taken up by moving the extension member **16** inwardly with respect to the housing so that the pawl **27** engages the teeth of the extension member holding it in its adjusted position. When it is desired to remove the connector, pressure is applied to the finger piece **28** which operation moves the latch **26**, disengaging it from the ward **34** whereby the foldable members may be lifted or unfolded. This same operation releases the pawl or ratchet from the teeth **32** whereby the wearer may easily and conveniently cause the extension member to become extended for the removal of the bracelet.

It will be obvious from the foregoing that the present bracelet connector provides a simple and convenient construction whereby the actual lifting movement with the pressure applied to the finger piece causes the complete opening of the bracelet and the closing operation follows the same order as the user has heretofore become accustomed in connection with connectors of the present type.

As above pointed out the present connector may be used through a long useful life without the disadvantage of accidental separation due to worn parts, since the latch is carried by a spring arm and the wear upon the ward is negligible.

Although a preferred embodiment is shown and described herein, it will be understood that modifications may be made without departing from the spirit and scope of the invention as set forth in the appended claims.

What is claimed is:

1. A connector for a wrist watch band comprising a housing, a member hingedly connected to one end of said housing, a second member hingedly connected to said first member, said members being foldable for disposition in said housing, an extensible member disposed in said housing and movable relative thereto, a plurality of teeth on said extension member, a spring pawl in said housing for holding said extensible member in an adjusted position, means carried by said pawl for retaining said first and second members in folded relation and a finger piece integral with said pawl extending from said housing for moving said pawl to release said extensible member and said folded members.

2. A bracelet connector comprising a plurality of members hinged together to fold in over-lapping folded relation, one of said members having side walls constituting a housing and arranged to receive the other members when folded, an extension member slidable in said housing, teeth on said extension member, a pawl in said housing for engaging said teeth to hold said extension member in an adjusted position, a ward on one of said foldable members, means carried by said pawl for engaging said ward to hold said members in folded relation and a finger piece operable to actuate said pawl to release said members and to actuate said pawl to release said extension member.

3. A connector for a wrist watch strap comprising a plurality of foldable members, a housing for said members when folded, an extension member slidable in said housing, teeth on said extension member, a pawl for engaging said teeth to hold said extension member in an adjusted position and a latch member carried by said pawl for engagement with one of said foldable members to hold said foldable members in folded relation.

4. A connector for a wrist watch strap comprising a plurality of foldable members, a housing for said members when folded, an extension member slidable in said housing, teeth on said extension member, a U-shaped spring member having one end thereof secured to said housing, the other end of said U-shaped member being free, a lip on said free end normally engaging said teeth to hold said extension member in an adjusted position, and means carried on said free end for holding said foldable members in folded relation.

5. A connector for a wrist watch strap comprising a plurality of foldable members, a housing to receive said members, an extension link slidable in said housing, a spring pawl mounted in and adapted to be moved laterally of said housing, teeth on said link for engagement by said pawl to hold said link in an adjusted position, means carried by said pawl for holding said members in folded relation, and means extending from said housing for lateral movement to move said pawl to release said members and disengage said teeth.

6. In a bracelet clasp and extension member, having a top section, a bottom section, and an intermediate section, said top section being pivoted on one end of said intermediate section and said bottom section being pivoted on the other end thereof, said intermediate section being adapted to be folded into said top section, and said top section being adapted to be folded into said bottom section, a slidable extension member in said bottom section, a spring member having an outward tendency in said bottom section, a side wall on said bottom section, a portion of said spring slidably projecting through said wall, releasable locking means between said top section and said spring whereby said spring, and said bottom section therethrough, and said top section normally are locked to one another when said sections are in a folded condition, inter-acting locking means on said spring member and on said sliding member normally locking said sliding member against movement in a desired direction, said spring member being adapted to be moved inwardly by a pressure on said projecting portion thereof, and said inward movement of the same simultaneously releasing said locking means between said bottom and top sections and between said sliding and said spring member, respectively.

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