

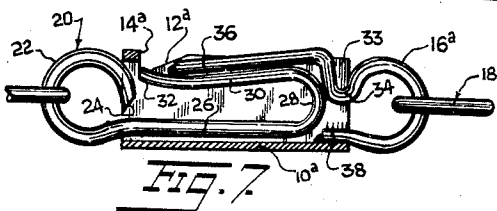
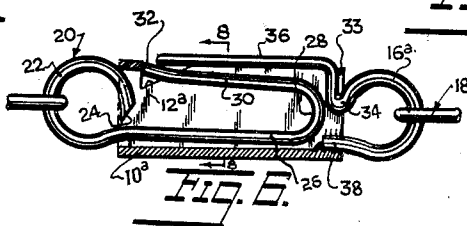
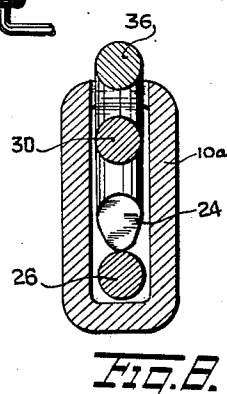
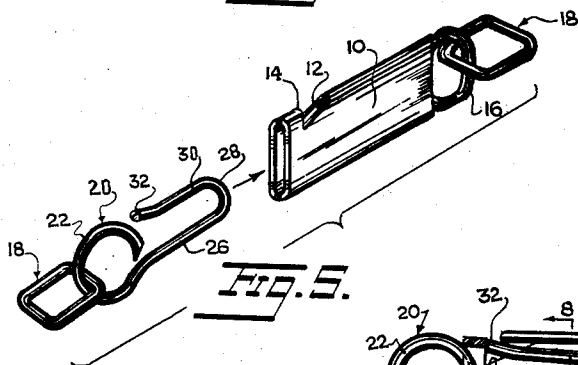
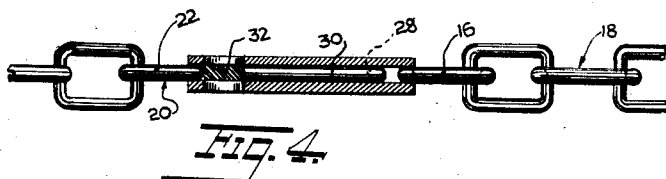
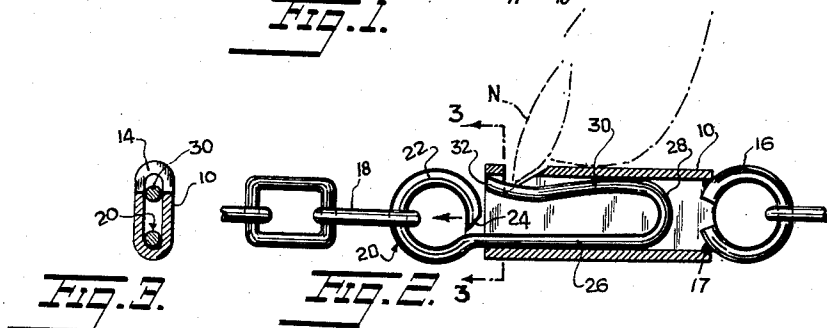
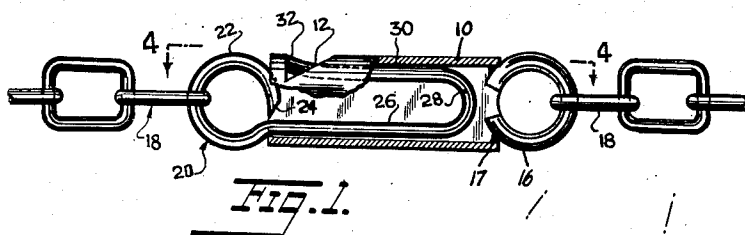
Nov. 4, 1958

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2,858,593

JEWELRY CLASP

Filed Aug. 6, 1956



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2,858,593

## JEWELRY CLASP

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Application August 6, 1956, Serial No. 602,109

3 Claims. (Cl. 24-230)

This invention relates to jewelry clasps such as those used for connecting a chain bracelet about one's wrist, or for connecting a string of beads, a pendant, etc., about the neck.

The main object of the present invention is to provide a generally improved clasp for jewelry that will be characterized by its relatively low cost, its simplicity of design, and by its particularly effective locking action adapted to prevent accidental separation of the parts of the clasp when the same is in use.

A more specific object of the invention is to provide a clasp that will be particularly easy to close or open, the design of the device being such as to permit the closing or opening of the clasp to be carried out without difficulty even when the clasp cannot be kept in view during the operation as for example when it is being closed at the back of the neck.

Another object of importance is to provide a jewelry clasp that will be highly simple and attractive in design, thus to be relatively inconspicuous.

Another object of importance is to provide a jewelry clasp wherein insertion of a male member or springable clasp element into a female member or sleeve-like housing will effect the locking action automatically, with the device being so designed that said clasp element, when locked within and by the housing, will be partially recessed in the housing in a position such that an eye on the clasp element within which the end of the chain, necklace, or the like is engaged, will be securely closed to prevent accidental separation of said chain from the clasp element.

Another object of importance is to provide a device of the character stated that will be usable to advantage in any of various types of jewelry.

Still another object of importance is to form the jewelry clasp in such a manner that it will be of flat formation, will not provide any sharp points that may tend to cause discomfort to the wearer, and will product a locking action which will be efficient at all times.

For further comprehension of the invention, and of the objects and advantages thereof, reference will be had to the following description and accompanying drawings, and to the appended claims in which the various novel features of the invention are more particularly set forth.

In the accompanying drawings forming a material part of this disclosure:

Fig. 1 is a view of a jewelry clasp formed according to the present invention, shown partly in longitudinal section and partly in side elevation, an associated chain being illustrated fragmentarily.

Fig. 2 is a longitudinal sectional view through the device in which a user's thumb is shown fragmentarily in dotted lines, the clasp element being disengaged from the housing.

Fig. 3 is a section on line 3-3 of Fig. 1.

Fig. 4 is a longitudinal section substantially on line 4-4 of Fig. 1.

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Fig. 5 is an exploded perspective view of the jewelry clasp, the chain being illustrated fragmentarily.

Fig. 6 is a view substantially similar to Fig. 1, showing a modified construction.

Fig. 7 is a view like Fig. 6 in which the clasp element of the modified form has been shifted to an unlocked position.

Fig. 8 is an enlarged transverse sectional view on line 8-8 of Fig. 6.

Referring to the drawings in detail, in the form of the invention shown in Figs. 1-5 there is illustrated an elongated, flat, sleeve or housing 10.

The sleeve 10, as mentioned above, is flattened, thus to provide longitudinal edge portions one of which is formed with an angular notch 12, one wall of which is extended obliquely to the length of the sleeve, the other wall 14 of the notch being disposed adjacent one end of the sleeve and being extended perpendicularly to the length of the sleeve to serve as an abutment.

The sleeve is originally formed open at both ends, but the end thereof remote from the notch 12 is closed by an eye 16. The eye 16 is of circular formation, and is welded as at 17 in the open end of the sleeve. Connected to the eye 16 is one end of a chain 18. It will be understood that the chain could be any of various items of jewelry, and in fact need not be of chain formation, the clasp being adapted for incorporation in pearl necklaces, charm bracelets, pendants, etc.

A clasp element has been generally designated at 20, and is connected to the other end of the flexible body 18 of the piece of jewelry. The clasp element 20 is formed from a single length of slightly springable wire material, one end of said length of wire being formed to a circular shape to provide an eye 22 connected to said other end of the body portion 18 of the piece of jewelry. The eye 22, at the extremity 24 of the length of wire, is adapted to be closed more or less permanently, in a manner to be presently made apparent.

The eye 22 merges into an elongated straight part 26 merging in turn into a semicircular bight 28 within the housing 10, said bight 28 merging into a straight portion 30 parallel to the portion 26, the portion 30 at the free end thereof being longitudinally curved outwardly as at 32 to provide a locking finger on the clasp element. It will be seen, thus, that the clasp element includes a closed eye 22 integral with a U-shaped member 26, 28, 30 that opens toward the eye.

In use of the clasp, initially the clasp element 20 is withdrawn from the housing 10 as shown in Fig. 5, so that the jewelry can be applied to or removed from the person. Assuming that the clasp is to be closed, the clasp element 20 is inserted in the direction of the arrow shown in Fig. 5.

The U-shaped portion entering the housing moves freely therein until the curved extremity of the free leg 30 of said portion engages against the end edge of the housing. Said end edge cams the portion 32 inwardly, to permit the clasp element to move to its maximum extent into the housing. Eventually, the extremity of the finger 32 registers with the abutment 14, and the spring action inherent in the bight 28 is now permitted to assert itself, causing the leg 30 to spring outwardly to the Fig. 1 position in engagement with the wall of the housing 10, the finger 32 now being engaged directly against the abutment 14.

The clasp is now fully closed, and it is important to note that when the finger 32 is in engagement with the abutment 14, the end 24 of the eye 22 will be disposed within the housing, so that under no circumstances can the chain 18 accidentally become detached from the eye 22. In other words, the locking action takes place

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only at such time as the eye 22 itself is disposed within the housing to an extent as to wholly close the spreadable part of the eye. This will prevent spreading of the eye due to the fact that the opposite longitudinal edge portions of the housing bear against the eye to prevent the spreading from taking place. A secure lock is thus provided, with the components of the clasp being particularly adapted to resist efforts toward separation, until such time as it is actually desired to separate the clasps. Further, when the clasp is locked, the opposite ends of the chain or other flexible jewelry element are securely engaged by eyes 16, 22 against accidental separation from the clasp.

To disengage the device, one slides the nail N of the thumb along the notched longitudinal edge portion of sleeve 10, until the nail enters the notch 12 and slides along the sloped surface thereof toward abutment 14. Pressure under these circumstances will cause the finger 32 to be pressed inwardly, until it clears the abutment 14, permitting removal of the clasp element 20.

In Figs. 6-8 there is shown a modified construction, wherein the housing has been generally designated at 10<sup>a</sup>. The housing 10<sup>a</sup> is identical in all respects to the housing 10 except for the fact that the notch 12<sup>a</sup>, having abutment 14<sup>a</sup>, is in communication with an elongated slot 33, extending fully from the notch 12<sup>a</sup> to the end of the sleeve remote from the notch.

A first eye 16<sup>a</sup> is formed from a length of wire material of springable characteristics, and is connected to one end of the jewelry 18. Eye 16<sup>a</sup> is arcuately shaped, extending through approximately three-quarters of a full three hundred and sixty degrees, one end of the eye having a reverse or V-bend 34 merging into an elongated, straight leg 36 which extends within and projects slightly above the slot 33 of sleeve 10<sup>a</sup>. The other end 38 of eye 16<sup>a</sup> is welded within the sleeve. It will be seen that the end 38 and the V-bend 34 are both disposed within the sleeve, so as to insure against accidental separation of the chain 18 from the eye 16<sup>a</sup>.

The clasp element 20 in this form of the invention is completely identical to that of the first form, thus simplifying manufacturing processes, since the same clasp element can be used in both forms of the device.

In this form of the invention, the eye 16<sup>a</sup> is spring tensioned to normally dispose the leg 36 in the position shown in Fig. 6. The free end of leg 36 may be rounded to prevent scratching of one's person or tearing of clothes. The free end of leg 36 overlies the finger 32 of the clasp element, in the inserted position of the clasp element, but the leg 36 is disposed wholly out of the path of the clasp element when the clasp element is being inserted.

When the clasp element has been fully inserted, one will note that the finger 32 will lockably engage against the abutment 14<sup>a</sup> in the same manner as in the first form of the invention.

If at this time it is desired to separate the components of the clasp, one need merely exert a slight downward pressure against the leg 36, causing the leg 36 to swing downwardly to the Fig. 7 position, against the tension of the spring eye 16<sup>a</sup>. The leg 36, on swinging downwardly, bears against the finger 32, and this causes the leg 30 to be biased inwardly, to cause the finger 32 to clear the abutment 14<sup>a</sup>. The clasp element 20 can then be removed in the same manner as in the first form of the invention.

The form shown in Figs. 6-8 may under some circumstances be desired in preference to the form of Figs. 1-5, although both work with full efficiency in providing a swiftly lockable and easily separated clasp for jewelry. The second form of the invention may be desired if one does not desire to use the thumb nail for the purpose of opening a jewelry clasp, since one need merely depress leg 36.

Both forms of the device have the desirable characteristics that they permit manufacturing at low cost, and

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further, there is present in both forms of the invention the desirable characteristic that the clasp is relatively inconspicuous, can be made at low cost, can be readily repaired, will not open accidentally, will resist efforts toward opening of the clasp without the knowledge of the wearer, but will nevertheless be capable of being opened with little difficulty when the wearer desires to remove the jewelry.

While I have illustrated and described the preferred embodiments of my invention, it is to be understood that I do not limit myself to the precise constructions herein disclosed and that various changes and modifications may be made within the scope of the invention as defined in the appended claims.

Having thus described my invention, what I claim as new, and desire to secure by United States Letters Patent is:

1. A jewelry clasp comprising a sleeve having a notch forming an abutment, means at one end of the sleeve for attaching one end of a piece of jewelry thereto, and a clasp element adapted for connection to the other end of said piece and formed with a depressible spring finger tensioned to engage against the abutment within the notch in the inserted position of the clasp element, said means comprising an eye formed from a length of spring material, said eye being arcuately shaped and projecting beyond one end of the sleeve for connection to said piece of jewelry, the eye being connected at one end fixedly within the sleeve, the other end of the eye being integrally formed with an elongated, straight leg extending generally parallel to the length of the sleeve and having a free end overlying the spring finger in the abutment-engaged position of the finger, for movement of the finger out of engagement with the abutment responsive to depression of the spring leg.

2. A jewelry clasp comprising a sleeve having a notch forming an abutment, means at one end of the sleeve for attaching one end of a piece of jewelry thereto, and a clasp element adapted for connection to the other end of said piece and formed with a depressible spring finger tensioned to engage against the abutment within the notch in the inserted position of the clasp element, said means comprising an eye formed from a length of spring material, said eye being arcuately shaped and projecting beyond one end of the sleeve for connection to said piece of jewelry, the eye being connected at one end fixedly within the sleeve, the other end of the eye being integrally formed with an elongated, straight leg extending generally parallel to the length of the sleeve and having a free end overlying the spring finger in the abutment-engaged position of the finger, for movement of the finger out of engagement with the abutment responsive to depression of the spring leg, the sleeve having a longitudinal slot extending fully from the notch to said one end of the sleeve, for receiving the spring leg.

3. A jewelry clasp comprising a sleeve having a notch forming an abutment, means at one end of the sleeve for attaching one end of a piece of jewelry thereto, and a clasp element adapted for connection to the other end of said piece and formed with a depressible spring finger tensioned to engage against the abutment within the notch in the inserted position of the clasp element, said means comprising an eye formed from a length of spring material, said eye being arcuately shaped and projecting beyond one end of the sleeve for connection to said piece of jewelry, the eye being connected at one end fixedly within the sleeve, the other end of the eye being integrally formed with an elongated, straight leg extending generally parallel to the length of the sleeve and having a free end overlying the spring finger in the abutment-engaged position of the finger, for movement of the finger out of engagement with the abutment responsive to depression of the spring leg, the sleeve having a longitudinal slot extending fully from the notch to said one end of the sleeve, for receiving the spring leg, the eye being ten-

sioned to normally dispose said spring leg out of the path of movement of the clasp element during insertion and removal of the clasp element from the sleeve.

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