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F. J. CAROLIN

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FASTENER

Filed April 24, 1930

Fig. 1.

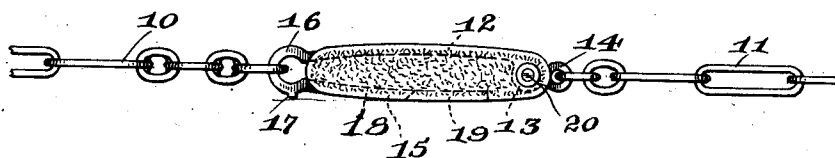


Fig. 2.

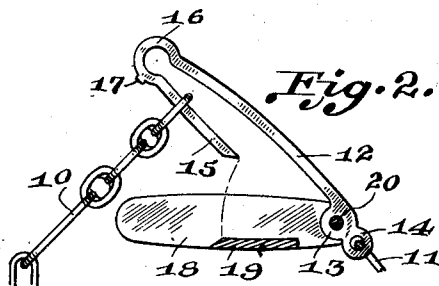


Fig. 3.

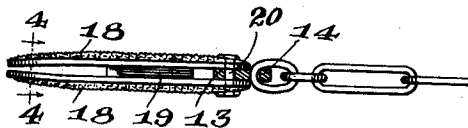


Fig. 4.

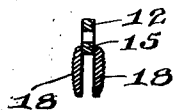
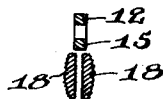


Fig. 5.



Inventor
Frank J. Carolin

By

C. P. Goyel

Attorney

UNITED STATES PATENT OFFICE

FRANK J. CAROLIN, OF NEWARK, NEW JERSEY, ASSIGNOR TO KOHN & COMPANY, OF NEWARK, NEW JERSEY, A CORPORATION OF NEW JERSEY

FASTENER

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The present invention relates to fasteners, particularly adapted for use in jewelry, and has for an object to provide an improved snap particularly applicable to chains and the like.

Another object of the invention is to provide an improved necklace snap wherein when the necklace or chain is secured in closed position by the snap, the opposite ends of the chain being directly connected to the opposite ends of a single member and are so disposed as not to tend to pull the snap open by the drawing taut of the chain.

The invention also aims at the provision of a snap which may be quickly and easily opened and closed, and which when closed will not tend to spring into open position by pressure of the chain and which embodies a construction wherein the tendency of the snap is to remain in closed position.

The invention further aims at the provision of a snap embodying the above recited characteristics and which at the same time may be easily and economically manufactured, readily applied to necklaces and chains and various other types of articles for closing the free ends thereof, and wherein all of the parts of the snap are permanently connected together to avoid loss or displacement incident to the opening and application of the snap.

With the foregoing and other objects in view, the invention will be more fully described hereinafter, and will be more particularly pointed out in the claims appended hereto.

In the drawings, wherein like symbols refer to like or corresponding parts throughout the several views.

Figure 1 is a side elevation of a snap constructed according to the present invention, shown in closed position, and as applied to the opposite ends of a necklace or chain.

Figure 2 is a longitudinal section taken through the same with the snap in open position and showing the detachable end of the chain in a partially released position.

Figure 3 is a top edge view of the snap showing the open link or hook member thereof in section in its inner or pivoted end.

Figure 4 is a transverse section through the outer end of the snap taken on the line 4-4 of Figure 3 and showing the link or hook member partially removed from the sheath, and

Figure 5 is a similar view showing the link or hook member released from the sheath.

Referring to the drawing, 10 and 11 designate the opposite ends of a chain or necklace adapted to be closed by the snap of this invention. The snap comprises an open link or hook member 12 which may be constructed by stamping or otherwise in any suitable and economical manner and which at its inner end is provided with an enlarged apertured web 13, the heel of the hook member 12 having an apertured eye piece 14 which may comprise a continuation of the web 13 and which forms an eye through which the adjacent end 11 of the chain may be permanently attached.

The opposite or free end of the link or hook member 12 is returned upon itself to provide a bill 15 which is of substantial length and which is spaced from the inner edge of the member 12 and extends toward and lies in the plane of the web 13. The bill 15 is adapted to engage through a link on the free end 10 of the chain or necklace and the latter is adapted to be drawn outwardly on the bill 15 toward the free end of the member 12 and to rest in an enlarged or rounded eye piece 16 forming the juncture between the bill 15 and the outer end of the link or hook 12. A projection 17 may be provided on the bottom edge of the eye piece 16 for engagement with the finger or thumb nail to facilitate the opening of the snap.

For the purpose of maintaining the link of the chain end 10 in the eye piece 16 and from sliding along the bill 15, a sheath 18 is provided. The sheath comprises a pair of side members which may be of any suitable construction and provided exteriorly with surface ornamentations, or the side members may be otherwise constructed in harmony with the necklace or other pieces of jewelry to which it is applied, and may be fabricated in different designs and configurations.

The side plates of the sheath 18 are connected at their lower edge portions, as shown to advantage in Figure 2, by the spacer 19 which is of a thickness or width equal substantially to the width of the link or hook member 12. The inner end of the sheath 18 has a transverse rivet 20 of any suitable construction and which is secured through the inner ends of the side plates and through the aperture in the web 13 of the hook member for pivotally securing the inner end of the hook member between the inner ends of the plates of the sheath.

The sheath is of a depth sufficient to receive the hook member 12 therein when the hook member is swung down into the sheath as shown in Figure 1, and the bill 15 swings down into line with the spacer 19 and seats thereagainst at the free end of the bill 15 and the outer end of the spacer 19 are correspondingly beveled to securely hold or lock the bill 15 from pulling out through the bottom of the sheath.

It will be noted from Figure 2 in particular that the bill 15 is spaced from the back of the link or hook 12 and that the inner end of the bill 15 merges into the eye piece 16, the latter being contracted and opening inwardly of the link or hook member 12. The outer free ends of the side members of the sheath 18 are toed-in inwardly toward each other as shown to advantage in Figure 3 for restricting the space between the side members at the outer end of the sheath.

The bill 15 enters the space in the sheath at its free end and as the hook member 12 is forced downwardly into the sheath the bill 15 gradually spreads the free ends of the side members of the sheath and cams them apart sufficiently to permit the inner end of the bill 15 to snap or move past the outer extremities of the side members. By their inherent resiliency the side members bind between the back of the hook 12 and the inner end of the bill 15 as shown in Figure 1, and thus yieldingly and frictionally hold the sheath in closed position upon the link or hook member. The sheath is so proportioned relatively to the hook member 12 that the eye piece 16 projects from the forward end of the sheath 18 when the device is closed, and the eye piece 14 projects rearwardly from the sheath so as to permit of the free swinging action of the ends 10 and 11 of the chain or necklace.

Pressure applied to the ends 10 and 11 of the necklace tending to separate or open the same is transmitted directly from end to end through the link or hook member 12 and the sheath 18 functions only in maintaining the link of the free end 10 from sliding backwardly out of the eye piece 16 and for holding the sheath itself in position on the link member 12. No pressure therefore is exerted on the sheath 16 and all pressure is taken up

by the hook member 12. It will also be noted that there is no pressure exerted upon the sheath to open or displace the same from the link member when the necklace or chain is drawn taut.

In operation, it is only necessary to secure the eye piece 14 of the hook member to one end 11 of the chain or necklace. The free end 10 of the necklace has one of its links engaged over the bill 15 of the hook member 12 and slid outwardly thereon into the eye piece 16. The sheath 18 and the hook member 12 are then swung upon the connecting pivot 20 toward one another until the end of the bill engages between the side plates of the sheath and tends to spread the same.

Further pressure upon the parts cams the bill 15 between the toed-in or inwardly bent outer ends of the side plates so as to spring the latter apart sufficiently to admit of the passage of the bill 15 downwardly there-through into the back or bottom part of the sheath 18.

The bill 15 is limited in its swinging movement by engaging the outer edge of the spacer 19 and the latter holds the bill 15 from springing out of the sheath. This inter-engaging of the spacer 19 and the hook also serves the purpose of returning the bill 15 of the hook to normal position should the bill be bent outwardly away from the back of the hook member 12 incident to the positioning or removal of the end 10 of the necklace.

Figure 4 shows the outer end of the hook member with its bill 15 wedged between the toed-in portions of the side plates of the sheath. The hook member when forced downwardly into the sheath completely enters the same as shown in Figure 1, with the back or upper part of the hook member 12 lying between the upper edge portions of the side plates.

When the hook member is disengaged from the sheath, by holding the sheath in one hand and grasping the eye piece 16 between the thumb and fingers, using the projection 17 as a shoulder to engage the thumb or finger nail, the outer end of the hook member is raised completely out of the sheath as shown in Figure 5, and the toed-in ends of the side plates spring toward each other as shown in Figures 3 and 5.

It is obvious that various changes and modifications may be made in the details of construction and design of the above specifically described embodiment of this invention without departing from the spirit thereof, such changes and modifications being restricted only by the scope of the following claims.

What is claimed is:—

1. A fastener device of the character described comprising a sheath consisting of spaced relatively yieldable side plates hav-

ing inner plane surfaces and an integral connection between said side plates intermediate of their ends and at corresponding longitudinal edges thereof, said plates at one of their ends and beyond said integral connection converging inwardly towards each other, and a link member having a shank pivoted between the other ends of said side plates of the sheath, said link member at its opposite end having a returned hook bill, said shank and the hook bill in the closed position of the link member lying between said side plates of the sheath at their relatively opposite edges, and the terminal of the hook bill engaging said integral connection between said plates to limit movement of the link member to its closed position.

2. A fastener device of the character described comprising a sheath consisting of spaced side plates and a part connecting said plates intermediate of their ends and adjacent corresponding longitudinal edges thereof permitting relative yielding of the plates towards and from each other, said plates at one of their ends and in spaced relation to said connecting part converging inwardly towards each other, and a link member having a shank pivoted between the other ends of said side plates and provided at its free end with a returned hook bill, spaced parts of said shank and hook bill in the closed position of said member, lying between the relatively opposite edges of the sheath plates and resiliently gripped between the converging ends thereof, and the terminal of the hook bill engaging said connecting part to limit movement of the link member to its closed position.

In testimony that I claim the foregoing as my invention, I have signed my name hereto.

FRANK J. CAROLIN.