Nov. 28, 1950 C. A. ANDERSON 2,531,835

EXTENSION KEY CHAIN

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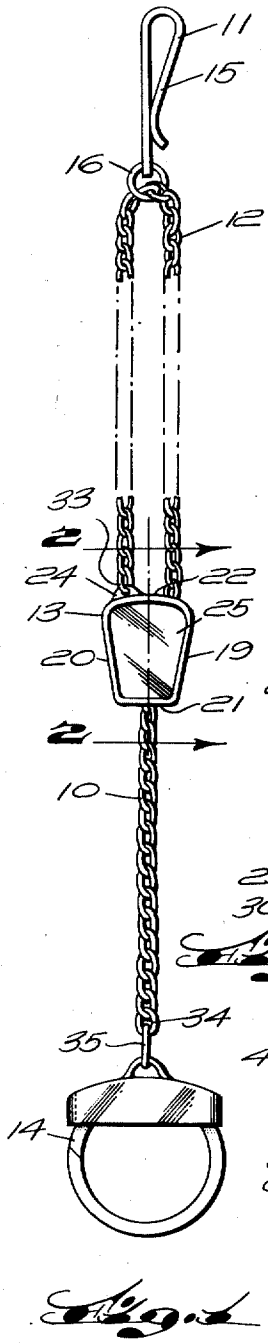


Fig. 1

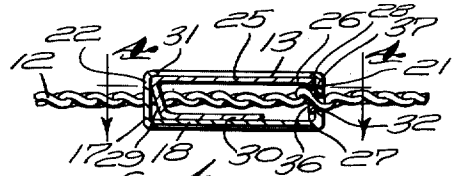


Fig. 2

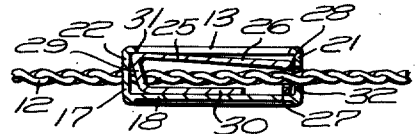


Fig. 3

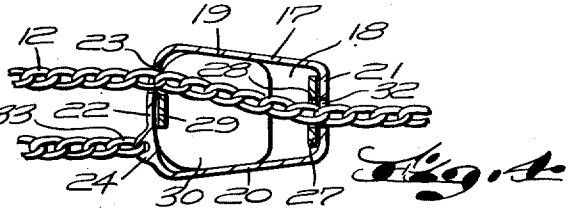


Fig. 4

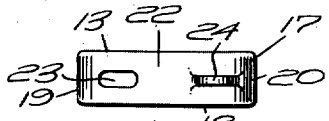


Fig. 5

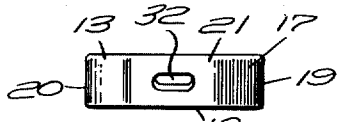


Fig. 6

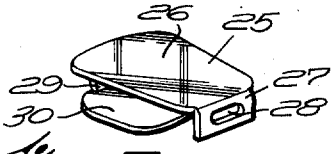


Fig. 7

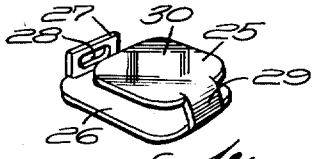


Fig. 8

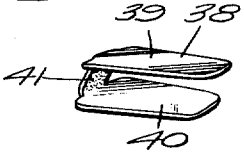


Fig. 9

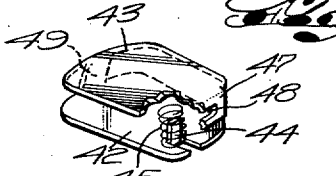


Fig. 10

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EXTENSION KEY CHAIN

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2 Claims. (Cl. 24—116)

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The present invention relates to the jewelry art, and has particular reference to an improved construction for an extension key chain.

The principal object of the invention is to provide a simple and effective manually controlled lock member for selectively holding the key chain in normal or in extended position.

A further object of the invention is to provide an extension key chain lock member with concealed key gripping parts.

Still another object is to provide an extension key chain lock element with a strongly resilient lock member.

An additional object of the invention is to construct an extension key chain lock element of stamped metal parts.

With the above and other objects and advantageous features in view, the invention consists of a novel arrangement of parts more fully disclosed in the detailed description following, in conjunction with the accompanying drawings, and more specifically defined in the claims appended thereto.

In the drawings:

Fig. 1 is a plan view showing the key chain in partially extended position;

Fig. 2 is an enlarged section through the lock member on the line 2—2 of Fig. 1, the parts being in chain locking position;

Fig. 3 is a view similar to Fig. 2, the parts being in chain release position;

Fig. 4 is a central horizontal section through the lock member on the line 4—4 of Fig. 2;

Fig. 5 is an upper end view of the lock member;

Fig. 6 is a view showing the lower end thereof;

Figs. 7 and 8 are respectively normal and reversed perspective view of the resilient lock element;

Fig. 9 is a perspective view of a novel spring insert; and

Fig. 10 is a modified construction for the resilient lock element.

It has been found desirable to provide an extension key chain with a manually actuatable lock member for selectively engaging the chain to obtain a desired length, the parts being resiliently urged to locking position and being made of stamped metal, and the chain gripping elements being concealed.

Referring to the drawings, which illustrate an extension key chain embodying the invention, the key chain 10 includes a belt or trouser clip 11, an extendible flexible chain 12, a manually operable lock member 13, and a key retainer 14 of standard type. The belt clip is preferably made

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of metal and includes a spring hook 15 and a depending ring or the like 16 through which the chain 12 may freely pass.

The lock member 13 is preferably formed of stamped out sheet metal stock, and includes a shell 17 having a bottom plate 18, sides 19, 20, a lower end 21, and an upper end 22, the upper end having a chain passage opening 23 adjacent one side 19 and an eye 24 adjacent the other side 20. Seated in the shell is a lock element 25 stamped of resilient metal, see Figs. 7, 8, and having a top plate 26, a front tongue 27 provided with a chain passage opening 28, a rear connector support 29 of reduced width, and a bottom plate 30, the bottom plate 30 being shaped to seat within the shell 17 contiguous the bottom plate 18 thereof, and the top plate 26 extending contiguous the sides 19, 20 and the ends 21 and 22 of the shell, whereby the lock element is secured within the shell by flanging or spinning the sides and ends of the shell, as indicated by the reference numeral 31 in Figs. 2 and 3. The lower end 21 of the shell has a chain passage opening 32 in juxtaposition to the lock member tongue opening 28, the two openings being normally slightly out of vertical alignment, as shown in Fig. 2, but becoming aligned when the top plate 26 is manually pressed down, as shown in Fig. 3. Although I have disclosed a shell having a bottom plate, it is obvious that the shell may be shaped as a rim or side wall shell, with the lock member bottom plate enlarged and held therein in a manner analogous to the holding of the lock member top plate.

The chain 12 has one end 33 secured to the eye 24 of the lock member shell, and passes through the ring 16 and through the shell opening 23, across the lock member as shown in Fig. 4, and then through the two juxtaposed openings 28, 32, the other end 34 of the chain being secured to a ring or eye 35 provided in the key retainer 14.

When it is desired to change the length of the chain, the lock member is manually squeezed, whereupon the lock element top plate lowers to align the two openings at the lower end of the lock member, and the chain is readily lengthened or shortened. Release of the lock member shifts the lock element opening 28 to non-aligning position with respect to the shell lower end opening 32, and the lower edge 36 of the opening 28 cooperates with the upper edge 37 of the opening 32 to grip the chain between adjacent links, see Fig. 2, whereby the chain remains in its length adjusted position.

The lock element 25 normally has ample

strength and resilience for long use, but it may be strengthened when made of precious or semi-precious metal, by inserting a steel spring element **38**, see Fig. 9, which has a top plate **39**, a bottom plate **40**, and a reduced end connector **41**, whereby the spring element **38** may be inserted to nest within the lock element, with the end connector **41** contiguous the connector support **29**, to provide increased resilience.

If preferred, a coil spring arrangement such as illustratively shown in Fig. 10, may be utilized, the bottom plate **42** of the modified lock member **43** having a vertical lug **44** struck up from the stock of the bottom plate for seating a coil spring **45** which extends upwardly to engage the lower surface of the top plate **46** of the lock element, whereby manual pressure on the top plate **46** lowers the front tongue **47** of the lock element against pressure of the coil spring **45** to align its front chain opening **48** with the lower end chain opening of its associated shell. The modified lock member has a reduced end connector **49** similar to the reduced end connector support **29** of Figs. 7 and 8.

The improved extension key chain lock member is thus of the shell or box type, with the chain gripping parts enclosed and concealed, and possesses substantial resilience and gripping strength, which may be increased, if desired, by including additional spring elements. The novel lock member may be utilized for other extension chain arrangements, such as pendants, neck chains, and the like, as it provides a firm lock and may be readily ornamented as desired.

Although I have described specific constructional forms for the lock member, it is obvious that changes in the shape, size and arrangement of the parts, and in the materials used, may be made to provide different extension key chain arrangements and designs, without departing from the spirit and the scope of the invention as defined in the appended claims.

I claim:

1. In an extension chain device, a lock member comprising a shell having an open top, sides, an upper end and a lower end, said upper end having a chain securing part and a chain passage opening, and said lower end having a chain passage opening, and a lock member in said shell of resilient material and having a top plate positioned beneath the open top of the shell, a bottom plate, and a connector for said plates, said top plate having a forward downwardly extending tongue in juxtaposition to said shell lower end, said forward tongue having a chain passage opening normally displaced from alignment with the shell lower end chain passage opening, and manually movable by pressure on said top plate to bring said forward tongue and lower end chain openings in alignment.

2. In an extension chain device, a lock member comprising a shell having an open top, sides, an upper end and a lower end, said upper end having a chain securing part and a chain passage opening, and said lower end having a chain passage opening, and a lock member in said shell having a top plate positioned beneath the open top of the shell, a bottom plate, and a connector for said plates, said top plate having a forward downwardly extending tongue in juxtaposition to said shell lower end, said tongue having a chain passage opening, said top plate being resiliently urged away from said bottom plate to normally displace the tongue opening from the shell lower end opening, and being manually movable to bring the tongue opening and the shell lower end opening in alignment.

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REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
1,229,855	Alexander	June 12 ,1917
1,879,991	Pratt	Sept. 27, 1932
2,159,223	Okun	May 23, 1939
2,291,089	Okun	July 28, 1942