Oct. 4, 1927. 1,644,562

R. J. BROWNING

SAFETY CLASP

Filed Oct. 12, 1926

Fig. 1.

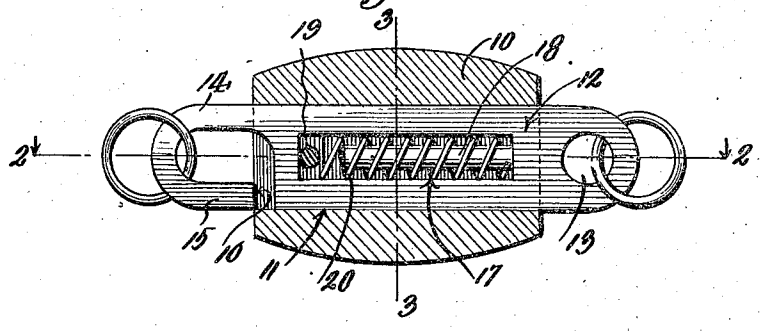


Fig. 2.

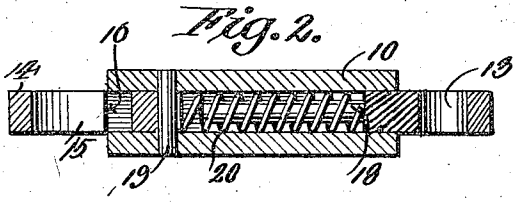


Fig. 3.

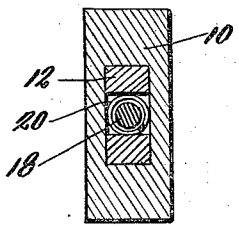
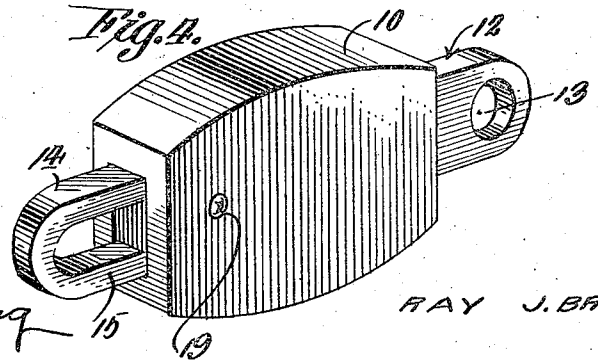


Fig. 4.



WITNESSES

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SAFETY CLASP.

Application filed October 12, 1926. Serial No. 141,201.

This invention appertains to new and useful improvements in safety clasps designed primarily for joining the ends of chains of every description and for every purpose but which is principally adapted for articles of jewelry such as necklaces, flexible bracelets, watch chains, and the like.

The primary object of the present invention is to provide such an improved safety clasp of the above character which is automatic and self-locking in its action so that all danger of the ends of the chain becoming accidentally separated is positively precluded.

Another object of the present invention is to provide such an improved safety clasp of the above character including a sleeve, a plunger slidably mounted within said sleeve, and spring means for automatically moving the plunger into active or locking position.

A further object of the present invention is the provision of means for limiting the outward movement of the plunger relative to the sleeve together with means for limiting the inward movement of said plunger.

A still further object of the present invention is to provide an improved safety clasp of the above character which is simple, yet durable in its construction, practical and efficient in use, easy and cheap to manufacture and well designed for the purposes for which it is intended.

Numerous other objects and advantages of the present invention will become more readily apparent during the course of the following description when taken in connection with the accompanying drawings.

In the drawings forming a part of this application and wherein for the purpose of illustration has been disclosed a preferred embodiment of the present invention;

Figure 1 is a longitudinal sectional view through an improved safety clasp constructed in accordance with the present invention.

Figure 2 is a sectional view taken substantially on the line 2—2 of Figure 1.

Figure 3 is a transverse sectional view taken on the line 3—3 of Figure 1.

Figure 4 is a perspective view of the improved clasp.

Referring now more in detail to the accompanying drawings, it will be seen that the present improved clasp embodies in its construction a hollow body 10 which may be of any desired shape and size and which is provided with a longitudinal bore 11 therethrough.

Slidably received within the bore 11 is a plunger generally indicated by the numeral 12, said plunger being provided at one end thereof with an opening 13 for receiving one end of a chain and at its opposite end with a hook 14, for receiving the opposite end of the chain, the bill 15 of said hook terminating short of the body of the plunger so as to provide a lateral throat 16. Of course, the hooked end of the plunger may be formed to engage a rectangular shaped link, mounted transversely or parallel with the plunger.

The plunger 12 is further provided intermediate its ends with a longitudinally extending slot 17 into which and from one end wall of which an abutment stem 18 extends. One end of this abutment stem may be provided with a suitable head if desired. Carried by the body 10 and extending transversely through the opening 17 is a stop pin 19. Encircling the abutment stem 18 is an expansion spring 20 having one end bearing against one end wall of the slot 17 and its opposite end bearing against the stop pin 19.

From the foregoing, it will be evident that the expansion spring 20 acts to automatically draw the plunger 12 inwardly so as to hold the hook 14 in active or locking position. The stop pin 19 serves to limit the inward movement of the plunger 12 while the abutment stem 18 contacting with the stop pin 19 serves to limit the outward movement of the plunger.

In the use of the present improved clasp, one end of a suitable chain or the like is adapted to be secured within the opening 13 after which the plunger 12 is forced outwardly against the action of the spring 20 and the opposite end of the chain is then passed through the lateral throat 16 and engaged with the hook. Pressure upon the plunger is then released whereupon the action of the spring 20 will draw the plunger inwardly so as to move the hook into its locking or active position. When in such locking position, the bill 15 of the hook will be positioned immediately adjacent the end of the body whereby to close the throat 16 and thus prevent the end of the chain from becoming accidentally disengaged from the hook.

It will thus be seen that there has been provided a novel and efficient safety clasp which is self-locking and which will effec-

tively prevent the joined ends of a chain or the like from becoming accidentally separated. This clasp may be used in any place where such a clasp may be desirable. From the construction shown, it will be seen that the chain can be readily engaged with or disengaged from the hook 14 by simply sliding the plunger 12.

Changes in the details of construction may be resorted to without departing from or sacrificing the spirit of the invention so long as such changes fall within the scope of the appended claims.

What is claimed is:

1. A safety clasp including a hollow body, a plunger slidably mounted within said body and provided with a hook at one end thereof, spring means within said sleeve acting to normally urge the plunger in a direction whereby to move the hook into locking position, an abutment stem carried by said plunger and a stop within the body engageable by the stem for limiting the outward movement of the plunger.

2. A safety clasp including a hollow body, a plunger slidably mounted within the said body and provided with a hook at one end thereof, spring means within the body acting to normally urge the plunger in a direction to hold the hook in locking position, an abutment stem carried by said plunger, and a stop pin within the body for limiting the movement of the plunger in an inward direction and engageable by the end of the abutment stem for limiting the movement of the plunger in an outward direction.

3. A safety clasp including a hollow body having a longitudinal bore, a plunger slidably mounted within said body and provided with a hook at one end, said plunger being provided with a longitudinally extending slot, an abutment stem extending into the slot from one end wall thereof, a stop pin carried by said body and extending transversely across the bore thereof and an expansion coil spring upon the abutment stem having its opposite ends bearing against the stop pin and the said end wall of the plunger slot for normally urging said plunger in a direction to hold said hook into locking position, the stop pin coacting with the other end wall of the slot to limit the movement of the plunger to such position and the said pin constituting also an abutment for the end of the abutment stem to limit the movement of the plunger in the opposite direction.

In testimony whereof I affix my signature.

RAY J. BROWNING.