

March 9, 1943.

E. RODRIGUEZ

2,313,397

SAFETY CORD CLASP

Filed June 19, 1942

Fig. 1.

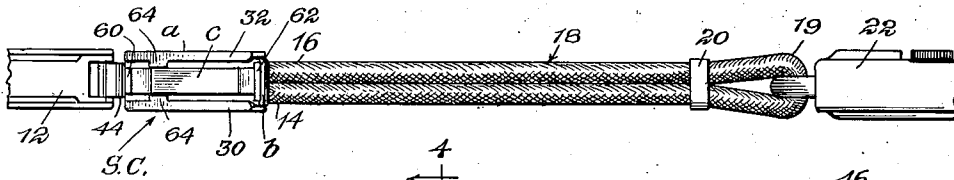


Fig. 2.

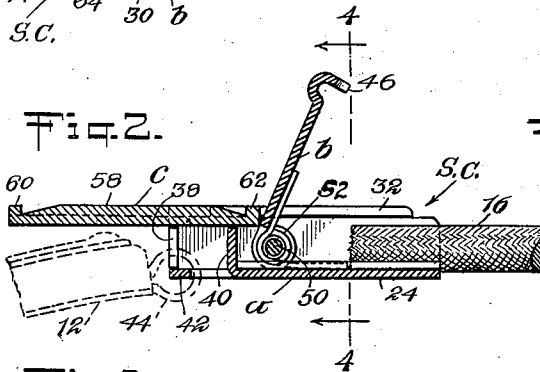


Fig.4.

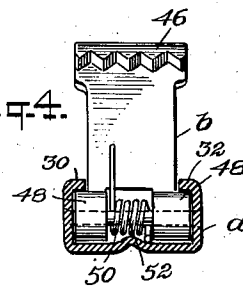
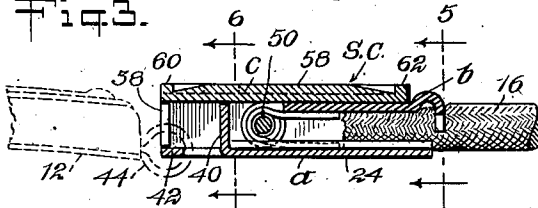


Fig. 3.



F395.

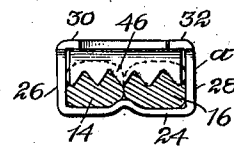


Fig 7.

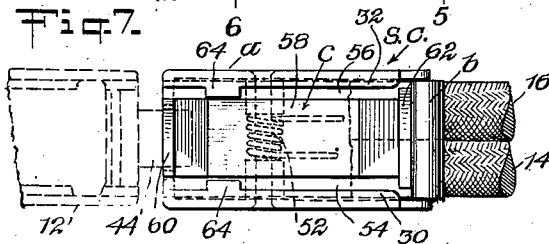


Fig. 6.

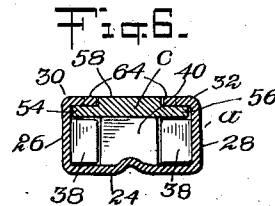


Fig. 6.

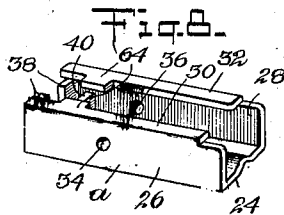
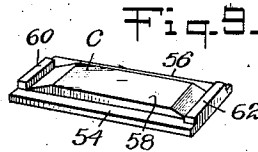
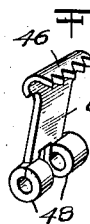


Fig. 9.



46 Fig. 10.



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2,313,397

SAFETY CORD CLASP

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Application June 19, 1942, Serial No. 447,645

5 Claims. (Cl. 24-251)

This invention relates to a safety cord clasp and more particularly to a clasp for the bracelet cord or strap of a wrist watch or the like.

The main desiderata of a safety clasp for bracelet cords are ease and simplicity of manipulation or operation, effective security in its clasp function, and structural simplicity, strength and attractiveness. The present invention pertains to a safety clasp which collectively and uniquely embodies these desiderata.

Safety cord clasps usually comprise a housing constructed to receive at one of its ends the end of the bracelet cord or strap, a gripper member for gripping the cord end to secure the same in the housing, and a locking member for the gripper. These safety cord clasps are relatively small in dimensions so that the parts thereof are normally difficult to manipulate manually. Ease and simplicity of operation or manipulation entail the ease with which the cord ends are insertable in the housing, and the ease with which the gripper member is moved to cord gripping position and is locked in cord embedding condition. To replace a spent cord, ease of manipulation also entails the simplicity with which the locking and gripping members may be moved to release the ends of a used cord. In the safety clasp of the present invention, the locking and gripper members are automatically held in open condition away from the cord receiving end of the housing, thus enabling the operator to lay in the cord ends with unobstructed ease. The gripper member may then be moved to a position but lightly gripping the cord ends thus rendering it unnecessary to force the gripper home by means of the user's fingers, a tedious and difficult step. The locking member may then be simply slid over the gripper member, this easy sliding action serving to gradually force the gripper member into final gripping and cord embedding condition. To replace a spent cord, the locking member is merely easily slid back to open position, whereupon the gripping member moves to its open position, freeing or releasing the cord.

The ideal safety clasp must yield that unqualified assurance in clasp function which the term "safety" denotes. Therefore, the locking member must be so constructed and the relation between the locking and gripping members must be so determined that the parts cannot be undesirably unlocked or loosened by accidental engagement with an article of clothing or the like, such accidental loosening being, of course, the cause of lost bracelets and watches. In the safety clasp of the present invention, the locking

member being slidably mounted in the housing and being firmly held by frictional engagement with the gripper member over a very large area, it becomes well nigh impossible for accidental loosening to take place.

In addition to fulfilling these prime desiderata, the safety clasp of my present invention is structurally sturdy, made up of few and simple parts, capable of ease of assembly or dis-assembly, and is attractive in appearance.

To the accomplishment of the foregoing and such other objects as may hereinafter appear, the invention relates to the improved safety clasp and the structural organization thereof herein-
 15 after sought to be defined in the claims and described in this specification in connection with the appended drawing, in which:

Fig. 1 is a plan view of the safety clasp showing the manner of its use in connection with a
 20 watch bracelet cord;

Fig. 2 is an enlarged view thereof taken in longitudinal cross-section and showing the parts in released or open condition;

Fig. 3 is a similar view thereof showing the
 25 parts in closed or locked position;

Fig. 4 is a transverse view taken in cross-section in the plane of the line 4-4 of Fig. 2;

Fig. 5 is a transverse view taken in cross-section in the plane of the line 5-5 of Fig. 3;

Fig. 6 is a transverse view taken in cross-section in the plane of the line 6-6 of Fig. 3;

Fig. 7 is a top plan view of the safety clasp showing the parts in closed or locked condition;

Fig. 8 is a perspective separate view of the
 35 housing member of the clasp;

Fig. 9 is a perspective separate view of the locking member of the clasp; and

Fig. 10 is a perspective separate view of the gripper member of the clasp.

Referring now more in detail to the drawing and having reference first to Fig. 1 of the drawing, the safety clasp of the present invention generally designated as S. C. is shown applied to a wrist watch strap, being linked at one end to a buckle or clasp 12 which may be of the extensible type, and receiving and securing at its other end the free ends 14 and 16 of a bracelet cord or strap 18, the other or loop end 19 of which, held constricted by a ring 20, is threaded through the bail end of a wrist watch generally designated as 22. It will be understood that a similar safety clasp and bracelet cord is used to connect the other bail end of the watch 22 to the other end of the extensible clasp 12 (not shown). Since the complete assembly has a circumferential di-

mension only long enough to fit the wrist of the user, it will be appreciated that the safety clasp itself is of relatively small dimensions, being a fraction of that depicted in Fig. 1 of the drawing.

Referring now to Figs. 2 to 10, the safety clasp of the present invention comprises an open top housing *a* for receiving at one of its ends the ends of the cord or strap 18, a gripper member *b* pivotally mounted in the housing and movable through the open top thereof from an up or open position shown in Fig. 2 of the drawing to a down or closed position for gripping the said cord ends as shown in Figs. 3 and 7 of the drawing, and a locking member *c* slidably mounted in said housing and forming a cover for said open top thereof. The locking member *c* is movable independently of the gripper member *b*. When the locking member *c* is slid to its open position shown in Fig. 2 of the drawing, the gripper member *b* is free to move or be moved to the upper open position shown in Fig. 2 of the drawing. The gripper member *b* and the locking member *c* are also so related that when the gripper member *b* is moved to its down position in light gripping engagement with the ends of the cord 18, the slidable inward movement of the locking member *c* causes the bottom of said locking member to move into engagement with and in engagement over the top surface of the gripper member *b*, gradually forcing the latter into its final cord end gripping and embedding condition, as shown particularly in Fig. 3 of the drawing. In this condition the locking member *c* is forcibly frictionally engaged with the top of the gripper member *b* over substantially the entire surface thereof, thus forming a very secure lock for the gripper member.

The housing *a* formed from sheet material is shaped to provide a bottom wall 24, two side walls 26 and 28, the top ends of which are intumed to form the flanges 30 and 32. The side walls are pierced at 34 and 36 to receive the pivot pin or pintle for mounting the gripper member. The space between the flanges 30 and 32 forms an open top through which the gripper member *b* moves and which is closed by the locking member *c* acting as a cover for the housing as already described. The housing is also preferably formed with the intumed flanges 38 at its rear end and with the struck out and upturned stud 40 for purposes which will be hereinafter explained. The front end of the housing is open for the reception of the cord ends. The housing is also provided with a cross bar 42 at its rear end which receives the linking loop 44 which forms part of the extensible clasp 12.

The gripper member *b* is also died out of sheet material into the configuration best shown in Fig. 10 of the drawing, providing at its front end the gripper jaws 46 and at its rear end the pintle receiving ears 48. The gripper member is pivotally mounted in the housing on the pintle or pivot pin 50 so as to be movable between the open position shown in Fig. 2 to the cord end embedding position shown in Fig. 3. Preferably the gripper member is actuated to its open position (when released) by means of the pintle encircling spring 52 anchored at its opposite ends to the housing and the gripper member (best shown in Figs. 2 and 3).

The locking member *c* is also made of sheet material in plate shape form having a width and length to fit the longitudinal and transverse dimensions of the housing so as to form a cover

for the open top of the housing and so as to be snugly slidable between the side walls of the housing. The form that this locking member takes is best shown in Fig. 9 of the drawing. In this form, the gripper member includes the side edges 54 and 56 which slide beneath and are guided at the top by the housing flanges 30 and 32, the medial raised portion 58 which is raised so as to form a cover top wall flush with the top surfaces of the flanges 30 and 32, a nail engaging piece 60 at the rear end, and a stop member 62 at the front end. This locking member *c* is slidably guided in the housing between the housing flanges 30 and 32 and at its underneath surface on and over the top face of the gripper member *b*. The locking member *c* also rides on the intumed end flanges 38 and the struck up stud 40 and is supported by these parts particularly when the locking member *c* is in its outermost position as shown in Fig. 2. The flanges 30 and 32 of the housing *a* are also provided near the rear end of the housing with the studs 64, 64 which form stops coacting with the stop element 62 of the locking member *c*, to limit the outward movement of the locking member. Fig. 2 shows the locking member in its outermost position. The nail engaging piece 60, however, does not extend laterally beyond the raised portion 58 (as does the member 62), and, therefore, when no cord is present in the housing, the locking member *c* may be removed from the housing by moving the same in the opposite direction, thus enabling the parts to be disassembled.

The manner of making and using the safety cord clasp of the present invention and the fulfilling thereof of the desiderata explained above will be apparent from the above detailed description. The locking member *c* and gripper member *b* are automatically held in the open condition shown in Fig. 2 away from the cord receiving end of the housing *a*, thus enabling the operator to lay in the cord ends with unobstructed ease, as is well illustrated in this figure. The gripper member may then be moved down to a position but lightly gripping the cord ends. The gripper member may be held in this position without the necessity of forcing the same home to cord end embedding condition, this being a tedious and difficult step. The locking member *c* is then slid from the open position shown in Fig. 2 to the closed position shown in Fig. 3. The locking member when thus slid to locking position engages the gripping member and gradually forces the gripping member into the cord embedding condition shown in Fig. 3. To replace a spent cord, the locking member is merely just as easily slid back to the open position shown in Fig. 2, whereupon the gripping member *b* is moved by its spring to its open position, freeing or releasing the cord. The locking member in the condition shown in Fig. 3 is firmly held by frictional engagement with the gripper member over substantially the whole area of the gripping member, thus rendering it well nigh impossible to accidentally loosen the parts. The parts can only be unlocked by a nail engagement with the member 60 of the locking member and by manually forcing the locking member to slide in the housing to its open position. The parts are made from simple stock easily formed to the structure disclosed, the parts are capable of simple assembling and disassembling operation, the housing is neatly closed by the locking member which forms a cover plate therefor and which in turn encloses

the gripper member. The construction is sturdy and attractive in appearance.

I claim:

1. A safety clasp for holding the end of a bracelet cord or strap, comprising a housing having an open top and an open end adapted for receiving at its open end the cord or strap end, a gripper member pivotally mounted in the housing at a point rearwardly spaced from said open end and movable through the open top thereof from an up to a down position for gripping the said cord or strap end, and a locking member slidably mounted in said housing and forming a cover for said open top thereof, the said locking member being movable independently of said gripper member and being slidably movable over and in engagement with the gripper member to gradually force the said gripper member into final cord end gripping position and to hold the same locked in such gripping position.
2. A safety clasp for holding the end of a bracelet cord or strap, comprising a housing having an open top and an open end adapted for receiving at its open end the cord or strap end, a gripper member pivotally mounted in the housing at a point rearwardly spaced from said open end and movable through the open top thereof from an up to a down position for gripping the said cord or strap end, a spring acting on said gripping member to move the same when released to its up or open position, and a locking member slidably mounted in said housing and forming a cover for said open top thereof, the said locking member being movable independently of said gripper member and being slidably movable over and in engagement with the gripper member to gradually force the said gripper member into final cord end gripping position and to hold the same locked in such gripping position.
3. A safety clasp for holding the end of a bracelet cord or strap, comprising a housing having an open top and an open end adapted for receiving at its open end the cord or strap end, said housing having bottom and side walls and intumed flanges at the top of the side walls, a gripper member pivotally mounted in the housing at a point rearwardly spaced from said open end and movable through the open top thereof from an up to a down position for gripping the said cord or strap end, and a locking member slidably

mounted in the side walls of said housing in a guideway which includes said intumed flanges, said locking member forming a cover for the open top of said housing, the said locking member being movable independently of said gripper member and being slidably movable over and in engagement with the gripper member to gradually force the said gripper member into final cord end gripping position and to hold the same locked in such gripping position.

4. A safety clasp for holding the end of a bracelet cord or strap, comprising a housing having an open top and an open end adapted for receiving at its open end the cord or strap end, said housing having bottom and side walls and intumed flanges at the top of the side walls, a gripper member pivotally mounted in the housing at a point rearwardly spaced from said open end and movable through the open top thereof from an up to a down position for gripping the said cord or strap end, and a locking member slidably mounted in said housing and forming a cover for said open top thereof, a guideway for said slidable locking member consisting in the main of said flanges and said gripper member in its down position, lugs in said flanges coacting with parts in the locking member forming stops for the outward movement of the locking member, the said locking member being movable independently of said gripper member and being slidably movable inwardly over and in engagement with the gripper member to gradually force the said gripper member into final cord end gripping position and to hold the same locked in such gripping position.

5. A safety clasp for holding the end of a bracelet cord or strap, comprising a housing having an open top and an open end adapted for receiving at its open end the cord or strap end, a gripper member pivotally mounted in the housing at a point rearwardly spaced from said open end and movable through the open top thereof from an up to a down position for gripping the said cord or strap end, and a locking member slidably mounted in said housing over the open top thereof, the said locking member being movable independently of said gripper member and being slidably movable over and in engagement with the gripper member to hold the same locked in such gripping position.

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