Oct. 5, 1926. 1,602,239

G. V. MILLER

SAFETY GUARD FOR EAR ORNAMENTS

Filed April 23, 1925

Fig. 1.

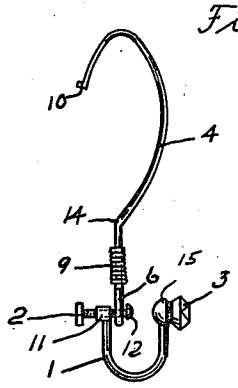


Fig. 2.

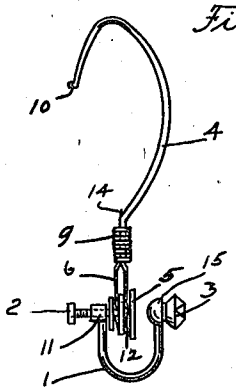


Fig. 3.

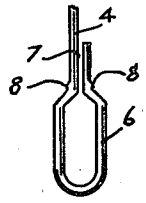


Fig. 4.

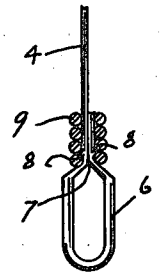
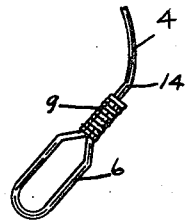


Fig. 5.



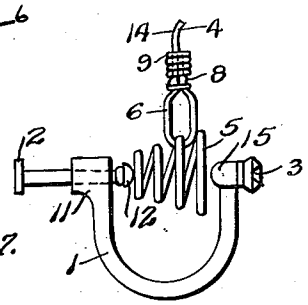
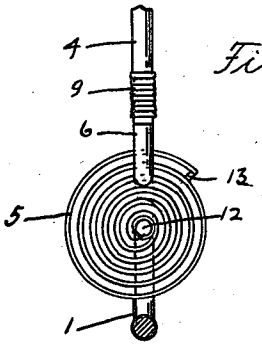


Fig. 7.

Fig. 6.



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UNITED STATES PATENT OFFICE.

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SAFETY GUARD FOR EAR ORNAMENTS.

Application filed April 23, 1925. Serial No. 25,294.

It is my experience that the conventional non-piercing mountings for ear ornaments are frequently lost because the gripping of the lobe of the ear by clamps and the like mounting devices is not dependable to securely hold the mounting in place. If pressure of the clamping device is increased to prevent slipping there will be some pain, irritation, or discomfort experienced by the user.

My invention relates to safety guards for ear ornaments, and particularly to non-piercing mountings, and the objects of the invention are—

First, to provide an inexpensive positive safety guard for ear ornaments having non-piercing mountings and which may be carried practically invisible by the ear proper to prevent loss of the ornament through failure of the clamps to hold in place on the lobe of the ear. Second, to provide the safety guard with a cone shaped spiral wire coil adapted to receive the clamping screw of the ear clamp at its inner end and be clamped to the screw bearing and, thereby, forming a resilient pad adapted to be tensioned when applied to the ear and react to gently press the ear to the head of the clamp to hold the ornament in place without irritation or discomfort, also, to provide means for the vertical adjustment of the guard member to adjust or apply the same to ears of different lengths and, third, to provide the safety guard with facility for positively connecting the safety guard to the clamping device.

I attain these objects and other advantages by means of the structure and combination of parts illustrated in the accompanying drawing in which—

Figure 1 is a side elevation of an ear clamp, showing the suspender member, partly perspective, applied thereto.

Figure 2 is the same view showing in Figure 1, showing the cone shaped spiral coil spring associated therewith.

Figure 3 is a side elevation of the eye portion of the suspender member.

Figure 4 is a side elevation of the eye portion of the suspender member, showing the keeper for holding the eye closed.

Figure 5 is a side elevation of the eye portion of the suspender member, showing the keeper in locking position and the bend in the member for lodgement in the hollow at the back of the ear and,

Figure 6 is an edgewise view of the clamping device, partly sectioned, showing the complete safety guard in operative position thereon.

Figure 7 is an enlarged view of Figure 2, and showing the relation between the screw 2, the coiled wire 5, and the eye 6.

Similar numerals of reference refer to corresponding parts throughout the several views.

Referring to the drawing, the numeral 1 designates a conventional ear clamp having a clamping screw 2 and an ornament 3. The safety guard comprises in the main a suspender member 4 and a cone shaped spiral wire coil spring 5. The suspender is made of any suitable spring wire and is manipulated to conform to the contour of the back of the ear at the side of the head. The lower portion of the suspender member is bent to form an oblong eye 6, the terminal portion of the wire being formed upwardly in spaced parallel relation to the body of the suspender to provide an entrance 7 to the eye. At the upper end of the eye 6, and on the outer sides of the body of the suspender and the extension forming the entrance to the eye are formed diminutive protuberances 8. On the body of the suspender is slidably mounted a coiled wire keeper 9 comprising a tightly wound spring wire coil having a diameter adapted to slidably receive the extension portion of the eye and hold the same to bind upon the body portion of the suspender and thereby hold the entrance to the eye closed. The lower terminal end of the keeper is adapted to yield sufficiently to pass over the protuberances 8 and react to normal position below the same to thereby hold the keeper in place on the suspender and hold the entrance to the eye closed. After the keeper is placed on the suspender the upper end of the suspender may be bent to form a stop 10 to prevent the keeper slipping off the suspender when not in locking position and restrained by the protuberances 8. The

cone shaped spiral wire coil 5 is preferably made of spring wire and wound from a center in expanding spiral convolutions to its circumference, thus providing the element with the outline form of a cone. The element 5 is mounted on the clamping screw 2, and the screw turned back to thereby clamp the inner end of the element between the screw bearing 11 and the clamp 12 on the inner end of the screw. The outer end of the element 5 is passed through the eye 6 and, thereafter, the terminal end of the outer portion of the element may be bent down at right angles to form a stop 13, to prevent the suspender from parting from the element. A little distance above the locking position of the keeper the body of the suspender is bent to form a hump 14 adapted to lie in the hollow in the neck at the back of the lobe of the ear to bring the suspender in close relation to the crease between the ear and side of the head to assure invisibility of the suspender when used.

The safety guard is applied to the ear by suspending the same from the top of the ear and adjusting the suspended portion to the back of the ear in close relation to the side of the head. This adjustment is made after the inner end of the cone shaped spiral spring has been mounted on the clamping screw 2, as hereinabove explained. The suspender is manipulated in its relation to the element 5 to extend the suspender in vertical direction to fit ears of different lengths. The extending of the suspender is accomplished by drawing the suspender from the center of the element 5 to the circumference thereof a suitable distance on the spiral convolutions of the element to obtain the desired lengthening of the guard, or from circumference to center to obtain the desired shortening of the same. After the adjustment is made in the length of the suspender the same is hooked slightly over the top portion of the ear and adjusted so as to bring the hump 14 thereon to lie in the hollow behind the ear, whereupon, the lobe of the ear is placed between the inner end of the element 5 and the head 15 on the clamp, the cone shaped spiral spring being pressed back to admit the lobe of the ear and then allowed to react and press the lobe gently against the head of the clamp with sufficient contact to hold the clamp on the lobe without irritation or discomfort because of the yielding spiral spring. If the clamp carrying the ornament slip from the ear the safety guard would suspend the same and prevent loss. The oblong eye of the suspender is a provision to permit the adjustments already mentioned as to variable lengths of the guard and to permit vertical movement in the eye to absorb shocks to the clamp and thereby prevent dismounting of the guard from the ear. The normal open eye is a provision for conveniently placing parts associated with the device in position therein and then locking the closed eye with the keeper. If it is desired to apply the suspender member only to safeguard the ear ornament, the keeper is drawn upward with sufficient force to pass the lower coil thereof over the protuberances 8 to unlock the keeper and allow the eye to open when the extension arm is clear of the keeper. The cone shaped spiral spring element is removed from the clamp and from the suspender. The clamping screw 2 is then passed through the entrance 7 into the eye 6, and the keeper manipulated to embrace and hold together the suspender body and the guide extension on the eye, the keeper being pressed down until the lower coil thereof passes over and below the protuberances 8, in which position the keeper is held stationary on the guard to hold the eye closed and until another adjustment is made.

Having described my invention what I claim is—

1. In a safety guard for ear ornaments, a suspender member conforming to the contour of the back of the ear and provided on its lower end with an elongated eye having an entrance at its upper end and a guide extension of the eye disposed in spaced parallel relation to the suspender body, a resilient cone shaped wire spiral carried by the eye on the suspender and adapted to cooperate with the ear clamp mounting to apply pressure to hold the mounting on the lobe of the ear, and a coiled wire keeper carried by the suspender body and adapted to embrace the guide extension of the eye to bind the same in close relation to the suspender to thereby close the entrance to the eye.

2. In a safety guard for ear ornaments, a suspender member conforming to the contour of the back of the ear and provided on its lower end with an elongated eye having an entrance at its upper end and a guide extension of the eye disposed in spaced parallel relation to the suspender body, oppositely disposed humps formed on the outer sides of the suspender body and the guide extension of the eye, a resilient cone shaped wire spiral carried by the eye on the suspender and adapted to cooperate with the ear clamp mounting to apply pressure to hold the mounting on the lobe of the ear, and a coiled wire keeper carried by the suspender body and adapted to embrace the guide extension of the eye to bind the same in close relation to the suspender, the lowermost coil of said keeper being adapted to yield and pass over said humps and then react to frictionally engage the lower sides of the humps to retain itself on the guard.

3. The combination, in a safety guard for ear ornaments, with an ear clamp mounting

having a clamping screw, of a resilient cone shaped wire spiral having its inner end mounted on the clamping screw of the mounting, and a suspender member having an elongated eye adapted to travel on said spiral from its center to its circumference to thereby extend the suspender and adapted to travel from its circumference to its center to retract the same.

Dated, San Francisco, in the county of San Francisco and State of California, April 7th, 1925.

GRACE VICTORIA MILLER.