July 16, 1940. P. REITER 2,208,343

SAFETY BACK DEVICE FOR EAR ORNAMENTS

Filed Nov. 4, 1939

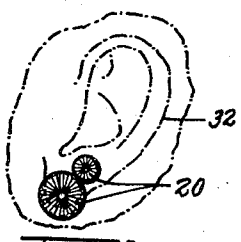


Fig. 1.

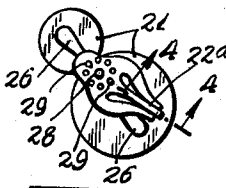


Fig. 2.

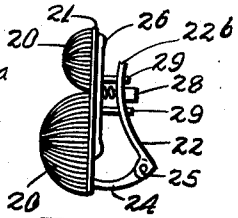


Fig. 3.

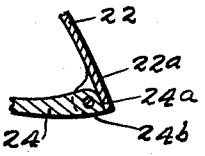


Fig. 4.

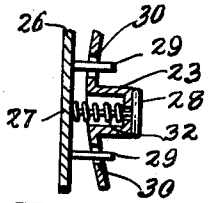


Fig. 5.

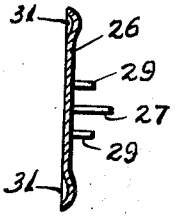


Fig. 7.

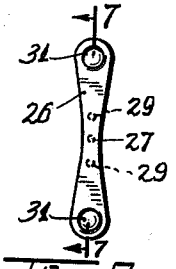


Fig. 6.

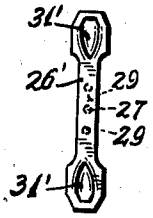


Fig. 8.

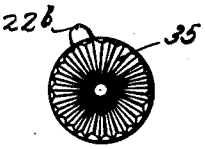


Fig. 9.

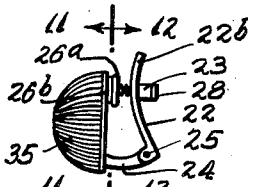


Fig. 10.

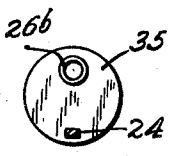


Fig. 11.

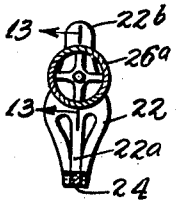


Fig. 12.

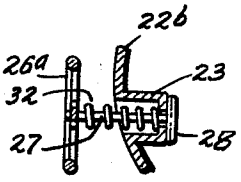


Fig. 13.

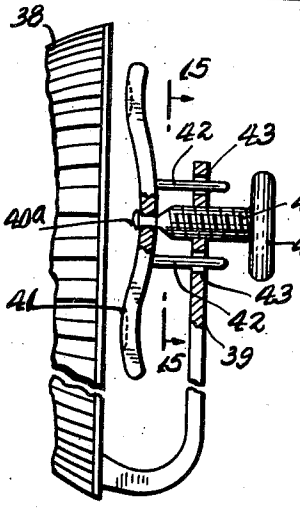


Fig. 14.

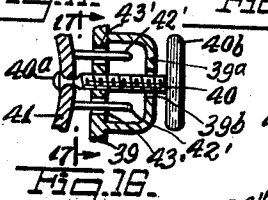


Fig. 16.

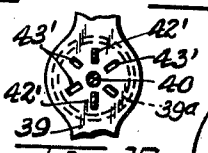


Fig. 17.

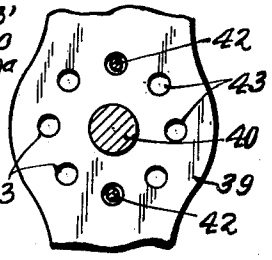


Fig. 15.

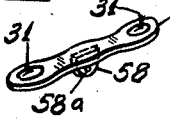


Fig. 19.

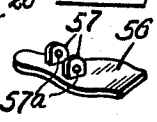


Fig. 20.

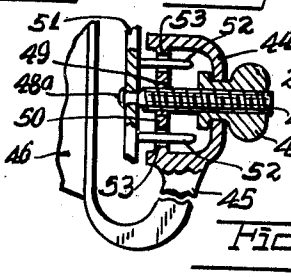


Fig. 18.

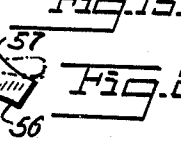


Fig. 21.

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UNITED STATES PATENT OFFICE

2,208,343

SAFETY BACK DEVICE FOR EAR ORNAMENTS

Philip Reiter, New York, N. Y.

Application November 4, 1939, Serial No. 302,841

8 Claims. (Cl. 63—14)

This invention relates to new and useful improvements in a safety back device for ear ornaments.

The invention has for an object the supporting and association of a clamp bar on the clasp of an ornament, preferably for the ear, in a certain flexible manner.

More specifically, the invention contemplates the use of resilient means for urging the clamp bar forwards to flexibly engage the ear, and arranged in a wobbling manner so that the clamp bar is loose to conform with the angular face of the ear portion against which it engages.

Still further the invention contemplates the use of guide pins on the clamp bar to guide and hold the clamp bar against displacement, while at the same time arranged in a manner so as not to interfere with the wobbling condition mentioned.

Still further the invention proposes a certain construction of the clamp bar characterized by air pockets adapted to have a suction effect when pressed against the soft flesh of the ear lobes.

For further comprehension of the invention, and of the objects and advantages thereof, reference will be had to the following description and accompanying drawing, and to the appended claims in which the various novel features of the invention are more particularly set forth.

In the accompanying drawing forming a material part of this disclosure:

Fig. 1 is an elevational view of an ornament provided with a safety back device in accordance with this invention and shown schematically mounted on an ear.

Fig. 2 is a rear elevational view of the ornament illustrated in Fig. 1.

Fig. 3 is an edge elevational view of Fig. 2.

Fig. 4 is a fragmentary enlarged sectional view taken on the line 4—4 of Fig. 2.

Fig. 5 is a fragmentary enlarged sectional view of a portion of the clamp and the clamp bar illustrated in Fig. 3.

Fig. 6 is a front elevational view of the clamp bar illustrated per se.

Fig. 7 is a sectional view taken on the line 7—7 of Fig. 6.

Fig. 8 is an elevational view of a clamp bar constructed in accordance with another embodiment of this invention.

Fig. 9 is a front elevational view of another ornament equipped with a safety back in accordance with another form of this invention.

Fig. 10 is a side elevational view of the ornament shown in Fig. 9.

Fig. 11 is a sectional view taken on the line 11—11 of Fig. 10.

Fig. 12 is a sectional view taken on the line 12—12 of Fig. 10.

Fig. 13 is a fragmentary enlarged sectional view taken on the line 13—13 of Fig. 12.

Fig. 14 is a fragmentary enlarged elevational view of another ornament with the safety back device constructed according to a modification of this invention, certain parts thereof being broken away to expose interior parts.

Fig. 15 is a fragmentary sectional view looking in the direction of the line 15—15 of Fig. 14.

Fig. 16 is a fragmentary sectional view of a safety back device constructed in accordance with a modification of this invention.

Fig. 17 is a sectional view taken on the line 17—17 of Fig. 16.

Fig. 18 is another fragmentary sectional view of another safety back device constructed according to still another form of this invention.

Fig. 19 is a perspective view of a modified clamp bar.

Fig. 20 is a perspective view of a back plate used jointly with the clamp bar illustrated in Fig. 19.

Fig. 21 is a plan view, showing the assembly of the members illustrated in Figs. 19 and 20.

The safety back device for ear ornaments, in accordance with this invention, is used in conjunction with an ornament 20 mounted upon a flat back plate 21. A clasp is mounted on the said back plate and includes a holding strip 22 having a cylindrical socket 23. In addition to the holding strip 22, the clasp includes a support 24 upon which the holding strip 22 is pivotally mounted by a pin 25. The holding strip 22 has a leaf spring portion 22^a engaging against a flat area 24^a of the support 24. The leaf spring portion 22^a functions to resiliently urge the front end of the holding strip 22 towards the back plate 21. The outer end 22^b of the holding strip 22 is flared outwards so that it may be easily gripped to pivot the catch into an open position. When this is done the spring portion 22^a will engage the rear edge 24^b of the support 24. Clasps of this type have long been known and further details of this respect will therefore be omitted in this specification.

A clamp bar 26 is engaged over one's ear to support the ornament upon the ear and disposed transversely beneath the free end of the holding strips 22. This clamp bar 26 is provided with a projecting stem 27 engaging freely through the socket 23 and at its outer end provided with a

head 28. A resilient means such as the spring 32, is arranged to act against the clamp bar 26 to urge it forwards so that said head 28 engages against the outer end of the socket 23. Guide pins 29 are mounted upon the clamp bar 26 and engage through comparatively large openings 30 formed in the holding strip 22 and serve to prevent turning of the clamp bar 26 about the stem 27 as an axis.

The outer ends of the clamp bar 26 are formed with air sockets 31 adapted to engage against the flesh of the lobe of the ear to expel some air and act as a suction holding means. In Fig. 1 the dot and dash lines 32 schematcially indicate an ear. The ornament 20 is shown mounted on the lobe thereof.

The operation of the device is as follows:

The flared end 22b of the holding strip 22 may be manually gripped and pulled outwards to pivot outward the holding strip 22. The ornament may now be placed against the lobe of the ear and then the holding strip 22 may be pivoted back towards its original position so that the clamp bar 26 engages the back of the ear lobe. It is pointed out that the clamp bar 26 is flexibly supported since the stem 27 is loose in the socket 23. This permits the bar 26 to properly seat itself on the surface of the ear lobe.

The pins 29 will not interfere with the looseness of the clamp bar since the openings 30 are relatively large. When the clamp bar 26 engages the ear lobe the spring 32 will be slightly compressed with the head 28 moving free from the end of the socket 23. Thus the spring 32 functions to resiliently engage the clamp bar 26 against the ear. This pressure is sufficient to cause some of the flesh of the ear lobe to enter the air pockets 31, displacing some of the air and creating a suction effect which assists in maintaining the ornament on the ear lobe.

In Fig. 8 a clamp bar 26' has been illustrated intended to be substituted for the clamp bar 26 in the prior form of the invention. This clamp bar 26' distinguishes from the prior clamp bar merely in shape. It is shown provided with air pockets 31' at its ends. It is also provided with the stem 27 and with the guide pins 29. In so far as shape is concerned, it has end portions with straight sides, and has relatively straight side portions. The clamp bar 26 has rounded ends and curved side portions.

In the modified form of the invention illustrated in Figs. 9–13 inclusive, the safety back device is shown associated with an ear ornament 35. This ear ornament is provided with a clasp consisting of a support 24 mounted on the back of the ornament 35 and supporting the holding strip 22. This holding strip is provided with the cylindrical socket 23. A clamp member 26a in the form of a wheel is mounted upon a stem 27 which loosely engages through the socket 23 and which is provided at its outer end with a head 28. A spring 32 is coaxially mounted on the stem 27 and acts between the socket 23 and the clamping member 26a to resiliently urge the clamping member outwards.

The clamping member 26a is normally urged against a complementary clamping element 26b mounted on the back of the ornament 35. The holding strip 22 is pivotally supported by a pintle 25 and is provided with the leaf spring portion 22a, as explained with respect to Figs. 2 and 4.

The flared end 22b of the holding strip 22 may be manually gripped to pivot open the holding strip 22 of the clasp. The ornament may then be engaged on the front of the ear lobe and the holding strip 22 behind the ear lobe in a manner so that the clamp member 26a engages the back of the ear lobe. The clamping member 26a is free to wobble and properly seat itself against the flesh of the ear lobe.

In Figs. 14 and 15 another form of the invention has been disclosed which distinguishes from the prior forms in the fact that the clamp bar or clamp member is supported on the holding strip in another way. More specifically, an ornament 38 is provided with a back holding strip 39. A screw 40 threadedly engages through the holding strip 39 and at its front end has a reduced portion 40a which is engaged through a central opening in a clamp bar 41. The reduced portion 40a is riveted down in a manner so that the clamp bar 41 is loose and may wobble. The other end of the screw 40 is provided with a relatively large flat head 40b. A pair of pins 42 project from the clamp bar 41 and pass through apertures 43 in the holding strip 39 so as to hold the clamp bar 41 against turning. The pins 42 are sufficiently closely spaced so as to be disposed beneath the head 40b. Consequently, the head 40b acts as a cover for the pins and prevents articles of cloth or other objects from being accidentally hooked on to the ends of the pins 42.

The holding strip 39 is formed with a plurality of extra openings 43 into which the pins 42 could have been engaged prior to the time that the end 40a was riveted down. In this way the manufacturer, may set the clamp bar 41 at a desirable angular position relative to the ornament 38. If the pins 42 are short enough they would come out from the openings 43 when the screw 40 is turned in completely, but this arrangement is undesirable in that the space between the ends of the pins 42 and the head 40b would be large enough to allow objects to hook on to the ends of the pins.

In Figs. 16 and 17 another modified form of the invention has been disclosed which distinguishes from the prior form in the fact that the holding strip 39 is provided with a cap portion 39a which engages over the pins 42' to encase them. The screw 40 passes through an opening 39b formed in the cap. Moreover, the pins 42' are of rectangular shape in transverse cross section. The openings 43' are formed in the holding strip 39 for the pins 42' are of corresponding rectangular shapes. In other respects this form of the invention is similar to the previous form.

In Fig. 18 still another modified form of the invention has been disclosed which has some resemblance to the form shown in Figs. 16 and 17. According to this form, a cap member 44 is mounted upon the holding strip 45 of an ornament 46. The cap member 44 may have its outer surface ornamented. This cap member 44 has a bushing 47 rotatively mounted through its rear end. A screw 48 threadedly engages through the bushing 47. This screw passes frontwards and through an opening 49 of a transverse partition 50 formed upon the front end of the cap 44. The front end of the screw 48 has a reduced portion 48a which is engaged through a clamp bar 51. This reduced portion 48a is riveted down in a manner so that the clamp bar 51 is loose to wobble. Several pins 52 project from the clamp bar 51 and pass through apertures 53 formed in the partition 50.

The bushing 47 may be rotated to cause the screw 48 to travel forwards or rearwards to move

the clamp bar 51 correspondingly. The bushing 47 may also have surface ornamentation.

In Figs. 19 to 21 inclusive, a still further modified form of the invention has been disclosed which distinguishes from the prior forms essentially in the way in which the clamp bar is supported. According to this form of the invention there is a holding strip 56 which is provided with several projecting lugs 57 formed with apertures 57a. The clamp bar 26''' is provided with a lug 58 having an aperture 58a. This lug 58 is engaged between the lugs 57, and a pin 59 is engaged through the apertures of the lugs for pivotally and loosely supporting the clamp bar 26'''. The clamp bar 26''' has several air pockets 31 in its ends for engaging the ear to produce some suction holding effect. The clamp bar 26''' is free to swivel to such an angle with respect to the holding strip 56 to engage one's ear to most effectively grip the particular contour of the ear at the area where the ear ornament is mounted.

While I have illustrated and described the preferred embodiments of my invention, it is to be understood that I do not limit myself to the precise constructions herein disclosed and the right is reserved to all changes and modifications coming within the scope of the invention as defined in the appended claims.

Having thus described my invention, what I claim as new, and desire to secure by United States Letters Patent is:

1. A safety back device for ear ornaments, comprising an ornament, a holding strip for the ornament, a screw threadedly engaged through the holding strip, a clamp bar loosely mounted on the front end of the screw, several pins projecting from said clamp bar through apertures in the holding strip, and a head for said screw, and a cap mounted on the holding strip and engaging over said pins and having an opening through which the screw passes.

2. A safety back device for ear ornaments, comprising an ornament having a holding strip, an ornamental cap on said holding strip, a bushing rotatively mounted through said strip, a screw threadedly engaged through said bushing, a clamp bar loosely mounted on the front end of said screw, several pins projecting from said clamp bar and engaging apertures formed in a portion of said cap.

3. A safety back device for ear ornaments, comprising an ornament, a holding strip for the ornament, a screw threadedly engaged through the holding strip, a clamp bar loosely mounted on the front end of said bar, several pins projecting from said clamp bar through apertures in said holding strip, and an enlarged head mounted on the other end of said screw and engaging over said pins.

4. A safety back device for ear ornaments, comprising an ornament, a holding strip for the ornament, a hollow cap mounted on said holding strip, a bushing rotatively mounted on the back wall of said cap, a screw threadedly engaged through said bushing and freely passing through the front wall of said cap, and a clamp bar mounted on the front end of said screw to be moved towards said ornament and away therefrom as said bushing is turned to extend and retract said screw.

5. A safety back device for ear ornaments, comprising an ornament, a holding strip for the ornament, a hollow cap mounted on said holding strip, a bushing rotatively mounted on the back wall of said cap, a screw threadedly engaged through said bushing and freely passing through the front wall of said cap, and a clamp bar mounted on the front end of said screw to be moved towards said ornament and away therefrom as said bushing is turned to extend and retract said screw, said clamp bar being fixedly mounted on said screw, and means for holding said clamp bar in a fixed position relative to said cap.

6. A safety back device for ear ornaments, comprising an ornament, a holding strip for the ornament, a hollow cap mounted on said holding strip, a bushing rotatively mounted on the back wall of said cap, a screw threadedly engaged through said bushing and freely passing through the front wall of said cap, and a clamp bar mounted on the front end of said screw to be moved towards said ornament and away therefrom as said bushing is turned to extend and retract said screw, said clamp bar being fixedly mounted on said screw, and means for holding said clamp bar in a fixed position relative to said cap, comprising several pins extending from the back face of said clamp bar and into the interior of said hollow cap.

7. A safety back device for ear ornaments, comprising an ornament, a holding strip for the ornament, a hollow cap mounted on said holding strip, a screw freely extended through the walls of said cap, a clamp bar fixedly mounted on the front end of said screw, pins extending from the back face of said clamp bar and into said cap for holding said clamp bar in a fixed position relative to said cap, and a bushing threadedly engaging said screw and rotatively mounted on the back wall of said cap, whereby said clamp bar may be moved towards and away from said ornament as said bushing is turned to extend and retract said screw from the front wall of said cap.

8. A safety back device for ear ornaments, comprising an ornament, a holding strip mounted on the back of said ornament, a screw threadedly extending through said holding strip, a clamp bar mounted on the front end of said screw to be moved towards said ornament, several pins mounted on the back face of said clamp bar and passing freely through complementary openings formed in said holding strip for preventing said clamp bar from rotating relative to said holding strips, and means associated with said screw and covering the free ends of said pins.

PHILIP REITER.