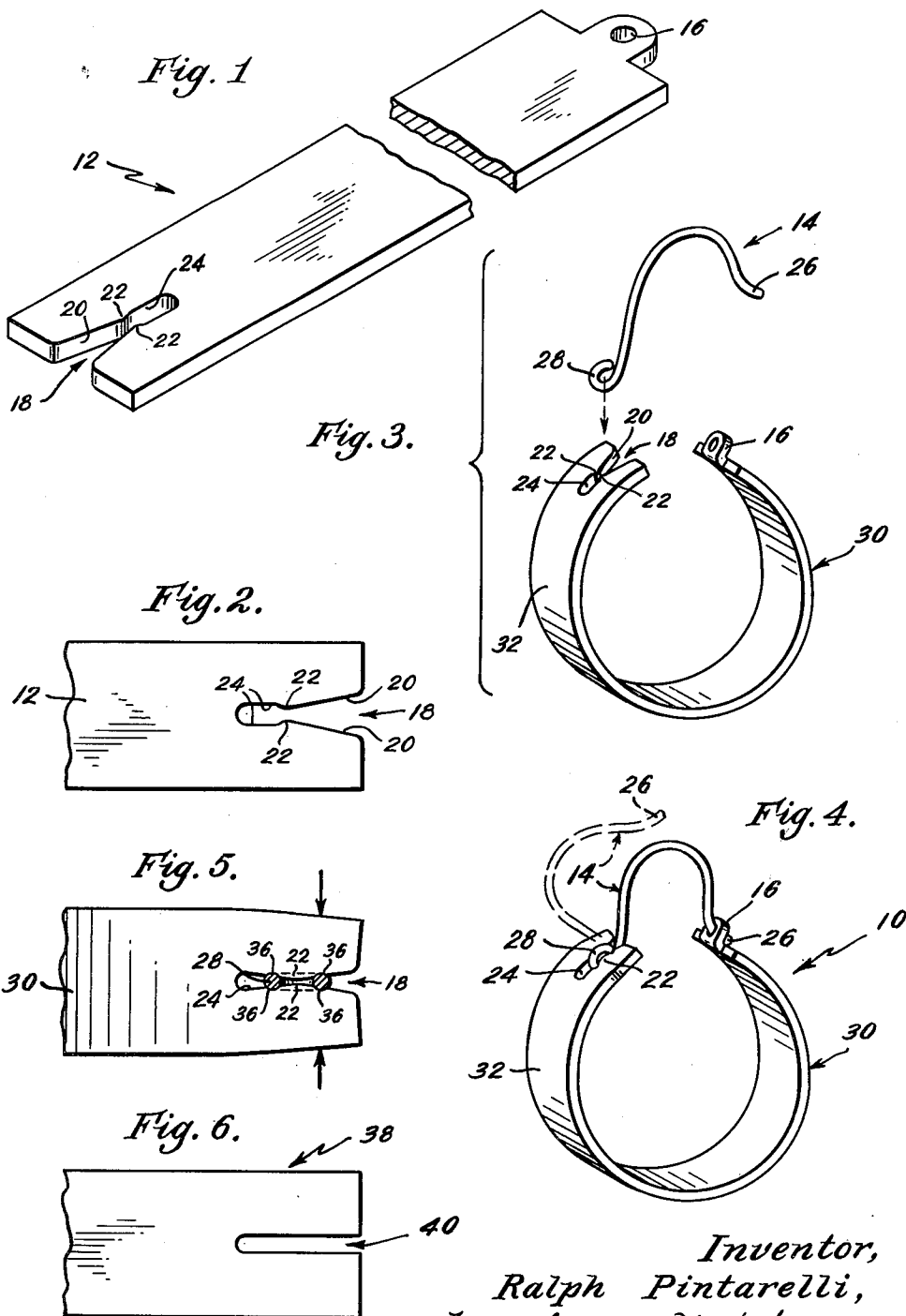


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JOURNALED IN THE SIDES OF A SLOT
IN THE RING BODY
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PIERCED EARRING HAVING A WIRE LOOP PIVOTALLY JOINED IN THE SIDES OF A SLOT IN THE RING BODY

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The present invention relates generally to the jewelry art and is more particularly concerned with the provision of a new and improved earring of the so-called "pierced" type, and of an improved method for making same.

Although pierced earrings may traditionally take many forms, one of the most common types is the construction wherein a flat, elongated bar is bent into an open-ended ring, or any other desirable open-ended configuration, and then is provided at its open end with a pivotally mounted wire which is adapted to be detachably closed to bridge said open end. It will be understood that the flat bar is suitably ornamented and that this comprises the ornamental part of the earring, the earring being mounted by virtue of the fact that the pivotal wire extends through the wearer's pierced lobe. It is this specific type of construction with which the instant invention is concerned, and perhaps this construction is best exemplified by Patent No. 2,647,379

One of the problems in prior art constructions of the type under consideration has been to provide means for effectively pivoting the ear wire to the elongated bar so that said wire is effectively mounted for free pivotal action, and in such a way that complicated and impractical manufacturing and assembling techniques may be avoided. For example, in some prior art structures, a pivot pin has been provided to pivotally mount the ear wire, and in this connection it has been found necessary to roll up a tubular hinge or provide other means on the bar itself for holding the pivot pin. This obviously results in a relatively slow and expensive manufacturing and assembly procedure. In the aforescribed Patent No. 2,647,379, one end of the ear wire is looped around an integral transverse strip which is provided in the elongated bar by slotting the latter at one end and then by punching a hole in spaced inward relation from the end of the slot. This has been found to be undesirable in practice due to the fact that the relatively small punch which must be employed for providing the aforescribed hole is subject to frequent breakage, hence increasing manufacturing costs and simultaneously slowing down the manufacturing operation.

It is therefore a primary object of this invention to provide novel and improved means for pivotally connecting an ear wire to one extremity of an elongated, flat strip or bar.

Another object of my invention is the provision of a pierced earring which is of maximum simplicity to manufacture and assemble, and which comprises only two component parts, namely, the elongated, flat bar and the ear wire pivotally associated therewith.

Another object of this invention is the provision of an ear wire which in spite of its extremely simple structure and its ease of manufacture is still highly effective in operation and durable in use.

Other objects, features and advantages of the invention will become apparent as the description thereof proceeds when considered in connection with the accompanying illustrative drawings.

In the drawings which illustrate the best mode presently contemplated by me for carrying out my invention:

FIG. 1 is a perspective detail of the elongated bar which forms part of my invention;

FIG. 2 is a fragmentary plan view of the slotted end of the bar shown in FIG. 1;

FIG. 3 is an exploded perspective view showing the

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two parts of the instant construction just before assembly; FIG. 4 is a perspective view of the parts when assembled;

FIG. 5 is a fragmentary plan view of the slotted end of the bar shown in FIG. 1 after the ear wire has been assembled therewith, the wire being shown in section; and FIG. 6 is a fragmentary plan view of the slotted end of a slightly modified bar.

Referring now to the drawings, there is shown generally at 10 an earring comprising an elongated, flat bar 12 and an ear wire 14. As will be seen most clearly in FIG. 1, the bar 12 is of substantially rectangular configuration and has at one end thereof an integral eye 16, while at the other end there is provided a longitudinally extending slot 18. As will be seen most clearly from FIG. 2, the slot 18 converges from its outer extremity as at 20 until an arcuate restricted portion 22 is reached whereupon the slot is cut back as at 24 so as to flare to a greater width for the remainder of its length. Thus, in effect, the oppositely disposed portions 22 define arcuate, inwardly extending projections, the purpose of which will hereinafter become apparent.

As will be seen most clearly in FIGS. 3 and 4, the ear wire 14 is of substantially U shape and is provided with a gently curved outwardly extending portion 26 at one end thereof, while the other end defines a loop 28.

In assembly, the bar 12 is formed into an open-ended ring 30, although it will be understood that any desirable open-ended configuration may be employed. Also, it will be understood that the outer surface 32 of ring member 30 may be suitably ornamented in any desired fashion. After bending the eye 16 so that it extends outwardly, the wire 14 is ready to be pivotally assembled to bar 12.

In order to effect this assembly, the wire 14 is positioned as illustrated in FIG. 3 and is then lowered in the direction of the arrow until loop 28 is positioned within slot 18. It will be understood that the narrowest cross dimension of slot 18 is slightly wider (approximately .001 inch) than the diameter of wire 14 so that the wire may be freely positioned in the manner aforescribed. Once the wire has been so positioned, and care should be taken to position the loop so that projections 22 are in alignment with its opening, the sides of the slot 18 are forced inwardly by any suitable tool or apparatus. As the sides of slot 18 are forced inwardly, the position of parts illustrated in FIG. 5 is obtained, it being seen that the loop 28 bites into the sides of slot 18 so as to form grooves 36 therein. It will be obvious that this result will be achieved in any situation where the surface of wire 14 is harder than that of bar 12, which is the normal situation since the bar 12 is normally made of brass or some other relatively soft metal, whereas the pierced ear wire in earrings of this type is generally gold plated in order to impart thereto a hard surface and one which is also of pleasing appearance. Actually, it will be understood that material is not critical insofar as bar 12 and wire 14 are concerned, the only critical feature being the aforescribed relation wherein wire 14 is harder than bar 12.

Once the sides of slot 18 have been crimped inwardly to the position of FIG. 5, it will be obvious that the wire is incapable of being removed without once again spreading apart the bifurcated end of bar 12. At the same time, the wire is free to pivot since loop 28 may be rotated in the arcuate bearing grooves 36. Thus, the wire 14 may be pivoted to the open position illustrated in dotted lines in FIG. 4, or else it may be pivoted to the closed position shown in full line wherein the portion 26 is threaded through eye 16 so as to detachably maintain the ear wire in this closed position. When it is desired to pivot the ear wire 14 to its open position, the resilience of the wire readily enables the U-shaped portion of same to be com-

pressed sufficiently for end portion 26 to be withdrawn from eye 16.

The inwardly extending projections 22 are advantageous to the aforescribed assembly in that they lessen the criticality insofar as the amount of pressure which must be applied to the bifurcated end of bar 12. Expressed differently, as soon as the bifurcated end of bar 12 is forced together to restrict slot 18, the projections 22 are forced into the interior of loop 28 whereby a limited degree of pivotal mounting is obtained even before the wire commences to bite into the sides of slot 18. Thus, with the projections 22, it is not essential that the bifurcated end of the bar 12 be forced inwardly as much as would be the case if the projections were not pressed. This also enables a somewhat freer pivotal action to be obtained for ear wire 12, since the greater the amount of penetration of wire 14 into bar 12, or, expressed differently, the deeper the grooves 36, the greater will be the frictional resistance against turning movement of loop 28 within said grooves.

On the other hand, it is not essential that the projections 22 be provided, and in FIG. 6 a slightly modified form of my invention is shown wherein a bar 38 is provided having a slot 40, the walls of which are substantially parallel to each other for their entire length. The assembly of wire 14 to bar 38 is exactly the same as aforescribed, except that it will now be understood that it is essential that sufficient pressure be applied when closing the slot 40 to insure that the wire will bite into the sides of the slot in order to form the arcuate bearing grooves. Actually, the amount of pressure which is applied when closing the bifurcated end of bar 38 against the wire loop is not critical so long as sufficient pressure is applied, although it has been found that the greater the pressure which is applied, the more restricted is the rotation of the mounted ear wire. This obviously results from the fact that as the wire is forced deeper into the sides of the slot, more bearing surface is provided, which means a greater amount of friction. In any event, it has been found that once the ear wire has been manipulated or rotated two or three times in its mounting, it will tend to free itself, whereupon subsequent movements will be relatively free and unrestricted. It will also be apparent that in the form of my invention illustrated in FIG. 6, the longitudinal positioning of loop 28 within slot 40 is no longer important, whereas in the preferred form of my invention, it is important to properly position the loop 28 so that the projections 22 are in alignment therewith. In this respect, the modified form of my invention is preferable since it removes a degree of criticality from the assembly procedure, and also because it is sometimes desirable to vary the longitudinal positioning of loop 28 with respect to the bar slot in order to achieve maximum blending of the curvature of wire 14 with the curvature of the elongated bar.

In either case, the basic and salient concept of my invention resides in the amazingly simple procedure of pivotally assembling the ear wire to the elongated bar by placing the wire loop 28 within the bar slot and then crimping the bifurcated end of the bar closed against said wire. The rigidity of the connection which is achieved by this technique is truly amazing, as is the freedom with which the wire can rotate in its self-formed bearings. Once the wire has been assembled to the bar in accordance with my technique, it is virtually impossible to man-

ually separate it therefrom, without once again opening up the slot. The simplicity of the manufacturing technique is thought to be obvious, and the finished article requires no hinge pins, pivot bars or the like.

While there is shown and described herein certain specific structure embodying the invention, it will be manifest to those skilled in the art that various modifications and rearrangements of the parts may be made without departing from the spirit and scope of the underlying inventive concept and that the same is not limited to the particular forms herein shown and described except insofar as indicated by the scope of the appended claims.

What is claimed is:

1. A pierced earring comprising an elongated flat bar formed into an open-ended ring, a longitudinally extending slot at one extremity of said bar and an upturned eye at the other extremity thereof, said one extremity being of uniform thickness throughout the extent of said slot in a direction toward the ring interior, a substantially U-shaped wire pivotally connected to said bar and adapted to bridge the open end thereof, said wire having a loop at one extremity thereof, each side of said slot having a pair of spaced arcuate grooves, said loop curving along a substantially circular path and registering with said grooves and being maintained against removal, but being freely pivotal therein, portions of the circumference of said loop projecting out of said slot inwardly and outwardly of said ring.

2. A pierced earring as set forth in claim 1 further characterized in that each side of said slot has a slight arcuate projection extending inwardly into the interior of said loop.

3. A pierced earring as set forth in claim 1 further characterized in that said grooves are formed by forcing the opposite sides of said slot against said loop.

4. In a pierced earring, an elongated bar of flat stock rolled to form an open-ended ring, one extremity of said bar having a slot formed therein that extends in a longitudinal direction intermediate the sides of said bar, said one extremity being of uniform thickness throughout the extent of said slot in a direction toward the ring interior, a wire having a loop formed on one end thereof, said loop being pivotally secured in said slot by the side walls of said slot that are forced inwardly into intimate contact with said loop, portions of the circumference of said loop projecting out of said slot inwardly and outwardly of said ring, and each side of said slot having a pair of spaced arcuate grooves that receive the sides of said loop therein in bearing relation.

5. In a pierced earring as set forth in claim 4, an arcuate projection being formed on each side of said slot between the pairs of arcuate grooves, said projections extending inwardly into the interior of said loop.

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