Aug. 27, 1935. O. F. PLACCO 2,012,401

ORNAMENTAL JEWELRY CONSTRUCTION

Filed Feb. 16, 1934

Fig. 1



Fig. 2

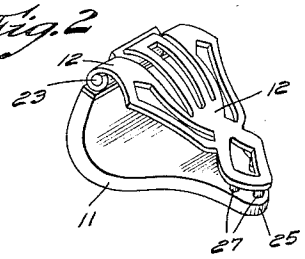


Fig. 3

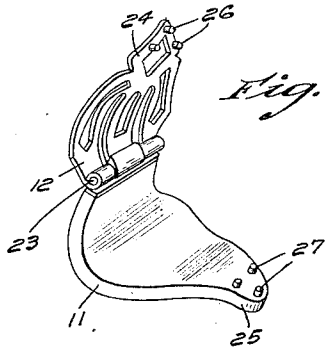


Fig. 4

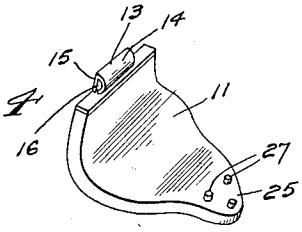


Fig. 5

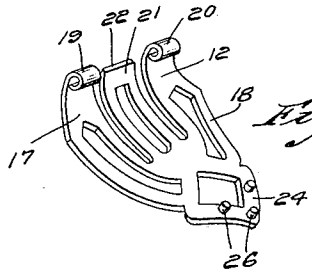


Fig. 6

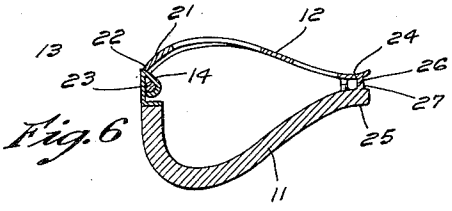


Fig. 7

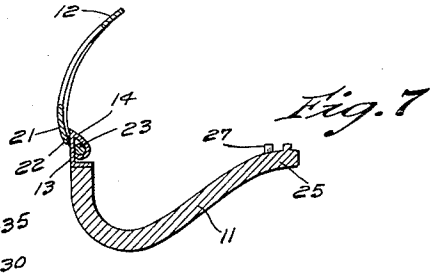


Fig. 8

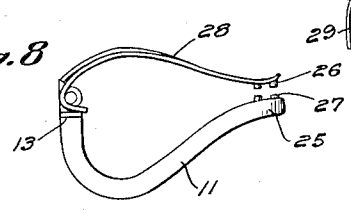
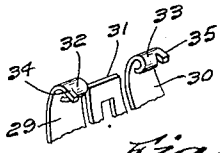


Fig. 9



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UNITED STATES PATENT OFFICE

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ORNAMENTAL JEWELRY CONSTRUCTION

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Application February 16, 1934, Serial No. 711,537

13 Claims. (Cl. 63—14)

My present invention relates to ornamental jewelry constructions, and has particular reference to a novel construction of earrings for personal wear.

Earrings of the spring type designed for personal wear have heretofore included two members adapted to respectively engage the two sides of an ear lobe, and constrained to close towards each other and grip the ear lobe, by a spring or other resilient member. This construction has certain disadvantageous features, in that the spring tension is constantly maintained, whereby the parts are always pressed towards each other and grip the ear lobe with a continuous pressure; the spring or other resilient member, because of its continuous closing tendency, has also required the earring to be positively held open by the fingers prior to fastening on the ear lobe.

Moreover, the earrings heretofore used have tended to concentrate the binding or holding pressure on a small area of the ear lobe, thus increasing the discomfort of the wearer; the constant pressure on this area has aggravated the discomfort, as it has been difficult heretofore to provide a construction capable of firmly resisting opening or releasing, while at the same time maintaining its grip on the ear lobe by exerting a relatively gentle pressure just sufficient for the desired purpose.

It is the present object of my invention to devise an earring construction which will strongly resist opening or releasing, and which will at the same time exert an effective grip that will not produce any discomfort to the ear of the wearer and yet will be sufficient to lock the earring in place against accidental removal. Further objects of my invention are to simplify the manufacture of an earring of the described type and to produce a stronger construction having a longer effective life.

With the above and other objects and advantageous features in view, my invention consists of a novel arrangement of parts more fully disclosed in the detailed description following, in conjunction with the accompanying drawing, and more specifically defined in the claims appended thereto.

In the drawing,

Fig. 1 is a perspective view showing the application of the novel earring to an ear lobe;

Fig. 2 is a perspective view of a preferred embodiment of my invention, the parts being in closed position;

Fig. 3 is a view similar to Fig. 2, the parts being in open position;

Fig. 4 is a perspective view of the novel earring base;

Fig. 5 is a perspective view of the closure member;

Fig. 6 is a central vertical section through the assembled earring, the parts being in closed position;

Fig. 7 is a view similar to Fig. 6, the parts being in open position;

Fig. 8 is a side elevation of a modified construction of my invention; and

Fig. 9 is an enlarged detail showing the locking end of the closure member.

I have found it feasible to devise an earring construction which utilizes a small number of inexpensive and easily assembled parts, and which includes a spring arrangement that interposes a firm resistance to opening of the earring and yet maintains a relatively mild pressure capable of holding an earring against accidental removal from the ear lobe of a wearer, without inconveniencing the wearer. To this end, I have devised an earring construction which includes a base that is suitable for ornamentation, and a closure member which carries a spring, this spring being designed to cooperate with a fixed fulcrum cam on the base so as to interpose a substantial resistance to opening movement of the earring parts, the spring pressure when the earring parts are in closed position being just sufficient to maintain the earring parts locked against accidental displacement. Preferably, the holding effect is facilitated by providing an enlarged gripping surface on the earring parts, having cooperating projections or knobs which extend over a considerable portion of the ear lobe. Moreover, the spring and its abutment cam cooperate to keep the parts open when in fully opened position, thus increasing the convenience of the wearer when putting on or taking off the earring.

I have further provided a construction which may be readily modified to definitely limit movement of the base or the closure member towards each other when in closed position, so as to prevent excessive gripping effects when the ear lobe is unusually heavy or thick.

The above construction is more fully described in the detailed description following. Referring to the drawing; the earring **10**, see Fig. 1, consists of two parts, a base **11** and a closure member **12**, the base **11** being shaped as shown in Fig. 4 and having a combined hinge and fulcrum cam member **13** which is preferably formed of sheet metal and firmly secured to the base as by soldering or welding, the member **13** having a for-

wardly extended cam portion 14, a rear generally flat portion 15 and a hinge pin opening 16 formed between these two portions to accommodate a hinge pin as hereinafter described.

The closure member 12, see Fig. 5, is preferably made of resilient sheet metal, and includes two side parts 17, 18 which have their ends curled or rolled to provide spaced hinge sections 19, 20, a spring tongue 21 being formed integral with the member 12 and extending between the side parts 17 and 18. The spring tongue, as clearly shown in Figs. 6 and 7, is generally arcuate in shape with the free end somewhat more sharply curved, so that the assembly of the hinged members 19 and 20 on opposite sides of the cam member 13 and the insertion of a hinge pin 23 through the aligned hinge parts will cause the free spring end 22 to abut against the member 13. Although the spring tongue has been described as integral with the closure member, it is evident that a separate spring tongue, suitably secured to the closure member, may be used instead.

The contact of the spring end 22 with the member 13 is designed to interpose a relatively firm resistance to opening of the earring parts; as will be noted in Fig. 6, the free end 22 directly abuts the cam portion 14, whereby an opening pressure exerted on the end of the closure member will first press the end 22 firmly into engagement with the cam 14, and then increase the spring curvature until the increasing pressure snaps the spring end over the upper edge of the member 13 into the position indicated in Fig. 7; the spring in this position interposes a slight resistance to closing of the parts, whereby the parts tend to remain open until purposely closed. It will be noted when the parts are in closed position, as indicated in Fig. 6, that the spring 21 is only under slight compressive stress, but is in a position capable of exerting a substantial resistance to opening of the parts. It is evident that the ear lobe engaging ends of the closure member and of the base are not under great pressure, and do not press deeply into the ear lobe parts; if it appears necessary or advisable any desired pressure at closed position may be readily obtained by suitably changing the spring tongue and the cam member.

To increase the holding effect, the ear lobe engaging ends 24 and 25 of the closure member and the base respectively are provided with a plurality of cooperating spaced projections 26 and 27 as illustrated, these projections being spaced a sufficient distance apart to extend the ear lobe engaging surface and thus increase frictional resistance to removal or displacement while decreasing concentration of pressure on the ear lobe parts.

If desired, the novel earring parts may be arranged to limit the closing action by modifying the construction of the closure member as indicated at 28 in Fig. 8, which has side parts 29 and 30 and an intermediate spring member 31 generally similar to the previously described closure member parts. The free ends of the parts 29 and 30, however, are formed to provide spaced hinge sections 32, 33 equipped with stop fingers 34, 35 for contacting the base of the cam member 13 or the upper portion of the base 11 if the abutment member is formed integral therewith, so as to limit the closing movement of the member 28 towards the member 11, as indicated in Fig. 8, whereby thick or heavy ear lobes may be provided with earrings which do not pinch.

It is thus evident that my improved construction provides an earring which stays open until closing pressure is exerted, which grips without exerting excessive pressure, and which spreads the slight holding pressure required over a wide ear lobe area; the improved construction thus operates by locking the parts in closed position under slight pressure, and strongly resisting separation of the parts. By suitable changes in the length and curvature of the spring tongue, and in the cam member, the pressure between the earring parts may be reduced to zero or increased to any desired value.

Although I have described the construction specifically as applied to an earring, it is obvious that similar arrangements may be utilized for manufacturing clips or the like suitable for personal wear, with slight modifications such as are within the province of a designer skilled in the art.

While I have described a specific constructional embodiment of my invention, changes in the size or shape of the parts, in the material used, and in the general arrangement of the parts in relation to each other, may be made to suit the requirements of different designers, within the spirit and the scope of the invention as defined in the claims appended hereto.

I claim:

1. In an article of the character described, a base member, a closure member hingedly connected thereto, and spring and abutment elements associated with said members, said spring element contacting said abutment element to maintain said members in adjacent closed relation, the engaging surfaces of the abutment element and the spring element being formed to initially lock the spring element upon initial opening movement of the closure member, whereby the spring element is bowed and placed under compression, further opening movement of the closure member then snapping the spring element over the abutment element.

2. In an article of the character described, a base member, a closure member hingedly connected thereto, and spring and abutment elements associated with said closure and said base member respectively, said spring element contacting said abutment element to maintain said members in adjacent closed relation, the engaging surfaces of the abutment element and the spring element being formed to initially lock the spring element upon initial opening movement of the closure member, whereby the spring element is bowed and placed under compression, further opening movement of the closure member then snapping the spring element over the abutment element.

3. In an article of the character described, a base member, a closure member hingedly connected thereto, an abutment element on one member, and a spring element on the other member, one end of said spring element abutting said abutment element when said members are in adjacent closed relation, and extending over said abutment element when said members are in open relation the engaging surfaces of the abutment element and the spring element end being formed to initially lock the spring element end upon initial opening movement of the closure member, whereby the spring element is bowed and placed under compression, further opening movement of the closure member then snapping the spring element end over the abutment element.

4. In an article of the character described, a base member, a closure member hingedly con-

nected thereto, an abutment element on the base member, and a spring element on the closure member, one end of said spring element abutting said abutment element when said members are in adjacent closed relation, and extending over said abutment element when said members are in open relation the engaging surfaces of the abutment element and the spring element end being formed to initially lock the spring element end upon initial opening movement of the closure member, whereby the spring element is bowed and placed under compression, further opening movement of the closure member then snapping the spring element end over the abutment element.

5. In an article of the character described, a base member, a closure member hingedly connected thereto, an arcuate abutment element on one member, and a spring finger on the other member, one end of said spring finger abutting said abutment element when said members are in adjacent closed relation, and extending over said abutment element when said members are in open relation the engaging surfaces of the abutment element and the spring finger being formed to initially lock the spring finger upon initial opening movement of the closure member, whereby the spring finger is bowed and placed under compression, further opening movement of the closure member then snapping the spring finger over the abutment element.

6. In an article of the character described, a base member, a closure member hingedly connected thereto, an abutment element on one member, and a spring element on the other member formed integral therewith, one end of said spring element abutting said abutment element when said members are in adjacent closed relation, and extending over said abutment element when said members are in open relation the engaging surfaces of the abutment element and the spring element end being formed to initially lock the spring element end upon initial opening movement of the closure member, whereby the spring element is bowed and placed under compression, further opening movement of the closure member then snapping the spring element end over the abutment element.

7. In an article of the character described, a base member, a closure member hingedly connected thereto, an abutment element on the base member, and a spring element on the closure member formed integral therewith, one end of said spring element abutting said abutment element when said members are in adjacent closed relation, and extending over said abutment element when said members are in open relation the engaging surfaces of the abutment element and the spring element end being formed to initially lock the spring element end upon initial opening movement of the closure member, whereby the spring element is bowed and placed under compression, further opening movement of the closure member then snapping the spring element end over the abutment element.

8. In an article of the character described, a base member, a closure member hingedly connected thereto, an arcuate abutment element on one member, and a spring finger on the other member formed integral therewith, one end of said spring finger abutting said abutment element when said members are in adjacent closed relation, and extending over said abutment element when said members are in open relation the engaging surfaces of the abutment element and the spring finger being formed to initially lock the spring finger upon initial opening movement of the closure member, whereby the spring finger is bowed and placed under compression, further opening movement of the closure member then snapping the spring finger over the abutment element.

9. In an article of the character described, a base member, a closure member hingedly connected thereto, an abutment element on one member, and a spring element on the other member, one end of said spring element abutting said abutment element when said members are in adjacent closed relation, and extending over said abutment element when said members are in open relation, the engaging surfaces of the abutment element and the spring element end being formed to initially lock the spring element end upon initial opening movement of the closure member, whereby the spring element is bowed and placed under compression, further opening movement of the closure member then snapping the spring element end over the abutment element the free ends of said members having spaced raised portions.

10. In an article of the character described, a base member, a closure member hingedly connected thereto, an abutment element on one member, and a spring element on the other member formed integral therewith, one end of said spring element abutting said abutment element when said members are in adjacent closed relation, and extending over said abutment element when said members are in open relation, the engaging surfaces of the abutment element and the spring element end being formed to initially lock the spring element end upon initial opening movement of the closure member, whereby the spring element is bowed and placed under compression, further opening movement of the closure member then snapping the spring element end over the abutment element the free ends of said members having spaced raised portions.

11. In an article of the character described, a base member having a hinge section, the inner surface of said hinge section being arcuate and forming an abutment, a closure member having spaced parts terminating in spaced hinge sections and aligned with said base member hinge section, and a hinge pin extending through said hinge sections, said closure member having a spring tongue positioned intermediate said spaced parts, the end of said spring tongue abutting said abutment when the members are in adjacent closed position, and snapping over said abutment to permit movement of the members to open position the engaging surfaces of the abutment element and the spring tongue being formed to initially lock the spring tongue upon initial opening movement of the closure member, whereby the spring tongue is bowed and placed under compression, further opening movement of the closure member then snapping the spring tongue over the abutment element.

12. In an article of the character described, a base member having a hinge section, the inner surface of said hinge section being arcuate and forming an abutment, a closure member having spaced parts terminating in spaced hinge sections and aligned with said base member hinge section, and a hinge pin extending through said hinge sections, said closure member having a spring tongue positioned intermediate said spaced parts, the end of said spring tongue abutting said abutment when the members are in adja-

cent closed position, and snapping over said abutment to permit movement of the members to open position, the engaging surfaces of the abutment element and the spring tongue being formed to initially lock the spring tongue upon initial opening movement of the closure member, whereby the spring tongue is bowed and placed under compression, further opening movement of the closure member then snapping the spring tongue over the abutment element the free ends of said members having spaced raised portions.

13. In an article of the character described, a base member, a closure member hingedly connected thereto, an abutment element on one member, and a spring element on the other member, one end of said spring element abutting said abutment element when said members are in adjacent closed relation, extending over said abutment element when said members are in open relation, the engaging surfaces of the abutment element and the spring element end being formed to initially lock the spring element end upon initial opening movement of the closure member, whereby the spring element is bowed and placed under compression, further opening movement of the closure member then snapping the spring element end over the abutment element and means for limiting closing movement of said members towards each other.

OSCAR FRANK PLACCO.