Feb. 9, 1954 E. L. ARZT 2,668,341

ADJUSTABLE STOP FOR THE SPRING CLIPS OF EARRINGS

Filed Sept. 26, 1950

Fig. 1

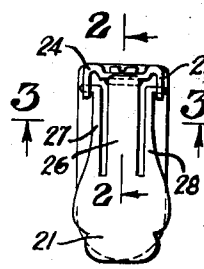


Fig. 2

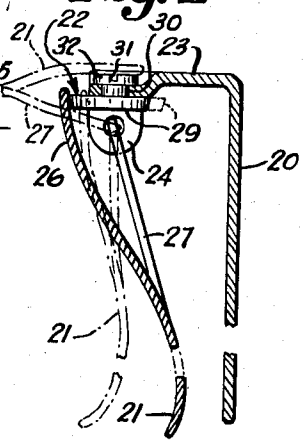


Fig. 3

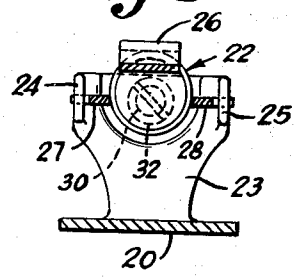


Fig. 4

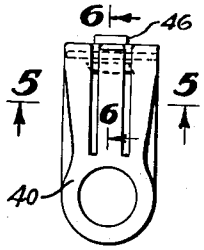


Fig. 5

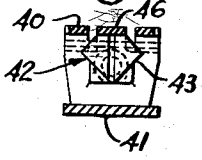


Fig. 6

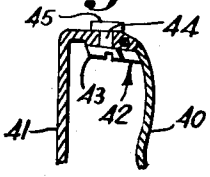


Fig. 7

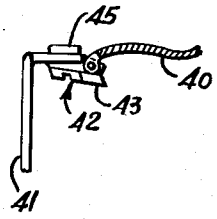


Fig. 8

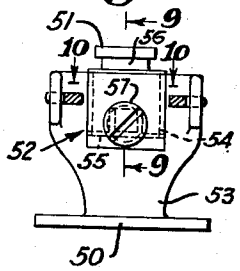
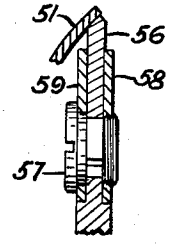


Fig. 9



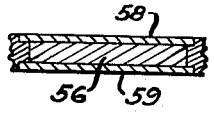


Fig. 10

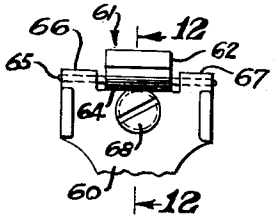


Fig. 11

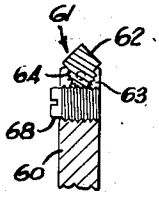


Fig. 12

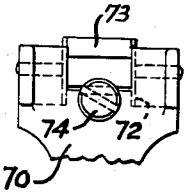


Fig. 13

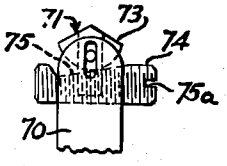


Fig. 14

INVENTOR.
EMANUEL L. ARTZ
BY Richards & Geier
ATTORNEYS

Patented Feb. 9, 1954

2,668,341

UNITED STATES PATENT OFFICE

2,668,341

ADJUSTABLE STOP FOR THE SPRING CLIPS OF EARRINGS

Emanuel L. Arzt, New York, N. Y.

Application September 26, 1950, Serial No. 186,761

1 Claim. (Cl. 24—252)

1

This invention relates to an adjustable stop controlling the spacing of the spring clip of an earring relative to the ornament arm for the attachment of the earring to the ear lobe.

Variations in the physical characteristics of the ear lobe from person to person results in attaching the known earring either too tightly or too loosely.

It is an object of the instant invention to provide a means for adjusting an earring to the ear lobe with greater comfort than heretofore possible.

Another object is to decrease the possibility of the loss of an earring too loosely attached.

A further object is to so form the adjusting means that it is both inconspicuous and readily manipulated.

Other objects of the instant invention will become apparent in the course of the following specification.

In the attainment of these objectives, the adjustable stop is disposed on the ornament arm of the earring in operable engagement with the tongue of the spring clip to vary the spacing of the clip from the ornament arm and is made in five embodiments. In the first embodiment, the stop takes the form of a disc eccentrically attached to the ornament arm with the circumference in operable engagement with the tongue of the spring clip. In the second embodiment, the stop has a polygonal head rotatably mounted on the ornament arm and in operable engagement with the tongue. Each side of the polygonal head of the stop has a different perpendicular distance to the center. In the third embodiment, a slideway is formed in the end of the ornament arm adjacent the tongue. In the slideway is a slide in operable engagement with the tongue and the position of which relative thereto is controlled by a screw having a central shank of polygonal cross section in operable engagement on the slide, the spacing of each side of the shank from the longitudinal center line being different. In the fourth embodiment, the adjustable stop is in the form of a pivotally mounted member having an upper portion of angular cross section in operable engagement with the tongue and an integrally formed lower portion of semi-circular cross section provided with spaced teeth. A screw threaded through the arm in operable engagement with the teeth of the stop varies the position of the stop relative to the tongue. In the fifth embodiment, the stop is constituted of a slide disposed in the arm and in operable engagement with the tongue. Varying the position of the slide

2

relative to the tongue is a screw threaded through the arm in operable engagement with the base of the slide, a portion of the screw shank being flattened and beveled and coacting with the slide.

The invention will appear more clearly from the following detailed description when taken in conjunction with the accompanying drawings showing by way of example the preferred embodiments of the inventive concept.

In the drawings:

Figures 1 through 3 show the first embodiment of the adjustable stop for varying the position of the spring clip of an earring relative to the ornament arm, constructed in accordance with the principles of this invention, and in which:

Figure 1 is a front elevational view of the spring clip;

Figure 2 is a sectional view along 2—2 of Figure 1 showing the adjustable stop for the spring clip and on enlarged scale; and

Figure 3 is a sectional view along 3—3 of Figure 1, also enlarged.

Figures 4 through 7 show the second embodiment of the adjustable stop, and in which;

Figure 4 is a front elevational view of the spring clip;

Figure 5 is a sectional view along 5—5 of Figure 4;

Figure 6 is a sectional view along 6—6 of Figure 4, and

Figure 7 is an end view of the spring clip shown in Figure 4 with the clip in section and in the open position.

Figures 8 through 10 show the third embodiment of the adjustable stop, and in which:

Figure 8 is a view similar to that of Figure 3;

Figure 9 is a sectional view along 9—9 of Figure 8; and

Figure 10 is a sectional view along 10—10 of Figure 8.

Figures 11 and 12 show the fourth embodiment of the adjustable stop, and in which:

Figure 11 is a fragmentary view similar to that of Figure 3; and

Figure 12 is a sectional view along 12—12 of Figure 11.

Figures 13 and 14 show the fifth embodiment of the adjustable stop, and in which:

Figure 13 is a fragmentary view similar to that of Figure 3; and

Figure 14 is a side view of the adjustable stop shown in Figure 13.

Referring now in greater detail to the first embodiment of the adjustable stop shown in Figures 1 through 3 where like reference numerals in-

dicate like parts, reference numeral 20 indicates the ornament arm, 21 the spring clip, and 22 the adjustable stop.

The ornament arm 20 is of the known type having a bent portion 23 (Fig. 2) for fitting under the ear lobe and on either side of which are the downwardly directed ears 24 and 25. The spring clip 21 is also known and has a tongue 26 integrally formed with the spring clip at the bottom and in spaced relationship to the integrally formed side portions 27 and 28 which are turned outwardly at the top as shown to provide a means for hingedly attaching the clip in aligned openings made in the ears 24 and 25 of the ornament arm. The tongue 26 by virtue of the construction thereof and the spring like character of the material in coaction with the end of the bent portion of the ornament arm provides a means for maintaining the free end of the clip in spaced relationship to the ornament arm and under tension. However, the variations in the lobe of the human ear from person to person prevent any standardization of the spacing of the clip from the arm and actually requires a means for varying the magnitude of the spacing to fit the earring to the ear lobe of a particular person.

The means for varying the aforementioned spacing is in the adjustable stop 22 made of the circular disc 29 in operable engagement with the tongue 26 and keyed to a shaft 30 rotatably passed through the bent portion 23 of the ornament arm 20. By attaching the disc 29 off center, the perpendicular distance between the axis of rotation and the edge of the tongue 26 is varied, the less the distance the greater the spacing of the end of the clip 21 from the end of the arm 20, and the less the tension on the spring clip. The greater the distance, the closer together the ends of the members will be with the tension increased. Once this adjustment is made for the ear of any person, no further adjustment will in general be required.

In operation, the spring 21 is moved outwardly to the dot dash position shown in Figure 2 and inverted from the position shown in that figure so that the ornament arm 20 extends upwardly on the outside of the ear lobe, the bent portion 23 passing under the lobe, and the clip 21 extending upwardly on the inside of the lobe. By moving the clip 21 to the full line position shown in Figure 2, the earring should be fastened to the lobe without excessive pressure and without being too loosely attached. In the case of excessive pressure, by inserting the blade of screw driver in the slot 31 and turning the disc 29 until the distance between the axis of rotation and the circumference of the disc in contact with the tongue 26 is greater than that of the original setting, the excessive pressure on the ear lobe can be relieved. In the case where the pressure is insufficient for the safety of the earring, the reversal of the previous steps will probably adapt the earring to the lobe of the ear.

Of course, if the tongue 26 be extended above the plane of the bent portion 23, the disc 29 may be mounted on the opposite side of the arm. Moreover, the slot for turning the disc 29 may be made in either the washer 32 holding the disc in position—or directly in the disc.

In the second embodiment of the adjustable stop shown in Figures 4 through 7, reference numeral 40 indicates the spring clip, 41 the ornament arm, and 42 the adjustable stop.

The spring clip 40 and the ornament arm 41 are identical with the corresponding members of the first embodiment previously described.

The adjustable stop 42 is constituted of a polygonal head 43 keyed to a shaft 44 in such a manner that the perpendicular distance between the longitudinal center line of the shaft and each edge of the polygonal head varies. The shaft 44 is rotatably passed through the bent portion of the arm 41 and is held in place by the washer 45. The position of the stop 42 relative to the tongue 46 of the clip is such that irrespective of the distance of the edge of the polygonal head from the center line, one face of the head is always in contact with the tongue or the side arms of the spring clip or both. Hence, the tension of the spring clip may never be varied.

The operation of the adjustable stop of the second embodiment is substantially the same as that already described under the first embodiment. The polygonal head may be slotted as illustrated or the washer holding the shaft in place may be slotted to receive the blade of a screw driver during manipulation.

In the third embodiment of the adjustable stop shown in Figures 8 through 10, reference numeral 50 indicates the ornament arm, 51 the tongue of the spring clip, and 52 the adjustable stop.

Both the ornament arm and the tongue of the spring clip as well as the spring clip of which the tongue is a part are identical with the corresponding members of the first embodiment already described.

A slideway 54 is formed in the bent portion 53 of the ornament arm 50 extending under the ear lobe, the slideway being in the edge adjacent the tongue 51. Slidable in the slideway is a slide 55 which may have an integrally formed and outwardly directed protuberance 56 in contact with the tongue 51. Along the inner edge of the slide is an open slot the inner end of which is of semi-circular form while the outer end is made by removing the portions of the bent portion 53 leading into the inner end of the slot between tangents to the semi-circular portion at the ends of the diameter thereof parallel to the inner end of the slide, the depth of the open slot being equal to the diameter of the semi-circular portion. Over each side of the slideway and adjacent the inner edge are the plates 58 and 59 attached to the bent portion 53 by any known means. The plates have formed therein circular openings aligned with each other, the inner edge of the slideway and the semi-circular portion of the slot in the slide. The circular opening in one plate is internally threaded.

Threaded through the aligned openings is a screw 57, only the tip of the screw is threaded for coaction with the internally threaded opening in the plate while the shank between the threaded tip and head is of polygonal cross section (Fig. 8) the perpendicular distance from the longitudinal center line of the screw to each face of the polygon being different.

The operation with the adjustable stop of the third embodiment is substantially the same as that described under the first embodiment. By turning the screw 57 with the blade of a screw driver inserted in the slotted head, the screw will rotate. If the perpendicular distance from the center of the screw to the face of the polygon, the ends of which are in contact with the semi-circular slot in the slide while the opposite face is in contact with the inner edge of the slideway, gives insufficient spacing of the spring clip and the ornament arms, merely by rotating the screw

until a face having a spacing from the inner edge of the slideway greater than that of the original setting is in contact with the semi-circular slot, the desired spacing between the spring clip and ornament arm can be attained within reasonable limits.

In the fourth embodiment of the adjustable stop shown in Figures 11 and 12, reference numeral 60 indicates the bent portion of the ornament arm, and 61 the adjustable stop.

The ornament arm, the bent portion 60 of which is shown in Figure 11, and the spring clip (not shown) are identical with the corresponding members of the first embodiment previously described.

The adjustable stop 61 is constituted of an upper portion 62 having an angular cross section as shown in Figure 12 and an integrally formed lower portion 63 of semi-circular cross section which carries the spaced teeth 64. Longitudinally disposed through the stop 61 is a shaft 65 and to which it is keyed in any known manner. Maintaining the shaft and stop rotary are any suitable bearings 66 and 67 integrally formed in spaced arrangement as illustrated with the bent portion 60 and so positioned that the apex of the angular upper portion is in contact with the tongue of the spring (not shown).

Rotating the stop 61 in the bearings is a screw 68 threaded through the bent portion in such a manner that the threads of the screw along the upper edge (Fig. 12) are in operable engagement with the teeth formed on the inner portion of the stop 61.

Operation with the adjustable stop 61 of the fourth embodiment is the same as that described for the stop of the first embodiment. When the vertical center line of the stop 61 through the apex of the angular portion (Fig. 12) is perpendicular to the longitudinal center line of the screw 68, the free end of the spring clip will have been stopped in the closed position as far as possible from the ornament arm. With the blade of a screwdriver inserted in the slotted head of the screw 68, rotation of the screw in either direction will permit the end of the spring clip to come

in closer relationship with the end of the ornament arm.

In the fifth embodiment of the adjustable stop shown in Figures 13 and 14 reference numeral 70 indicates the bent portion of the ornament arm (not shown), and 71 the adjustable stop.

The ornament arm and the spring clip (not shown) are identical with the same components of the already described first embodiment. A slideway 72 is formed in the free end of the bent portion 70 and adjacent the tongue of the spring clip. In the slideway is a slide 73.

Varying the position of the slide 73 in the slideway 72 is a screw 74 which is threaded through the bent portion 70 of the ornament arm. On the screw is a flat beveled surface portion 75 some portion of which is always maintained in contact with the inner edge of the slide 73.

The operation with the adjustable stop 71 is substantially like that of the first embodiment. With the end of a screwdriver blade inserted in the slotted head 75*a* of the screw and causing the screw to turn through 360° will give a different point of contact on the flat beveled surface which in turn will vary the positioning of the spring clip relative to the ornament arm.

It will be understood that the invention is not limited to the exact disclosure herein described but may lend itself to a variety of expressions within the scope of the appended claim.

What is claimed is:

An earring comprising an arm and a spring clip pivotally disposed adjacent one end of the arm and in spaced relationship therewith, the spring clip having a tongue formed therein, a stop disposed on the arm and coacting with the tongue, the stop comprising a circular disc, and means for eccentrically mounting the disc on the arm in operable engagement with the tongue.

EMANUEL L. ARZT.

References Cited in the file of this patent

UNITED STATES PATENTS

Number	Name	Date
2,230,984	Chernow	Feb. 4, 1941