

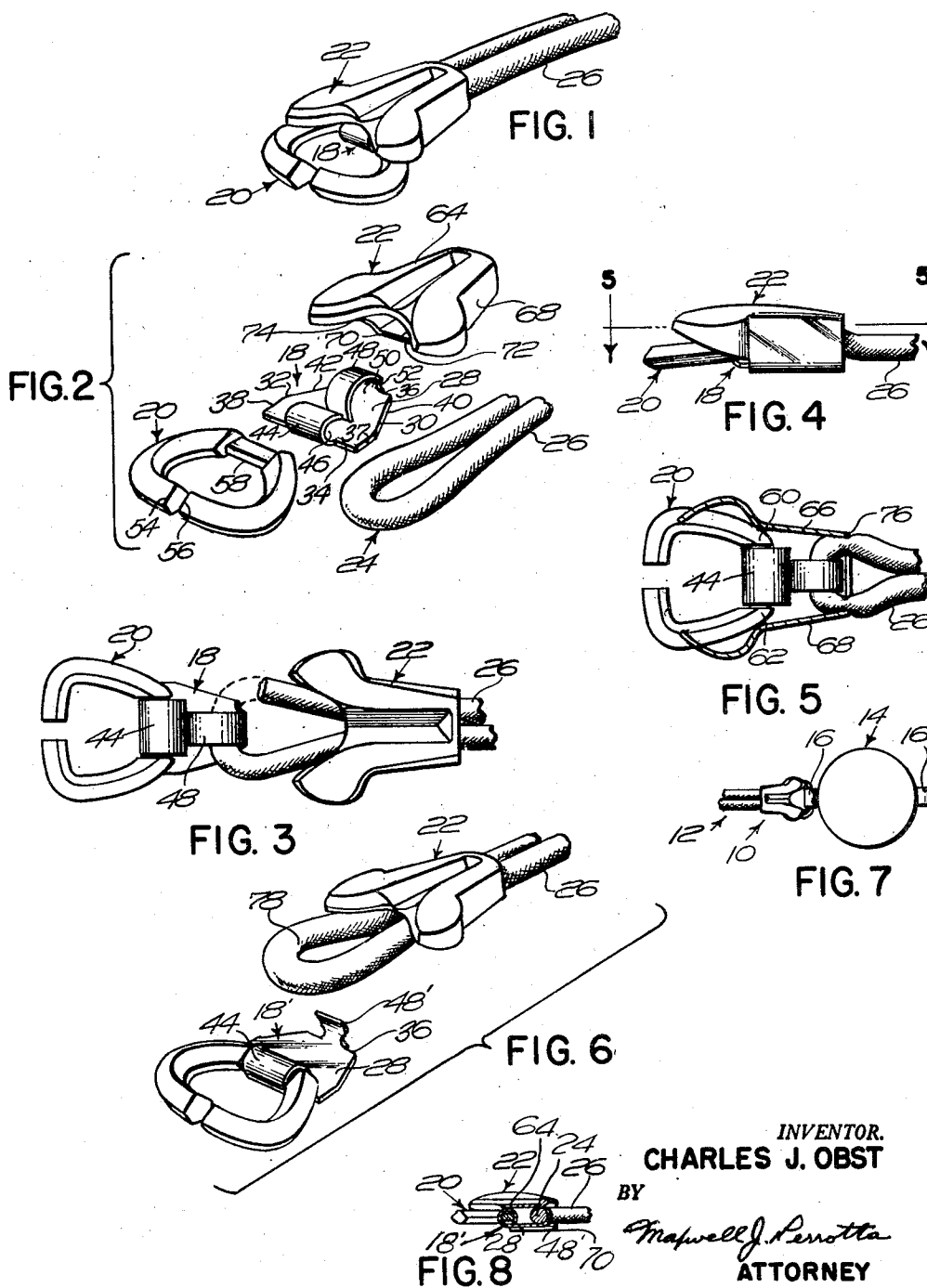
Feb. 25, 1958

C. J. OBST

2,824,353

END CONNECTOR FOR CORD-TYPE BANDS

Filed March 12, 1956



1

2,824,353

END CONNECTOR FOR CORD-TYPE BANDS

Charles J. Obst, Barrington, R. I.

Application March 12, 1956, Serial No. 570,921

8 Claims. (Cl. 24—265)

The present invention relates to improvements in cord-type bands and more particularly for an improved end connector whereby the cord-type band can be attached to a watch case or the like.

In previous arrangements which have utilized cord-type bands the watch case has been provided with a bail at the sides thereof. The cord-type strap or band is threaded through the bail and bent back upon itself so as to form a double strand. Adjacent the bight of the cord there is provided a ring which encircles both cord sections so as to hold the same together adjacent the bail. The opposite ends of the two strands of cord are secured together conventionally by a connector which can be detachably connected to a substantially conventional form of buckle, which in turn is secured to a connector similar to the above referred to connector. An example of this type of watch-band is shown in the patent to Sand, Patent No. 2,254,755, issued September 2, 1941. As will be readily seen, the cord-type band is subjected to considerable wear where it passes through the bail of the watch case. This is because of the relative movement permitted between the bight portion of the cord and the bail. Because of the excessive wear at this point it becomes necessary to frequently replace the cord, which of course is highly objectionable.

Accordingly, it is a primary object of the present invention to provide an improved end attachment or connector for cord-type bands such that a metallic ring can be utilized with the cord for securement to the watch case and wherein the construction of the end attachment or connector is such that an ornamental shell can be associated therewith to cover the connection.

A further object of the present invention is to provide an improved end attachment or connector for cord-type bands such that an ornamental shell can be associated with the connector to cover the connection between the cord and the ring and a substantial portion of the ring and wherein the arrangement is such as to firmly retain the shell in position with respect to the cord and associated elements, and conversely, wherein the arrangement is such as to firmly position the bight portion of the cord with respect to the other elements which constitute the means for connecting the cord to a watch case.

A further object of the present invention is to provide an improved end connector for cord-type bands wherein there is provided a shell adapted to cover the elements arranged to inter-connect the bight of the cord with a watch case such that the shell which can be of ornamental form is firmly retained relative to the elements with which it is associated without the necessity of the provision of positive retaining means or connections.

Another object of the present invention is to provide an improved end connector for cord type bands which is so constructed as to firmly hold the bend in the cord, that is the bight, from movement relative to the elements with which it is associated as to prevent wear thereby extending the life of the cord.

A still further object of the present invention is to provide an improved end connector for cord-type bands

2

wherein the arrangement is such that the ornamental shell cooperates with the bight of the cord and the other elements of the connector to firmly secure the bight from movement relative to the elements of the connector at the same time the ornamental shell is held on the assembly.

Another object of the present invention is to so construct the end connector that the ornamental shell cooperates with a connector plate so as to be slidable relative thereto and wherein when the cord is engaged with the connector plate the ornamental shell can be engaged over the combination of cord and connector plate so as to secure the assembly and can be slid off of the assembly when it is desired to replace the cord.

A still further object of the present invention is to provide an improved end connector for cord-type bands such that the cord can be easily and quickly replaced by sliding the shell off the connector plate, engaging a doubled section of cord through the shell and positioning the bight of the doubled cord section over the retainer tongue of the connector plate and finally returning the ornamental shell to its assembled position.

A still further object of the present invention is to provide an improved cooperative relationship between the ornamental shell and the tongue of the connector plate such that the bight of the cord which is engaged over the tongue is retained in position relative to the tongue by the shell to prevent the cord from jumping over the tongue and breaking the connection.

Other objects of the present invention are to provide an end connector for cord-type bands which is of extreme simplicity, of light weight, easy to manufacture and also facile of assembly, and wherein replacement of the cord is rendered less frequently necessary and yet is easily effected by the jeweler or other person replacing the cord.

In the drawings:

Figure 1 is an enlarged detailed perspective view showing a preferred embodiment of the improved end connector of the present invention;

Figure 2 is an enlarged exploded perspective view showing the component elements of the end connector of Figure 1;

Figure 3 is a top plan view of the end connector of Figure 1 showing the ornamental shell in its retracted position, part of the cord being broken away for clarity;

Figure 4 is a side elevational view of the end connector of Figure 1;

Figure 5 is a longitudinal horizontal sectional view taken substantially along the plane of line 5—5 of Figure 4;

Figure 6 is an enlarged detailed perspective view of a modified form of improved end connector showing the manner of assembly thereof;

Figure 7 is a top plan view showing the manner in which the improved end connector is associated with a watch case; and

Figure 8 is a longitudinal vertical sectional view showing the internal details of the form of end connector shown in Figure 6.

Referring more particularly to the drawings wherein like numerals refer to like parts throughout and having reference first to Figure 7, it will be noted that the present invention is comprised of an end connector 10 which is associated with a conventional cord 12 of fabric or metallic construction and a watch case 14 which is provided with conventional bails 16 at each side thereof.

A preferred embodiment of the end connector is shown in Figures 1 through 5 as being comprised of a connector plate 18, an end ring 20, an ornamental shell 22 and the bight end portion 24 of a conventional cord-type band 26.

The connector plate 18 may be constructed from flat metallic strap stock by a stamping and forming operation or by other conventional methods. The connector plate

18 is comprised of a base portion 28 having side edges 30 and 32 and end edges 34 and 36. The side edges 30 and 32 are formed adjacent the end edge 34 with flat parallel portions 36 and 38. Joining the flat portions 36 and 38 and with the end edge 36 are converging side edge portions 40 and 42. The end edge 34 is formed with an upwardly extending tab or tongue 44 which is arcuately curved back toward the main body surface 28 so as to provide a substantially cylindrical ring pivot bar-receiving passage.

At the shorter end edge 36, a tab or tongue 48 upwardly extends away from the main body portion 28 and is arcuated so as to double back into contact with the main body portion 28 to thereby form a bight-receiving opening at 50. The tab 48 extends away from the main body portion 28 of the plate a distance at least equal to the diameter of the cord 26 and in general the opening 50 is sufficiently large to freely receive the cord 26 therethrough so as to easily position the bight 24 at the tab 48. The tab 48 has two small cut-away portions 52 at each side edge thereof adjacent the end edge 36 so as to conform to the exterior of the cord which is engaged thereagainst.

The length of each of the end edge portions at the sides of the tab 48 are substantially less than the diameter of the cord 26. The reason for this is so that when the cord is passed through the opening 50 defined by the tab 48 and portions of the cord 26 overlying the end edge 36 will provide portions which are outwardly positioned relative thereto, for a reason to be given more fully hereinafter.

The end ring 20 may be formed of conventional metallic stock bent into ring shape but having its ends which oppose each other, as at 54 and 56, spaced apart so as to be engageable with the bails 16 of the watch case 14. After being engaged on the bails 16 each ring is squeezed so as to bring the ends 54 and 56 closer together so as to prevent accidental disengagement from the bails. On the opposite side of the ring from the ends there is provided a pivot bar portion 58 which is of reduced diameter and may be of rectangular cross-section. The pivot bar portion 58 is engageable in the opening 46 of the tab 44 which is closed thereover so as to retain the ring on the connector plate 18. The relationship between the pivot bar 58, tab 44 and the opening 46 therethrough and the end edge portions adjacent the end edge 34 is such that pivoting of the ring 20 with respect to the connecting plate 18 is restricted. As shown best in Figure 5, the undersides of the portions 60 and 62 of the ring 20 engage the portions of the connector plate 18 adjacent the end edge 34 so as to prevent downward pivoting of the ring 20. The ornamental shell 22 is comprised of an upper wall 64 which may be impressed with any desired ornamental design such as is shown. The shell 22 has depending from the ornamental top wall 64 side walls 66 and 68 which in turn are connected with retaining wall portions 70 and 72 which extend in substantial parallelism with the top wall 64 and meet each other so as to define an enclosure open at its ends so as to provide a ring-receiving opening at 74 and a cord-receiving opening at 76.

As shown in Figures 1, 4 and 5, the portion of the ring-receiving opening 74 provided by the top wall 64 of the shell is so disposed as to limit upward pivoting of the end ring 20 with respect to the connector plate 18. Thus the top wall of the shell 22 cooperates with the connector plate 18 to substantially limit pivoting of the connector ring 20 in order that when connected with the watch case 14 there will not occur a substantial angularity between the watch case 14 and the shell 10 and cord 12.

At the opposite end of the shell 22, at the cord-receiving opening 76, the dimension of the opening 76 corresponding with the end edge 36 is such as to be equal to less than the sum of the width of the tab or tongue 48

at the cut-out portions 52 and twice the diameter of the cord 26. The side wall portions 66 and 68 which depend from the ornamental top wall 64 converge somewhat similarly to the convergence of the side edges 40 and 42. The end opening 76 has its dimension corresponding with the end edge 36 less than the sum of the width of the tab or tongue 48 and twice the diameter of the cord 26. The reason for this relationship is in order that when the cord 26 is engaged through the opening 50 defined by the tab 48 and the shell 22 is engaged thereover, the side walls 68 of the shell squeeze the cord 26, especially at the bight portion 24, against the cut-out portions 52 of the tab 48. In this fashion the shell 22 is held with respect to the connector plate 18 without the requirement of positive retaining means and yet the shell 22 can be removed by sliding the same backwardly away from the connector plate and bight portion of the cord. Additionally, the relationship between the shell 22, cord 26 and connector plate 18 is such as to snugly retain the bight portion 24 of the cord with respect to the connector plate and other elements of the assembly, thereby reducing the wear which normally occurs in the bight portion of the cord. Thus, the cooperative relationship between the shell cord and connector plate is such as to releasably retain the shell on the assembly and clampingly hold the bight of the cord with respect to the tab of the connector plate so as to reduce wear.

In assembling the embodiment of Figures 1 through 5, the shell 22 is separate from the connector plate 18 and end ring 20 as shown in Figure 3. The cord 26 is threaded through the opening 50 defined by the tab 48 and doubled back upon itself so as to extend through the passageway within the shell 22. Next, the shell 22 is slid along the cord 26 so as to closely cooperate the depending side walls 68 of the shell with the tapering side edges 40 and 42 of the connector plate 18. In so doing, the mouth of the opening 76 causes squeezing of the bight portion of the cord 26 as shown in Figure 5 so as to retain the ornamental shell in position on the assembly and fixedly hold the bight portion of the cord from movement relative to the connector plate and other elements of the assembly. The ornamental shell additionally functions to prevent the upward pivoting of the end ring 20 as hereinbefore described.

Looking now at Figures 6 and 8, it will be seen that a slightly different embodiment is disclosed. In this arrangement the like numerals apply to like parts and it will be seen that the difference between this embodiment and the previously described embodiment resides in the construction of the connector plate 18'. As shown in Figure 6, the connector plate 18' has at its end edge 36 an upwardly extending tongue or tab 48' which is slightly arcuated about a horizontal axis parallel to the side edge 36 so as to conform substantially to the contour of the cord 26 at the inner surface of the bight, as at 78. In contradistinction with the tab 48 of the previous embodiment, the tab 48' terminates a distance from the main body portion 28 of the connector plate 18' substantially equal to the diameter of the cord 26. As shown in Figure 8, the depth of the shell, that is the distance between the lower wall portions 70, 72 (see Figure 2) and the upper ornamental wall 64 is such that with the cord bight portion 24 engaged around the tab or tongue 48', removal of the cord from the tongue cannot be accomplished while the shell is associated with the connector plate 18'. In assembling the embodiment of Figures 6 and 8 the cord 26 is doubled upon itself so as to provide a bight portion and the doubled cord is passed through the shell 22, as shown in Figure 6. Next, the bight portion is engaged over the tongue 48' and the shell 22 is then slid forwardly so as to be engaged about the connector plate 18' at which position it cooperates with the cord and tab 48' and side walls of the connector plate 18' in somewhat the same manner as hereinbefore described.

5

In order to exchange the cord 26 for a new one when it becomes worn, the shell 22 is merely slid to a retracted position and by movement of the cord and shell along an axis perpendicular with respect to the surface of the connector plate 18' the cord will be disengaged from the tab 48' and can then be removed from the shell 22 for replacement.

As this invention may be embodied in several forms without departing from the spirit or essential characteristics thereof, the present embodiment is therefore illustrative and not restrictive, since the scope of the invention is defined by the appended claims rather than by the description preceding them, and all changes that fall within the metes and bounds of the claims or that form their functional as well as conjointly cooperative equivalents, are therefore intended to be embraced by these claims.

I claim:

1. In a cord-type band for watches and the like wherein a pair of cords are provided and in which each cord is doubled upon itself to provide a bight and two juxtaposed parallel cord sections and wherein the free ends of both pairs of cord sections are adapted to be interconnected; an improved end attachment for coupling the cord to a watch or the like comprising a connector plate, means carried by said connector plate for attaching a watch or the like to said plate, said plate having remote from said means a bight-engaging tongue means about which the bight of said cord is engaged, and shell means engaged over said connector plate, bight-engaging tongue means and cord bight to restrain relative movement therebetween and so as to grippingly retain said cord bight about said tongue means.

2. In a cord-type band for watches and the like wherein a pair of cords are provided and in which each cord is doubled upon itself to provide a bight and two juxtaposed parallel cord sections and wherein the free ends of both pairs of cord sections are adapted to be interconnected; an improved end attachment for coupling the cord to a watch or the like comprising a connector plate, means carried by said connector plate for attaching a watch or the like to said plate, said plate having remote from said means a bight-engaging tongue means about which the bight of said cord is engaged, and shell means engaged over said connector plate, bight-engaging tongue means and cord bight to restrain relative movement therebetween and so as to grippingly retain said cord bight about said tongue means, said bight-engaging tongue means comprising an integral tab extending outwardly from the plane of said connector plate a distance substantially equal to the diameter of said cord.

3. In a cord-type band for watches and the like wherein a pair of cords are provided and in which each cord is doubled upon itself to provide a bight and two juxtaposed parallel cord sections and wherein the free ends of both pairs of cord sections are adapted to be interconnected; an improved end attachment for coupling the cord to a watch or the like comprising a connector plate, means carried by said connector plate for attaching a watch or the like to said plate, said plate having remote from said means a bight-engaging tongue means about which the bight of said cord is engaged, and shell means engaged over said connector plate, bight-engaging tongue means and cord bight to restrain relative movement therebetween and so as to grippingly retain said cord bight about said tongue means, said bight-engaging tongue means comprising an integral tab extending outwardly from the plane of said connector plate and curved so as to substantially conform to at least the inside shape of the bight of the cord.

4. In a cord-type band for watches and the like wherein a pair of cords are provided and in which each cord is doubled upon itself to provide a bight and two juxtaposed parallel cord sections and wherein the free ends of both pairs of cord sections are adapted to be inter-

6

connected; an improved end attachment for coupling the cord to a watch or the like comprising a connector plate, means carried by said connector plate for attaching a watch or the like to said plate, said plate having remote from said means a bight-engaging tongue means about which the bight of said cord is engaged, shell means engaged over said connector plate, bight-engaging tongue means and cord bight to restrain relative movement therebetween and so as to grippingly retain said cord bight about said tongue means, said connector plate having side and end edges, said tongue means being located at one end edge portion, said side edges converging toward said end edge portion, and said shell having side walls cooperative with said side edges similarly converging, and means releasably retaining said shell on said connector plate.

5. In a cord-type band for watches and the like wherein a pair of cords are provided and in which each cord is doubled upon itself to provide a bight and two juxtaposed parallel cord sections and wherein the free ends of both pairs of cord sections are adapted to be interconnected; an improved end attachment for coupling the cord to a watch or the like comprising a connector plate, means carried by said connector plate for attaching a watch or the like to said plate, said plate having remote from said means a bight-engaging tongue means about which the bight of said cord is engaged, and shell means engaged over said connector plate, bight-engaging tongue means and cord bight to restrain relative movement therebetween and so as to grippingly retain said cord bight about said tongue means, said connector plate having side and end edges, said tongue means being located at one end edge portion, said side edges converging toward said end edge portion, and said shell having side walls cooperative with said side edges similarly converging, the length of the end edge adjacent the tongue being less than the sum of the width of the tongue and the diameters of the two cord sections at each side of the tongue so that with the shell cooperatively engaged on the connecting plate the side walls of the shell releasably press each cord section against the tongue so as to retain the shell on the connecting plate and restrain the cord bight from movement relative to the tongue.

6. In a cord-type band for watches and the like wherein a pair of cords are provided and in which each cord is doubled upon itself to provide a bight and two juxtaposed parallel cord sections and wherein the free ends of both pairs of cord sections are adapted to be interconnected; an improved end attachment for coupling the cord to a watch or the like comprising a connector plate, means carried by said connector plate for attaching a watch or the like to said plate, said plate having remote from said means a bight-engaging tongue means about which the bight of said cord is engaged, and shell means engaged over said connector plate, bight-engaging tongue means and cord bight to restrain relative movement therebetween and so as to grippingly retain said cord bight about said tongue means, said bight-engaging tongue means comprising an integral tab extending substantially perpendicularly outwardly therefrom a distance substantially equal to the diameter of said cord, said shell means including an ornamental wall, depending side walls and a retaining wall closely cooperative with the side edges and surface of the connecting plate, said retaining wall and ornamental wall being spaced apart a distance substantially equal to the distance the tongue extends so as to retain the cord bight over the tongue when the shell is in its assembled position and so as to permit disengagement of the cord bight from the tongue when the shell is in its retracted position for replacing the cord.

7. In a cord-type band for watches and the like wherein a pair of cords are provided and in which each cord is doubled upon itself to provide a bight and two juxtaposed parallel cord sections and wherein the free ends of both pairs of cord sections are adapted to be intercon-

7

nected; an improved end attachment for coupling the cord to a watch or the like comprising a connector plate, means carried by said connector plate for releasably securing a watch thereto, said plate having remote from said means a bight-engaging tongue means about which the bight of said cord is engaged, said tongue means including a tab extending substantially perpendicularly outwardly from the plane of said connector plate and terminating a distance approximately equal to the diameter of said cord, and said bight of the cord being freely disengaged from said tab by movement perpendicularly outwardly from the plane of said plate for renewal of the cord, and shell means removably engaged over said connector plate, tab and cord bight so as to prevent such movement of the cord bight.

8. In a cord-type band for watches and the like wherein a pair of cords are provided and in which each cord is doubled upon itself to provide a bight and two juxtaposed parallel cord sections and wherein the free ends of both pairs of cord sections are adapted to be interconnected; an improved end attachment for coupling the cord to a watch or the like comprising a connector plate, means carried by said connector plate for attaching a watch or

8

the like to said plate, said plate having remote from said means a bight-engaging tongue means about which the bight of said cord is engaged, and shell means engaged over said connector plate, bight-engaging tongue means and cord bight to restrain relative movement therebetween and so as to grippingly retain said cord bight about said tongue means, said bight-engaging tongue means comprising an integral tab extending outwardly from the plane of said connector plate and curved backwardly toward the plate so as to define a cord-size opening through which the cord is removably engaged for renewal by being threaded therethrough.

References Cited in the file of this patent

UNITED STATES PATENTS

530,130	Schwartz	Dec. 4, 1894
2,455,465	Blumstein	Dec. 7, 1948

FOREIGN PATENTS

205,589	Switzerland	Sept. 16, 1939
636,819	Great Britain	May 10, 1950