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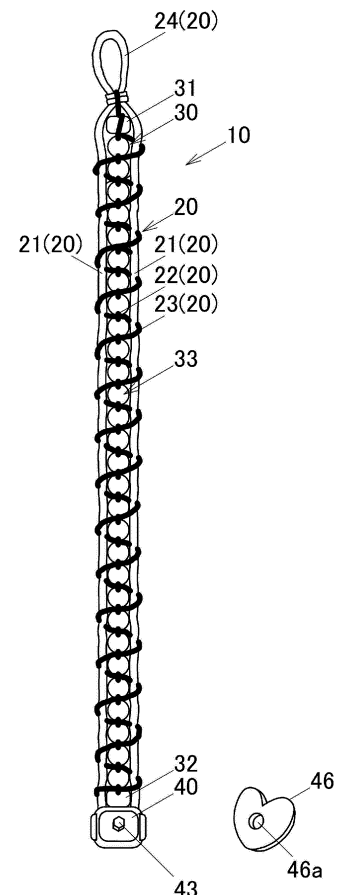
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(54) **BEADS CONNECTING TOY AND BEADS CONNECTING METHOD**

(57) A beads connecting toy has a connecting toy main body which makes up a base for fabricating a beaded toy which is based on a strand set member which has a strand set locking portion formed at one end side and at the other end side thereof a beading strand on which beads are put, two base strands and an engaging strand which interweaves the beading strand, the two base strands and the beads together for engagement, a one-end-side locking portion which is provided at one end side of the connecting toy main body and where the strand set locking portion is locked in place, and an other-end-side locking portion which is provided at the other end side of the connecting toy main body and where the two base strands and the beading strand are locked in place.

FIG.1



Description

[0001] The present invention relates to a beads connecting toy which can be played with by making a beaded toy which is decorated with a number of beads which are connected together and a beads connecting method for connecting the beads.

[0002] Conventionally, there have been proposed toys with which a beaded toy such as a bracelet or an accessory can be made by beading a number of beads. For example, a beading apparatus disclosed in Japanese Unexamined Patent Publication (KOKAI) No. 2003-213552 includes four held portions which are provided on a beading shaft, holding devices which hold individually the four held portions and a catching portion which is provided below a lowermost held portion to catch a thread. The holding devices include pairs of holding members which are provided individually for the four held portions to hold the corresponding held portions. These pairs of holding members are opened and closed by a drive device.

[0003] When the beading apparatus configured as described above is actuated, beads are put on the beading shaft from a beads storage portion where a large number of beads are stored. Then, the beads are guided along the beading shaft to be moved sequentially from the upper held portion to the lower held portion in association with opening and closing operations of the holding members. Then, a bead at the lowermost held portion is put on a thread which is caught by the catching portion when the holding members at the lowermost held portion are opened. In this way, a beaded toy can be made in which a large number of beads are connected together.

[0004] On the other hand, bracelets called wrap bracelets are popular as accessories for adults in recent years. The wrap bracelets are such that a large number of beads are disposed between two strands which make up a base, so that the two base strands and the beads are brought into engagement with each other. The two base strands and the beads are engaged by passing strands, which bring the base strands and the beads into engagement, through holes in the beads which are arranged to be oriented sideways so as to be at right angles to the two base strands while wrapping the strands around the two base strands.

[0005] Normally, as described in Japanese Unexamined Patent Publication (KOKAI) No. 2003-213552, a toy for making a beaded toy such as an accessory by connecting beads together cannot provide much variety because beads are disposed simply in series and a thread is only passed through the beads. Consequently, a player is only allowed to enjoy a variety of designs of the beaded toy made by changing arrangements of beads of many colors or attaching a decorative thing to a retainer to which the thread is fastened.

[0006] Although children desire to make and wear copies of accessories made for adults, wrap bracelets for adults are complex in interweaving threads to bring

beads into engagement with two base strands, and it is difficult to apply how to weave the threads as it stands to beaded toys for children.

[0007] The invention provides a beads connecting method by which even children can make a bracelet which is a copy of a wrap bracelet for adults with a certain degree of difficulty which is appropriate to children and a beads connecting toy which can execute easily the beads connecting method.

[0008] A beads connecting toy according to the invention has a connecting toy main body which makes up a base for fabricating a beaded toy which is based on a strand set member which has a strand set locking portion formed at one end side and at the other end side thereof a beading strand on which a large number of beads are put, two base strands and an engaging strand which interweaves the beading strand, the two base strands and the beads together for engagement, a one-end-side locking portion which is provided at one end side of the connecting toy main body and where the strand set locking portion is locked in place and an other-end-side locking portion which is provided at the other end side of the connecting toy main body and where the two base strands and the beading strand are locked in place.

[0009] Preferably, the one-end-side locking portion where the strand set locking portion which is formed into a ring-like shape is locked is formed into a hook-like shape, and the other-end-side locking portion is made up of base strand vertical grooves which are each formed into a vertical groove shape at two locations so that the other end sides of the two base strands are respectively locked thereat and a beading strand vertical groove which is formed into a vertical groove shape between the base strand vertical grooves so that the other end side of the beading strand is locked thereat.

[0010] Advantageously, part of a partition wall between each of the base strand vertical grooves and the beading strand vertical groove is formed so as to rotate freely about a vertical direction of each of the vertical grooves as a rotation axis.

[0011] Preferably, the connecting toy main body is formed into an elongated shape and has at least an upper surface, an abutment projecting portion is provided on the upper surface of the connecting toy main body so as to project from the upper surface, and an upper surface of the other end portion of the connecting toy main body where the other-end-side locking portion is provided is formed above the upper surface of the connecting toy main body.

[0012] Advantageously, a catch hole portion where a pillar-shaped projection of a catch which catches hold of the base strands, the beading strand and the engaging strand is loosely fitted is provided in the upper surface of the connecting toy main body which lies between the abutment projecting portion and the other end portion of the connecting toy main body.

[0013] Preferably, the connecting toy main body has dividing portions which are formed in a width direction at

two or more locations, and an engaging portion at one of the dividing portions is formed so as to be brought into engagement with an engaging portion at the other of the dividing portions.

[0014] A beads connecting method includes the following steps:

preparing a strand set member having a beading strand on which beads are put, two base strands and an engaging strand which interweaves the beading strand, the two base strands and the beads together for engagement and making up a base for a beaded toy;
putting the beads on the beading strand;
positioning the beading strand on which the beads are put between the two base strands; and
folding the engaging strand so as to wrap around one of the base strands from a front side to a rear side, then causing the engaging strand to pass a front side of the beading strand, then folding the engaging strand so as to wrap around the other of the base strands from a rear side to a front side, and then causing the engaging strand to pass a rear side of the beading strand to thereby interweave the two base strands, the beading strand and the beads together for engagement.

[0015] The preparation of the strand set member preferably includes the following steps:

making a knot on a rubber strand in a position lying near a center between end portions thereof to form a ring-shaped portion and making two strand-like portions, each of which has the end portion, constitute the two base strands;
making a knot on a cord in a position lying closer to either of end portions to form a ring-shaped portion and making a shorter strand-like portion of the two strand-like portions, each of which has the end portion, constitute the beading strand while making a longer strand-like portion of the two strand-like portions constitute the engaging strand;
causing the ring-shaped portion on the cord to pass through the ring-shaped portion on the rubber strand so as to position the ring-shaped portion on the cord between the two base strands; and
causing the beading strand and the engaging strand to pass through the ring-shaped portion on the cord so as to make up the strand set member.

[0016] According to the beads connecting toy of the invention, in fabricating the beaded toy which is based on the strand set member having the two base strands, the beading strand and the engaging strand, the strand set locking portion at the one end of the strand set member can be locked by the one-end-side locking portion of the connecting toy main body, while the other end of the strand set member can be locked by the other-end-side

locking portion of the connecting toy main body. Consequently, in performing the interweaving and engaging work by the engaging strand after the large number of beads are put on the beading strand, the strand set member is stretched with an appropriate degree of tension, and therefore, the interweaving and engaging work is made easy to be performed.

[0017] Consequently, children can fabricate the beaded toy, which copies the wrap bracelet for adults which takes the form in which the large number of beads which are put on the beading strand are brought into engagement with the two base strands, with a certain degree of difficulty appropriate to children by themselves. Thus, they can enjoy fabricating the beaded toy.

[0018] In preferred embodiments, the one-end-side locking portion of the connecting toy main body is formed into the hook-like shape, and the strand set locking portion which is locked by the one-end-side locking portion is formed into the ring-like shape. The other-end-side locking portion where the two base strands and the beading strand are individually locked are formed into the vertical groove-like shape. By adopting this configuration, the strand set locking portion can be locked by the one-end-side locking portion only by hooking it to the one-end-side locking portion, and the two base strands and the beading strand can be locked in such a way that they are fitted in the corresponding vertical grooves in the other-end-side locking portion. Consequently, the strand set member can easily be locked on the connecting toy main body of the beads connecting toy.

[0019] In preferred embodiments, the part of the partition wall between each of the base strand vertical grooves and the beading strand vertical groove is formed so as to rotate freely about the vertical direction of each of the vertical grooves as the rotation axis. By adopting this configuration, even in the event that for example, the two base strands and the beading strand are formed by the rubber strand and the cord which are different in diameter and that the base strands are fitted in the base strand vertical grooves while the cord is fitted in the beading strand vertical groove, the strands and the cord can be locked in an ensured fashion irrespective of the fact that they are different in diameter.

[0020] In preferred embodiments, the connecting toy main body has at least the upper surface, the abutment projection is provided on the upper surface of the connecting toy main body, and the upper surface of the portion where the other-end-side locking portion is provided is formed above the upper surface of the connecting toy main body. Consequently, the strand set member which is locked on the connecting toy main body is brought into abutment with the upper surface of the portion where the abutment projecting portion and the other-end-side locking portion are provided, and therefore, the base and engaging strands are locked on the connecting toy main body in such a state that the base and engaging strands are raised slightly upwards from the upper surface of the connecting toy main body. Consequently, the interweav-

ing and engaging work by the engaging strand can be performed more easily, whereby the player can enjoy the interweaving work more easily.

[0021] In preferred embodiments, the catch hole portion where the pillar-shaped projection of the catch which catches hold of the base strands, the beading strand and the engaging strand is loosely fitted is provided in the upper surface of the connecting toy main body. By adopting this configuration, in catching hold of the base, beading and engaging strands by the use of the catch after the completion of interweaving by the engaging strand, the catch can be prevented from being moved easily by inserting the pillar-shaped projection of the catch into the catch hole portion. Consequently, the catching work of the base, beading and engaging strands is made easy, whereby the player can enjoy the fabrication of the beaded toy more.

[0022] In preferred embodiments, the dividing portions are formed in the width direction at two more locations in the connecting toy main body, and therefore, the connecting toy main body can be divided into at least three or more portions. Consequently, in storing the beads connecting toy, the beads connecting toy can be made compact in a neat fashion for storage. Further, the connecting toy main body is formed so that one divided portion of the connecting toy main body can be brought into engagement with the other divided portions thereof, and therefore, the length of the connecting toy main body can be changed. Consequently, beaded toys of various lengths can be fabricated, and therefore, it is possible to fabricate various beaded toys such as a necklace, a bracelet and the like.

[0023] The beads connecting method is such that the engaging strand is interweaved with the two base strands and the beading strand from the front side to the rear side or vice versa in an alternate fashion for engagement. Consequently, according to this beads connecting method, children can fabricate the beaded toy which copies a wrap bracelet while enjoying the interweaving with a certain degree of difficulty which is appropriate to children. Further, generally marketed beads can be used without using specifically shaped beads, and therefore, the player can enjoy the fabrication of the beaded toy simply and easily by devising the arrangement of colored beads.

[0024] The strand set member is preferably prepared by the combination of the rubber strand and the cord. Consequently, the strand set member can be formed by the use of generally marketed rubber stings and cords, and therefore, children can fabricate beaded toys simply and easily. Examples of toys and methods in accordance with the present invention will now be described with reference to the accompanying drawings, in which:

Fig. 1 is an overall external view of a decorated toy according to an embodiment of the invention.

Fig. 2 is an overall external view of a strand set member according to the embodiment of the invention.

Fig. 3 is a perspective view of a beads connecting toy according to the embodiment of the invention.

Fig. 4 is an exploded perspective view of the beads connecting toy according to the embodiment of the invention.

Fig. 5 is an exploded perspective view of a third main body portion of the beads connecting toy according to the embodiment of the invention.

Fig. 6 is a perspective view showing a catch of the decorated toy according to the embodiment of the invention.

Fig. 7A, 7B show inner surfaces of the catch of the decorated toy according to the embodiment of the invention, and Fig. 7A shows an inner surface of a cover member and Fig. 7B shows an inner surface of a catch main body.

Fig. 8 is a plan view of the beads connecting toy according to the embodiment of the invention with the strand set member mounted on the beads connecting toy.

Fig. 9 is a diagram showing a one end side position of the beads connecting toy according to the embodiment of the invention so as to illustrate how interweaving is performed in the beads connecting toy.

Fig. 10 is a diagram showing a middle position and an other end side position of the beads connecting toy according to the embodiment of the invention so as to illustrate how interweaving is performed in the beads connecting toy.

Fig. 11 is a plan view showing a state in which a catch main body is mounted on the beads connecting toy according to the embodiment of the invention.

Fig. 12 is a diagram showing a side surface of the beads connecting toy according to the embodiment of the invention.

[0025] Hereinafter, a preferred embodiment of the invention will be described based on the drawings. Fig. 1 is an external view of a bracelet 10 which is a beaded toy to be fabricated by a beads connecting toy according to the invention. Fig. 2 is an overall view of a strand set member 20 which makes up a base for the bracelet 10. The bracelet 10 is formed by bringing a large number of beads 30 into engagement with the strand set member 20. The strand set member 20 includes two base strands 21, a beading strand 22 and an engaging strand 23. The beads 30 are put on the beading strand 22. The two base strands 21, the beading strand 22 and the beads 30 are interweaved together for engagement by the engaging strand 23. A ring-shaped strand set locking portion 24 is formed at one end side (an upper end side in Figs. 1 and 2) of the strand set member 20.

[0026] Specifically speaking, the two base strands 21 of the strand set member 20 and the ring-shaped strand set locking portion 24 are formed from one rubber strand. This rubber strand has a substantially circular cross section and is generally marketed. Further, the beading strand 22 and the engaging strand 23 of the strand set

member 20 is formed from a cord, which is also generally marketed. A fabrication method of the strand set member 20 will be described later.

[0027] A catch 40 is provided at the other end side (a lower end side in Fig. 1) of the bracelet 10, and end portions of the four strands are caught hold of by the catch 40. A hexagonal pillar-shaped projection 43 is formed on the catch 40 so as to project therefrom. A heart-shaped decorative member 46 can be attached to the pillar-shaped projection 43. In attaching the decorative member 46 to the pillar-shaped projection 43, the pillar-shaped projection 43 is inserted into a hole portion 46a formed in the decorative member 46 through press fitting, or an adhesive being applied to bond the decorative member 46 to the pillar-shaped projection 43, whereby the decorative member 46 is fixed to the catch 40.

[0028] The bracelet 10 is formed so as to have an overall length of the order of 30 cm. In wearing the bracelet 10 on the wrist, the ring-shaped strand set locking portion 24 is locked on the decorative member 46 which is fixed to the catch 40 so as to form the bracelet 10 into a ring-like shape. Then, the bracelet 10 which is now formed into the ring-like shape is twisted once to be formed into a double ring having a diameter of the order of 5 cm, whereby the resulting bracelet 10 in the form of the double ring can suitably be worn on the wrist of a child.

[0029] Next, a beads connecting toy 50 will be described. This beads connecting toy 50 makes up a base for fabrication of the bracelet 10. As shown in Fig. 3, the beads connecting toy 50 is formed into an elongated shape and has a connecting toy main body 51 which makes up a base for fabrication of the bracelet 10. As shown in Figs. 3 and 4, the connecting toy main body 51 can be divided into three portions of a first main body portion 52, a second main body portion 53 and a third main body portion 54 at dividing portions 56, 57 which are formed in a width direction. In the connecting toy main body 51 which is divided into the three portions, an overall length of the first main body portion 52 which is situated at one end side (an upper side in Figs. 3 and 4) is the longest, and overall lengths of the second main body portion 53 and the third main body portion 54 which are situated at the other end side (a lower side in Figs. 3 and 4) become shorter in that order.

[0030] The first main body portion 52, the second main body portion 53 and the third main body portion 54 are connected together through sliding engagement at the dividing portions 56, 57. Namely, a T-shaped groove portion 52a which is a T-shaped groove when seen from a left or right side surface is provided on an end surface at the other end side of the first main body portion 52 so as to extend in the width direction. Then, a T-shaped slide engaging projection 53b when seen from the left or right side surface is formed on an end face at one end side of the second main body portion 53 so as to be brought into slide engagement with the T-shaped groove portion 52. When the slide engaging projection 53b of the second main body 53 is brought into slide engagement with the

groove of the T-shaped groove portion 52a, the slide engaging projection 53b is slid until it is brought into abutment with a restricting wall 52a1 which is formed at a terminating end portion of the T-shaped groove portion 52a.

[0031] Similarly, a T-shaped groove portion 53a is formed at an end face at the other end side of the second main body portion 53, and a T-shaped slide engaging projection 54a is formed on an end face at the other end side of the third main body portion 54. Then, a restricting wall 53a1 is formed at a terminating end portion of the T-shaped groove portion 53. When the first main body portion 52, the second main body portion 53 and the third main body portion 54 which are formed in the way described above are brought into slide engagement with one another, as shown in Fig. 3, respective upper surfaces 52d, 53d, 54d of the first main body portion 52, the second main body portion 53 and the fourth main body portion 54 are formed into an upper surface which makes up a single plane via an abutment projecting portion 54f, which will be described later, and longitudinal side surfaces are each formed into a continuous plane.

[0032] A one-end-side locking portion 52c is provided on the upper surface of the first main body portion 52 of the connecting toy main body 51 at one end side thereof. The one-end-side locking portion 52c is formed of two hook-like projections which are aligned parallel to each other in a width direction of the first main body portion 52, and the two hook-like projections are formed, in turn, of vertical portions 52c1 which rise from the upper surface of the first main body portion 52 and horizontal portions 52c2 which extend horizontally in a one-end-side direction.

[0033] An other-end-side locking portion 54c is provided at the other end side of the third main body portion 54 of the connecting toy main body 51. The other-end-side locking portion is formed of three vertical grooves. Left and right vertical grooves are formed as base strand vertical grooves 54c1, and a vertical groove lying between the base strand vertical grooves 54c1 is formed as a beading strand vertical groove 54c2. The beading strand vertical groove 54c2 is formed narrower in width than the base strand vertical grooves 54c1.

[0034] The upper surface of the third main body portion 54 which is situated near the other end thereof is made into an upper surface 54e at the other end portion or other-end-portion upper surface 54e. The other-end-portion upper surface 54e is positioned above an upper surface 54d of the third main body portion 54 and the respective upper surfaces 52d, 53d of the first main body portion 52 and the second main body portion 53. The abutment projecting portion 54f is formed on the upper surface 54d at one end side of the third main body portion 54, and this abutment projecting portion 54f extends in a width direction of the third main body portion 54 from the upper surface 54d at one end side of the third main body portion 54 so as to project into a wall-like shape. The other-end-portion upper surface 54e and an upper

surface of the abutment projecting portion 54f are formed to have the same height from the upper surface 54d of the third main body portion 54. Then, a catch hole portion 54g is provided in the upper surface of the third main body portion 54 in a position lying between the abutment projecting portion 54f and the other-end-portion locking portion 54c, and the pillar-shaped projection 43 of the catch 40 is inserted into the catch hole portion 54g so provided.

[0035] Here, the third main body portion 54 will be described in greater detail by reference to Fig. 5. The third main body portion 54 is made up of a third main body portion main body 154 on which the upper surface 54d is formed, a fixing plate 155 and movable partition walls 156. The fixing plate 155 is fixed to a lower surface of the other end portion 154h of the third main body portion main body 154 which is formed into a undercut portion when seen from a side. The fixing plate 155 is fixed to the lower surface of the other end portion 154h by screwing screws 55 into corresponding screw holes, not shown, which are formed in the lower surface of the other end portion 154h via hole portions 155a which are provided at two locations on the fixing plate 155.

[0036] The two movable partition walls 156 are provided between the lower surface of the other end portion 154h and the fixing plate 155 in such a way as to be held by the lower surface of the other end portion 154h and the fixing plate therebetween. The movable partition walls 156 are each formed into a vertical plate-like shape, and a boss 156b is formed on each of upper and lower surfaces of a proximal portion 156a of each of the movable partition walls 156 so as to project into a cylindrical shape therefrom. Then, lower bosses 156b are inserted individually in two lower boss support holes 155b which are provided in the fixing plate 155 so as to rotate therein. On the other hand, upper bosses 156b are inserted individually in two upper boss support holes 154k which are formed in the other-end-portion upper surface 54e of the third main body 154 in a position lying substantially in a center in the width direction and near a wall portion which rises from the upper surface 54d to the other-end-portion upper surface 54e so as to rotate therein.

[0037] In the partition walls 156, movable wall plates 156c extend from the proximal portions 156a towards end portion sides. These movable wall plates 156c form partition walls between the base strand vertical grooves 54c1 and the beading strand vertical groove 54c2 together with upper wall plates 154m of the third main body portion main body 154 and lower wall plates 155c of the fixing plate 155. The movable wall plates 156c, the upper wall plates 154m and the lower wall plates 155c have the same width.

[0038] The movable partition walls 156 are supported rotatably by the upper boss support holes 154k and the lower boss support holes 155b, and therefore, the movable partition walls 156 can individually rotate freely about the bosses 156b as vertical rotational shafts. Consequently, the partition walls between the base strand

vertical grooves 54c1 and the beading strand vertical groove 54c2 are made up of the upper wall plates 154m, the movable wall plates 156c and the lower wall plates 155c and the movable wall plates 156c which are part of the upper wall plates 154m and the lower wall plates 155c are formed so as to rotate freely about vertical directions in the vertical grooves 54c1, 54c2 as rotational axes.

[0039] Further, projecting portions 156d are provided on side surfaces of the movable plates 156c of the movable partition walls 156 so as to project in a horizontal direction which is at right angles to the vertical directions of the base strand vertical grooves 54c1 and the beading strand vertical groove 54c2. Similarly, projecting portions 154d are provided on wall portions of the base strand vertical grooves 54c1 which are situated on the third main body portion main body 154. The projecting portions 156d, 154d are provided so as to face each other.

[0040] In the fabrication process of the bracelet 10 (refer to Fig 1), the base strands 21, the beading strand 22 and the engaging strand 23 are locked in the base strand vertical grooves 54c1 and the beading strand vertical groove 54c2. Specifically speaking, the base strands 21 are locked individually in the base strand vertical grooves 54c1 in a one-in-one fashion. The beading strand 22 is locked in the beading strand vertical groove 54c2 when the interweaving and engaging work is performed by the engaging strand 23, and further, the engaging strand 23 is brought into engagement with the beading strand vertical groove 54c2 when the interweaving and engaging work by the engaging strand 23 is completed.

[0041] When the strands are brought into engagement with the corresponding vertical grooves, the widths of the vertical grooves 54c1, 54c2 are automatically partially adjusted by the movable wall plates 156c which are supported rotatably, and therefore, the strands can be locked in an ensured fashion. Further, the projecting portions 156d, 154d are allowed to bite into the corresponding strands, and therefore, it is difficult for the strands which are locked to be pulled out of the corresponding vertical grooves in the vertical direction. However, the strands can be pulled out of the corresponding vertical grooves in the horizontal direction easily.

[0042] Next, the catch 40 will be described based on Figs. 6 and 7A, 7B. The catch 40 is made up of two components, which are a cover member 41 which is an upper side component and a catch main body 42 which is a lower side component in Fig. 6. The pillar-shaped projection 43 projects from a lower surface of the lower catch main body 42. The pillar-shaped projection 43 has a cross section which is outlined into a regular hexagon.

[0043] Catch locking portions 41a are formed at both end portions of the cover member 41 in a width direction thereof (a left-to-right direction in Fig. 6) so as to extend downwards from an upper surface of the cover member 41. Locking hole portions 41a1 are formed individually in the catch locking portion 41a. On the other hand, locking projections 42a are formed at both end portions of the catch main body 42 in a width direction thereof. As a

result of the locking projections 42a being locked by the locking hole portions 41a1, the cover member 41 is locked and fixed to the catch main body 42.

[0044] As shown Fig. 7B, two large grooves 44 and a small groove 45 are provided on the catch main body 42. The two base strands 21 are inserted individually through the large grooves 44, and the beading strand 22 and the engaging strand 23 are inserted through the small groove 45. In Figs. 7A, 7B, an upper side is a side where a large number of beads 30 are positioned.

[0045] The large grooves 44 are formed to be bent in such a way that a space between the large grooves 44 gets narrow as they extend downwards so that a space between two base strands 21 gets narrower on a lower side than an upper side of Fig. 7B (in other words, the space gets narrower as the base strands 21 extend towards their end portions). Two pins 44a are provided so as to rise on each of the large grooves 44. Each pin 44a has a circular conical shape, and a head portion of each pin 44a is allowed to bite into the corresponding base strand 21.

[0046] A wide rectangular recess portion 44b, which is wider than the large groove 44, is formed between the two pins 44a of each of the large grooves 44. The wide recess portions 44b are formed so as to be inclined obliquely relative to the catch main body 42 so as to match the corresponding bent large grooves 44. On the other hand, the small groove 45 is formed into a vertical straight line in Fig. 7B. A wide recess portion 45a, having the same shape as that of the wide recess portion 44b, is formed at an upper side (in other words, a beads 30 side) of the small groove 45.

[0047] In Fig. 7A, on the cover member 41, wide projecting portions 41b are provided on a lower surface (a surface shown in Fig. 7A) of the cover member 41 in such a way as to correspond to the wide recess portions 44b of the two large grooves 44. The wide projecting portions 41b project from the lower surface of the cover member 41 and are then inserted into the corresponding wide recess portions 44b. In each of the wide projecting portions 41b, a central portion is cut out, and a fastening pin 41b1 is provided at the central portion so cut out in such a way as to rise therefrom. As with the pins 44a described above, the fastening pins 41b1 also each have a circular conical shape and are formed so as to bite into the corresponding base strands 21.

[0048] On the other hand, a wide projecting portion 41c is provided on the lower surface (the surface shown in Fig. 7A) of the cover member 41 in such a way as to correspond to the wide recess portion 45a which is provided on the small groove 45. The wide projecting portion 41c projects from the lower surface of the cover member 41 and is then inserted into the wide recess portion 45a. The wide projecting portion 41c is provided so as to rise from the lower surface of the cover member 41 in such a way as to straddle a reinforcement rig 41d which is formed in a central portion of the cover member 41. Then, a central portion of the wide projecting portion 41 is cut

out.

[0049] Next, a beads connecting method will be described by which the bracelet 10 is fabricated by the use of the members that have been described heretofore. Firstly, a strand set member 20 as shown in Fig. 2 is fabricated for preparation. In fabricating the strand set member 20, a knot is made substantially at a central portion of a rubber strand to form a ring-shaped portion which is configured as the strand set locking portion 24. Then, strand-like portions of the rubber strand which results from making the knot at the central portion of the rubber strand, extending from the central knot towards respective end portions of the rubber strand constitute two base strands 21.

[0050] Similarly, a knot is made on a cord to form a ring-shaped portion 25. As this occurs, the knot is made on the cord in such a position that one end side of the cord is shorter than the other end side thereof. Of strand-like portions formed on the one end side and the other end side of the cord as a result of making the knot, a short strand-like portion constitutes a beading strand 22, and a long strand-like portion constitutes an engaging strand 23.

[0051] Next, the ring-shaped portion 25 of the cord is passed through the strand set locking portion 24 which is the ring-shaped portion of the rubber strand, so that the ring-shaped portion 25 is positioned between the two base strands 21. Then, the beading strand 21 and the engaging strand 23 are passed through the ring-shaped portion 25. In this way, the strand set member 20 is prepared. As this occurs, the length of the beading strand 22 is made substantially the same as the length of the base strands 21.

[0052] Next, the strand set member 20 is set on the beads connecting toy 50 so that a state shown in Fig. 8 is produced. Specifically speaking, firstly, the strand set locking portion 24 is hooked on the one-end-side locking portion 52c so as to be locked thereon. Then, the two base strands 21 are locked individually in the two base strand vertical grooves 54c1. As this occurs, the base strands 21 are locked in the base strand vertical grooves 54c1 while the base strands 21 are stretched with a slight tension so as not to deflect.

[0053] After the strand set member 20 is set on the beads connecting toy 50, a large number of preferred beads 30 are sequentially put on the beading strand 22. The beads 30 are put on the beading strand 22 full to the abutment projecting portion 54f. As this occurs, it is preferable that a leading bead 31 which is put first on the beading strand 22 and a bead 32 (refer to Fig. 1) which is put last on the beading strand 22 adopt a bead having a strand passage hole which is larger in diameter than those of a large number of other beads 33. This is because in interweaving and engaging work by the engaging strand 23, which will be described later, in addition to the beading strand 22, the engaging strand 23 is also inserted through the strand passage holes of the leading bead 31 and the bead 32 making the last of the series of

beads.

[0054] After the large number of beads 30 are completely put on the beading strand 22, an end-portion side of the beading strand 22 is locked in the beading strand vertical groove 54c2 so that the beading strand 22 on which the beads are put is positioned between the two base strands 21 (refer to Fig. 10). As this occurs, the beading strand 22 is locked in the beading strand vertical groove 54c2 while the beading strand 22 is stretched with a slight tension so as not to deflect. Then, the beading strand 22 on which the beads 30 are put on is brought into abutment with the abutment projecting portion 54f and the other-end-portion upper surface 54e. Because of this, the beads 30 which are put on the beading strand 22 are slightly raised upwards from the upper surface of the connecting toy main body 51. This facilitates the interweaving of the two base strands 21 with the beads 30 for engagement by the engaging strand 23 in cooperation with the base strands 21 which are locked while being stretched with a slight tension in such a state that the base strands 21 are raised slightly upwards from the upper surface of the connecting toy main body 51.

[0055] Next, the engaging strand 23 performs interweaving and engaging work. Firstly, the engaging strand 23 is passed through the hole in the leading bead 31 once from one end side (an upper side in Fig. 9) of the strand set member 20 so as to produce a state shown in Fig. 9. Then, the engaging strand 23 which emerges from the hole at the other end side of the bead 31 is folded back to pass through the hole from one end side of the bead 31 once again.

[0056] In this way, the engaging strand 23 is wound around the leading bead 31, whereby the bead 31 is prevented from moving on the beading strand 22 to thereby be fixed in a predetermined position. Then, an interweaving and engaging beading needle 60 is brought into engagement with a portion of the engaging strand 23 which lies near an end portion thereof. The beading needle 60 is a thin needle member which is formed into a curved surface at a leading end thereof so as to facilitate the interweaving and engaging work.

[0057] In the interweaving and engaging work performed by the engaging strand 23, as shown in Fig. 10, the engaging strand 23 is folded back so as to wrap around the base strand 21a from a front side to a rear side, whereafter the engaging strand 23 is caused to pass a front side of the beading strand 22. Then, the engaging strand 23 is folded back so as to wrap around the other base strand 21b from a rear side to a front side, whereafter the engaging strand 23 is caused to pass a rear side of the beading strand 22, whereby the two base strands 21 and the beads 30 are interwoven and engaged together by the engaging strand 23. Namely, the engaging strand 23 which is folded back so as to wrap around the base strand 21a from the front side to the rear side is caused to pass the front side of the beading strand 22 in a position S1 shown in Fig. 10. Then, the engaging strand 23 which is folded back so as to wrap around the

other base strand 21b from the rear side to the front side is caused to pass the rear side of the beading strand 22 as shown in a position S2.

[0058] In performing the interweaving and engaging work in the way described above, the upper surfaces 52d, 53d which are formed long are formed on the connecting toy main body 51, and therefore, the beading strand 22 on which the beads 30 are put through is restricted from moving downwards, whereby the beading strand 22 is prevented from falling more than required.

[0059] In this way, the two base strands 21 and the large number of beads 30 are interwoven and engaged with each other by the engaging strand 23. Then, when the engaging strand 23 reaches before the bead 32 at the terminating end, as shown in Fig. 10, the engaging strand 23 is passed through the hole in the bead 32 at the terminating end from the one end side of the strand set member 20. An end portion side of the engaging strand 23 which has passed through the hole in the bead 32 is brought into engagement with the beading strand vertical groove 54c2.

[0060] Next, a process of catching hold of the two base strands 21, the beading strand 22 and the engaging strand 23 by the catch 40 will be described. As shown in Fig. 11, with the end portion side of the engaging strand 23 locked in the beading strand vertical groove 54c2, the pillar-shaped projection 43 of the catch main body 42 of the catch 40 is inserted in the catch hole portion 54g of the connecting toy main body 51 (the third main body portion 54) for loose fitting. The catch 40 is placed on the upper surface 54d of the connecting toy main body 51 (the third main body portion 54).

[0061] As this occurs, the catch main body 42 is abutted to or brought into contact with the abutment projecting portion 54f. Then, of the two base strands 21, the left base strand 21 is accommodated in the left large groove, while the right base strand 21 is accommodated in the right large groove 44. The beading strand 22 and the engaging strand 23 are both accommodated in the small groove 45. In this state, the cover member 41 of the catch 40 is fitted on the catch main body 42 from thereabove for attachment thereto.

[0062] Then, a state shown in Fig. 12 is produced. In this way, the two base strands 21, the beading strand 22 and the engaging strand 23 are caught hold of by the catch 40. Then, the two base strands 21, the beading strand 22 and the engaging strand 23 are cut at a portion P shown in Fig. 12, and the bracelet 10 is removed from the beads connecting toy 50. Thereafter, the decorative member 46 having the hole portion 46a with which the pillar-shaped projection 43 is brought into engagement is fixed to the catch 40 through press fitting or with an adhesive.

[0063] Thus, as has been described heretofore, according to the beads connecting toy 50 and the beads connecting method of the invention, children can enjoy fabricating the bracelet 10 which copies a wrap bracelet for adults with a certain degree of difficulty which is ap-

propriate to them by using generally marketed rubber strands, cords and beads. Additionally, children can also enjoy wearing the bracelet 10 which is fabricated by themselves.

[0064] The fabricated bracelet 10 can be stretched to some extent because the rubber strand is used for the base strands 21. Additionally, since the cord also has elasticity, the beading strand 22 stretches according to the stretching of the base strands 21. In the event of the base strands 21 stretching further, with intervals of the large number of beads 30 remaining equal, the intervals are expanded due to the engaging strand 23 which is interwoven with the large number of beads 30. Consequently, even in the event of the bracelet 10 being stretched, the arrangement of the large number of beads 30 remains tidy, and therefore, the good external appearance of the bracelet 10 can be maintained.

[0065] The invention is not limited to the embodiment that has been described heretofore but can be carried out in various forms. In the embodiment, the first main body portion 52, the second main body portion 53 and the third main body portion 54 are connected together through slide engagement for fabrication of the bracelet 10. However, for example, with the second main body portion 53 omitted, the first main body portion 52 and the third main body portion 54 can be brought into slide engagement with each other for fabrication of the bracelet 10. This enables a bracelet 10 of a different length to be fabricated.

[0066] The main body portions are described as being connected together through slide engagement at the dividing portions 56, 57. However, the main body portions can be brought into engagement with one another with screws or magnets at the dividing portions 56, 57. Further, the connecting toy main body 51 can also be formed as a single unit without providing the dividing portions 56, 57. Furthermore, a hinge mechanism can replace the slide engagement at the dividing portions 56, 57 so that the connecting toy main body 51 can be configured so as to be folded thereat.

[0067] The connecting toy main body 51 is formed into the elongated shape. However, other forms can also be adopted. For example, the one-end-side locking portion 52c and the other-end-side locking portion 54c can be formed so as to be supported by a frame. However, as has been described before, the beading strand 22 does not fall more than required by forming the connecting toy main body 51 into the elongated shape and providing the upper surface on at least the connecting toy main body 51. This can facilitate not only the interweaving and engaging work by the engaging strand 23 but also the attachment of the catch 40. Further, the connecting toy main body 51 can be given a circular shape or an anomalous shape when seen from thereabove. However, in consideration of the dividing structure and easy fabrication, it is preferable that the connecting toy main body 51 is formed into the elongated shape (in other words, a rod shape) as done in this embodiment.

[0068] The connecting toy main body 51 is formed so as to be divided into the three portions of the first main body portion 52, the second main body portion 53 and the third main body portion 54. However, the invention is not limited thereto. For example, the connecting toy main body 51 can be divided into two halves or four portions. Alternatively, a hinge portion is provided in the connecting toy main body 51, so that the connecting toy main body 51 can be deployed to its full length when in use, while the connecting toy main body 51 can be folded when stored.

[0069] Additionally, the beads connecting method according to the invention of this patent application is a method which does not always require the use of the beads connecting toy 50 for easy fabrication of a beaded toy. However, using the beads connecting toy 50 allows children to play by fabricating a beaded toy while enjoying the beads connecting method according to the invention of this patent application with a certain degree of difficulty which is appropriate to them.

[0070] While the invention has been described heretofore based on the embodiment, the embodiment is described to represent one of examples, and hence, the scope of invention is not intended to be limited by the embodiment. This novel embodiment can be carried out in other various forms, and hence, various omissions, replacements and/or modifications can be made thereto without departing from the spirit and scope of the invention. The embodiment and its resulting modifications are included in the spirit and scope of the invention, as well as in the scope of inventions described in claims and equivalents thereof.

Claims

1. A beads connecting toy comprising:

a connecting toy main body which makes up a base for fabricating a beaded toy which is based on a strand set member which includes a strand set locking portion formed at one end side and at the other end side thereof a beading strand on which a large number of beads are put, two base strands and an engaging strand which interweaves the beading strand, the two base strands and the beads together for engagement; a one-end-side locking portion which is provided at one end side of the connecting toy main body and where the strand set locking portion is locked in place; and an other-end-side locking portion which is provided at the other end side of the connecting toy main body and where the two base strands and the beading strand are locked in place.

2. The beads connecting toy according to Claim 1, wherein

the one-end-side locking portion where the strand set locking portion which is formed into a ring-like shape is locked is formed into a hook-like shape, and wherein

the other-end-side locking portion is made up of base strand vertical grooves which are each formed into a vertical groove shape at two locations so that the other end sides of the two base strands are locked thereat and a beading strand vertical groove which is formed into a vertical groove shape between the base strand vertical grooves so that the other end side of the beading strand is locked thereat.

3. The beads connecting toy according to Claim 2, wherein
part of a partition wall between each of the base strand vertical grooves and the beading strand vertical groove is formed so as to rotate freely about a vertical direction of each of the vertical grooves as a rotation axis.
4. The beads connecting toy according to anyone of Claims 1 to 3, wherein
the connecting toy main body is formed into an elongated shape and has at least an upper surface, wherein
an abutment projecting portion is provide on the upper surface of the connecting toy main body so as to project from the upper surface, and wherein
an upper surface of the other end portion of the connecting toy main body where the other-end-side locking portion is provided is formed above the upper surface of the connecting toy main body.
5. The beads connecting toy according to Claim 4, wherein
a catch hole portion where a pillar-shaped projection of a catch which catches hold of the base strands, the beading strand and the engaging strand is loosely fitted is provided in the upper surface of the connecting toy main body which lies between the abutment projecting portion and the other end portion of the connecting toy main body.
6. The beads connecting toy according to anyone of Claims 1 to 5, wherein
the connecting toy main body includes dividing portions which are formed in a width direction at two or more locations, and an engaging portion at one of the dividing portions is formed so as to be brought into engagement with an engaging portion at the other of the dividing portions.
7. A beads connecting method comprising the following steps :

preparing a strand set member having a beading strand on which beads are put, two base strands

and an engaging strand which interweaves the beading strand, the two base strands and the beads together for engagement and making up a base for a beaded toy;

putting the beads on the beading strand;
positioning the beading strand on which the beads are put between the two base strands;
and

folding the engaging strand so as to wrap around one of the base strands from a front side to a rear side, then causing the engaging strand to pass a front side of the beading strand, then folding the engaging strand so as to wrap around the other of the base strands from a rear side to a front side, and then causing the engaging strand to pass a rear side of the beading strand to thereby interweave the two base strands, the beading strand and the beads together for engagement.

8. The beads connecting method according to Claim 7, wherein the preparation of the strand set member comprising:

making a knot on a rubber strand in a position lying near a center between end portions thereof to form a ring-shaped portion and making two strand-like portions, each of which has an end portion, constitute the two base strands;

making a knot on a cord in a position lying closer to either of end portions to form a ring-shaped portion and making a shorter strand-like portion of the two strand-like portions, each of which has the end portion, constitute the beading strand while making a longer strand-like portion of the two strand-like portions constitute the engaging strand;

causing the ring-shaped portion on the cord to pass through the ring-shaped portion on the rubber strand so as to position the ring-shaped portion on the cord between the two base strands;
and

causing the beading strand and the engaging strand to pass through the ring-shaped portion on the cord so as to make up the strand set member.

FIG.1

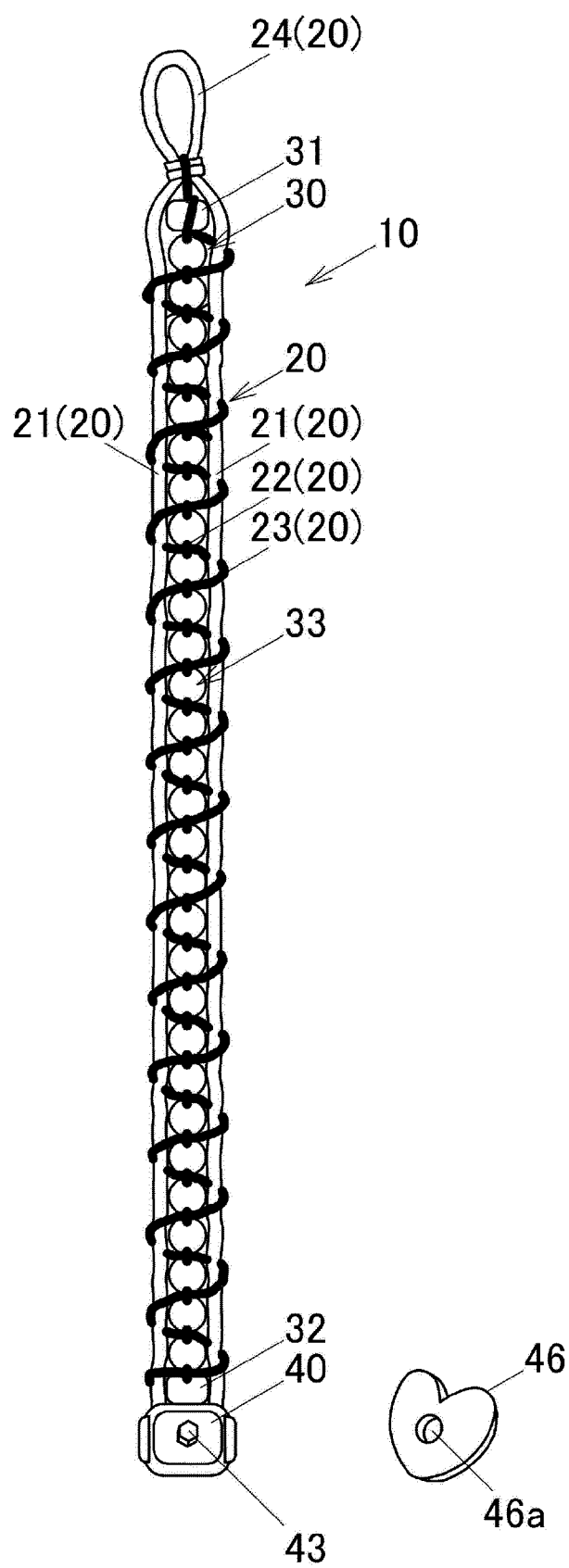


FIG.2

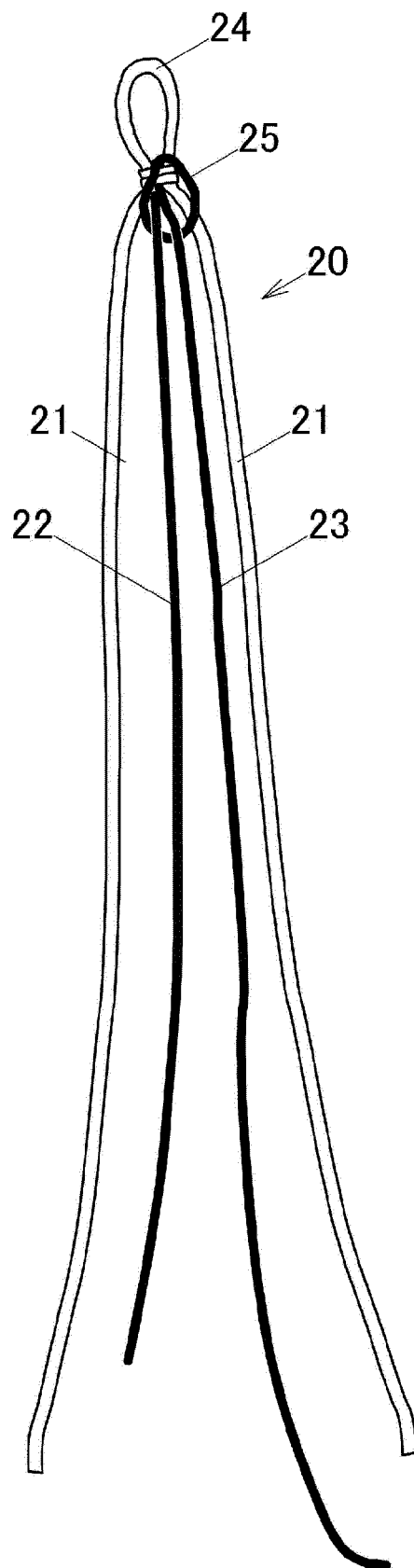


FIG.3

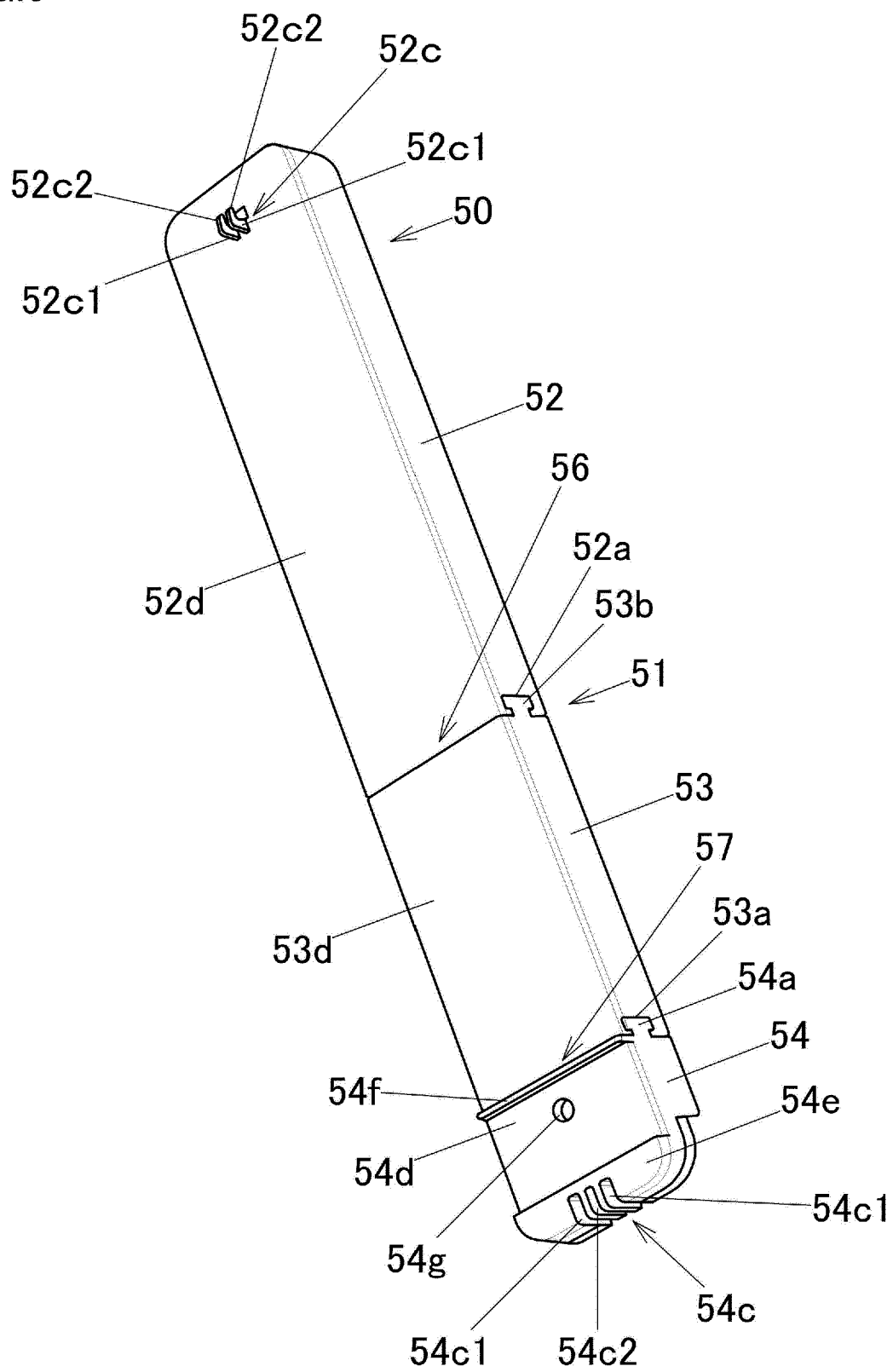


FIG.4

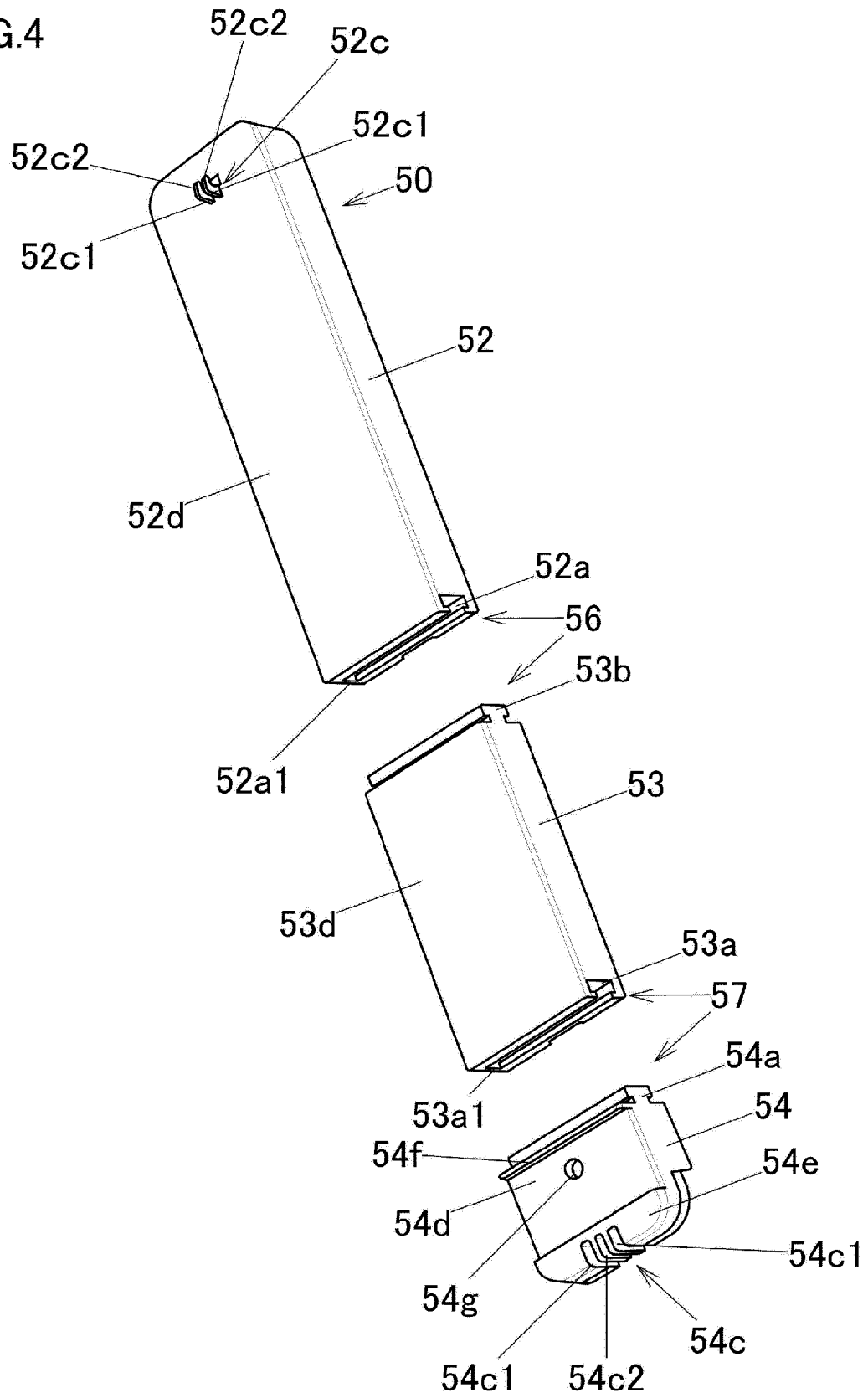


FIG.5

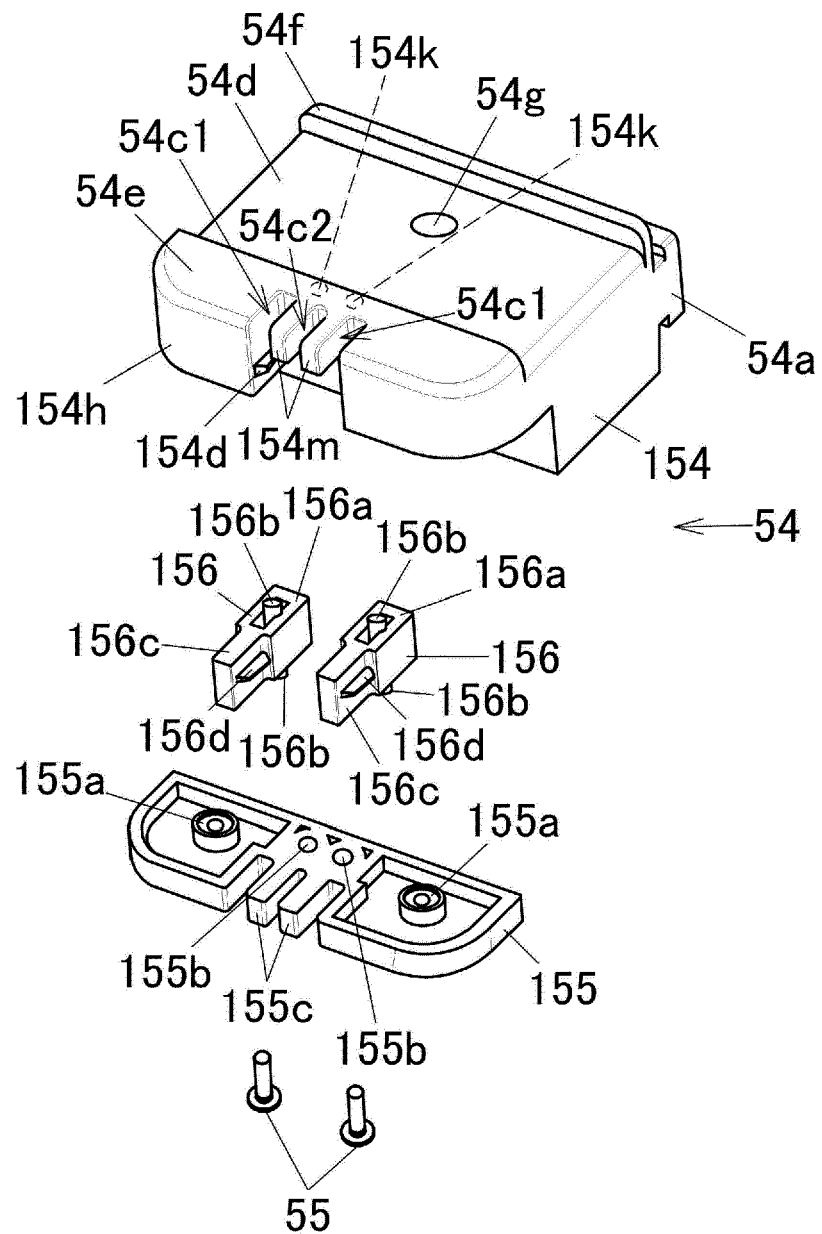


FIG.6

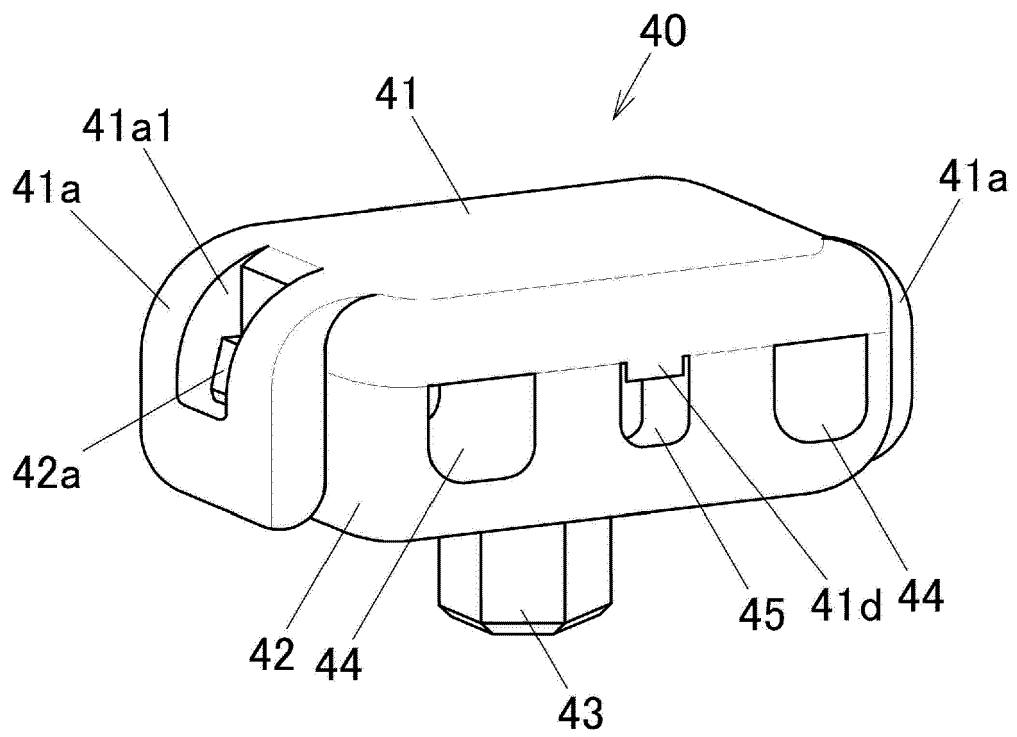


FIG.7A

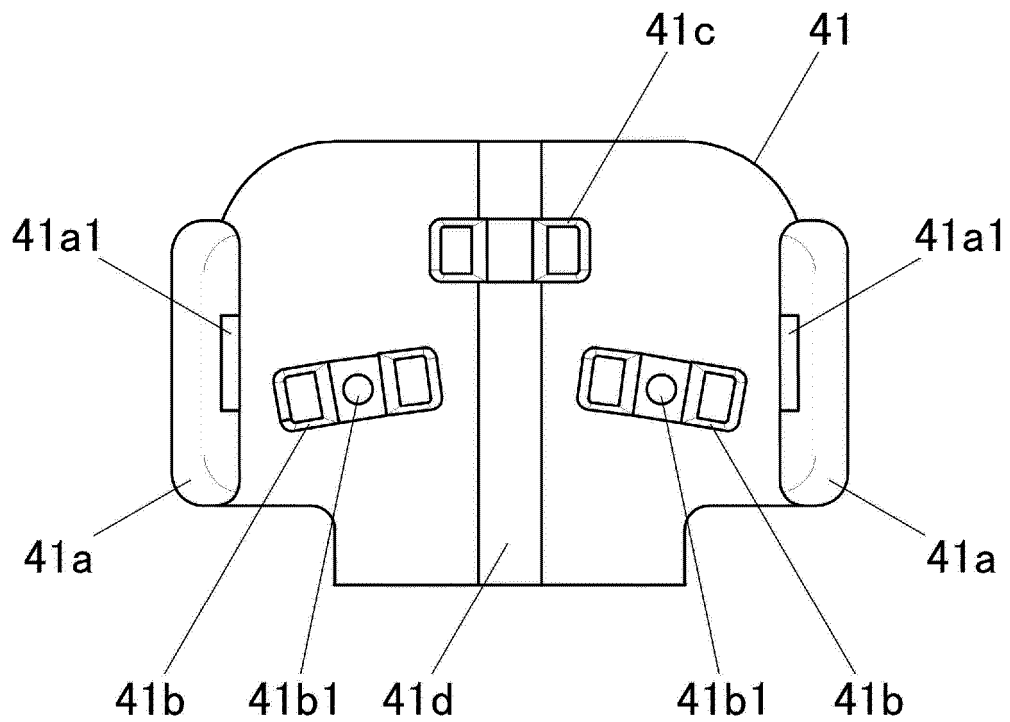


FIG.7B

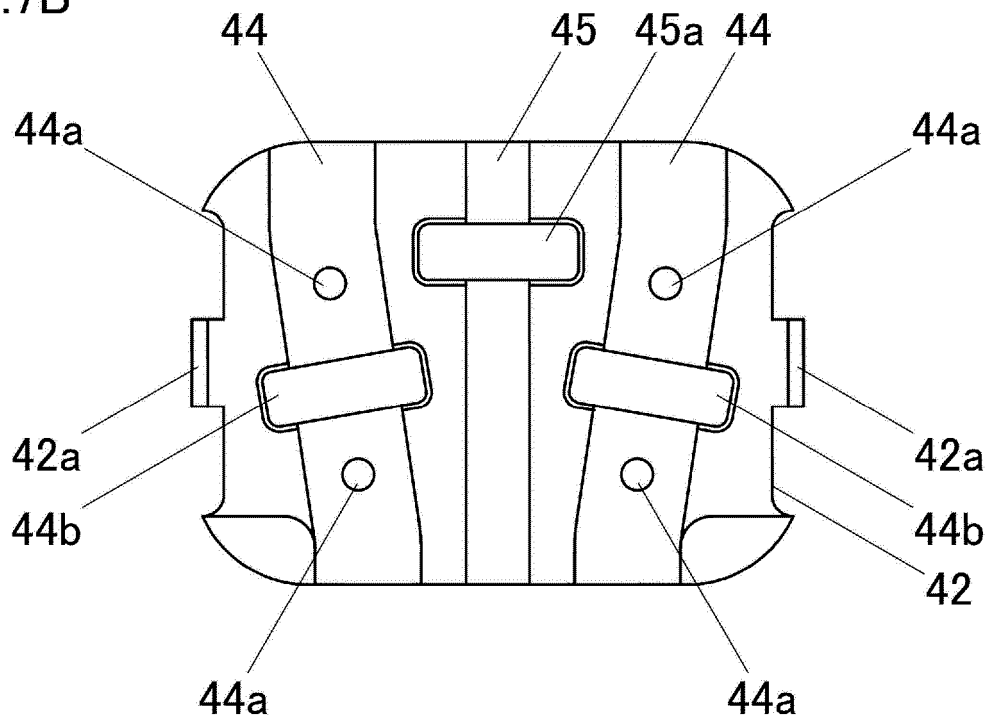


FIG.8

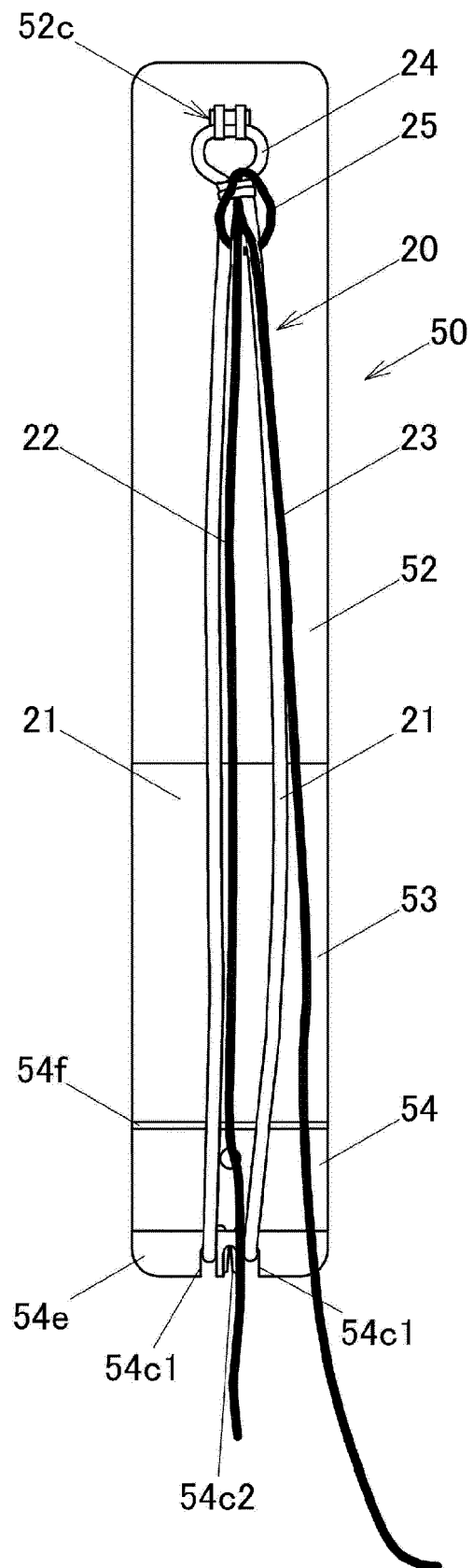


FIG.9

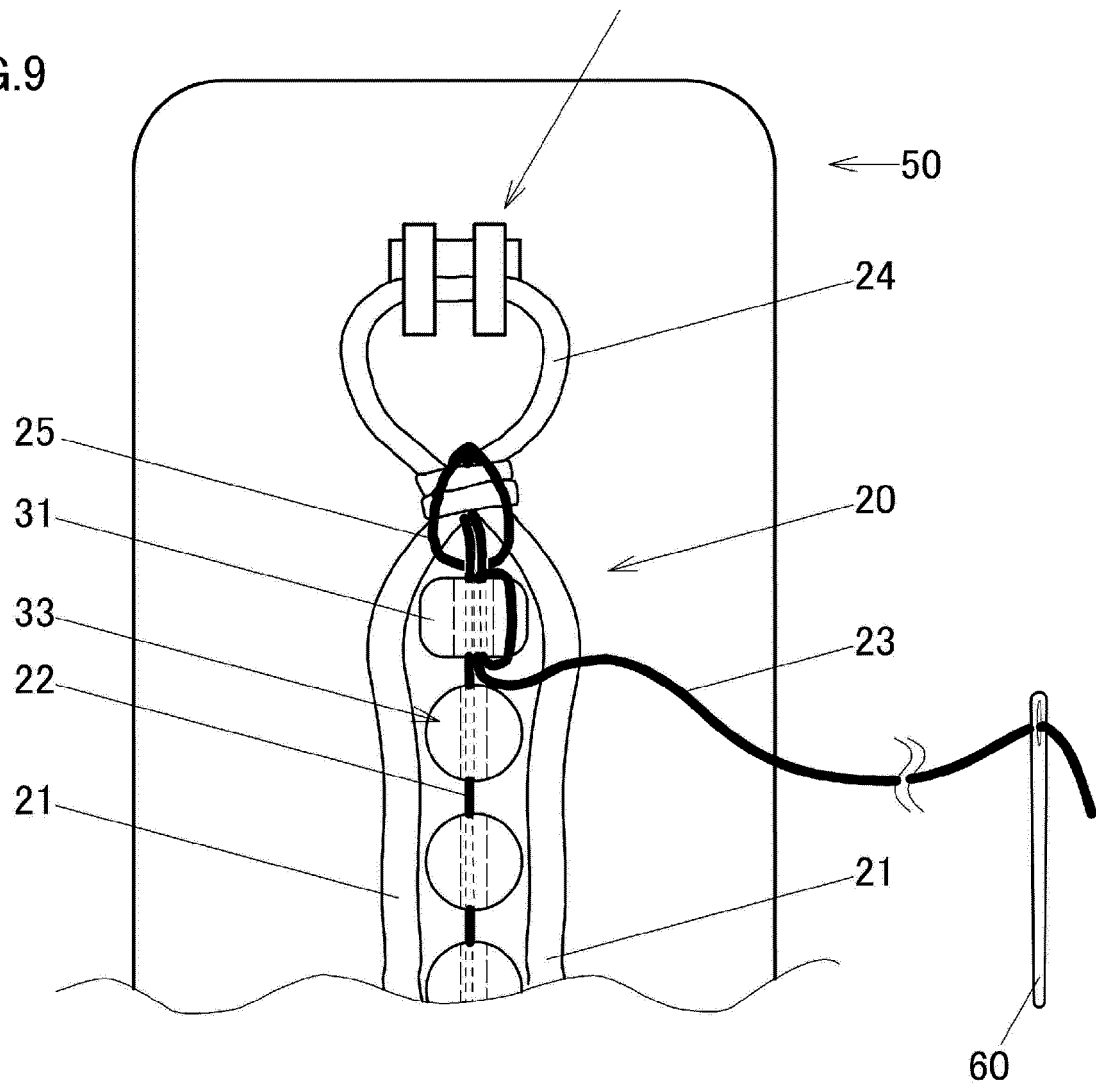


FIG.10

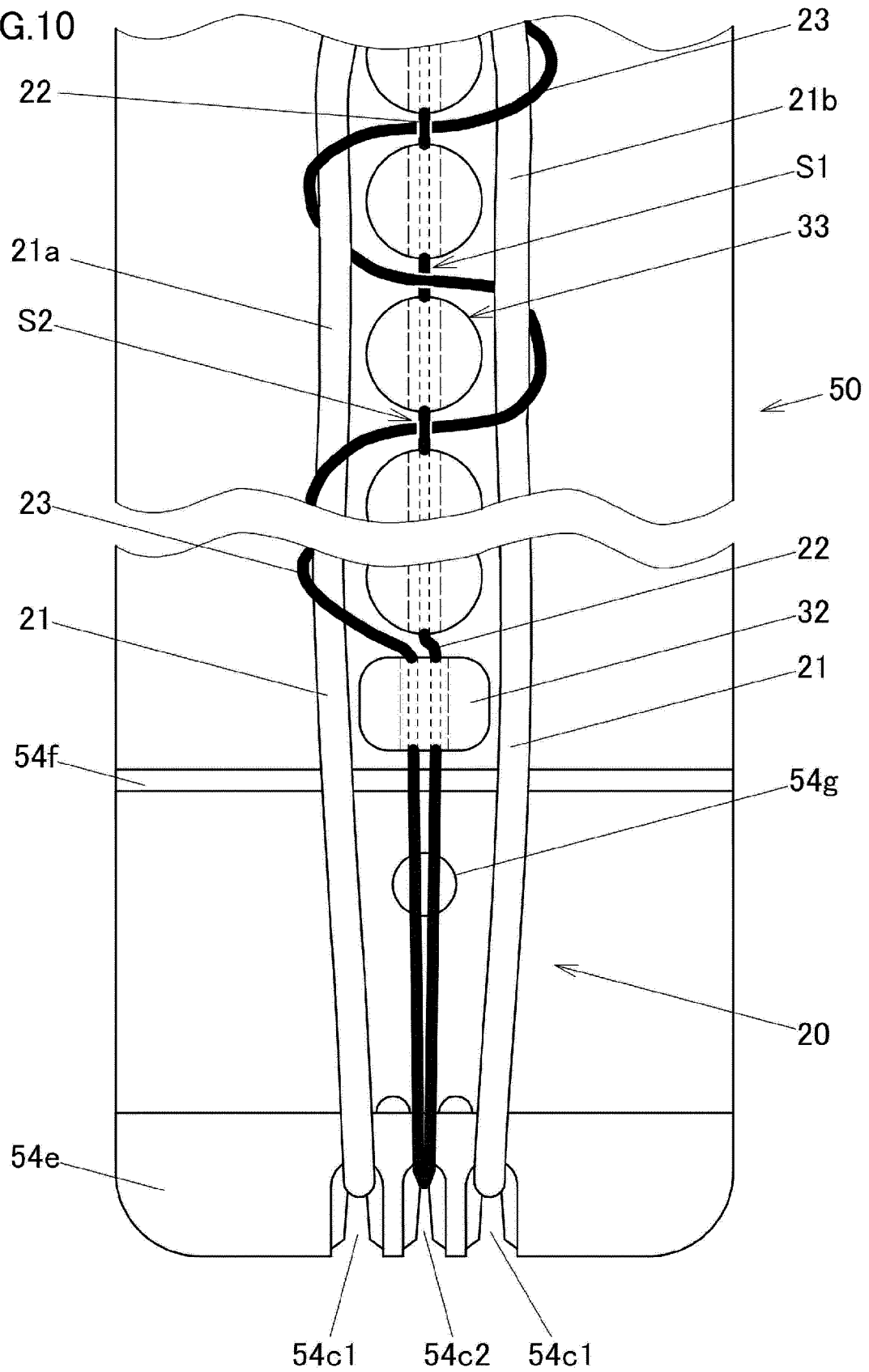


FIG.11

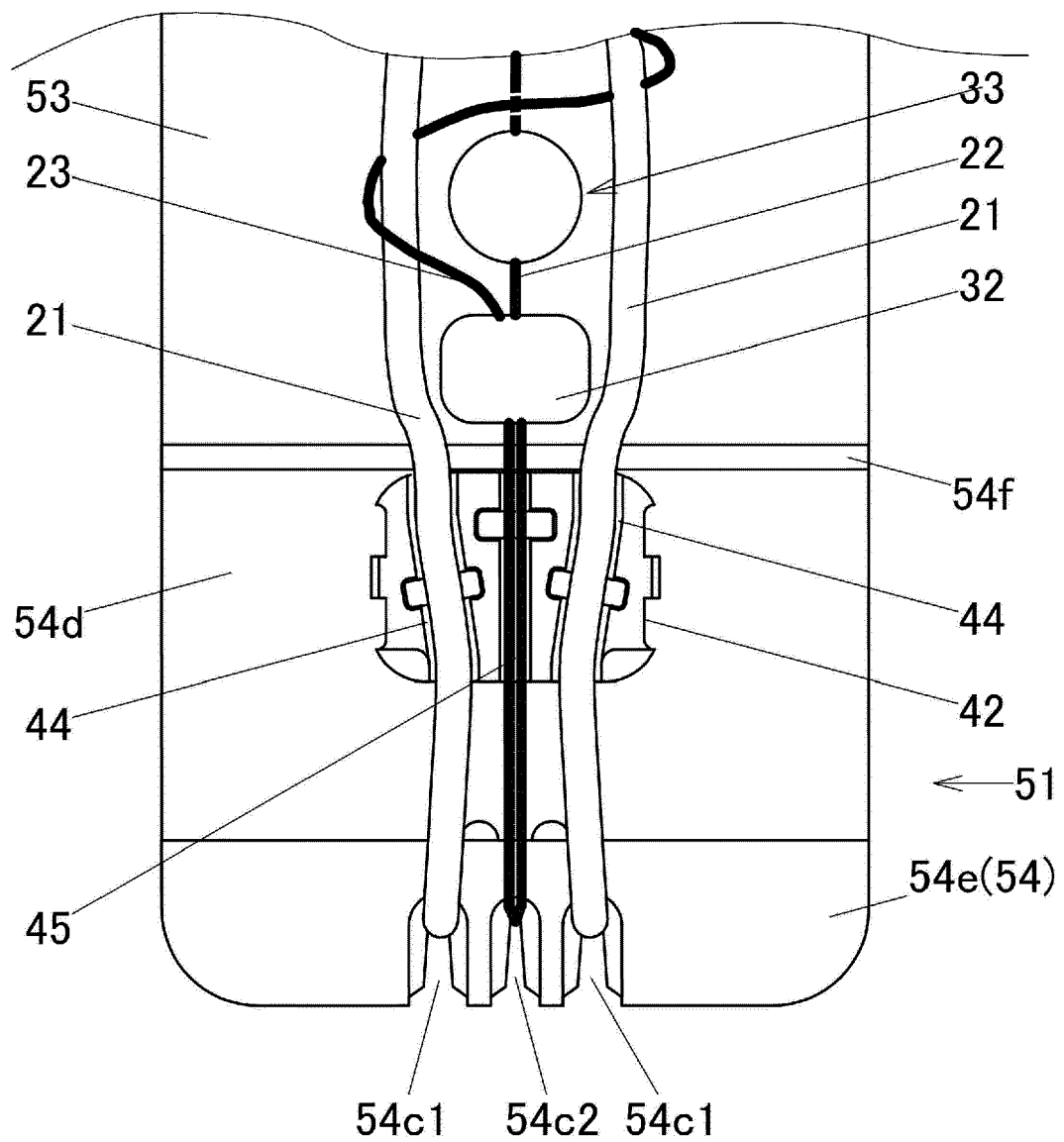
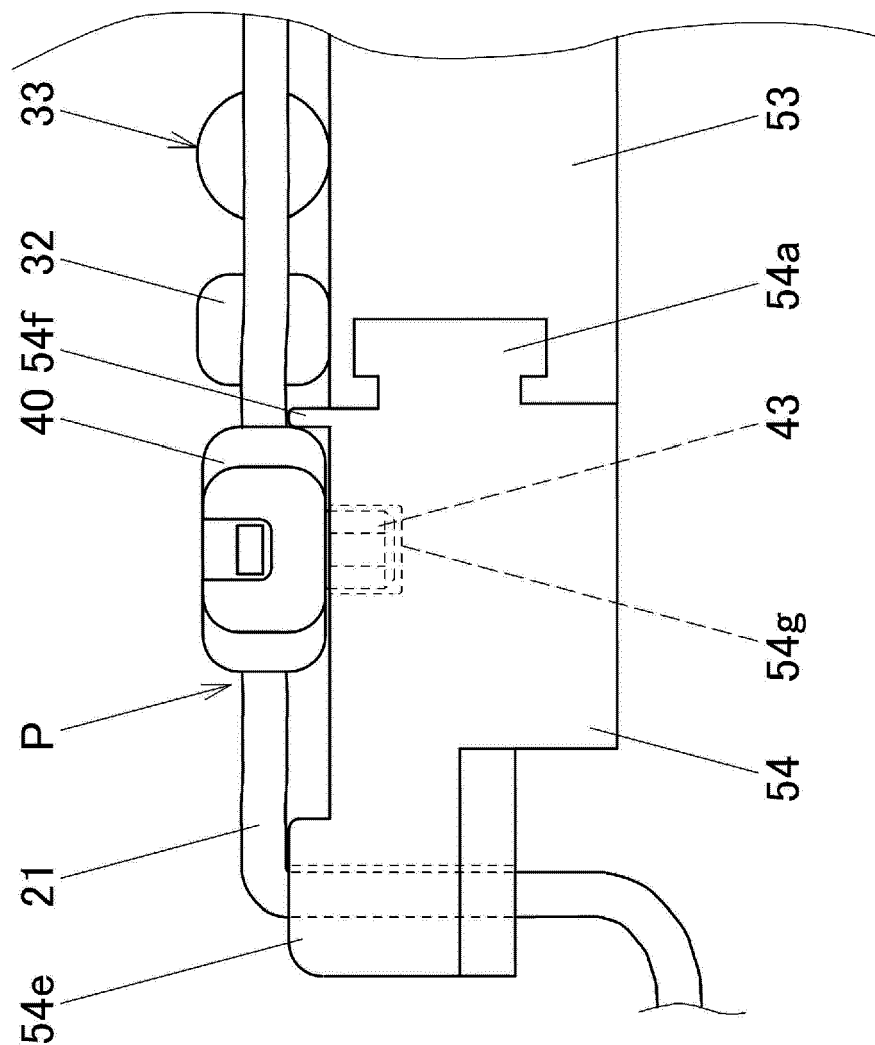


FIG.12





EUROPEAN SEARCH REPORT

Application Number
EP 15 19 5127

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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	US 2010/269947 A1 (SPEAR SHERRY [US]) 28 October 2010 (2010-10-28)	1,2,6	INV. D04D1/04 D03D29/00
A	* paragraph [0011] - paragraph [0034]; figures 1-3 *	3-5	
X	JP S61 39179 U (MITSU HARU SUGIMOTO YAMANASHI PREFECTURE) 12 March 1986 (1986-03-12)	1,2	
A	* figures 1-9 *	3-6	
X	Anette Wetzel-Grolle: "Leather Wrap Bracelet Tutorial", lebenslustiger.com 24 May 2013 (2013-05-24), page 14PP, XP002756464, Retrieved from the Internet: URL:http://www.lebenslustiger.com/serendip ity/archives/347-Leather-Wrap-Bracelet-Tut orial.html#ixzz2p0xWXjYp&i [retrieved on 2016-04-13] * the whole document *	7,8	
A	Beril Oymak: "DIY/Rhinestone bracelet (tasli bileklik yapimi)", BERRILLA 3 April 2012 (2012-04-03), page 6PP, XP002756465, Retrieved from the Internet: URL:http://www.berrilla.com/2012/04/diyrhi nestone-bracelet-tasl-bileklik.html [retrieved on 2016-04-13] * the whole document *	7,8	
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 14 April 2016	Examiner Braun, Stefanie
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 15 19 5127

5 This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
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14-04-2016

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EPO FORM P0459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82

REFERENCES CITED IN THE DESCRIPTION

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