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(54) TRAINING BELT AND RUBBER BALL MEMBER

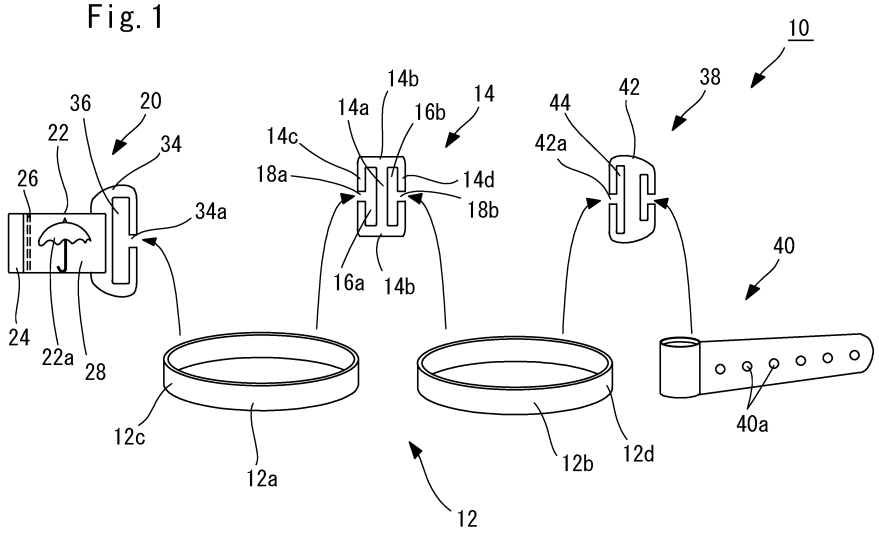
(57) (Problem)

The invention is object to provide a training belt,
in which the loop band sold conventionally and generally can be used, and
in which a plurality of loop bands are provided in a simple structure, and
in which moreover, it can be connected easily in arbitrary length, and
in which the cost and time can be reduced, and convenient also to carrying.

(Resolution Approach)

The invention is a training belt, comprising,
a plurality of stretchable belt members 12 having loop shape,
an intermediate engaging member 14, in which the plural of the belt members 12 are detachably coupled mutually,
a first engaging member 20, which is detachably coupled to the one edge of the belt member 12 that is coupled by the intermediate engaging member 14, and
a second engaging member 38, which is detachably coupled to the other edge of the belt member 12 that is coupled by the intermediate engaging member 14,
wherein the training belt becomes a loop shape by engaging the first engaging member 20 and the second engaging member 38.

Fig. 1



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Description

[Technical Field]

[0001] The invention relates to a training belt and a rubber ball member which comprises a stretchable belt made of, for example, rubber and the like and a rubber ball member for using various trainings,
for example, exercise, beauty, health such as improving low back pain, rehabilitation of such as gait disorder, solving lack of physical activity, limbs, legs and waist, prevention of cognizance syndrome, sports training by strengthening back muscles, chest muscles, bodybuilding, etc. and various training in other fields like sports training (hereinafter, simply referred to as "training").

[Background Art]

[0002] In conventional, as a training tools using such various training, for instance, an exercise rubber band, a loop band, and a training tube, etc. are used.
[0003] As such a training tools, conventionally, as for so-called "expander", a ring shape (loop shape) loop band, which uses, for instance, the stretchable member having flexibility made of rubber etc., is used.
[0004] In such a loop band, the length of the loop band is constant.
[0005] Therefore, in accordance with, for instance, using object, using portion, training method, training strength, and strength of loop (load), the loop band of various lengths should be prepared.
[0006] As a result, the cost is increasing and it is complex and troublesome since it is necessary to select a loop band and train with the selected loop band.
[0007] Therefore, in Patent Document 1 (JP 2017-18243, A), the training tool, which can be used as the loop band having the arbitrary length without necessity of preparing the loop band having various lengths, is disclosed.
[0008] That is, Fig. 20 is a perspective view of the training tool shown in Patent Document 1.
[0009] As shown in Fig. 20, the training tool 100 shown in Patent Document 1, a plurality of the loop 106 comprising the first stretchable member 102 and the second stretchable member 104 which is longitudinally longer than the first stretchable member 102, are mutually connected through the joint portion 108.
[0010] In addition, for instance, right and left hand are inserted into the loop 106 and the holding part (position) is variously changed.
[0011] As a result, the length of the training tool 100 is changed so that the strength of the load applied during training can be adjusted.

[Prior Art Reference]

[Patent Document]

[0012] **[Patent Document 1]**
JP, 2017-18243, A

[Summary of Invention]

[Problems to be Solved by the Invention]

[0013] However, in the training tool 100 described in Patent Document 1,
a plurality of the loop 106 comprising the first stretchable member 102 and the second stretchable member 104 which is longitudinally longer than the first stretchable member 102, should be mutually connected through the joint portion 108.
[0014] As a result, the component is complicate and the cost is increasing.
[0015] Moreover, it is impossible to use the conventional loop band which is sold generally.
[0016] For the person who trains, burden is forced economically and moreover, the burden of carrying etc. is forced.
[0017] In addition, in the training tool 100 described in Patent Document 1, for instance, according to the holding part (position) in which the right and the left hand are inserted into the loop 106, the portion that remains in the both ends portion is caused.
[0018] As a result, the problem might be caused by becoming obstructive for training and getting twisted to the surrounding and other parts of the body.
[0019] Moreover, when a conventional loop band is used to train, such as the exercise of the foot and the exercise of the knee, both feet should be put into the loop while sitting on a chair or bending state.
[0020] Therefore, it is inconvenient and a large space to some extent is required.
[0021] Therefore, it is unsuitable for training, for instance,
training at the time of work and study, etc. sitting on a chair,
training while watching television and video, etc., sitting on a chair of home and sitting on a sofa,
training when moving in passenger's seat and back seat of car and training when moving in charabanc, airplane, ships and vessels and train, and
training on bedding and bed.
[0022] The invention considers such a current state and is object to provide a training belt,
in which the loop band sold conventionally and generally can be used, and
in which a plurality of loop bands are provided in a simple structure, and
in which moreover, it can be connected easily in arbitrary length, and
in which the cost and time can be reduced, and conven-

ient also to carrying.

[0023] Moreover, the invention is object to provide a training belt,
in which, for instance, according to such as the using object, the using portion, the training method, training strength, and the strength of the loop (load), and
in which it is possible to use simply as a loop band having various lengths.

[0024] Moreover, the invention is object to provide a training belt,
in which like a conventional loop band,
when the loop band is used to train, such as the exercise of the foot and the exercise of the knee, both feet need not be put into the loop while sitting on a chair or bending state,
in which it can be used as a belt, and is convenient, and it can be used in the small place.

[0025] Moreover, the invention is object to provide a training belt and a rubber ball member in which,
it is suitable for training, for instance,
training at the time of work and study, etc. sitting on a chair,
training while watching television and video, etc., sitting on a chair of home and sitting on a sofa,
training when moving in passenger's seat and back seat of car and training when moving in charabanc, airplane, ships and vessels and train, and
training on bedding and bed.

[Solution to Problem]

[0026] The invention was invented to attain the problem and the purpose in the above-mentioned prior art, and a training belt of the invention, being a training belt including a stretchable belt, comprising:

a plurality of stretchable belt members having loop shape,
an intermediate engaging member, in which the plural of the belt members are detachably coupled mutually,
a first engaging member, which is detachably coupled to the one edge of the belt member that is coupled by the intermediate engaging member, and
a second engaging member, which is detachably coupled to the other edge of the belt member that is coupled by the intermediate engaging member,
wherein the training belt becomes a loop shape by engaging the first engaging member and the second engaging member.

[0027] By composed like this, the plurality of the stretchable belt members having loop shape is detachably coupled mutually through the intermediate engaging member.

[0028] In addition, the first engaging member is detachably coupled to the one edge of the belt member that is coupled by the intermediate engaging member.

[0029] Moreover, the second engaging member is detachably coupled to the other edge of the belt member that is coupled by the intermediate engaging member.

[0030] Under such a condition, the training belt becomes a loop shape by engaging the first engaging member and the second engaging member.

[0031] Therefore, a training belt,
in which the loop band sold conventionally and generally can be used, and
in which a plurality of loop bands (belt members) are provided in a simple structure, and
in which moreover, it can be connected easily in arbitrary length, and
in which the cost and time can be reduced, and convenient also to carrying,
can be provided.

[0032] Moreover, a training belt,
in which, for instance, according to such as the using object, the using portion, the training method, training strength, and the strength of the loop (load), and
in which it is possible to use simply as a loop band having various lengths,
can be provided.

[0033] In addition, a training belt,
in which like a conventional loop band,
when the loop band is used to train, such as the exercise of the foot and the exercise of the knee, both feet need not be put into the loop while sitting on a chair or bending state,
in which it can be used as a belt, and is convenient, and it can be used in the small place,
can be provided.

[0034] Moreover, a training belt, in which,
it is suitable for training, for instance,
training at the time of work and study, etc. sitting on a chair,
training while watching television and video, etc., sitting on a chair of home and sitting on a sofa,
training when moving in passenger's seat and back seat of car and
training when moving in charabanc, airplane, ships and vessels and train, and
training on bedding and bed,
can be provided.

[0035] Moreover, the training belt of the invention being the training belt,
wherein the intermediate engaging member comprising,
an engaging bar main body, which is formed to the center portion of the intermediate engaging member,
a first engaging bar member and a second engaging bar member,
which are extended respectively such that they are separated in the predetermined space from the engaging bar main body, and
which are respectively placed parallel to the engaging bar main body,
wherein a first engaging hole is formed to the portion surrounded by the engaging bar main body and the first

engaging bar member,
wherein a first slit is formed to the first engaging hole, in which the belt member at one edge of the plurality of the belt members is detachably inserted,
wherein a second engaging hole is formed to the portion surrounded by the engaging bar main body and the second engaging bar member, and
wherein a second slit is formed to the second the engaging hole, in which the belt member at the other edge of the plurality of the belt members is inserted and engaged.

[0036] By composed like this, into the first engaging hole which is formed to the portion surrounded by the engaging bar main body and the first engaging bar member, the belt member of one edge of the plurality of the belt members can be detachably inserted through the first slit.

[0037] In addition, into the second engaging hole which is formed to the portion surrounded by the engaging bar main body and the second engaging bar member, the belt member at the other edge of the plurality of the belt members can be inserted and engaged through the second slit.

[0038] Thus, the plural of the belt members can be detachably coupled mutually, simply, and easily.

[0039] Therefore, a training belt,
in which the loop band sold conventionally and generally can be used, and
in which a plurality of loop bands (loop bands) are provided in a simple structure, and
in which moreover, it can be connected easily in arbitrary length, and
in which the cost and time can be reduced, and convenient also to carrying,
can be provided.

[0040] Moreover, the training belt of the invention being the training belt,
wherein the length of the first the engaging bar member and the length of the second the engaging bar member are formed to be different mutually.

[0041] By composed like this, the plurality of the belt member having a different size of width can be coupled without being biased so that it is convenient.

[0042] Moreover, the training belt of the invention being the training belt,
wherein the first engaging member comprising a buckle type engaging member of the buckle type,
wherein, at the belt member side of the buckle type engaging member, a first insertion engaging member, in which the belt member is inserted and engaged detachably, is provided,
wherein, in the first insertion engaging member, a first belt engaging hole including a slit, in which the belt member is inserted and engaged detachably, is formed,
wherein the second engaging member comprising a belt type engaging member having the belt shape,
wherein, at the belt member side of the belt type engaging member, a second insertion engaging member, in which the belt member is inserted and engaged detachably, is provided,
wherein, in the second insertion engaging member, a second belt engaging hole including a slit, in which the belt member is inserted and engaged detachably, is formed, and
wherein the training belt becomes a loop shape by engaging the buckle type engaging member and the belt type engaging member.

[0043] By composed like this, through the slit of the first insertion engaging member, which is provided to the belt member side of the buckle type engaging member, into the first belt engaging hole of the first insertion engaging member, the belt member can be inserted and engaged detachably.

[0044] Moreover, through the slit of the second insertion engaging member, which is provided to the belt member side of the belt type engaging member having the belt shape,
into the second belt engaging hole of the second insertion engaging member,
the belt member can be inserted and engaged detachably.

[0045] Under such a condition, the training belt becomes a loop shape by engaging the buckle type engaging member and the belt type engaging member.

[0046] Therefore, by adjusting the engaging position of the buckle type engaging member and the belt type engaging member, a training belt,
in which, for instance, according to such as the using object, the using portion, the training method, training strength, and the strength of the loop (load), and
in which it is possible to use simply as a loop band having various lengths,
can be provided.

[0047] In addition, by adjusting the engaging position of the buckle type engaging member and the belt type engaging member, a training belt,
in which like a conventional loop band,
when the loop band is used to train, such as the exercise of the foot and the exercise of the knee, both feet need not be put into the loop while sitting on a chair or bending state,
in which it can be used as a belt, and is convenient, and it can be used in the small place,
can be provided

[0048] Moreover, by adjusting the engaging position of the buckle type engaging member and the belt type engaging member, a training belt, it is suitable for training, for instance,
in which training at the time of work and study, etc. sitting on a chair,
in which training while watching television and video, etc., sitting on a chair of home and sitting on a sofa,
in which training when moving in passenger's seat and back seat of car and training when moving in charabanc, airplane, ships and vessels and train, and
in which training on bedding and bed,
can be provided.

[0049] Moreover, the training belt of the invention being the training belt,
wherein to the surface of the buckle type engaging member of the first the engaging member, the confirmation portion, in which the both sides can be confirmed, is formed.

[0050] By composed like this, for instance, by adhering the sealing and by forming the confirmation portion comprising indication such as braille, mark and classifications and convexoconcave, etc., to the surface of the buckle type engaging member of the first engaging member, the both sides can be confirmed and it can be prevented from providing by making a mistake of the confirmation of the both sides.

[0051] Moreover, the training belt of the invention being the training belt,
wherein a convexoconcave is formed to the belt type engaging member of the second engaging member.

[0052] By composed like this, by means of the convexoconcave formed to the belt type engaging member of the second engaging member, for instance, the position, in which the portion where the remaining portion of the belt type engaging member is cut, can be recognized.

[0053] In addition, by forming this convexoconcave to the surface of the buckle type engaging member, the both sides can be confirmed and it can be prevented from providing by making a mistake of the confirmation of the both sides.

[0054] Moreover, the training belt of the invention being the training belt,
wherein the first the engaging member comprising a snap fit type female shape engaging member of the snap fit type,
wherein at the belt member side of the female shape engaging member, a first insertion engaging member, in which the belt member is inserted and engaged detachably, is provided,
wherein, in the first insertion engaging member, a first belt engaging hole including a slit, in which the belt member is inserted and engaged detachably, is formed,
wherein the second engaging member comprising a male shape engaging member of the snap fit type, which is corresponding to the female shape engaging member,
wherein at the belt member side of the male shape engaging member, a second insertion engaging member, in which the belt member is inserted and engaged detachably, is provided,
wherein, in the second insertion engaging member, a second belt engaging hole including a slit, in which the belt member is inserted and engaged detachably, is formed, and
wherein the training belt becomes a loop shape by engaging the female shape engaging member and the male shape engaging member.

[0055] By composed like this, through the slit of the first insertion engaging member, which is provided to the belt member side of the female shape engaging member of the snap fit type,
into the first belt engaging hole of the first insertion engaging member, the belt member can be inserted and engaged detachably.

[0056] Moreover, through the slit of the second insertion engaging member, which is provided to the belt member side of the male shape engaging member of the snap fit type,
into the second belt engaging hole of the second insertion engaging member,
the belt member can be inserted and engaged detachably.

[0057] Under such a condition, the training belt becomes a loop shape by engaging the female shape engaging member and the male shape engaging member of the snap fit type.

[0058] Therefore, by adjusting the engaging position of the female shape engaging member and of the male shape engaging member of the snap fit type, a training belt,
in which, for instance, according to such as the using object, the using portion, the training method, training strength, and the strength of the loop (load), and
in which it is possible to use simply as a loop band having various lengths,
can be provided.

[0059] In addition, by adjusting the engaging position of the female shape engaging member and the male shape engaging member of the snap fit type, a training belt,
in which like a conventional loop band,
when the loop band is used to train, such as the exercise of the foot and the exercise of the knee, both feet need not be put into the loop while sitting on a chair or bending state,
in which it can be used as a belt, and is convenient, and it can be used in the small place,
can be provided.

[0060] Moreover, by adjusting the engaging position of the female shape engaging member and the male shape engaging member of the snap fit type, a training belt, it is suitable for training, for instance,
in which training at the time of work and study, etc. sitting on a chair,
in which training while watching television and video, etc., sitting on a chair of home and sitting on a sofa,
in which training when moving in passenger's seat and back seat of car and training when moving in charabanc, airplane, ships and vessels and train, and
in which training on bedding and bed,
can be provided.

[0061] Moreover, the training belt of the invention being the training belt,
wherein the first engaging member comprising the first ring type engaging member of an openable ring type,
wherein, at the belt member side of the first ring type engaging member,
a first insertion engaging member, in which the belt member is inserted and engaged detachably, is provided,

wherein, in the first insertion engaging member, a first belt engaging hole including a slit, in which the belt member is inserted and engaged detachably, is formed,
wherein the second engaging member comprising the second ring type engaging member of an openable ring type,
wherein, at the belt member side of the second ring type engaging member,
a second insertion engaging member, in which the belt member is inserted and engaged detachably, is provided,
wherein, in the second insertion engaging member, a second belt engaging hole including a slit, in which the belt member is inserted and engaged detachably, is formed, and
wherein the training belt becomes a loop shape by engaging the first ring type engaging member and the second ring type engaging member.

[0062] By composed like this, through the slit of the first insertion engaging member, which is provided to the belt member side of the first ring type engaging member of an openable ring type,
into the first belt engaging hole of the first insertion engaging member, the belt member can be inserted and engaged detachably.

[0063] Moreover, through the slit of the second insertion engaging member, which is provided to the belt member side of the second ring type engaging member of an openable ring type,
into the second belt engaging hole of the second insertion engaging member,
the belt member can be inserted and engaged detachably.

[0064] Under such a condition, the training belt becomes a loop shape by engaging the first ring type engaging member and the second ring type engaging member of an openable ring type,

[0065] Therefore, by adjusting the engaging position of the first ring type engaging member and the second ring type engaging member of an openable ring type, a training belt,
in which, for instance, according to such as the using object, the using portion, the training method, training strength, and the strength of the loop (load), and
in which it is possible to use simply as a loop band having various lengths,
can be provided.

[0066] In addition, by adjusting the engaging position of the first ring type engaging member and the second ring type engaging member of an openable ring type, a training belt,
in which like a conventional loop band,
when the loop band is used to train, such as the exercise of the foot and the exercise of the knee, both feet need not be put into the loop while sitting on a chair or bending state,
in which it can be used as a belt, and is convenient, and it can be used in the small place,
can be provided.

[0067] Moreover, by adjusting the engaging position of the first ring type engaging member and the second ring type engaging member of an openable ring type, a training belt, it is suitable for training, for instance,
in which training at the time of work and study, etc. sitting on a chair,
in which training while watching television and video, etc., sitting on a chair of home and sitting on a sofa,
in which training when moving in passenger's seat and back seat of car and training when moving in charabanc, airplane, ships and vessels and train, and
in which training on bedding and bed,
can be provided.

[0068] Moreover, the training belt of the invention being the training belt,
wherein the first insertion engaging member of the first engaging member comprising the intermediate engaging member.

[0069] Thus, the first insertion engaging member of the first engaging member may comprise the intermediate engaging member.

[0070] As a result, the intermediate engaging member can be used as a first insertion engaging member of the first engaging member.

[0071] Accordingly, the number of parts can be reduced and cost and time can be decreased.

[0072] Moreover, the training belt of the invention being the training belt,
wherein the second insertion engaging member of the second engaging member comprising the intermediate engaging member.

[0073] Thus, the second insertion engaging member of the second engaging member may comprise the intermediate engaging member.

[0074] As a result, the intermediate engaging member can be used as a second insertion engaging member of the second engaging member.

[0075] Accordingly, the number of parts can be reduced, and cost and time can be decreased.

[0076] Moreover, the training belt of the invention being a training belt including a stretchable belt, comprising:

a plurality of stretchable belt members having loop shape,
an intermediate engaging member, in which the plural of the belt members are detachably coupled mutually,
a first engaging member, which is detachably coupled to the one edge of the belt member that is coupled by the intermediate engaging member, and
a second engaging member, which is detachably coupled to the other edge of the belt member that is coupled by the intermediate engaging member,
wherein the training belt becomes a loop shape by engaging the first engaging member and the second engaging member,
wherein at least one piece of a third engaging member, which is detachably coupled to the belt member

of the training belt that becomes a loop shape,
wherein the third engaging member comprising,
an engaging member main body, which is detachably coupled to the belt member of the training belt that becomes a loop shape, and
a coupling portion which is detachably coupled to the engaging member main body and in which another stretchable belt member of loop shape is detachably coupled.

[0077] By composed like this, at least one piece of the third engaging member, which is detachably coupled to the belt member of the training belt that becomes a loop shape, is provided.

[0078] Moreover, by means of the engaging member main body, it can be detachably coupled to the belt member of the training belt that becomes a loop shape.

[0079] In addition, by means of the coupling portion which is detachably coupled to the engaging member main body, another stretchable belt member of loop shape can be detachably coupled.

[0080] Therefore, as shown in Fig. 26 described later, for instance,
in addition, if another stretchable belt member of loop shape is used for both feet,
it is extremely convenient such that the all-round physical exercise such as arms and lower bodies and the exercise can be performed.

[0081] Moreover, the training belt of the invention being a training belt,
wherein the engaging member main body having an openable loop shape, and
wherein the belt member of the training belt, which becomes a loop shape, is detachably coupled to the portion of the engaging member main body that becomes the loop shape.

[0082] By composed like this, the engaging member main body is an openable loop shape.

[0083] As a result, the belt member of the training belt, which becomes a loop shape, is detachably coupled to the portion of the engaging member main body that becomes the loop shape.

[0084] Therefore, it is easy and is extremely convenient such that another stretchable belt member of loop shape can be detachably coupled and detached to the belt member of the training belt that becomes a loop shape.

[0085] Moreover, the training belt of the invention being a training belt,
wherein the coupling portion of the third engaging member is detachably coupled to the engaging member main body.

[0086] By composed like this, with respect to the belt member of the training belt, which is coupled to the engaging member main body and which becomes a loop shape,
another stretchable belt member of loop shape can be detachably coupled to the engaging member main body through the coupling portion of the third engaging member.

[0087] Therefore, it is easy and is extremely convenient such that another stretchable belt member of loop shape can be detachably coupled and detached to the belt member of the training belt that becomes a loop shape.

[0088] Moreover, the training belt of the invention being a training belt,
wherein the intermediate engaging member comprising,
an engaging bar main body, which is formed to the center portion of the intermediate engaging member,
a first engaging bar member and a second engaging bar member,
which are extended respectively such that they are separated in the predetermined space from the engaging bar main body, and
which are respectively placed parallel to the engaging bar main body,
wherein a first engaging hole is formed to the portion surrounded by the engaging bar main body and the first engaging bar member,
wherein a second engaging hole is formed to the portion surrounded by the engaging bar main body and the second engaging bar member,
wherein the first engaging bar member is openable such that the first engaging hole may be openable, and
wherein the second engaging bar member is openable such that the second engaging hole may be openable.

[0089] By composed like this, the first engaging bar member is openable such that the first engaging hole may be openable, and the second engaging bar member is openable such that the second engaging hole may be openable.

[0090] Therefore, the first engaging hole and the second engaging hole are opened and closed by the openable first engaging bar member and the second engaging bar member.

[0091] As a result, it is extremely convenient such that the mutual coupling and disassembly of the belt members.

[0092] Moreover, the training belt of the invention being a training belt,
wherein on the surface of another stretchable belt member of loop shape, an index portion, which is expanded and contracted in accordance with the expansion and contraction of another stretchable belt member of loop shape, is formed.

[0093] By composed like this, as described later, for instance, as shown in Fig. 23,
on the surface of another stretchable belt member 12e of loop shape,
an index portion 29, which is expanded and contracted in accordance with this belt member 12e,
for instance, character such as "Do your best (GANBARE)", face of the person or animal etc., or characters can be formed.

[0094] As a result, the index portion 29 is expanded or

contracted in accordance with this belt member 12e.

[0095] Therefore, there is an effect to encourage the user who performs the all-round physical exercise such as arms and lower bodies and the exercise.

[0096] Moreover, the rubber ball member of the invention being a rubber ball member,
a rubber ball member used with any one of the training belts,
wherein the rubber ball member comprising a rubber ball member main body,
wherein the rubber ball member main body comprising an openable hole including an openable cover member, which is formed besides the air inlet of the rubber ball member main body,
wherein the rubber ball member comprising a balloon member, which is detachably inserted into the openable hole of the rubber ball member main body,
wherein the balloon member comprising,
a balloon member main body including a balloon, and
a nozzle member provided to an air port of the balloon member main body,
wherein a base edge of the nozzle member is provided to the air port of the balloon member main body,
wherein the tip portion of the nozzle member is detachably inserted into the openable hole of the rubber ball member main body,
wherein the air hole is formed to the tip portion of the nozzle member, and
wherein by applying pressure to the rubber ball member main body from the outside by using the training belt,
such that air in the rubber ball member main body is moved to the balloon member main body through the air hole formed to the tip portion of the nozzle member and the balloon member main body is expanded.

[0097] Moreover, the rubber ball member of the invention being a rubber ball member,
wherein the rubber ball member comprising a rubber ball member main body,
wherein the rubber ball member main body comprising an openable hole including an openable cover member, which is formed besides the air inlet of the rubber ball member main body,
wherein the rubber ball member comprising a balloon member, which is detachably inserted into the openable hole of the rubber ball member main body,
wherein the balloon member comprising,
a balloon member main body including a balloon, and a nozzle member provided to an air port of the balloon member main body,
wherein a base edge of the nozzle member is provided to the air port of the balloon member main body,
wherein the tip portion of the nozzle member is detachably inserted into the openable hole of the rubber ball member main body,
wherein the air hole is formed to the tip portion of the nozzle member, and
wherein by applying pressure to the rubber ball member main body from the outside by using the training belt,
such that air in the rubber ball member main body is moved to the balloon member main body through the air hole formed to the tip portion of the nozzle member and the balloon member main body is expanded.

[0098] By composed like this, by applying pressure to the rubber ball member main body from the outside by using the rubber ball member,
such that air in the rubber ball member main body is moved to the balloon member main body through the air hole formed to the tip portion of the nozzle member and the balloon member main body is expanded.

[0099] On the other hand, by weakening pressure to the rubber ball member main body from the outside,
by the elasticity of the rubber ball member main body, the rubber ball member main body is moved in the expanding direction.

[0100] As a result, oppositely, air in the balloon member main body is moved in the rubber ball member main body through the air hole, which is formed to the tip portion of the nozzle member.

[0101] Therefore, the rubber ball member main body is expanded, and the balloon member main body is withered.

[0102] By composed like this, for instance, in various athletics and exercises such as exercise for the legs, strengthen of the grip, the balloon member main body is expanded and withered.

[0103] As a result, it is extremely convenient that it may be a standard of physical exercise.

[0104] Moreover, for instance, when the rubber ball member main body of the rubber ball member is placed between both crotches and the physical exercise in which both crotches is closed is performed, pressure is applied to the rubber ball member main body from the outside by the pressure power of this physical exercise.

[0105] As a result, air in the rubber ball member main body is moved to the balloon member main body through the air hole formed to the tip portion of the nozzle member and the balloon member main body is expanded.

[0106] In addition, the physical exercise is stopped and for instance, this time, while the physical exercise in which both crotches are opened and taking a rest,
by means of the pressure of the balloon member main body,
air in the rubber ball member main body is moved to the balloon member main body through the air hole formed to the tip portion of the nozzle member and the balloon member main body is expanded.

[0107] As a result, by repeating of such action, the continuous physical exercise using by the rubber ball member can be attained.

[0108] Moreover, the rubber ball member of the invention being a rubber ball member,
wherein on the surface of the balloon member main body of the balloon member, a balloon index portion, which is expanded and contracted in accordance with the expansion and contraction of the balloon member main body, is formed.

[0109] By composed like this, for instance, as shown in Fig. 29 described later,
on the surface of balloon member main body 86,
an index portion 81, which is expanded and contracted in accordance with this balloon member main body 86, for instance, character such as "Do your best (GANBARE)" , face of the person or animal etc., or characters can be formed.

[0110] As a result, the index portion 81 is expanded or contracted in accordance with this balloon member main body 86.

[0111] Therefore, there is an effect to encourage the user who performs the all-round physical exercise such as arms and lower bodies and the exercise.

[0112] Therefore, there is an effect to encourage the user who performs the all-round physical exercise such as arms and lower bodies and the exercise.

[Advantageous Effects of Invention]

[0113] According to the invention, the plurality of the stretchable belt members having loop shape is detachably coupled mutually through the intermediate engaging member.

[0114] In addition, the first engaging member is detachably coupled to the one edge of the belt member that is coupled by the intermediate engaging member.

[0115] Moreover, the second engaging member is detachably coupled to the other edge of the belt member that is coupled by the intermediate engaging member.

[0116] Under such a condition, the training belt becomes a loop shape by engaging the first engaging member and the second engaging member.

[0117] Therefore, a training belt,
in which the loop band sold conventionally and generally can be used, and
in which a plurality of loop bands (belt members) are provided in a simple structure, and
in which moreover, it can be connected easily in arbitrary length, and
in which the cost and time can be reduced, and convenient also to carrying,
can be provided.

[0118] Moreover, a training belt,
in which, for instance, according to such as the using object, the using portion, the training method, training strength, and the strength of the loop (load), and
in which it is possible to use simply as a loop band having various lengths,
can be provided.

[0119] In addition, a training belt,
in which like a conventional loop band,
when the loop band is used to train, such as the exercise of the foot and the exercise of the knee, both feet need not be put into the loop while sitting on a chair or bending state,
in which it can be used as a belt, and is convenient, and it can be used in the small place,
can be provided.

[0120] Moreover, a training belt, in which,
it is suitable for training, for instance,
training at the time of work and study, etc. sitting on a chair,
training while watching television and video, etc., sitting on a chair of home and sitting on a sofa,
training when moving in passenger's seat and back seat of car and training when moving in charabanc, airplane, ships and vessels and train, and
training on bedding and bed,
can be provided.

[0121] Moreover, according to the invention, at least one piece of the third engaging member, which is detachably coupled to the belt member of the training belt that becomes a loop shape, is provided.

[0122] Moreover, by means of the engaging member main body, it can be detachably coupled to the belt member of the training belt that becomes a loop shape.

[0123] In addition, by means of the coupling portion which is detachably coupled to the engaging member main body, another stretchable belt member of loop shape can be detachably coupled.

[0124] Therefore, as shown in Fig. 26 described later, for instance,
in addition, if another stretchable belt member of loop shape is used for both feet,
it is extremely convenient such that the all-round physical exercise such as arms and lower bodies and the exercise can be performed.

[0125] Moreover, for instance, when the rubber ball member main body of the rubber ball member is placed between both crotches and the physical exercise in which both crotches is closed is performed, pressure is applied to the rubber ball member main body from the outside by the pressure power of this physical exercise.

[0126] As a result, air in the rubber ball member main body is moved to the balloon member main body through the air hole formed to the tip portion of the nozzle member and the balloon member main body is expanded.

[0127] In addition, the physical exercise is stopped and for instance, this time, while the physical exercise in which both crotches are opened and taking a rest,
by means of the pressure of the balloon member main body,
air in the rubber ball member main body is moved to the balloon member main body through the air hole formed to the tip portion of the nozzle member and the balloon member main body is expanded.

[0128] As a result, by repeating of such action, the continuous physical exercise using by the rubber ball member can be attained.

[Brief Description of Drawings]

[0129]

[Fig. 1]

Fig. 1 is exploded perspective view which shows the schematic of the training belt 10 of the invention.

[Fig. 2]

Fig. 2 is an exploded top view of the training belt 10 of Fig. 1.

[Fig. 3]

Fig. 3 is a partial enlarged sectional view which shows the buckle type engaging member 22 which is the first engaging member 20 of the training belt 10 of Fig. 1.

[Fig. 4]

Fig. 4 is cross-sectional view where the training belt 10 of Fig. 1 is assembled, and the state which the rubber ball C is disposed between both feet D for training.

[Fig. 5]

Fig. 5 is a top view which shows another Embodiment of the intermediate engaging member 14 of the training belt 10 of Fig. 1.

[Fig. 6]

Fig. 6 is a perspective view that shows another Embodiment of belt type engaging member 40 of training belt 10 of the invention.

[Fig. 7]

Fig. 7 is a schematic view which shows the schematic of the training of belt 10 of the invention.

[Fig. 8]

Fig. 8 is a schematic view which shows the schematic of the training of belt 10 of the invention.

[Fig. 9]

Fig. 9 is a schematic view which shows the schematic of the training of belt 10 of the invention.

[Fig. 10]

Fig. 10 is a schematic view which shows the schematic of the training of belt 10 of the invention.

[Fig. 11]

Fig. 11 is a schematic view which shows the schematic of the training of belt 10 of the invention.

[Fig. 12]

Fig. 12 is a schematic view which shows the schematic of the training of belt 10 of the invention.

[Fig. 13]

Fig. 13 is a schematic view which shows the schematic of the training of belt 10 of the invention.

[Fig. 14]

Fig. 14 is a partial enlarged sectional view which shows another Embodiment of buckle type engaging member 22 which is the first engaging member 20 of the training belt 10 of Fig. 1.

[Fig. 15]

Fig. 15 is a partial exploded top view of another Embodiment of the training belt 10 of the invention.

[Fig. 16]

Fig. 16 is a top view of the male shape engaging member 56 of another Embodiment of the training belt 10 of the invention.

[Fig. 17]

Fig. 17 is a partial exploded top view of another Embodiment of the training belt 10 of the invention.

[Fig. 18]

Fig. 18 is a partial exploded top view of another Embodiment of the training belt 10 of the invention.

[Fig. 19]

Fig. 19 is a partial exploded top view of another Embodiment of the training belt 10 of the invention.

[Fig. 20]

Fig. 20 is a perspective view of the training tool shown in Patent Document 1.

[Fig. 21]

Fig. 21 is a partial exploded view of another Embodiment of training belt 10 of the invention.

[Fig. 22]

Fig. 22 is a cross-sectional view in the state in which the training belt 10 of Fig. 21 is assembled.

[Fig. 23]

Fig. 23 is a cross-sectional view, in which the training belt 10 of Fig. 1 similar to Fig. 4 of another Embodiment of training belt 10 of the invention is assembled, and in which the state that the rubber ball C is placed between both feet D for training, is described.

[Fig. 24]

Fig. 24 is an exploded perspective view of the third engaging member 13.

[Fig. 25]

Fig. 25 (A) is a front view of the engaging member main body 15 of the third engaging member 13,

Fig. 25 (B) is a plan view of the engaging member main body 15 of the third engaging member 13, and

Fig. 25 (C) is a cross-sectional view of the engaging member main body 15 of the third engaging member 13.

[Fig. 26]

Fig. 26 is a schematic view which shows the schematic of the training of the training belt 10 of the invention.

[Fig. 27]

Fig. 27 is a cross-sectional view in the state in which the training belt 10 of the invention is assembled.

[Fig. 28]

Fig. 28 is a schematic view which shows the Embodiment of the intermediate engaging member 14 of Fig. 27.

[Fig. 29]

Fig. 29 is a perspective view of the rubber ball member 80 of the invention.

[Fig. 30]

Fig. 30 is a cross-sectional view, in which the training belt 10 of Fig. 1 similar to Fig. 4 of another Embodiment of the training belt 10 of the invention is assembled by using the rubber ball member 80 of the invention, and in which the state that rubber ball member 80 is placed between both feet D for training,

is described.

[Fig. 31]

Fig. 31 (A) is a perspective view of another Embodiment of the rubber ball member 80 of the invention,

Fig. 31 (B) is a top view of base edge 88a of the nozzle member 88.

[Fig. 32]

Fig. 32 is a perspective view of another Embodiment of the rubber ball member 80 of the invention.

[Fig. 33]

Fig. 33 is a perspective view of another Embodiment of the rubber ball member 80 of the invention.

[Fig. 34]

Fig. 34 is a perspective view of another Embodiment of the rubber ball member 80 of the invention.

[Description of Embodiments]

[0130] Hereafter, the embodiment of the invention (Embodiment) is described in the detail or more on the basis of the drawing.

(Embodiment 1)

[0131] Fig. 1 is exploded perspective view which shows the schematic of the training belt 10 of the invention.

[0132] Fig. 2 is an exploded top view of the training belt 10 of Fig. 1.

[0133] Fig. 3 is a partial enlarged sectional view which shows the buckle type engaging member 22 which is the first engaging member 20 of the training belt 10 of Fig. 1.

[0134] Fig. 4 is cross-sectional view where the training belt 10 of Fig. 1 is assembled, and the state which the rubber ball C is disposed between both feet D for training.

[0135] Fig. 5 is a top view which shows another Embodiment of the intermediate engaging member 14 of the training belt 10 of Fig. 1.

[0136] Fig. 6 is a perspective view that shows another Embodiment of belt type engaging member 40 of training belt 10 of the invention.

[0137] Fig. 7-Fig. 13 are schematic views which show the schematic of the training of belt 10 of the invention.

[0138] Fig. 14 is a partial enlarged sectional view which shows another Embodiment of buckle type engaging member 22 which is the first engaging member 20 of the training belt 10 of Fig. 1.

[0139] Reference numeral 10 shows the training belt 10 of the invention in Fig. 1-Fig. 4 as a whole.

[0140] A training belt 10 of the invention is a training belt, for instance, which is including a stretchable belt such as rubber.

[0141] Specifically, the training belt 10 of the invention is a training belt which comprises a stretchable belt made of, for example, rubber and the like for using various trainings.

[0142] In this case, the various trainings is, for example, exercise, beauty, health such as improving low back pain, rehabilitation of such as gait disorder, solving lack of physical activity, limbs, legs and waist, prevention of cognizance syndrome, sports training by strengthening back muscles, chest muscles, bodybuilding, etc. and various training in other fields like sports training.

[0143] As shown in Fig. 1-Fig. 4,a plurality of (i.e. two in this Embodiment) stretchable belt members (i.e. in this Embodiment, a first belt member 12a and a second belt member 12b) having loop shape, for instance, such as rubber, are provided.

[0144] In addition, as for the length (circumference) and the numeral, etc. of this stretchable belt member 12, it can be changed appropriately according to for instance, such as training portion, training method, and physique of person who is trained.

[0145] Moreover, of course, it is possible to change the strength by making the belt member 12 with a double-triple for instance.

[0146] In addition, the belt member 12 having a different plural kind of load are piled in plural kinds, such that it is also possible to adjust the load of the physical exercise freely.

[0147] Moreover, an intermediate engaging member 14, in which these belt members 12 (i.e. the first belt member 12a and the second belt member 12b) are detachably coupled mutually, is provided.

[0148] As shown in Fig. 1-Fig. 3, the intermediate engaging member 14 comprises an engaging bar main body 14a, which is formed to the center portion of the intermediate engaging member 14.

[0149] In addition, a first engaging bar member 14c and a second engaging bar member 14d, which are extended respectively such that they are separated in the predetermined space from both ends of engaging bar main body 14a through extending portion 14b, are provided.

[0150] Moreover, a first engaging hole 16a is formed to the portion surrounded by the engaging bar main body 14a and the first engaging bar member 14c.

[0151] In addition, a first slit 18a is formed to the first engaging hole 16a, in which the belt member 12a at one edge of the plurality of the belt members 12 is detachably inserted,

[0152] On the other hand, a second engaging hole 16b is formed to the portion surrounded by the engaging bar main body 14a and the second engaging bar member14d.

[0153] In addition, a second slit 18b is formed to the second the engaging hole 16b, in which the belt member 12b at the other edge of the plurality of the belt members 12 is inserted and engaged.

[0154] By composed like this, as shown by the arrow of Fig. 1, into the first engaging hole 16a which is formed to the portion surrounded by the engaging bar main body 14a and the first engaging bar member 14c, the belt mem-

ber 12a of one edge of the plurality of the belt members 12 can be detachably inserted through the first slit 18a.

[0155] In addition, as shown by the arrow of Fig. 1, into the second engaging hole 16b which is formed to the portion surrounded by the engaging bar main body 14a and the second engaging bar member 14d, the belt member 12b at the other edge of the plurality of the belt members 12 can be inserted and engaged through the second slit 18b.

[0156] Thus, the plural of the belt members (i.e. in this Embodiment, the first belt member 12a and the second belt member 12b) can be detachably coupled mutually, simply, and easily.

[0157] Therefore, the training belt, in which the loop band sold conventionally and generally can be used as the belt member 12, and

in which a plurality of loop bands (i.e. the belt member 12) are provided in a simple structure, and

in which moreover, it can be connected easily in arbitrary length, and

in which the cost and time can be reduced, and convenient also to carrying.

[0158] In this Embodiment, as shown in Fig. 1-Fig. 3, the length of the first engaging bar member 14c of the intermediate engaging member 14 and the length of the second engaging bar member 14d become the same lengths.

[0159] However, as shown in Fig. 5 (A), it is also possible to be composed that the length of the first engaging bar member 14c and the length of the second engaging bar member 14d are different.

[0160] By composed like this, a plurality of the belt members 12 can be coupled with a different size of width not to be biased, and it is convenient.

[0161] Moreover, in this Embodiment, as shown in Fig. 1-Fig. 3, the forming position of the first slit 18a, which is formed to the first engaging bar member 14c of the intermediate engaging member 14 and the forming position of the second slit 18b, which is formed to the second engaging bar member 14d, are formed to the position of the center.

[0162] However, for instance, as shown in Fig. 5 (B), it can be changed appropriately such that the forming position of the first slit 18a and the forming position of the second slit 18b can be biased.

[0163] Moreover, as shown in Fig. 5 (C), on the back side of the intermediate engaging member 14, an engaging surface, which is detachably attached to such as clothes, the seat made and the back of the cloth, and which is, for instance, surface fasteners 11 such as "Magic Tape (registered trademark) "and "Velcro(registered trademark)" , can be attached.

[0164] As a result, the training belt 10 of the invention can be detachably positioned and fixed to, for instance, such as clothes and the chair, so that, it is convenient when training.

[0165] In addition, a first engaging member 20, which is detachably coupled to the one edge of the belt member 12 (i.e. one edge 12c of the first belt member 12a) that is coupled by the intermediate engaging member 14, is provided.

[0166] As shown in Fig. 1-Fig. 4, in this Embodiment, the first engaging member 20 comprises a buckle type engaging member 22 of the buckle type.

[0167] This buckle type engaging member 22 is not especially limited that it is able to use conventional well-known buckle type engaging member, which is used for the belt of the dressing.

[0168] In this Embodiment, for instance, the one structure, which is shown by the partial enlarged sectional view of the buckle type engaging member 22 of Fig. 3, is used.

[0169] Specifically, the buckle type engaging member 22 is the conventional buckle structure, which comprises a buckle main body 24, and a buckle opening and closing member 28, that is openable in the direction of arrow A of Fig. 3 against the buckle main body 24 through hinge 26 formed to one end of this buckle main body 24.

[0170] Moreover, as shown in Fig. 3, in the buckle type engaging member 22, on the upper surface of the buckle main body 24, a plurality of (i.e. two in case of this Embodiment) first protruded engaging portions 30a and 30b, which are extended in the cross direction, such that they are separated in the predetermined space and are projected upwardly, are formed.

[0171] In addition, on the lower surface of the buckle opening and closing member 28, corresponding to these first protruded engaging portions 30a and 30b, a plurality of (i.e. two in case of this Embodiment) second protruded engaging portions 32a and 32b, which are extended in the cross direction, such that they are projected downwardly in which the position are shifted against these first protruded engaging portions 30a and 30b.

[0172] As a result, the buckle opening and closing member 28 is shut against the buckle main body 24 in the direction of arrow A of Fig. 3.

[0173] Then, a belt type engaging member 40 of the belt shape, which is a second engaging member 38 described later, is inserted into the buckle type engaging member 22 in the direction of arrow B of Fig. 3.

[0174] As a result, the belt type engaging member 40 is sandwiched between these first protruded engaging portions 30a, 30b and second protruded engaging portion 32a, 32b.

[0175] Therefore, the length position of the training belt 10 can be adjusted and retained firmly.

[0176] At the belt member 12 side of the buckle type engaging member 22 (i.e. one edge 12c side of the first belt member 12a), a first insertion engaging member 34, in which the belt member 12a is inserted and engaged detachably, is provided.

[0177] In addition, in the first insertion engaging member 34, a first belt engaging hole 36 including a slit 34a, in which the belt member 12a is inserted and engaged detachably, is formed.

[0178] By composed like this, through the slit 34a of

the first insertion engaging member 34, which is provided to the belt member 12 side of the buckle type engaging member 22,
into the first belt engaging hole 36 of the first insertion engaging member 34, the belt member 12 can be inserted and engaged detachably.

[0179] In this case, as for the first insertion engaging member 34 of the buckle type engaging member 22, for instance, though not shown in the drawing, the above-mentioned intermediate engaging member 14 can be used.

[0180] As a result, since the number of parts can be reduced, the cost can be reduced, and it excels in generality.

[0181] Moreover, the first insertion engaging member 34, as shown in Fig. 1, for instance, can be formed integrally to the belt member 12 side of the buckle type engaging member 22 by the integral molding.

[0182] However, the first insertion engaging member 34, though not shown in the drawing, can be also detachably provided to the belt member 12 side of the buckle type engaging member 22.

[0183] In addition, as shown in Fig. 1-Fig. 2, it is preferable that,
on the surface of the buckle type engaging member 22 of the first the engaging member 20, a confirmation portion22a, in which the both sides can be confirmed, is formed.

[0184] In this Embodiment, a mark of the umbrella is formed as the confirmation portion 22a.

[0185] By composed like this, for instance, by adhering the sealing and by forming the confirmation portion 22a comprising indication such as braille, mark and classifications and convexoconcave, etc., to the surface of the buckle type engaging member 22 of the first engaging member 20, the both sides can be confirmed and it can be prevented from providing by making a mistake of the confirmation of the both sides.

[0186] In addition, instead of providing the first protruded engaging portions 30a, 30b, and the second protruded engaging portions 32a, and 32b like this, as shown in Fig. 14, it is also possible that the structure in which only a protruded engaging portion 28a is provided to the edge of the buckle opening and closing member 28.

[0187] On the other hand, a second engaging member 38, which is detachably coupled to the other edge of the belt member 12 (i.e. the other edge 12d of the second belt member 12b) that is coupled by the intermediate engaging member 14, is provided.

[0188] As shown in Fig. 1-Fig. 4, in this Embodiment, the second engaging member 38 is not especially limited that it is able to use conventional well-known buckle type engaging member 40, which is used for the belt of the dressing.

[0189] In addition, at the belt member 12 side of the belt type engaging member 40 (i.e. the other edge 12d side of the second belt member 12b), a second insertion engaging member 42, in which the belt member is inserted and engaged detachably, is provided.

[0190] In addition, in the second insertion engaging member 42, a second belt engaging hole 44 including a slit 42a, in which the belt member 12 is inserted and engaged detachably, is formed.

[0191] As a result, through the slit 42a of the second insertion engaging member 42, which is provided to the belt member 12 side of the belt type engaging member 40 having the belt shape, into the second belt engaging hole 44 of the second insertion engaging member 42,
the belt member 12b can be inserted and engaged detachably.

[0192] In this case, as for the second insertion engaging member 42 of the belt type engaging member 40,
as shown in Fig. 1, for instance, the above-mentioned intermediate engaging member 14 can be used.

[0193] As a result, since the number of parts can be reduced, the cost can be reduced, and it excels in generality.

[0194] Moreover, as shown in Fig. 1-Fig. 2, as for the belt type engaging member 40 having this belt shape, it is preferable that a convexoconcave 40a is formed separately in the predetermined space.

[0195] By composed like this, by means of the convexoconcave 40a formed to the belt type engaging member 40 of the second engaging member 38, for instance, the position, in which the portion where the remaining portion of the belt type engaging member 40 is cut, can be recognized.

[0196] In addition, by forming this convexoconcave 40a to the surface of the buckle type engaging member, the both sides can be confirmed and it can be prevented from providing by making a mistake of the confirmation of the both sides.

[0197] In addition, in case of this Embodiment, the convexoconcave 40a having the substantially circular shape is formed. However, the shape, the number, and the disposing position, etc. can be changed appropriately.

[0198] Moreover, as shown in Fig. 6 (A) and Fig. 6 (B), it is also possible that at least one convexoconcave 40b, which is extended longitudinally along the belt type engaging member 40, is provided.

[0199] According to the training belt 10 of the invention composed like this, as shown by the arrow of Fig. 1, the plurality of the stretchable belt members 12 having loop shape (i.e. in case of this Embodiment, the first belt member 12a and the second belt member 12b) is detachably coupled mutually through the intermediate engaging member 14.

[0200] That is, into the first engaging hole 16a which is formed to the portion surrounded by the engaging bar main body 14a and the first engaging bar member 14c, the belt member 12a of one edge of the plurality of the belt members 12 can be detachably inserted through the first slit 18a.

[0201] In addition, into the second engaging hole 16b which is formed to the portion surrounded by the engaging bar main body 14a and the second engaging bar

member 14d, the belt member 12b at the other edge of the plurality of the belt members 12 can be inserted and engaged through the second slit 18b.

[0202] Thus, the plural of the belt members 12 (i.e. in case of this Embodiment, the first belt member 12a and the second belt member 12b) can be detachably coupled mutually, simply, and easily.

[0203] In addition, the first engaging member 20 is detachably coupled to the one edge of the belt member 12 (i.e. one edge 12c of the first belt member 12a) that is coupled by the intermediate engaging member 14.

[0204] Moreover, the second engaging member 38 is detachably coupled to the other edge of the belt member 12 (i.e. the other edge 12d of the second belt member 12b) that is coupled by the intermediate engaging member 14.

[0205] That is, through the slit 34a of the first insertion engaging member 34, which is provided to the belt member 12 side of the buckle type engaging member 22 (i.e. one edge 12c side of the first belt member 12a),
into the first belt engaging hole 36 of the first insertion engaging member 34, the belt member 12 can be inserted and engaged detachably.

[0206] Moreover, through the slit 42a of the second insertion engaging member 42, which is provided to the belt member 12 side of the belt type engaging member 40 (i.e. the other edge 12d side of the second belt member 12b),
into the second belt engaging hole 44 of the second insertion engaging member 42,
the belt member 12b can be inserted and engaged detachably.

[0207] Under such a condition, the training belt 10 becomes a loop shape by engaging the buckle type engaging member 22 that is the first engaging member 20 and the belt type engaging member 40 that is the second engaging member 38, as shown by the arrows A and B of Fig. 3-Fig.4.

[0208] Therefore, a training belt 10,
in which the loop band sold conventionally and generally can be used as the belt member 12, and
in which a plurality of loop bands (i.e. belt members 12) are provided in a simple structure, and
in which moreover, it can be connected easily in arbitrary length, and
in which the cost and time can be reduced, and convenient also to carrying,
can be provided.

[0209] Moreover, a training belt 10,
in which, for instance, according to such as the using object, the using portion, the training method, training strength, and the strength of the loop (load), and
in which it is possible to use simply as a loop band having various lengths,
can be provided.

[0210] In addition, a training belt,
in which like a conventional loop band,
when the loop band is used to train, such as the exercise of the foot and the exercise of the knee, both feet need not be put into the loop while sitting on a chair or bending state,
in which it can be used as a belt, and is convenient, and it can be used in the small place,
can be provided.

[0211] Moreover, a training belt 10, in which,
it is suitable for training, for instance,
training at the time of work and study, etc. sitting on a chair,
training while watching television and video, etc., sitting on a chair of home and sitting on a sofa,
training when moving in passenger's seat and back seat of car and training when moving in charabanc, airplane, ships and vessels and train, and
training on bedding and bed,
can be provided.

[0212] The training belt 10 of the invention composed like this, for instance, as shown in Fig. 4, can be assembled, and the state which the rubber ball C is disposed between both feet D (for instance, thighs) for training.

[0213] That is, in the direction indicated by the arrow E of Fig. 4, it is applied a load in the direction where foot D is opened toward the outside.

[0214] Moreover, in the direction indicated by the arrow F of Fig. 4, the rubber ball C is compressed.

[0215] As a result, by applying a load etc., it can be supplied to the training of whole foot.

[0216] Another of such training, as shown in Fig. 7-Fig. 13, it can be used for the following training methods.

[0217] In addition, as for the training methods, it is not limited to this in any way, and it can be applied to various training methods.

[0218] For instance, as shown in Fig. 7, it can be applied to so-called "two-arm shape".

[0219] That is, it can be applied to a training, in which one end of one of the training belts 10 is stepped, and the elbow is as a fulcrum, and the arm is lifted backward and stretched, and slowly returned.

[0220] Moreover, as shown in Fig. 8, it can be applied to so-called "belly shape".

[0221] That is, it can be applied to a training, in which one end of one of the training belts 10 is stepped, and the upper-body is transversely inclined and stretched, and slowly returned.

[0222] Moreover, as shown in Fig. 9, it can be applied to so-called "foot shape using a chair ".

[0223] That is, it can be applied to a training, in which one foot is bent while having sat on a chair, and one end of one of the training belts 10 is hung on the back side of the foot, and slowly returned.

[0224] Moreover, as shown in Fig. 10, it can be applied to so-called "foot shape".

[0225] That is, it can be applied to a training, in which, with the body laid down, the training belts 10 is hung on both feet, and stretched, and slowly returned.

[0226] Moreover, additionally, as shown in Fig. 11(A) -Fig. 13(B), it can be applied to various training.

[0227] In addition, the description is omitted about the detail of the training since it could understand easily from drawing.

[0228] In addition, besides such training, though not shown in the drawing, it can be applied to a training, for instance,

in which, in the state of sitting on the chair, it is bridged between hand and foot, and

in which, in the state of sitting on the chair, it is bridged between calves of both feet and between such as ankle, etc.

[0229] It is available to other various training, and training methods are not limited in any way.

[0230] Moreover, additionally, it can be used such as for the training in bus for moving of a sports group and various groups (club activities etc.) etc.

(Embodiment 2)

[0231] Fig. 15 is a partial exploded top view of another Embodiment of the training belt 10 of the invention.

[0232] Fig. 16 is a top view of the male shape engaging member 56 of another Embodiment of the training belt 10 of the invention.

[0233] The training belt 10 of this Embodiment is basically similar to the training belt 10 of the Embodiment shown in Fig. 1-Fig. 14.

[0234] The same reference numerals refer to the same composition members, and the detailed explanation is omitted.

[0235] As shown in Fig. 15, in the training belt 10 of this Embodiment, the first the engaging member 20 comprises a snap fit type female shape engaging member 50 of the snap fit type.

[0236] In addition, in this female shape engaging member 50, two female engaging holes 50a, in which a male shape engaging portion member 56a described later is detachably engaged, are formed.

[0237] In addition, at the belt member 12 side of the female shape engaging member 50 (i.e. one edge 12c side of the first belt member 12a), a first insertion engaging member 34, in which the belt member 12 is inserted and engaged detachably, is provided.

[0238] In addition, in the first insertion engaging member 34, a first belt engaging hole 36 including a slit 34a, in which the belt member 12a is inserted and engaged detachably, is formed.

[0239] By composed like this, through the slit 34a of the first insertion engaging member 34, which is provided to the belt member 12 side of the female shape engaging member 50,

into the first belt engaging hole 36 of the first insertion engaging member 34, the belt member 12 can be inserted and engaged detachably.

[0240] On the other hand, the second engaging member 38 comprises a male shape engaging member 56 of the snap fit type, which is corresponding to the female shape engaging member 50.

[0241] In addition, in the male shape engaging portion member 56, two male engaging portions 56a, which can be bended freely in the cross direction, are formed.

[0242] Moreover, at the belt member 12 side of the male shape engaging member 56 (i.e. the other edge 12d side of the second belt member 12b), a second insertion engaging member 42, in which the belt member 12b is inserted and engaged detachably, is provided.

[0243] That is, in the male shape engaging portion member 56, a belt 54 is provided in the state that length thereof can be adjusted freely.

[0244] In addition, on the edge of the belt member 12 side of the belt 54, the second insertion engaging member 42 is provided.

[0245] Moreover, the belt 54 is provided to the male shape engaging portion member 56 as shown in the arrow of Fig. 15.

[0246] Moreover, the second insertion engaging member 42 is provided to the edge of the belt member 12 side of the belt 54.

[0247] In addition, in the second insertion engaging member 42, a second belt engaging hole 44 including a slit 42a, in which the belt member is inserted and engaged detachably, is formed.

[0248] As a result, through the slit 42a of the second insertion engaging member 42, which is provided to the belt member 12 side of the male shape engaging member 56,

into the second belt engaging hole 44 of the second insertion engaging member 42,

the belt member 12b can be inserted and engaged detachably.

[0249] By composed like this, through the slit 34a of the first insertion engaging member 34, which is provided to the belt member 12 side of the female shape engaging member 50 of the snap fit type (i.e. one edge 12c side of the first belt member 12a),

into the first belt engaging hole 36 of the first insertion engaging member 34, the belt member 12 can be inserted and engaged detachably.

[0250] Moreover, through the slit 42a of the second insertion engaging member 42, which is provided to the belt member 12 side of the male shape engaging member 56 of the snap fit type (i.e. the other edge 12d side of the second belt member 12b),

into the second belt engaging hole 44 of the second insertion engaging member 42,

the belt member 12b can be inserted and engaged detachably.

[0251] Under such a condition, the training belt becomes a loop shape by engaging the female shape engaging member 50 and the male shape engaging member 56 of the snap fit type (i.e. the male engaging portion 56a of the male shape engaging portion member 56 is detachably engaged to the female engaging hole 50a of female shape engaging member 50).

[0252] Therefore, by adjusting the engaging position of the female shape engaging member 50 and of the

male shape engaging member 56 of the snap fit type, that is, by adjusting the belt 54 which is provided to the male shape engaging portion member 56 with a length of free adjusting,
a training belt 10,
in which, for instance, according to such as the using object, the using portion, the training method, training strength, and the strength of the loop (load), and
in which it is possible to use simply as a loop band having various lengths,
can be provided.

[0253] In addition, by adjusting the engaging position of the female shape engaging member 50 and the male shape engaging member 56 of the snap fit type, a training belt 10,
in which like a conventional loop band,
when the loop band is used to train, such as the exercise of the foot and the exercise of the knee, both feet need not be put into the loop while sitting on a chair or bending state,
in which it can be used as a belt, and is convenient, and it can be used in the small place,
can be provided.

[0254] Moreover, by adjusting the engaging position of the female shape engaging member 50 and the male shape engaging member 56 of the snap fit type, a training belt 10, it is suitable for training, for instance,
in which training at the time of work and study, etc. sitting on a chair,
in which training while watching television and video, etc., sitting on a chair of home and sitting on a sofa,
in which training when moving in passenger's seat and back seat of car and training when moving in charabanc, airplane, ships and vessels and train, and
in which training on bedding and bed,
can be provided.

[0255] In addition, in this Embodiment, in the female shape engaging member 50, the slit 34a, in which the belt member 12a is inserted and engaged detachably, is formed to the first insertion engaging member 34.

[0256] However, as shown in Fig. 16, it is also possible that the slit 34a is formed to the female shape engaging member 50 itself.

(Embodiment 3)

[0257] Fig. 17 is a partial exploded top view of another Embodiment of the training belt 10 of the invention.

[0258] The training belt 10 of this Embodiment is basically similar to the training belt 10 of the Embodiment shown in Fig. 15-Fig. 16.

[0259] The same reference numerals refer to the same composition members, and the detailed explanation is omitted.

[0260] As shown in Fig. 17, in the training belt 10 of this Embodiment, the belt 54 is not provided to the male shape engaging portion member 56.

[0261] In addition, at the belt member 12 side of the male shape engaging member 56 (i.e. the other edge 12d side of the second belt member 12b), a second insertion engaging member 42, in which the belt member 12b is inserted and engaged detachably, is integrally provided.

[0262] Moreover, the slit 42a of the second insertion engaging member 42 is formed between the male engaging portions 56a of the male shape engaging portion member 56.

[0263] By composed like this, the length of the training belt 10 cannot be adjusted.

[0264] However, the training belt becomes a loop shape by engaging the female shape engaging member 50 and the male shape engaging member 56 of the snap fit type (i.e. the male engaging portion 56a of the male shape engaging portion member 56 is detachably engaged to the female engaging hole 50a of female shape engaging member 50).

(Embodiment 4)

[0265] Fig. 18 is a partial exploded top view of another Embodiment of the training belt 10 of the invention.

[0266] The training belt 10 of this Embodiment is basically similar to the training belt 10 of the Embodiment shown in Fig. 1-Fig. 14.

[0267] The same reference numerals refer to the same composition members, and the detailed explanation is omitted.

[0268] As shown in Fig. 18, in the training belt 10 of this Embodiment, the first engaging member 20 comprises a first ring type engaging member 60 of an openable ring type.

[0269] That is, an openable first opening and closing member 62 and a first ring hole 62a are formed to the first ring type engaging member 60.

[0270] In addition, at the belt member 12 side of the first ring type engaging member 60 (i.e. one edge 12c side of the first belt member 12a), the first insertion engaging member 34, in which the belt member 12a is inserted and engaged detachably, is provided.

[0271] In addition, in the first insertion engaging member 34, the first belt engaging hole 36 including the slit 34a, in which the belt member 12a is inserted and engaged detachably, is formed.

[0272] By composed like this, through the slit 34a of the first insertion engaging member 34, which is provided to the belt member 12 side of the first ring type engaging member 60,
into the first belt engaging hole 36 of the first insertion engaging member 34, the belt member 12 can be inserted and engaged detachably.

[0273] On the other hand, the second engaging member 38 comprises a second ring type engaging member 64 of an openable ring type.

[0274] That is, an openable second opening and closing member 66 and a second ring hole 66a are formed to the second ring type engaging member 64.

[0275] In addition, at the belt member 12 side of the second ring type engaging member 64 (i.e. the other edge 12d side of the second belt member 12b), the second insertion engaging member 42, in which the belt member 12b is inserted and engaged detachably, is provided.

[0276] In addition, in the second insertion engaging member 42, the second belt engaging hole 44 including the slit 42a, in which the belt member is inserted and engaged detachably, is formed.

[0277] As a result, through the slit 42a of the second insertion engaging member 42, which is provided to the belt member 12 side of the second ring type engaging member 64 (i.e. the other edge 12d side of the second belt member 12b),
into the second belt engaging hole 44 of the second insertion engaging member 42,
the belt member 12b can be inserted and engaged detachably.

[0278] In addition, the training belt becomes a loop shape by engaging the first ring type engaging member 60 and the second ring type engaging member 64.

[0279] By composed like this, through the slit 34a of the first insertion engaging member 34, which is provided to the openable first ring type engaging member 60 (i.e. one edge 12c side of the first belt member 12a),
into the first belt engaging hole 36 of the first insertion engaging member 34, the belt member 12 can be inserted and engaged detachably.

[0280] Moreover, through the slit 42a of the second insertion engaging member 42, which is provided to the belt member 12 side of the openable second ring type engaging member 64 (i.e. the other edge 12d side of the second belt member 12b),
into the second belt engaging hole 44 of the second insertion engaging member 42,
the belt member 12b can be inserted and engaged detachably.

[0281] Under such a condition, the training belt becomes a loop shape by engaging the first ring type engaging member 60 and the second ring type engaging member 64 of openable ring type.

[0282] Therefore, by adjusting the engaging position between the first ring type engaging member 60 and second ring type engaging member 64 of openable ring type, a training belt 10,
in which, for instance, according to such as the using object, the using portion, the training method, training strength, and the strength of the loop (load), and
in which it is possible to use simply as a loop band having various lengths,
can be provided.

[0283] In addition, by adjusting the engaging position between the first ring type engaging member 60 and second ring type engaging member 64 of openable ring type, a training belt 10,
in which like a conventional loop band,
when the loop band is used to train, such as the exercise of the foot and the exercise of the knee, both feet need not be put into the loop while sitting on a chair or bending state,
in which it can be used as a belt, and is convenient, and it can be used in the small place,
can be provided.

[0284] Moreover, by adjusting the engaging position between the first ring type engaging member 60 and second ring type engaging member 64 of openable ring type, a training belt 10, for instance,
in which training at the time of work and study, etc. sitting on a chair,
in which training while watching television and video, etc., sitting on a chair of home and sitting on a sofa,
in which training when moving in passenger's seat and back seat of car and training when moving in charabanc, airplane, ships and vessels and train, and
in which training on bedding and bed,
can be provided.

(Embodiment 5)

[0285] Fig. 19 is a partial exploded top view of another Embodiment of the training belt 10 of the invention.

[0286] The training belt 10 of this Embodiment is basically similar to the training belt 10 of the Embodiment shown in Fig. 18.

[0287] The same reference numerals refer to the same composition members, and the detailed explanation is omitted.

[0288] As shown in Fig. 19, in the training belt 10 of this Embodiment, the first engaging member 20 comprises a first ring type engaging member 70 of an openable ring type.

[0289] That is, two first ring portions 72 are formed to the first ring type engaging member 70.

[0290] In addition, at the belt member 12 side of the first ring type engaging member 70 (i.e. one edge 12c side of the first belt member 12a),
a first insertion engaging member 34, in which the belt member 12a is inserted and engaged detachably, is provided.

[0291] In addition, in the first insertion engaging member 34, a first belt engaging hole 36 including a slit 34a, in which the belt member 12a is inserted and engaged detachably, is formed.

[0292] In addition, in this case, as shown in Fig. 19, the slit 34a is formed to the spacing portion between the first ring portions 72.

[0293] By composed like this, through the slit 34a of the first insertion engaging member 34, which is provided to the belt member 12 side of the first ring type engaging member 60 of an openable ring type,
into the first belt engaging hole 36 of the first insertion engaging member 34, the belt member 12 can be inserted and engaged detachably.

[0294] On the other hand, the second engaging member 38 comprises the second ring type engaging member

74 of a ring type, which is fitted to the first ring portion 72 of a first ring type engaging member 70.

[0295] That is, two second ring portions 76 are formed to second ring type engaging member 74.

[0296] In addition, at the belt member 12 side of the second ring type engaging member 74 (i.e. the other edge 12d side of the second belt member 12b), the second insertion engaging member 42, in which the belt member 12b is inserted and engaged detachably, is provided.

[0297] In addition, in the second insertion engaging member 42, the second belt engaging hole 44 including the slit 42a, in which the belt member is inserted and engaged detachably, is formed.

[0298] In addition, in this case, as shown in Fig. 19, the slit 42a is formed to the spacing portion between the second ring portions 74.

[0299] As a result, through the slit 42a of the second insertion engaging member 42, which is provided to the belt member 12 side of the second ring type engaging member 74 (i.e. the other edge 12d side of the second belt member 12b),
into the second belt engaging hole 44 of the second insertion engaging member 42,
the belt member 12b can be inserted and engaged detachably.

[0300] In addition, the training belt becomes a loop shape by engaging the first ring type engaging member 70 and the second ring type engaging member 74 (i.e. the second ring portion 76 is fitted and engaged to the first ring portion 72 as puzzle links) .

[0301] By composed like this, through the slit 34a of the first insertion engaging member 34, which is provided to the belt member 12 side of the first ring type engaging member 70 of an openable ring type (i.e. one edge 12c side of the first belt member 12a),
into the first belt engaging hole 36 of the first insertion engaging member 34, the belt member 12 can be inserted and engaged detachably.

[0302] Moreover, through the slit 42a of the second insertion engaging member 42, which is provided to the belt member 12 side of the second ring type engaging member 74 (i.e. the other edge 12d side of the second belt member 12b),
into the second belt engaging hole 44 of the second insertion engaging member 42,
the belt member 12b can be inserted and engaged detachably.

[0303] Under such a condition, the training belt becomes a loop shape by engaging the first ring type engaging member 70 and the second ring type engaging member 74 of ring type.

[0304] Therefore, by adjusting the engaging position between the first ring type engaging member 70 and the second ring type engaging member 74 of the ring type, the training belt 10,
in which, for instance, according to such as the using object, the using portion, the training method, training strength, and the strength of the loop (load), and
in which it is possible to use simply as a loop band having various lengths,
can be provided.

[0305] In addition, by adjusting the engaging position between the first ring type engaging member 70 and the second ring type engaging member 74 of the ring type, the training belt 10,
in which like a conventional loop band,
when the loop band is used to train, such as the exercise of the foot and the exercise of the knee, both feet need not be put into the loop while sitting on a chair or bending state,
in which it can be used as a belt, and is convenient, and it can be used in the small place,
can be provided.

[0306] Moreover, by adjusting the engaging position between the first ring type engaging member 70 and the second ring type engaging member 74 of the ring type, the training belt 10, in which,
it is suitable for training, for instance,
training at the time of work and study, etc. sitting on a chair,
training while watching television and video, etc., sitting on a chair of home and sitting on a sofa,
training when moving in passenger's seat and back seat of car and training when moving in charabanc, airplane, ships and vessels and train, and
training on bedding and bed,
can be provided.

(Embodiment 6)

[0307] Fig. 21 is a partial exploded view of another Embodiment of training belt 10 of the invention.

[0308] Fig. 22 is a cross-sectional view in the state in which the training belt 10 of Fig. 21 is assembled.

[0309] The training belt 10 of this Embodiment is basically similar to the training belt 10 of the Embodiment shown in Fig. 1-Fig. 19.

[0310] The same reference numerals refer to the same composition members, and the detailed explanation is omitted.

[0311] As shown in Fig. 21-Fig. 22, the training belt 10 of this Embodiment is a modified example of the Embodiment shown in Fig. 14.

[0312] That is, in the training belt 10 of this Embodiment, as well as Fig. 14 as shown in Fig. 21-Fig. 22, it is a buckle type engaging member 22.

[0313] In addition, it is the structure in which only a protruded engaging portion 28a is provided to the edge of a buckle opening and closing member 28.

[0314] Moreover, as for the buckle type engaging member 22, at the belt member 12 side of the buckle type engaging member 22 (i.e. one edge 12c side of the first belt member 12a), a first insertion engaging member 34 composed similar to the Embodiment of Fig. 1, in which the belt member 12a is inserted and engaged de-

tachably, is fixed.

[0315] That is, in the first insertion engaging member 34, a first belt engaging hole 36 including a slit 34a, in which the belt member 12a is inserted and engaged detachably, is formed.

[0316] By composed like this, through the slit 34a of the first insertion engaging member 34, which is provided to the belt member 12 side of the buckle type engaging member 22,
into the first belt engaging hole 36 of the first insertion engaging member 34, the belt member 12 can be inserted and engaged detachably.

(Embodiment 7)

[0317] Fig. 23 is a cross-sectional view, in which the training belt 10 of Fig. 1 similar to Fig. 4 of another Embodiment of training belt 10 of the invention is assembled, and in which the state that the rubber ball C is placed between both feet D for training, is described.

[0318] Fig. 24 is an exploded perspective view of the third engaging member 13.

[0319] Fig. 25 (A) is a front view of the engaging member main body 15 of the third engaging member 13,

[0320] Fig. 25 (B) is a plan view of the engaging member main body 15 of the third engaging member 13, and

[0321] Fig. 25 (C) is a cross-sectional view of the engaging member main body 15 of the third engaging member 13.

[0322] Fig. 26 is a schematic view which shows the schematic of the training of the training belt 10 of the invention.

[0323] The training belt 10 of this Embodiment is basically similar to the training belt 10 of the Embodiment shown in Fig. 1-Fig. 19.

[0324] The same reference numerals refer to the same composition members, and the detailed explanation is omitted.

[0325] As shown in Fig. 23, in the training belt 10 of this Embodiment, as shown in the above-mentioned Embodiment, to the belt member 10 of the training belt that became a loop shape, at least one piece of a third engaging member 13 (i.e. in this Embodiment, pairs of the right and left one), which is detachably coupled, is further provided.

[0326] That is, as shown in Fig. 23-Fig. 25(C), the third engaging member 13 comprises, as shown in the above-mentioned Embodiment, to the belt member 10 of the training belt that became a loop shape, an engaging member main body 15, which is detachably coupled, is further provided.

[0327] The engaging member main body 15 comprises, as shown in Fig. 23-Fig. 25(C), a flat plate portion 15a, and side plate portions 15b and 15c, which are extended upwardly to both sides of transverse direction of this flat plate portion 15a.

[0328] Moreover, as shown in Fig. 25(B)-Fig. 25(C), the engaging member main body 15 has an openable loop shape.

[0329] That is, the side plate portions 15b and 15c are mutually composed as openable.

[0330] In addition, in the flat plate portion 15a, for instance, as shown in Fig. 25(C), for instance, protecting member 15e consisting of rubber etc. is provided.

[0331] As a result, it is protected that belt member 10 is not damaged.

[0332] In addition, the belt member (12a, 12b) of the training belt 10, which becomes a loop shape like this, is detachably coupled to the portion of the engaging member main body 15 that becomes the loop shape.

[0333] In addition, as shown in Fig. 23-Fig. 25(C), an engaging hole 15d is formed to the side plate portions 15b and 15c.

[0334] Moreover, as shown in Fig. 24, the third engaging member 13 comprises a coupling portion 17, in which another stretchable belt member 12e of loop shape is detachably coupled.

[0335] In addition, the coupling portion 17 is detachably coupled to the engaging member main body 15.

[0336] That is, in case of this Embodiment, as shown in Fig. 24, the coupling portion 17 is a ring type engaging member, and an openable opening and closing member 17a and a ring hole 17b are formed.

[0337] Moreover, at the belt member side of coupling portion 17, that is, at another stretchable belt member 12e side of loop shape,
an insertion engaging member 19, in which the belt member 12e is inserted and engaged detachably, is provided.

[0338] This insertion engaging member 19 is substantially ring shape, and at the edge thereof, a lock engaging mechanism 21, which can be opened and closed and engaged by an opening and closing portion 19a, is provided.

[0339] In addition, this lock engaging mechanism 21 is not especially limited, and a well-known mechanism of engaging mechanism can be adopted.

[0340] For instance, in case of this Embodiment, it can be locked with a butterfly screw 21a.

[0341] That is, in this Embodiment, the lock engaging mechanism 21 is released and locked, and the opening and closing portion 19a is opened and closed.

[0342] As a result, a ring hole 19b is opened and closed through the opening and closing portion 19a.

[0343] Accordingly, another stretchable belt member 12e of loop shape can be detachably coupled.

[0344] In addition, in this Embodiment, in this Embodiment, two pairs of the third engaging member 13 is provided.

[0345] However, as for the number of this third engaging member 13, the number and the position can be changed appropriately according to directing physical exercise and exercise.

[0346] In the training belt 10 of the invention of this Embodiment, for instance, as shown in Fig. 26, if another stretchable belt member 12e of loop shape is further used for both feet, the all-round exercise such as arms and

lower bodies and the exercise can be performed and it is extremely convenient.

[0347] Moreover, in the training belt 10 of the invention, for instance, as shown in Fig. 26, for instance, long belt member 12 is used, and for instance, physical exercises such as the arm, the neck, the back, the shoulder, the waist, the belly, stomach muscles, line of the backbones, and scapulas are performed.

[0348] Moreover, for instance, by using one of short belt member 12e, the physical exercise of the arm and the finger is performed.

[0349] In addition, the physical exercise of the ankle and the foot can be performed by using the other belt member 12e.

[0350] In addition, as shown in Fig. 26, for instance, as shown in Embodiment 9 - Embodiment 13 described later, for instance, when the rubber ball member main body 82 of the rubber ball member 80 is placed between both crotches, by the function such as the expansions of balloon member main body 86, the continuous motion that opens and closes both crotches can be performed.

[0351] Thus, according to the invention, the body trunk can be forged easily, and the body movement can be simultaneously performed, and it is convenient extremely.

[0352] In addition, as shown in Fig. 23,
on the surface of another stretchable belt member 12e of loop shape,
an index portion 29, which is expanded and contracted in accordance with this belt member 12e,
for instance, character such as "Do your best (GANBARE)", face of the person or animal etc., or characters may be formed.

[0353] As a result, the index portion 29 is expanded or contracted in accordance with this belt member 12e.

[0354] Therefore, there is an effect to encourage the user who performs the all-round physical exercise such as arms and lower bodies and the exercise.

(Embodiment 8)

[0355] Fig. 27 is a cross-sectional view in the state in which the training belt 10 of the invention is assembled.

[0356] Fig. 28 is a schematic view which shows the Embodiment of the intermediate engaging member 14 of Fig. 27.

[0357] The training belt 10 of this Embodiment is basically similar to the training belt 10 of the Embodiment shown in Fig. 1-Fig. 19.

[0358] The same reference numerals refer to the same composition members, and the detailed explanation is omitted.

[0359] As shown in Fig. 27-Fig. 28, in the training belt 10 of this Embodiment, as well as the Embodiment of Fig. 4-Fig. 5, an intermediate engaging member 14 of this Embodiment is provided to the portion enclosed with circle.

[0360] This intermediate engaging member 14 is provided with an engaging bar main body 14a, which is formed to the center portion of the intermediate engaging member 14.

[0361] In addition, a first engaging bar member 14c and a second engaging bar member 14d, which are extended respectively such that they are separated in the predetermined space from both ends of engaging bar main body 14a through an extending portion 14b, are provided.

[0362] Moreover, a first engaging hole 16a is formed to the portion surrounded by the engaging bar main body 14a and the first engaging bar member 14c.

[0363] On the other hand, a second engaging hole 16b is formed to the portion surrounded by the engaging bar main body 14a and the second engaging bar member 14d.

[0364] In addition, the first engaging bar member 14c is openable such that the first engaging hole 16a may be openable.

[0365] Moreover, to the edge of the extending portion 14b, a lock engaging mechanism 25a, which can be opened and closed by an opening and closing portion 23a, and can be engaged, is provided.

[0366] In addition, as for this lock engaging mechanism 25a is not especially limited, and a well-known mechanism of engaging mechanism can be adopted.

[0367] For instance, in case of this Embodiment, it can be locked with a butterfly screw 27a.

[0368] Similarly, the second engaging bar member 14d is openable such that the second engaging hole 16b may be openable.

[0369] Moreover, to the edge of the extending portion 14b, a lock engaging mechanism 25b, which can be opened and closed by an opening and closing portion 23b, and can be engaged, is provided.

[0370] In addition, as for this lock engaging mechanism 25b is not especially limited, and a well-known mechanism of engaging mechanism can be adopted.

[0371] For instance, in case of this Embodiment, it can be locked with a butterfly screw 27b.

[0372] By composed like this, the first engaging bar member 14c is openable such that the first engaging hole 16a may be openable.

[0373] In addition, the second engaging bar member 14d is openable such that the second engaging hole 16b may be openable.

[0374] Therefore, the first engaging hole 16a and the second engaging hole 16b are opened and closed by the openable first engaging bar member 14c and the second engaging bar member 14d.

[0375] As a result, it is extremely convenient such that the mutual coupling and disassembly of the belt members.

(Embodiment 9)

[0376] Fig. 29 is a perspective view of the rubber ball member 80 of the invention.

[0377] Fig. 30 is a cross-sectional view, in which the training belt 10 of Fig. 1 similar to Fig. 4 of another Embodiment of the training belt 10 of the invention is assembled by using the rubber ball member 80 of the invention, and in which the state that rubber ball member 80 is placed between both feet D for training, is described.

[0378] The training belt 10 of this Embodiment is basically similar to the training belt 10 of the Embodiment shown in Fig. 1-Fig. 19.

[0379] The same reference numerals refer to the same composition members, and the detailed explanation is omitted.

[0380] As shown in Fig. 29, in the rubber ball member 80 of this Embodiment, as shown in Fig. 29, a rubber ball member main body 82 comprising the rubber ball of well-known shape is provided.

[0381] In the rubber ball member main body 82, an air inlet 82a of well-known component is formed and an openable hole 82c is provided besides the air inlet 82a.

[0382] In this openable hole 82c, an openable cover member 82b is provided.

[0383] The openable hole 82c is closed by this cover member 82b, such that the air introduced through the air inlet 82a of the rubber ball member main body 82 is never leaked outside.

[0384] In addition, the openable hole 82c of the rubber ball member main body 82 has elasticity.

[0385] As a result, it is preferable that, when a tip portion 88c of a nozzle member 88 is detachably inserted into the openable hole 82c of the rubber ball member main body 82,
from between the openable hole 82c of the rubber ball member main body 82 and a middle portion 88e of the nozzle member 88,
the air introduced through the openable hole 82c of the rubber ball member main body 82 is never leaked outside.

[0386] In addition, the rubber ball member 80 comprises a balloon member 84, which is detachably inserted into the openable hole 82c of the rubber ball member main body 82.

[0387] Moreover, the balloon member 84 comprises a balloon member main body 86 including a well-known balloon.

[0388] In addition, as shown in Fig. 29, an index portion 81, which is expanded and contracted in accordance with this balloon member main body 86, for instance, character such as "Do your best (GANBARE) " , face of the person or animal etc., or characters can be formed.

[0389] As a result, the index portion 81 is expanded or contracted in accordance with this balloon member main body 86.

[0390] Therefore, there is an effect to encourage the user who performs the all-round physical exercise such as arms and lower bodies and the exercise.

[0391] Therefore, there is an effect to encourage the user who performs the all-round physical exercise such as arms and lower bodies and the exercise.

[0392] Moreover, as shown in Fig. 29, the balloon member 84 comprises a nozzle member 88 provided to an air port 86a of the balloon member main body 86.

[0393] In addition, as for the nozzle member 88, a base edge 88a of the nozzle member 88 is provided to the air port 86a of the balloon member main body 86.

[0394] In this Embodiment, as for the base edge 88a of the nozzle member 88 is substantially dome shape, and at the center portion thereof, an opening portion 88b is formed.

[0395] Moreover, as shown in Fig. 29, a tip portion 88c, which has a nozzle shape, is provided to the nozzle member 88.

[0396] In this tip portion 88c, a plurality of air holes 88d are formed, such that these air holes 88d are connected to the opening portion 88b.

[0397] In addition, the tip portion 88c of the nozzle member 88 is detachably inserted into the openable hole 82c of the rubber ball member main body 82.

[0398] The rubber ball member 80 of the invention of the invention composed like this is used as follows.

[0399] First of all, by using an air pump for a well-known ball etc., through the air inlet 82a of the rubber ball member main body 82, air is introduced into the rubber ball member main body 82 and the rubber ball member main body 82 is expanded.

[0400] In addition, at this time, the openable hole 82c is closed by this cover member 82b, such that the air introduced through the air inlet 82a of the rubber ball member main body 82 is never leaked outside.

[0401] Thereafter, the cover member 82b is opened, the tip portion 88c of the nozzle member 88 is inserted into the openable hole 82c to the predetermined position (i.e. position in which air in the rubber ball member main body 82 is never leaked outside).

[0402] As a result, by applying pressure to the rubber ball member main body 82 from the outside, such that air in the rubber ball member main body 82 is moved to the balloon member main body 86 through the air hole 88d formed to the tip portion 88c of the nozzle member 88 and through the opening portion 88b of the base edge 88a of the nozzle member 88.

[0403] As a result, the balloon member main body 86 is expanded.

[0404] In addition, in this case, as shown in Fig. 30, it may be used
in which the training belt 10 of Fig. 1 similar to Fig. 4 of another Embodiment of the training belt 10 of the invention is assembled by using the rubber ball member 80 of the invention, and
in which the state that rubber ball member 80 is placed between both feet D for training.

[0405] In this case, by using the training belt 10, and by applying pressure to the rubber ball member main body 82 from the outside, such that air in the rubber ball member main body 82 is moved to the balloon member main body 86 through the air hole 88d formed to the tip portion 88c of the nozzle member 88 and through the

opening portion 88b of the base edge 88a of the nozzle member 88.

[0406] As a result, the balloon member main body 86 is expanded.

[0407] By component like this, by using the rubber ball member 80, and by applying pressure to the rubber ball member main body 82 from the outside, such that air in the rubber ball member main body 82 is moved to the balloon member main body 86 through the air hole 88d formed to the tip portion 88c of the nozzle member 88 and through the opening portion 88b of the base edge 88a of the nozzle member 88.

[0408] As a result, the balloon member main body 86 is expanded.

[0409] On the other hand, by weakening pressure to the rubber ball member main body 82 from the outside, by the elasticity of the rubber ball member main body 82, the rubber ball member main body 82 is moved in the expanding direction.

[0410] As a result, oppositely, air in the balloon member main body 86 is moved in the rubber ball member main body 82 through the opening portion 88b of the base edge 88a of the nozzle member 88 and through the air hole 88d formed to the tip portion 88c of the nozzle member 88.

[0411] Therefore, the rubber ball member main body 82 is expanded and the balloon member main body 86 is withered.

[0412] By composed like this, for instance, in various athletics and exercises such as exercise for the legs, strengthen of the grip, the balloon member main body 86 is expanded and withered.

[0413] As a result, it is extremely convenient that it may be a standard of physical exercise.

(Embodiment 10)

[0414] Fig. 31 (A) is a perspective view of another Embodiment of the rubber ball member 80 of the invention.

[0415] Fig. 31 (B) is a top view of base edge 88a of the nozzle member 88.

[0416] The rubber ball member 80 of this Embodiment is basically similar to the rubber ball member 80 of the Embodiment shown in Fig. 29-Fig. 30.

[0417] The same reference numerals refer to the same composition members, and the detailed explanation is omitted.

[0418] In the rubber ball member 80 shown in Fig. 29-Fig. 30, as for the base edge 88a of the nozzle member 88 is substantially dome shape, and at the center portion thereof, an opening portion 88b is formed.

[0419] On the contrary, in the rubber ball member 80 of this Embodiment, as shown in Fig. 31(A)-Fig. 31(B), a plurality of opening portions 83 are formed to the periphery of the opening portion 88b besides the opening portion 88b.

(Embodiment 11)

[0420] Fig. 32 is a perspective view of another Embodiment of the rubber ball member 80 of the invention.

[0421] The rubber ball member 80 of this Embodiment is basically similar to the rubber ball member 80 of the Embodiment shown in Fig. 29-Fig. 30.

[0422] The same reference numerals refer to the same composition members, and the detailed explanation is omitted.

[0423] In the rubber ball member 80 shown in Fig. 29-Fig. 30, as for the base edge 88a of the nozzle member 88 is substantially dome shape, and at the center portion thereof, an opening portion 88b is formed.

[0424] On the contrary, in the rubber ball member 80 of this Embodiment, as shown in Fig. 32, the base edge 88a of the nozzle member 88is a shape having a circular recess 85, and an opening portion 88b is formed to the center portion of the recess 85.

(Embodiment 12)

[0425] Fig. 33 is a perspective view of another Embodiment of the rubber ball member 80 of the invention.

[0426] The rubber ball member 80 of this Embodiment is basically similar to the rubber ball member 80 of the Embodiment shown in Fig. 29-Fig. 30.

[0427] The same reference numerals refer to the same composition members, and the detailed explanation is omitted.

[0428] In the rubber ball member 80 shown in Fig. 29-Fig. 30, as for the base edge 88a of the nozzle member 88 is substantially dome shape, and at the center portion thereof, an opening portion 88b is formed.

[0429] On the contrary, in the rubber ball member 80 of this Embodiment, as well as Embodiment 11 of Fig. 31(A)-Fig. 31(B), as shown in Fig. 33, a plurality of opening portions 83 are formed to the periphery of the opening portion 88b besides the opening portion 88b.

[0430] Moreover, as shown in Fig. 33, although in the rubber ball member 80 shown in Fig. 29-Fig. 30,the air hole 88d is formed to the tip portion 88c of the nozzle member 88, in this Embodiment, an air hole 88f is also formed to a middle portion 88e of the nozzle member 88.

[0431] In this case, neither the number nor the shape etc. of the air hole 88f are especially limited.

(Embodiment 13)

[0432] Fig. 34 is a perspective view of another Embodiment of the rubber ball member 80 of the invention.

[0433] The rubber ball member 80 of this Embodiment is basically similar to the rubber ball member 80 of the Embodiment shown in Fig. 29-Fig. 30.

[0434] The same reference numerals refer to the same composition members, and the detailed explanation is omitted.

[0435] As shown in Fig. 34, in the rubber ball member

80 of this Embodiment, the balloon member main body 86 is shape of the character.

[0436] That is, in the rubber ball member 80 of this Embodiment, the balloon member main body 86 is, for instance, shape of sea bream.

[0437] In addition, of course, as for the characters of the balloon member main body 86 is not limited to the shape of the sea bream of this Embodiment.

[0438] Although preferable embodiment of the invention is described above, the invention is not limited to this embodiment.

[0439] As for the training belt 10 and the rubber ball member 80 of the invention, various changes are possible in the scope in which it does not deviate from the object of the invention.

[industrial Applicability]

[0440] The invention is applicable to a training belt and a rubber ball member which comprises a stretchable belt made of, for example, rubber and the like and a rubber ball member for using various trainings,
for example, exercise, beauty, health such as improving low back pain, rehabilitation of such as gait disorder, solving lack of physical activity, limbs, legs and waist, prevention of cognizance syndrome, sports training by strengthening back muscles, chest muscles, bodybuilding, etc. and various training in other fields like sports training.

[Explanation of Letters or Numerals]

[0441]

10
Training belt
11
Surface fasteners
12
Belt member
12a
First belt member
12b
Second belt member
12c
One edge
12d
The other edge
12e
The third belt member
13
Third engaging member
14
Intermediate engaging member
14a
Engaging bar main body
14b
Extending portion
14c
First engaging bar member
14d
Second engaging bar member
15
Engaging member main body
15a
Flat plate portion
15b,15c
Side plate portion
15d
Engaging hole
15e
Protecting member
16a
First engaging hole
16b
Second engaging hole
17
Coupling portion
17a
Opening and closing member
17b
Ring hole
18a
First slit
18b
Second slit
19
Insertion engaging member
19a
Opening and closing portion
19b
Ring hole
20
First engaging member
21
Lock engaging mechanism
21a
Butterfly screw
22
Buckle type engaging member
22a
Confirmation portion
23a
Opening and closing portion
23b
Opening and closing portion
24
Buckle main body
25a
Lock engaging mechanism
25b
Lock engaging mechanism
26
Hinge
27a
Butterfly screw

27b
Butterfly screw
28
Buckle opening and closing member
28a
Protruded engaging portion
29
Index portion
30a, 30b
First protruded engaging portion
32a, 32b
Second protruded engaging portion
34
First insertion engaging member
34a
Slit
36
First belt engaging hole
38
Second engaging member
40
Belt type engaging member
40a
Convexoconcave
40b
Convexoconcave
42
Second insertion engaging member
42a
Slit
44
Second belt engaging hole
50
Female shape engaging member
50a
Female engaging hole
54
Belt
56
Male shape engaging portion member
56a
Male engaging portion
60
First ring type engaging member
62
First opening and closing member
62a
First ring hole
64
Second ring type engaging member
66
Second opening and closing member
66a
Second ring hole
70
First ring type engaging member
72
First ring portion
74
Second ring type engaging member
76
Second ring portion
80
Rubber ball member
81
Index portion
82
Main body of rubber ball member member
82a
Air inlet
82a
Openable hole
82b
Cover member
82c
Openable hole
83
Opening portion
84
Balloon member
85
Recess
86
Balloon member main body
86a
Air port
88
Nozzle member
88a
Base edge
88b
Opening portion
88c
Tip portion
88d
Air hole
88e
Middle portion
88f
Air hole
100
Training tool
102
First stretchable member
104
Second stretchable member
106
Loop
108
Joint portion
A, B
Arrow
D
Both feet
E,F
Arrow

Claims

1. A training belt including a stretchable belt, comprising: a plurality of stretchable belt members having loop shape,
an intermediate engaging member, in which the plural of the belt members are detachably coupled mutually,
a first engaging member, which is detachably coupled to the one edge of the belt member that is coupled by the intermediate engaging member, and
a second engaging member, which is detachably coupled to the other edge of the belt member that is coupled by the intermediate engaging member,
wherein the training belt becomes a loop shape by engaging the first engaging member and the second engaging member.

2. The training belt as defined in Claim 1,
wherein the intermediate engaging member comprising,
an engaging bar main body, which is formed to the center portion of the intermediate engaging member,
a first engaging bar member and a second engaging bar member, which are extended respectively such that they are separated in the predetermined space from the engaging bar main body, and
which are respectively placed parallel to the engaging bar main body,
wherein a first engaging hole is formed to the portion surrounded by the engaging bar main body and the first engaging bar member,
wherein a first slit is formed to the first engaging hole, in which the belt member at one edge of the plurality of the belt members is detachably inserted,
wherein a second engaging hole is formed to the portion surrounded by the engaging bar main body and the second engaging bar member, and
wherein a second slit is formed to the second the engaging hole, in which the belt member at the other edge of the plurality of the belt members is inserted and engaged.

3. The training belt as defined in Claim 2, wherein the length of the first the engaging bar member and the length of the second the engaging bar member are formed to be different mutually.

4. The training belt as defined in any one of Claim 1 to 3,
wherein the first engaging member comprising a buckle type engaging member of the buckle type,
wherein, at the belt member side of the buckle type engaging member, a first insertion engaging member, in which the belt member is inserted and engaged detachably, is provided,
wherein, in the first insertion engaging member, a first belt engaging hole including a slit, in which the belt member is inserted and engaged detachably, is formed,
wherein the second engaging member comprising a belt type engaging member having the belt shape,
wherein, at the belt member side of the belt type engaging member, a second insertion engaging member, in which the belt member is inserted and engaged detachably, is provided,
wherein, in the second insertion engaging member, a second belt engaging hole including a slit, in which the belt member is inserted and engaged detachably, is formed, and
wherein the training belt becomes a loop shape by engaging the buckle type engaging member and the belt type engaging member.

5. The training belt as defined in Claim 4, wherein to the surface of the buckle type engaging member of the first the engaging member, the confirmation portion, in which the both sides can be confirmed, is formed.

6. The training belt as defined in any one of Claim 4 to 5, wherein a convexoconcave is formed to the belt type engaging member of the second engaging member.

7. The training belt as defined in any one of Claim 1 to 3,
wherein the first the engaging member comprising a snap fit type female shape engaging member of the snap fit type,
wherein at the belt member side of the female shape engaging member, a first insertion engaging member, in which the belt member is inserted and engaged detachably, is provided,
wherein, in the first insertion engaging member, a first belt engaging hole including a slit, in which the belt member is inserted and engaged detachably, is formed,
wherein the second engaging member comprising a male shape engaging member of the snap fit type, which is corresponding to the female shape engaging member,
wherein at the belt member side of the male shape engaging member, a second insertion engaging member, in which the belt member is inserted and engaged detachably, is provided,
wherein, in the second insertion engaging member, a second belt engaging hole including a slit, in which the belt member is inserted and engaged detachably, is formed, and
wherein the training belt becomes a loop shape by engaging the female shape engaging member and the male shape engaging member.

8. The training belt as defined in any one of Claim 1 to 3,
wherein the first engaging member comprising the first ring type engaging member of an openable ring type,

wherein, at the belt member side of the female shape engaging member,
a first insertion engaging member, in which the belt member is inserted and engaged detachably, is provided,
wherein, in the first ring type engaging member, a first belt engaging hole including a slit, in which the belt member is inserted and engaged detachably, is formed,
wherein the second engaging member comprising the second ring type engaging member of an openable ring type,
wherein, at the belt member side of the second ring type engaging member,
a second insertion engaging member, in which the belt member is inserted and engaged detachably, is provided,
wherein, in the second insertion engaging member, a second belt engaging hole including a slit, in which the belt member is inserted and engaged detachably, is formed, and
wherein the training belt becomes a loop shape by engaging the first ring type engaging member and the second ring type engaging member.

9. The training belt as defined in any one of Claim 4 to 8, wherein the first insertion engaging member of the first engaging member comprising the intermediate engaging member.

10. The training belt as defined in any one of Claim 4 to 9, wherein the second insertion engaging member of the second engaging member comprising the intermediate engaging member.

11. A training belt including a stretchable belt, comprising: a plurality of stretchable belt members having loop shape,
an intermediate engaging member, in which the plural of the belt members are detachably coupled mutually,
a first engaging member, which is detachably coupled to the one edge of the belt member that is coupled by the intermediate engaging member, and
a second engaging member, which is detachably coupled to the other edge of the belt member that is coupled by the intermediate engaging member,
wherein the training belt becomes a loop shape by engaging the first engaging member and the second engaging member,
wherein at least one piece of a third engaging member, which is detachably coupled to the belt member of the training belt that becomes a loop shape,
wherein the third engaging member comprising,
an engaging member main body, which is detachably coupled to the belt member of the training belt that becomes a loop shape, and
a coupling portion which is detachably coupled to the engaging member main body and in which another stretchable belt member of loop shape is detachably coupled.

12. The training belt as defined in Claim 11,
wherein the engaging member main body having an openable loop shape, and
wherein the belt member of the training belt, which becomes a loop shape, is detachably coupled to the portion of the engaging member main body that becomes the loop shape.

13. The training belt as defined in any one of Claim 11 to 12, wherein the coupling portion of the third engaging member is detachably coupled to the engaging member main body.

14. The training belt as defined in any one of Claim 11 to 13,
wherein the intermediate engaging member comprising,
an engaging bar main body, which is formed to the center portion of the intermediate engaging member,
a first engaging bar member and a second engaging bar member, which are extended respectively such that they are separated in the predetermined space from the engaging bar main body, and
which are respectively placed parallel to the engaging bar main body,
wherein a first engaging hole is formed to the portion surrounded by the engaging bar main body and the first engaging bar member,
wherein a second engaging hole is formed to the portion surrounded by the engaging bar main body and the second engaging bar member,
wherein the first engaging bar member is openable such that the first engaging hole may be openable, and
wherein the second engaging bar member is openable such that the second engaging hole may be openable.

15. The training belt as defined in any one of Claim 11 to 14, wherein on the surface of another stretchable belt member of loop shape, an index portion, which is expanded and contracted in accordance with the expansion and contraction of another stretchable belt member of loop shape, is formed.

16. A rubber ball member used with the training belt as defined in any one of Claim 1 to 4,
wherein the rubber ball member comprising a rubber ball member main body,
wherein the rubber ball member main body comprising an openable hole including an openable cover member, which is formed besides the air inlet of the rubber ball member main body,
wherein the rubber ball member comprising a bal-

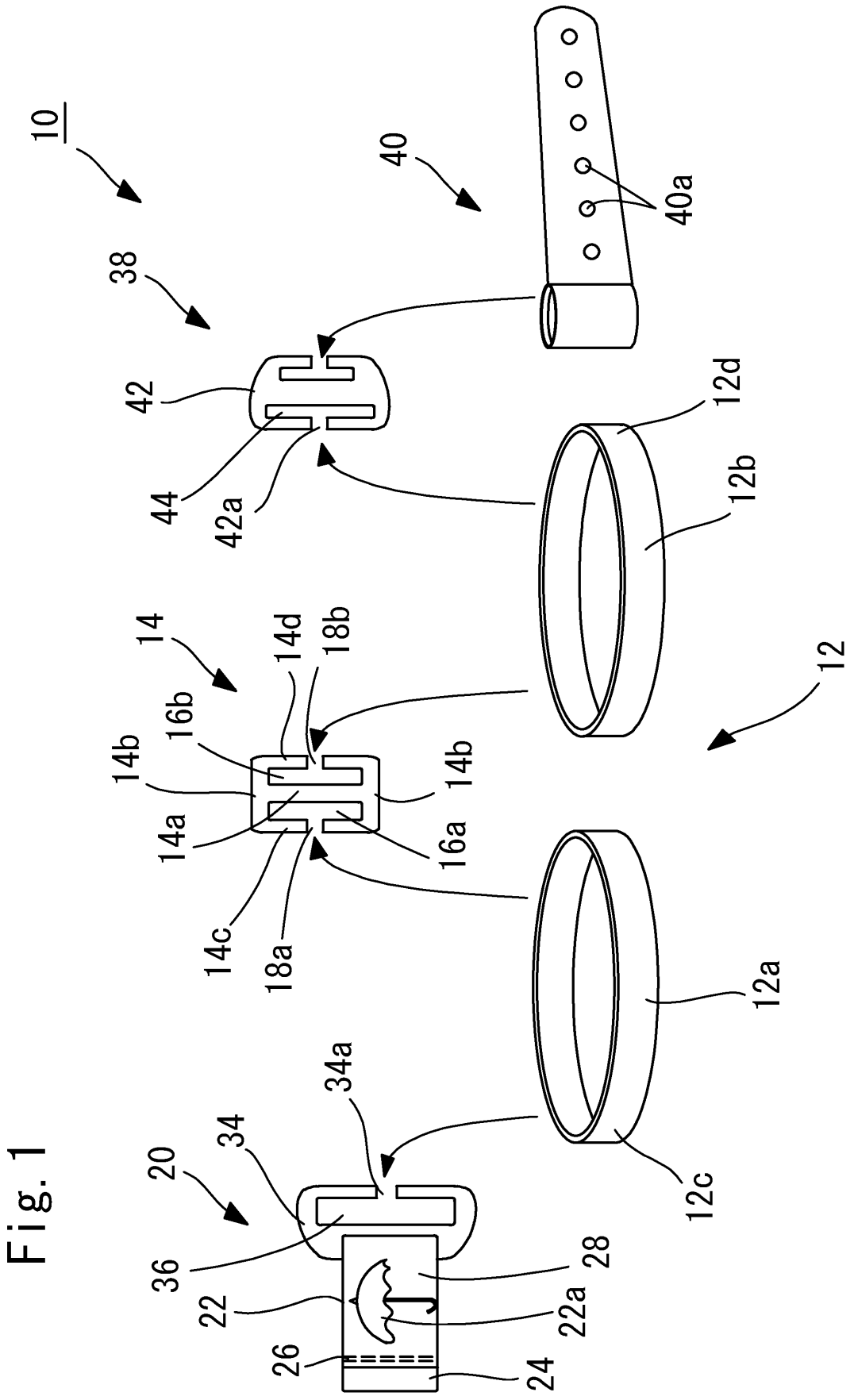
loon member, which is detachably inserted into the openable hole of the rubber ball member main body,
wherein the balloon member comprising,
a balloon member main body including a balloon, and
a nozzle member provided to an air port of the balloon member main body,
wherein a base edge of the nozzle member is provided to the air port of the balloon member main body,
wherein the tip portion of the nozzle member is detachably inserted into the openable hole of the rubber ball member main body,
wherein the air hole is formed to the tip portion of the nozzle member, and
wherein by applying pressure to the rubber ball member main body from the outside by using the training belt,
such that air in the rubber ball member main body is moved to the balloon member main body through the air hole formed to the tip portion of the nozzle member and the balloon member main body is expanded.

17. The rubber ball member as defined in Claim 17, wherein on the surface of the balloon member main body of the balloon member, a balloon index portion, which is expanded and contracted in accordance with the expansion and contraction of the balloon member main body, is formed.

18. A rubber ball member,
wherein the rubber ball member comprising a rubber ball member main body,
wherein the rubber ball member main body comprising an openable hole including an openable cover member, which is formed besides the air inlet of the rubber ball member main body,
wherein the rubber ball member comprising a balloon member, which is detachably inserted into the openable hole of the rubber ball member main body,
wherein the balloon member comprising,
a balloon member main body including a balloon, and
a nozzle member provided to an air port of the balloon member main body,
wherein a base edge of the nozzle member is provided to the air port of the balloon member main body,
wherein the tip portion of the nozzle member is detachably inserted into the openable hole of the rubber ball member main body,
wherein the air hole is formed to the tip portion of the nozzle member, and
wherein by applying pressure to the rubber ball member main body from the outside by using the training belt,
such that air in the rubber ball member main body is moved to the balloon member main body through the air hole formed to the tip portion of the nozzle member and the balloon member main body is expanded.

19. The rubber ball member as defined in Claim 18, wherein on the surface of the balloon member main body of the balloon member, a balloon index portion, which is expanded and contracted in accordance with the expansion and contraction of the balloon member main body, is formed.

Fig. 1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42
44
42a
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40a
12d
12b
12
14
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16b
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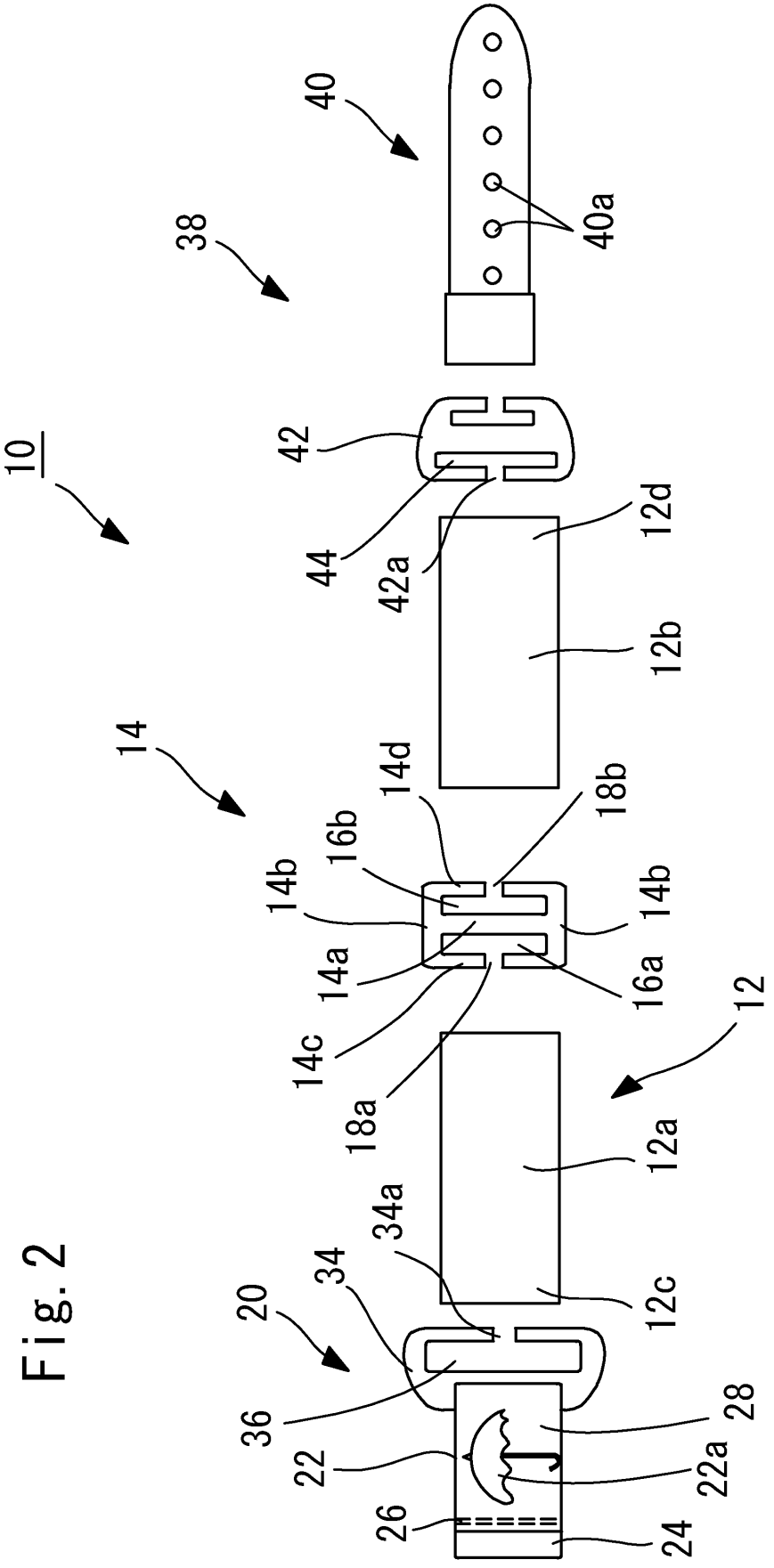
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22a
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Fig. 2

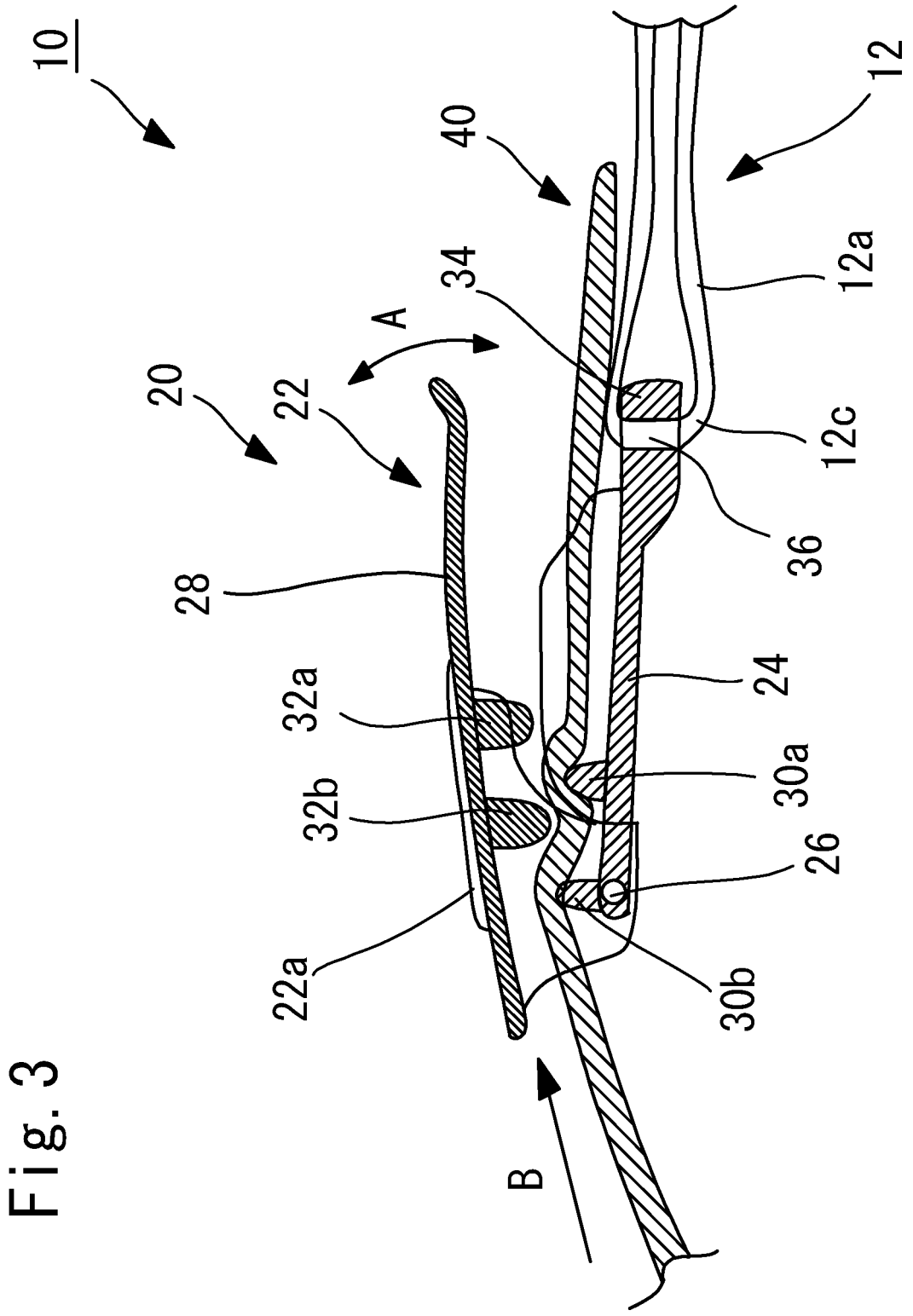


Fig. 3

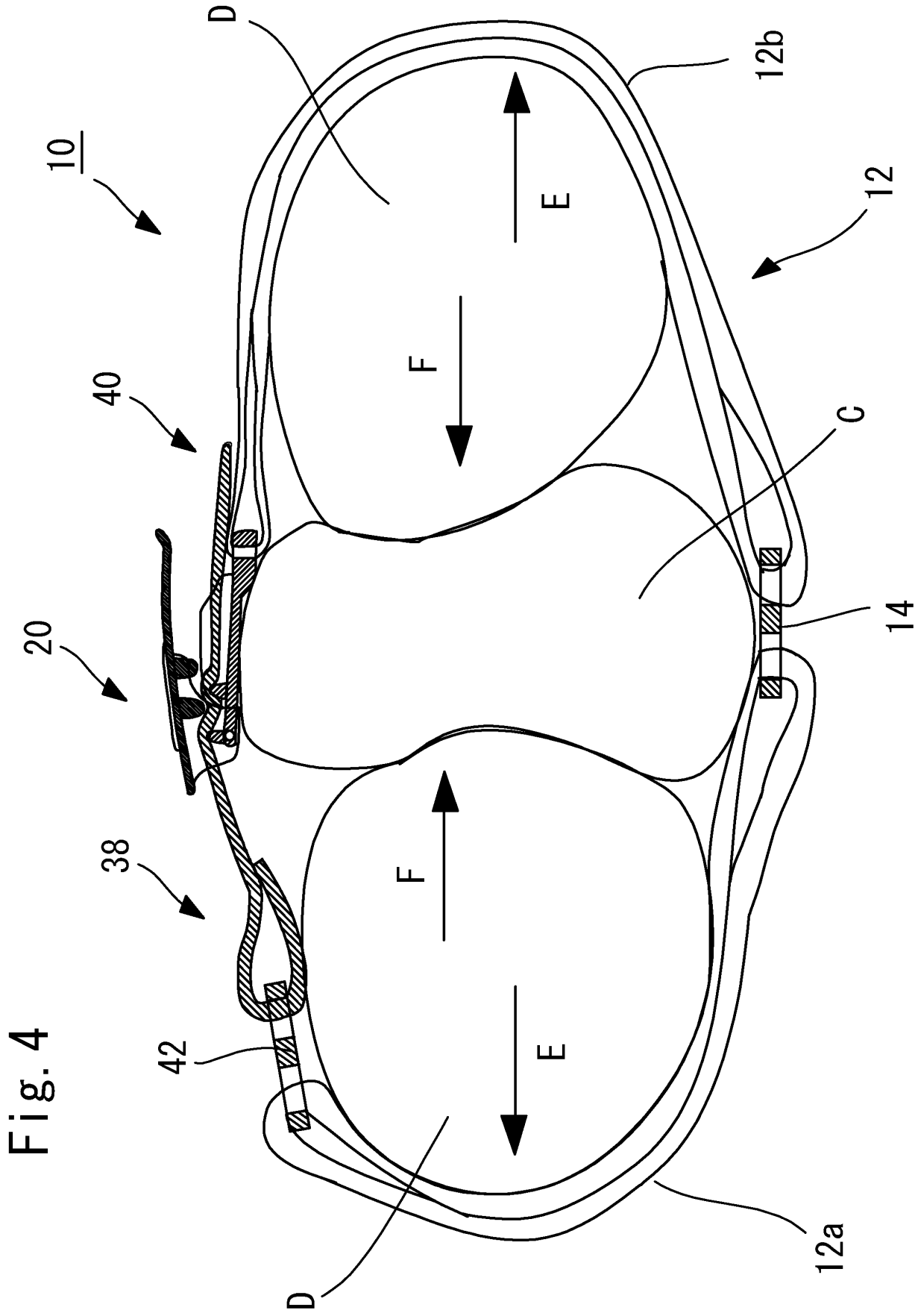
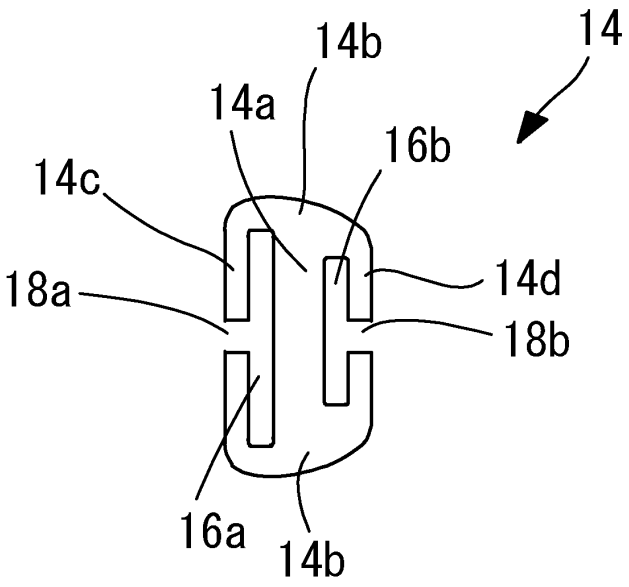


Fig. 4

Fig. 5

(A)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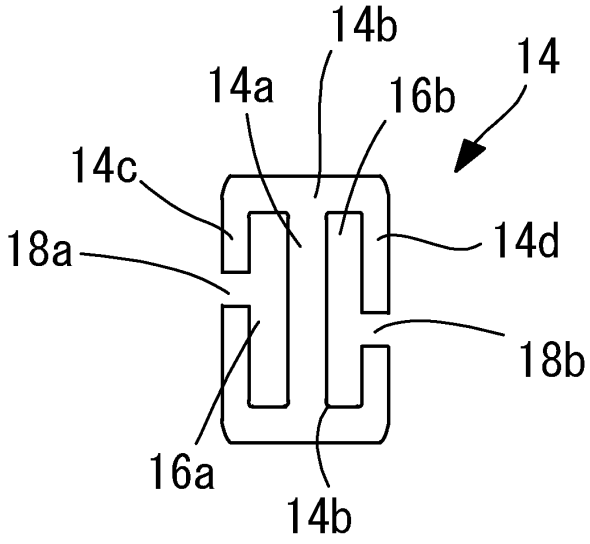
(B)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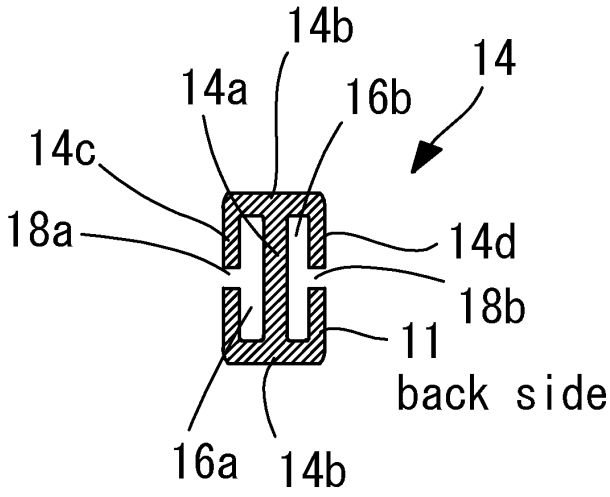
(C)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16b
14c
18a
14d
18b
11
back side
16a
14b

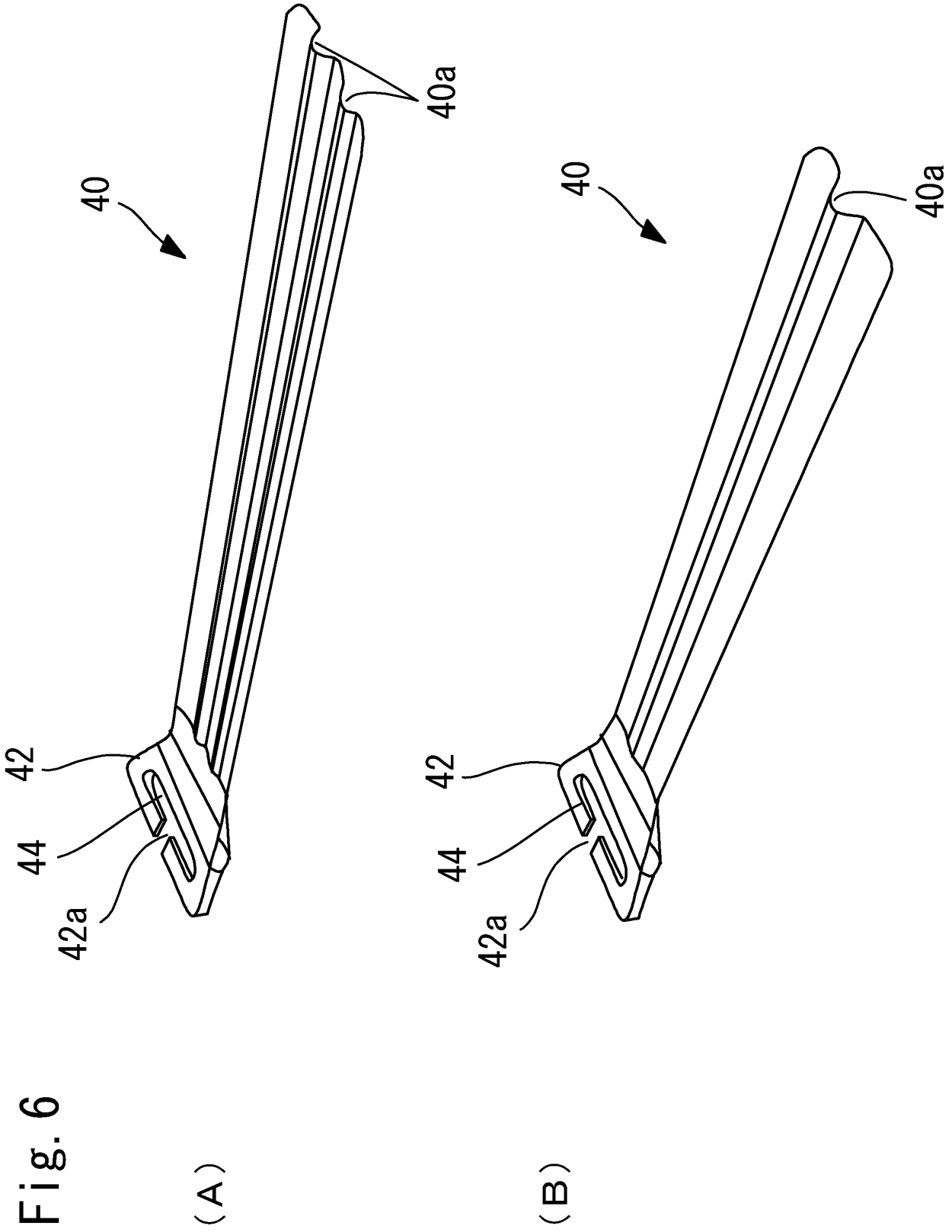


Fig. 6

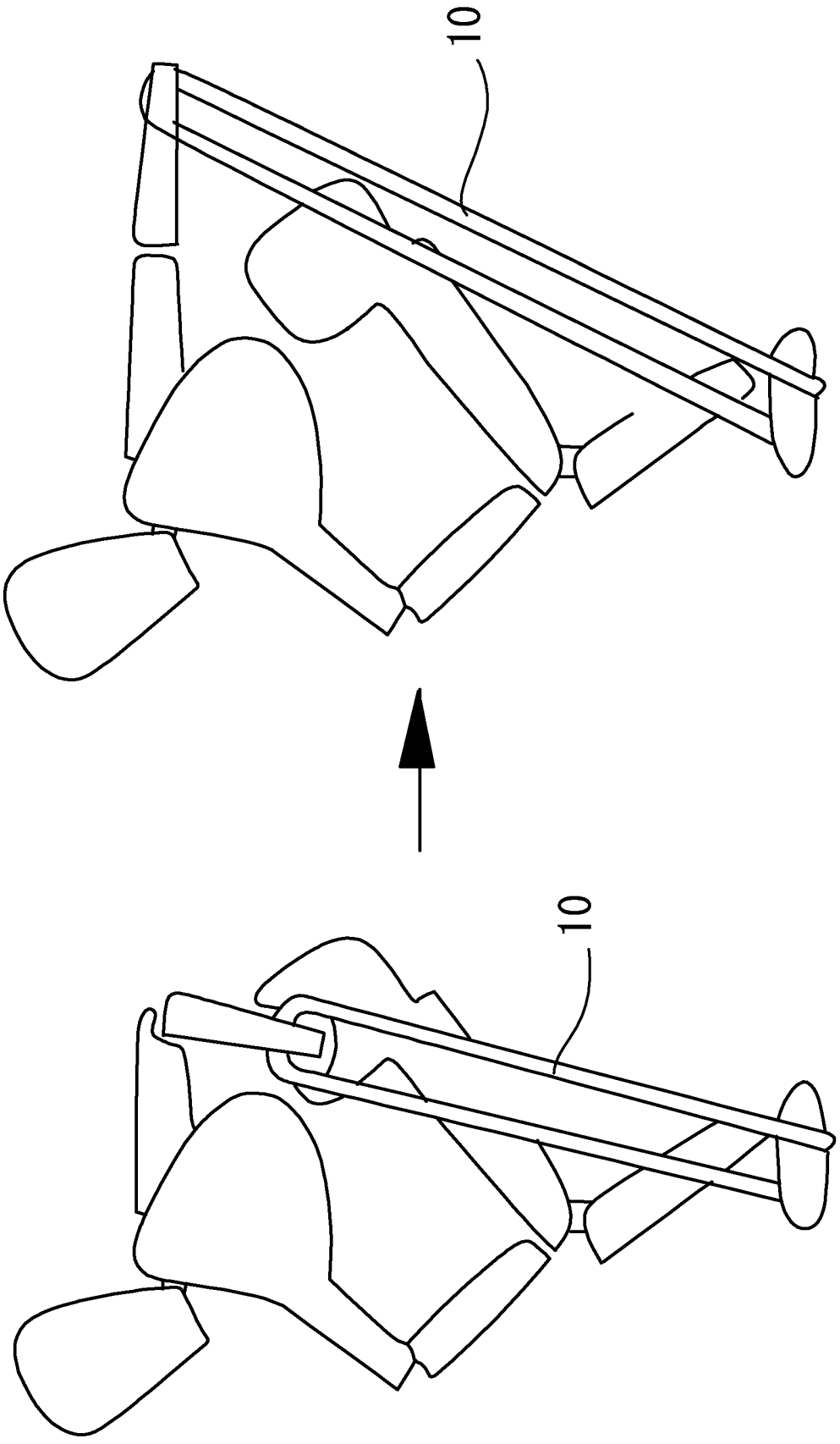


Fig. 7

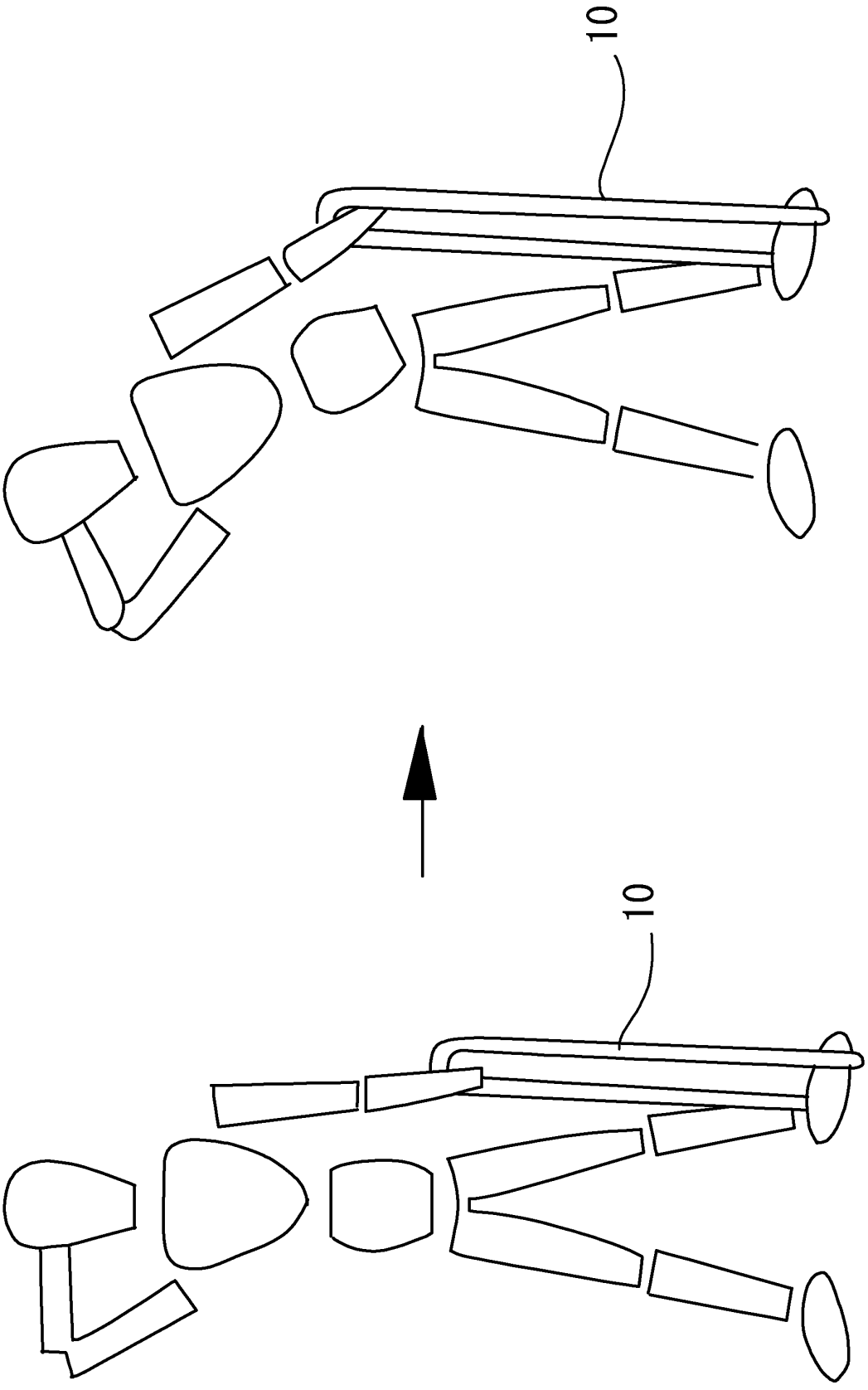


Fig. 8

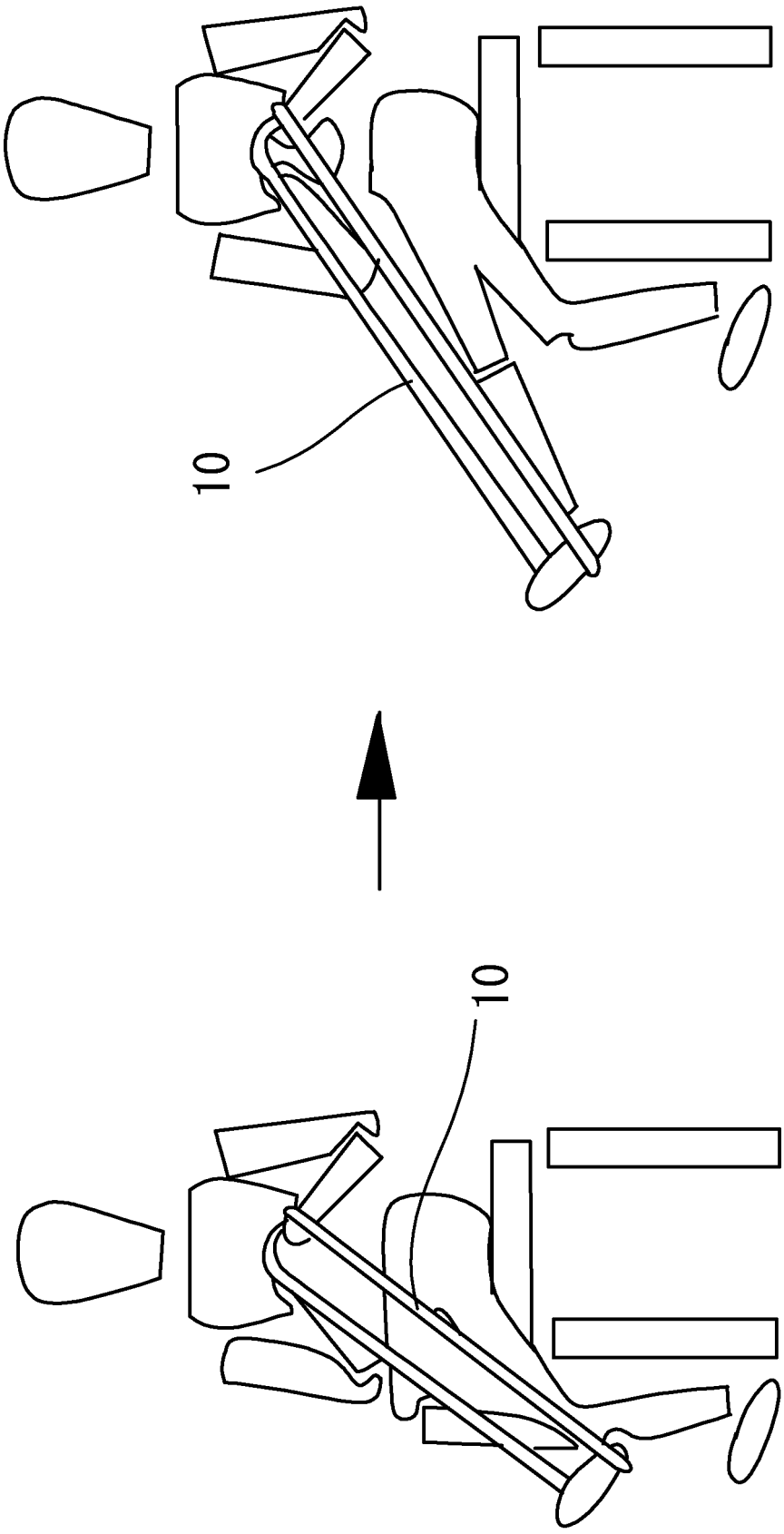


Fig. 9

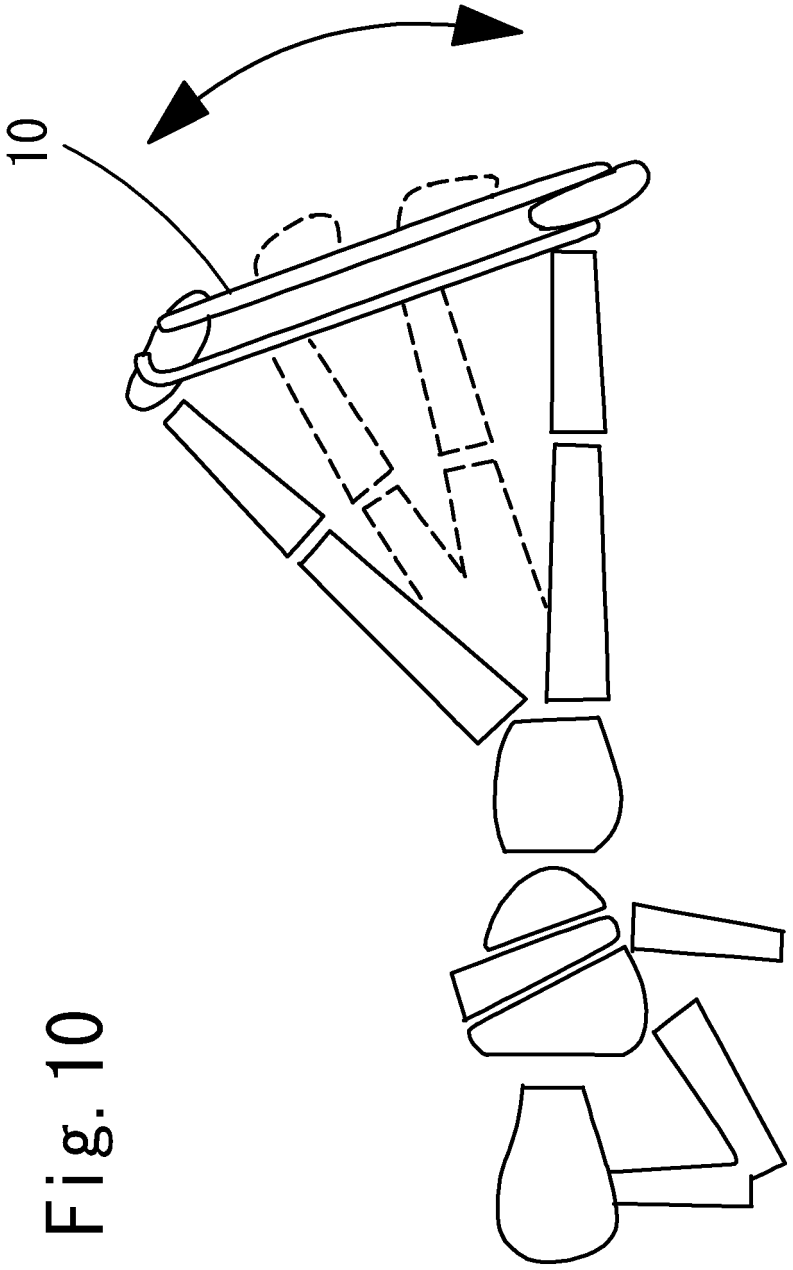


Fig. 10

Fig. 11

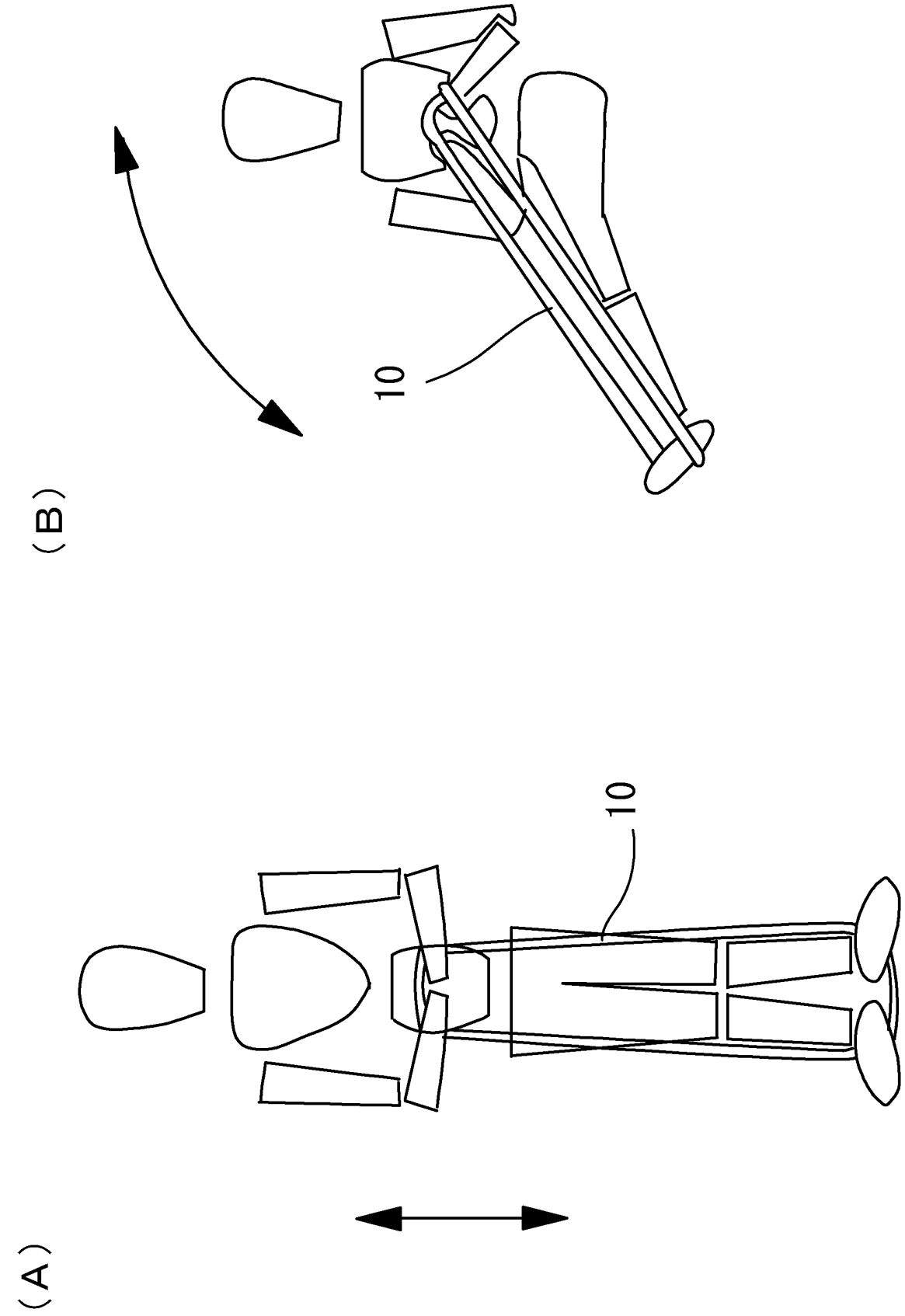
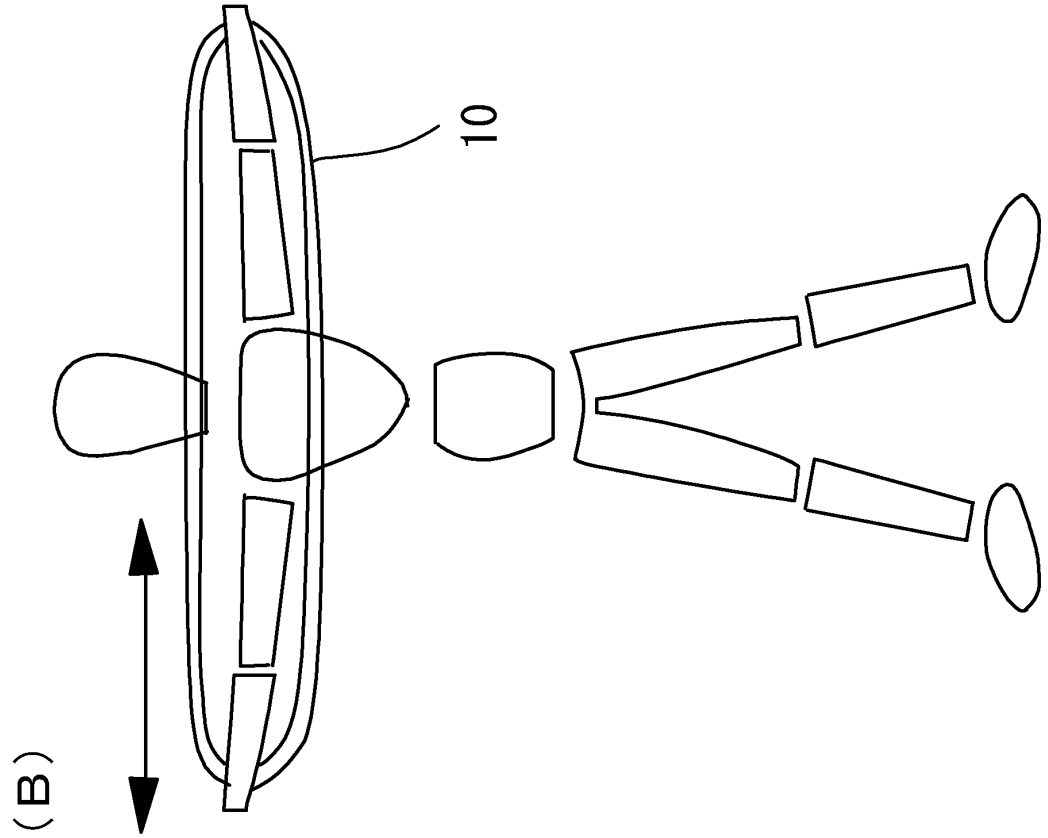


Fig. 12



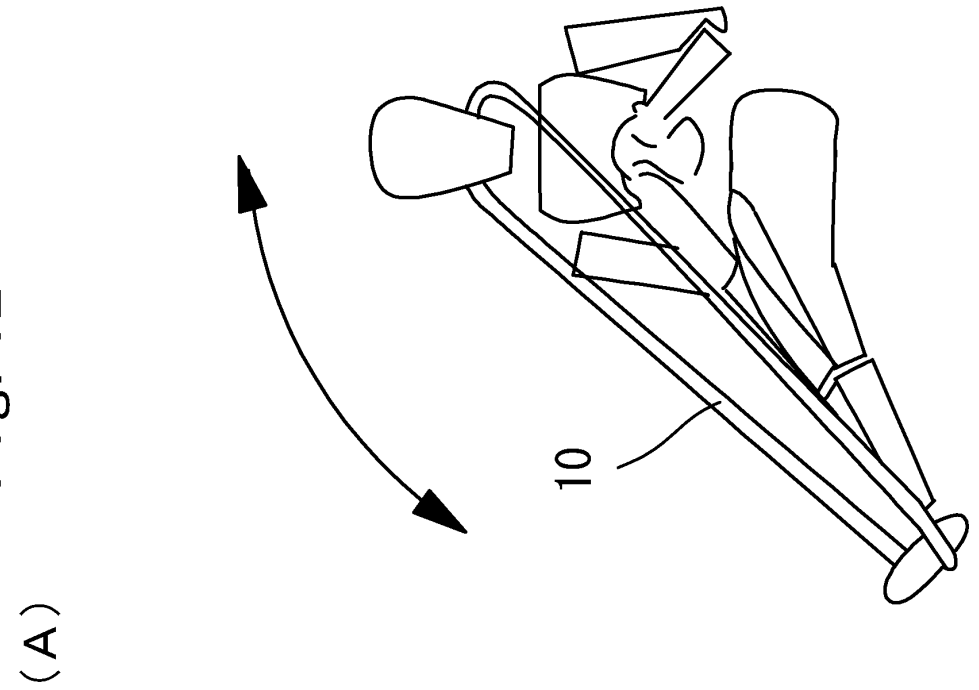
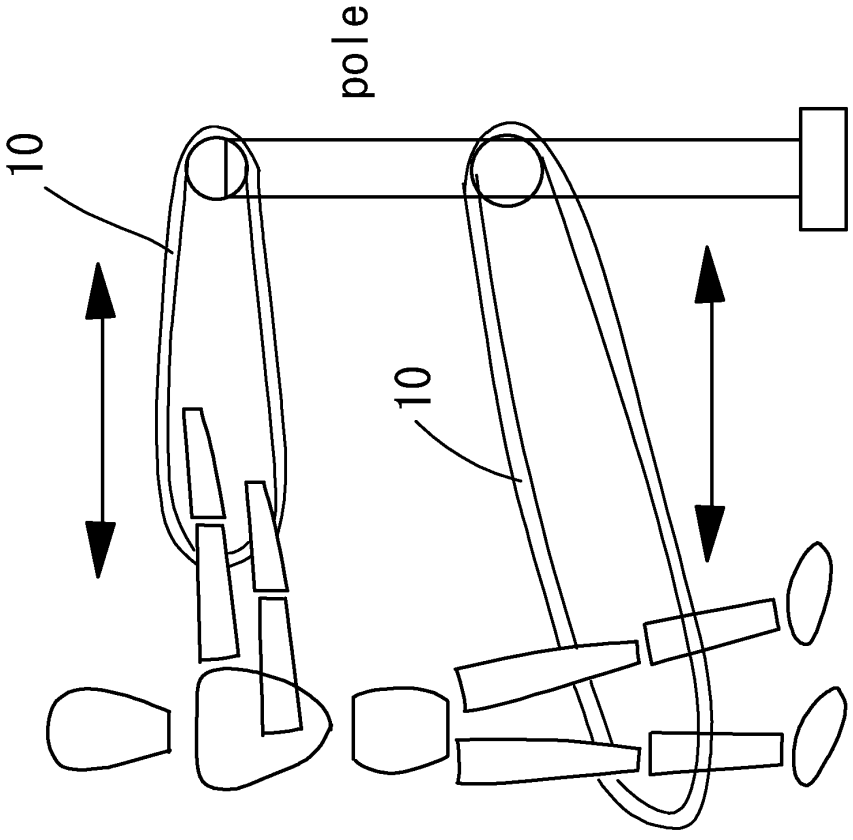
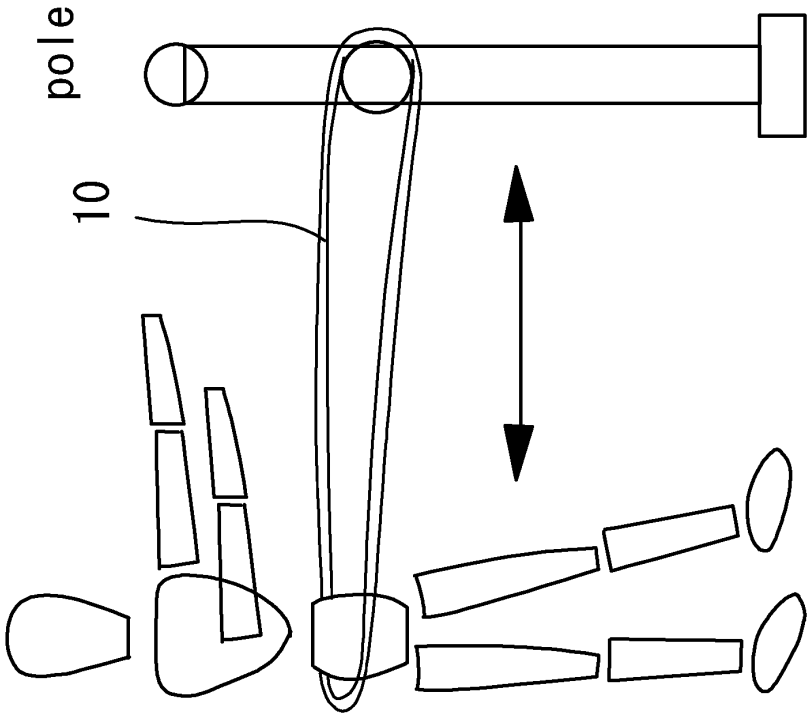


Fig. 13

(A)



(B)



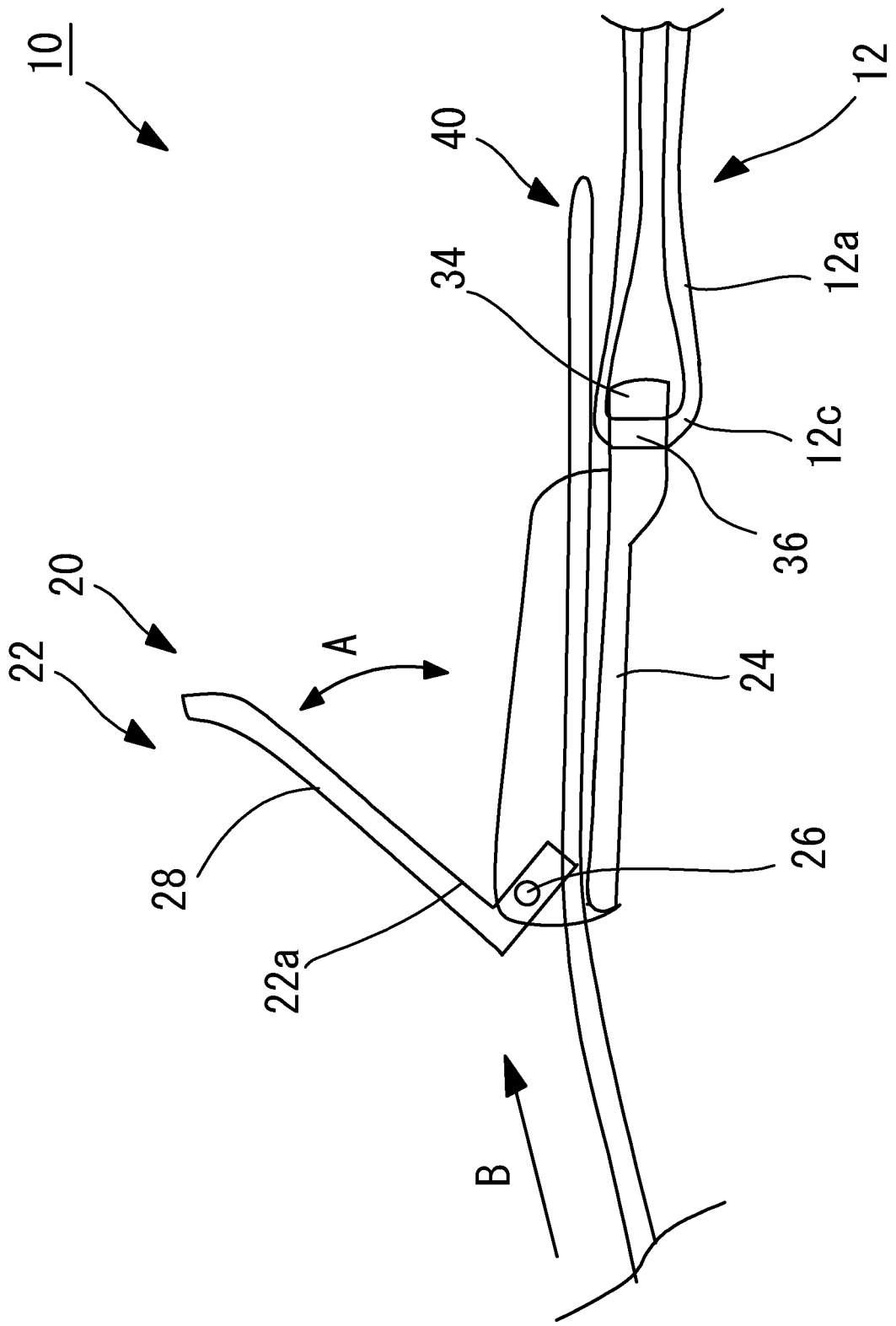
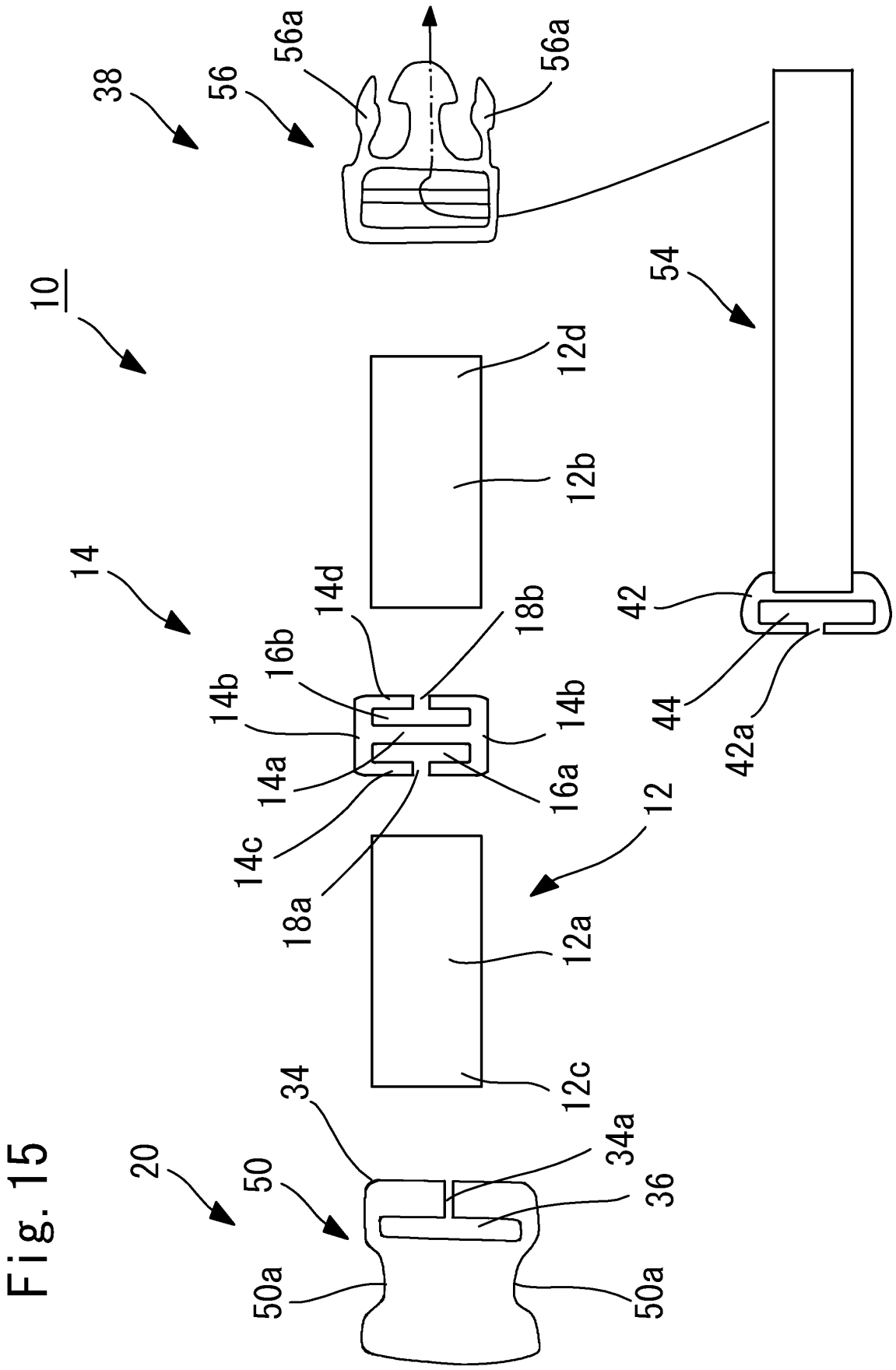


Fig. 14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56a
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14b
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12a
12c
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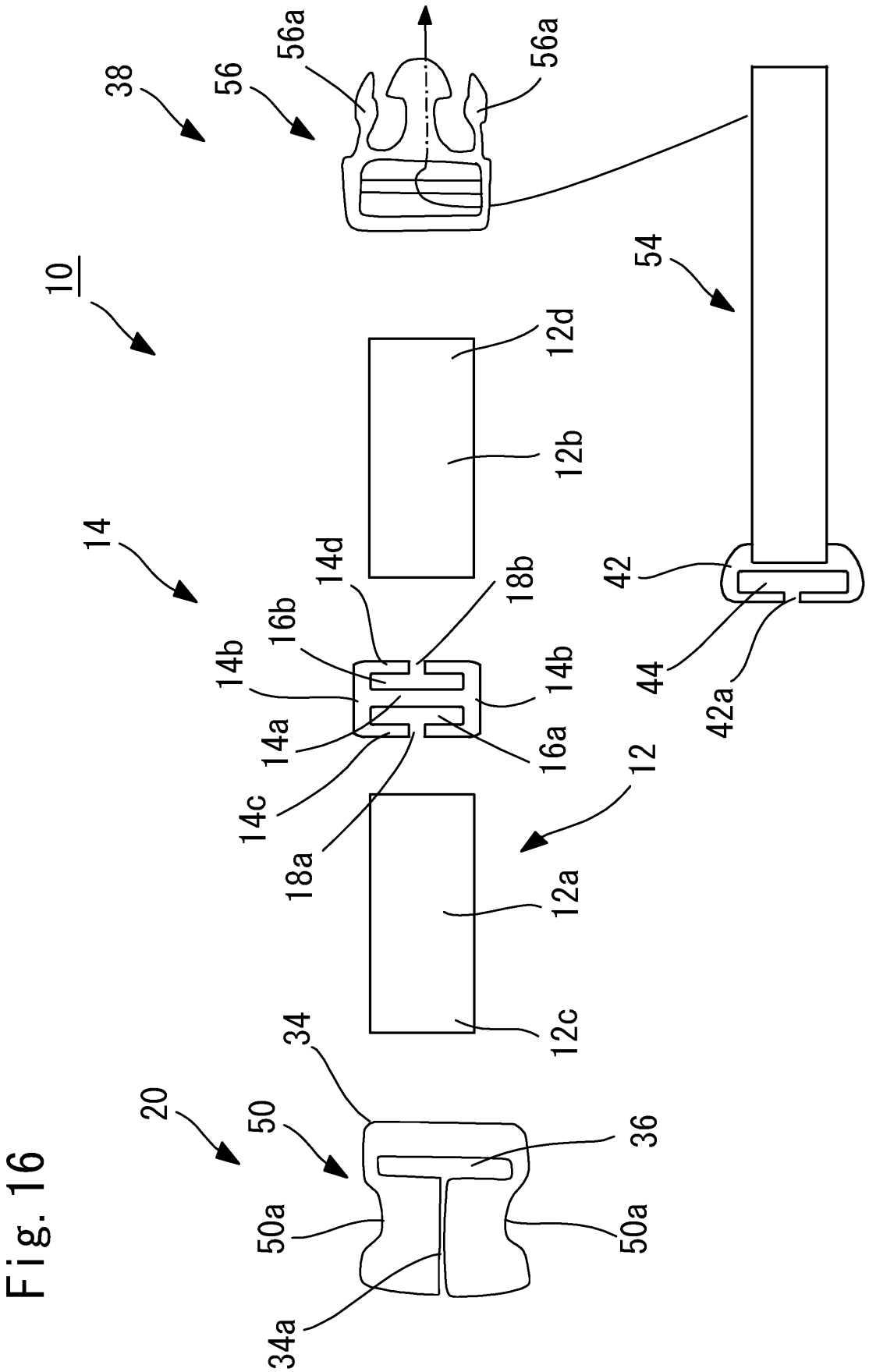
42a
34
34a
36
20
50
50a
50a

Fig. 15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42a
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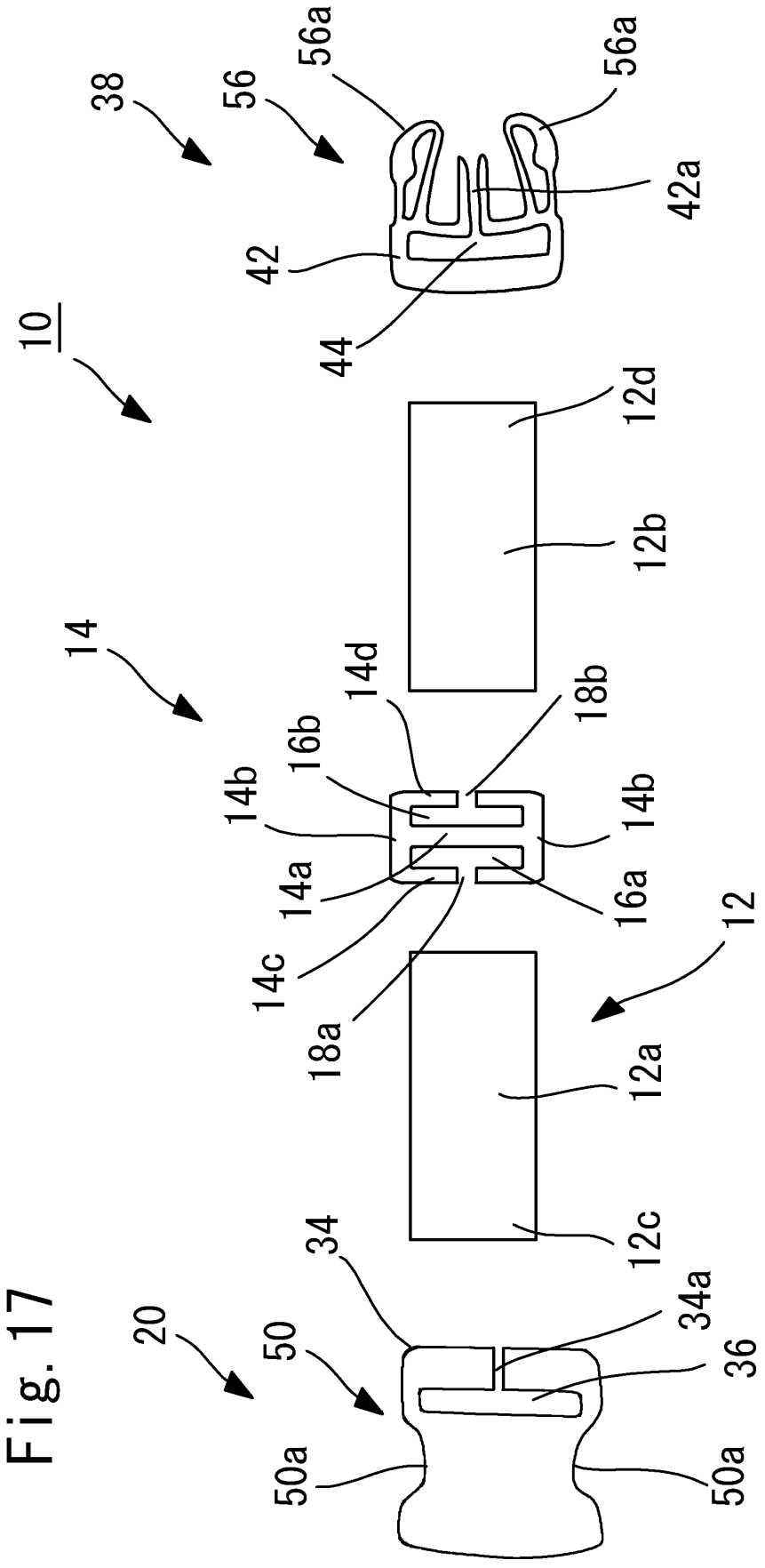
50a
34a

Fig. 16

Fig. 17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18a
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12a
12c
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34a
36
20
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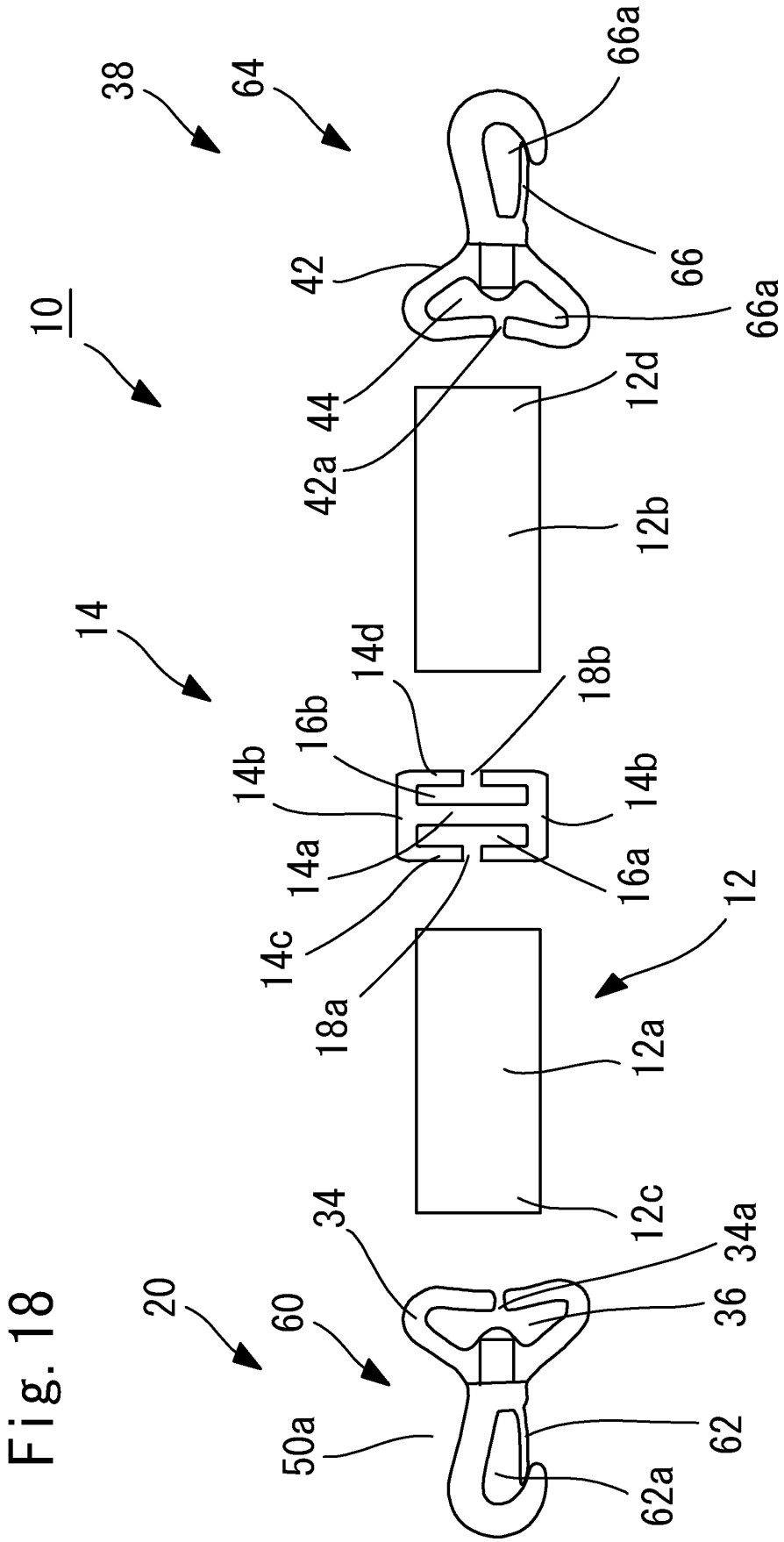
50a
50a

Fig. 18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50a
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62a
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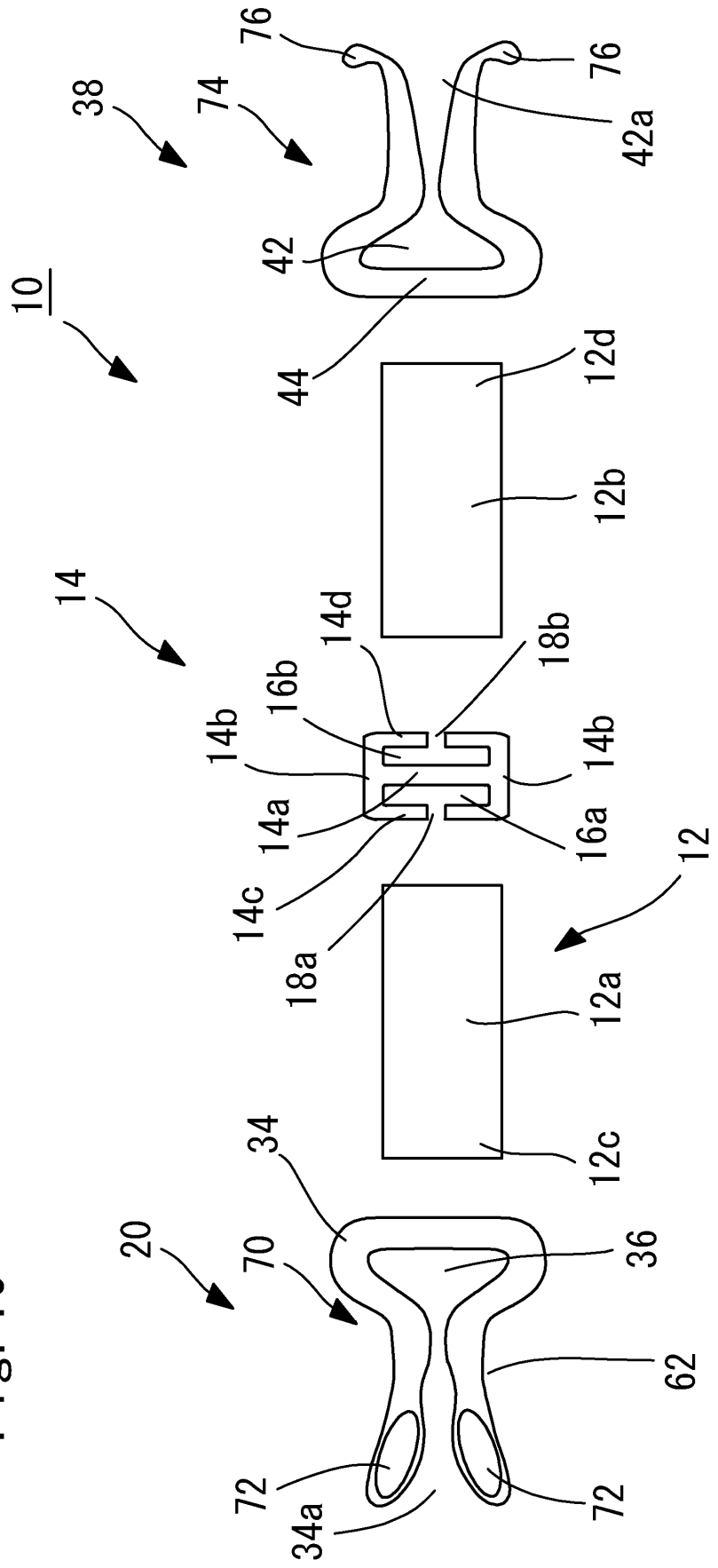
66a

Fig. 19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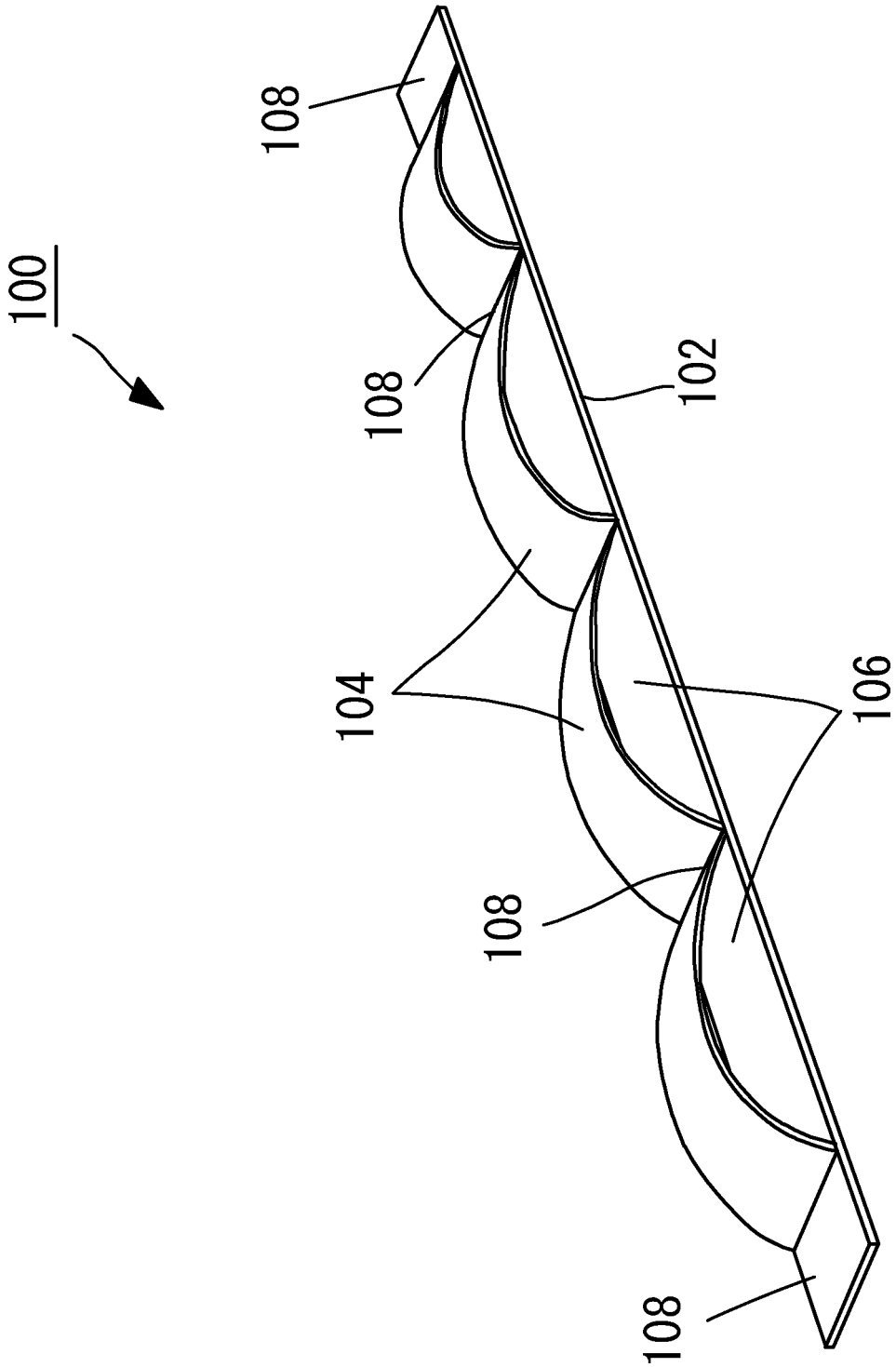
76

Fig. 20



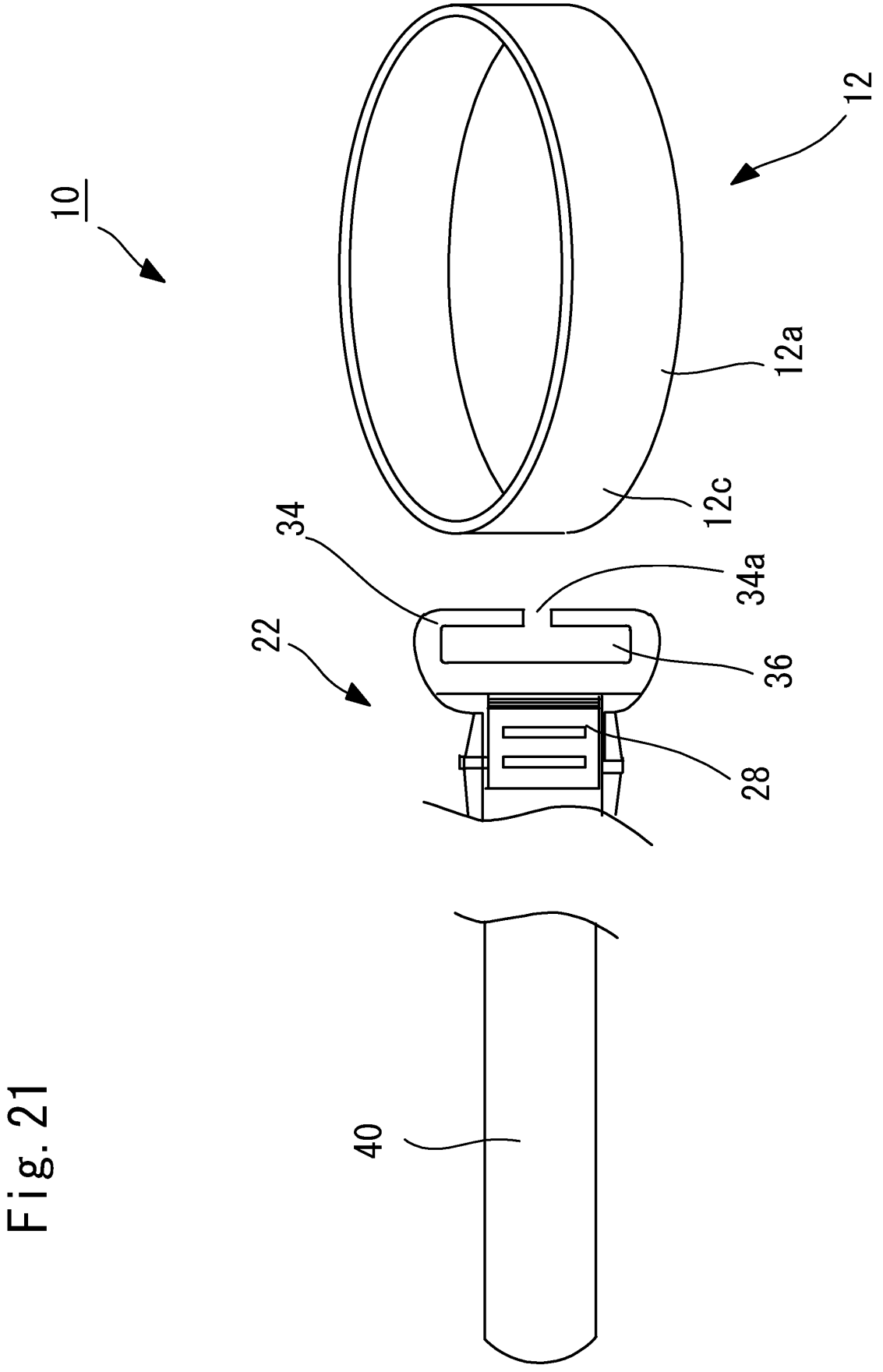


Fig. 21

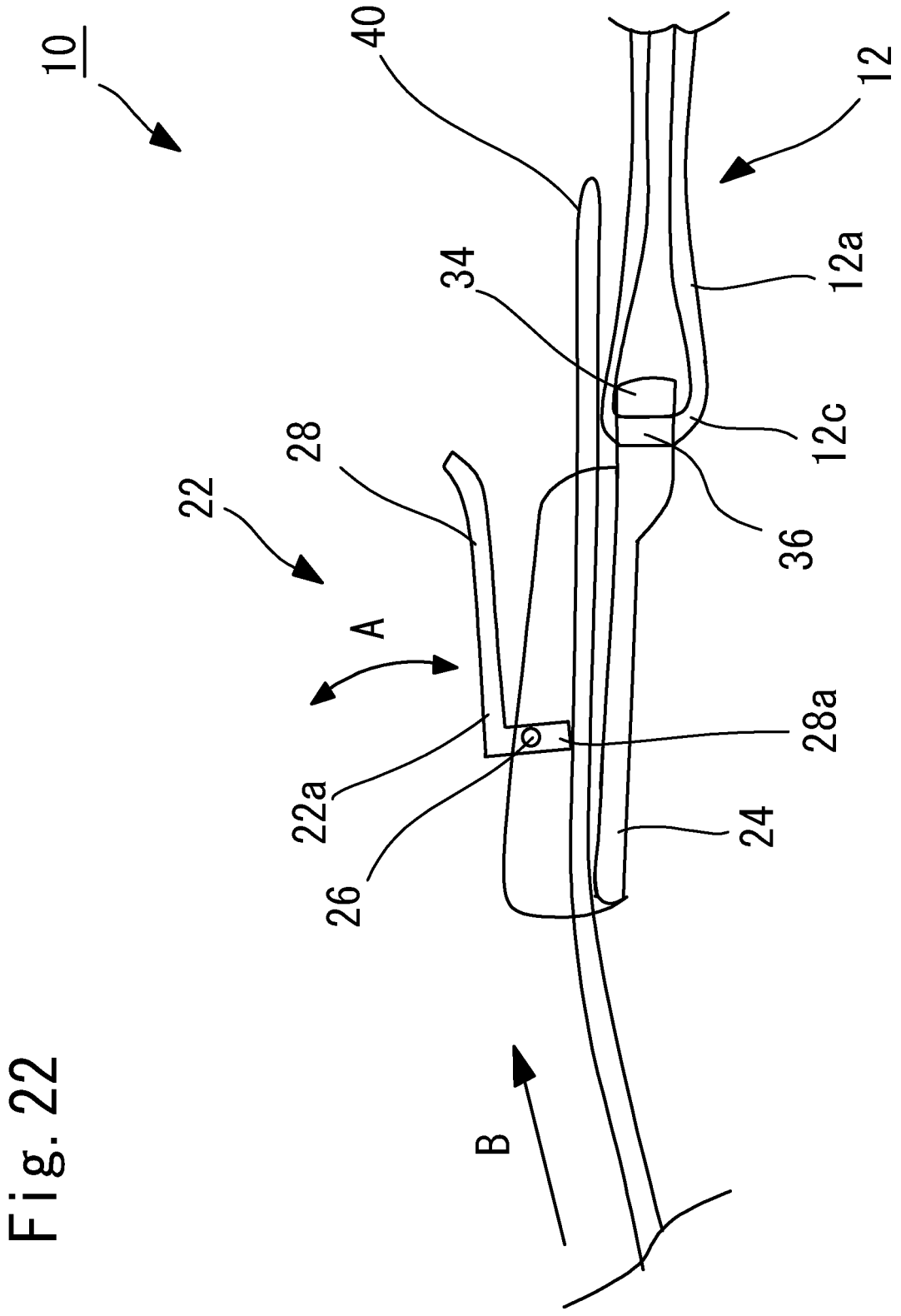
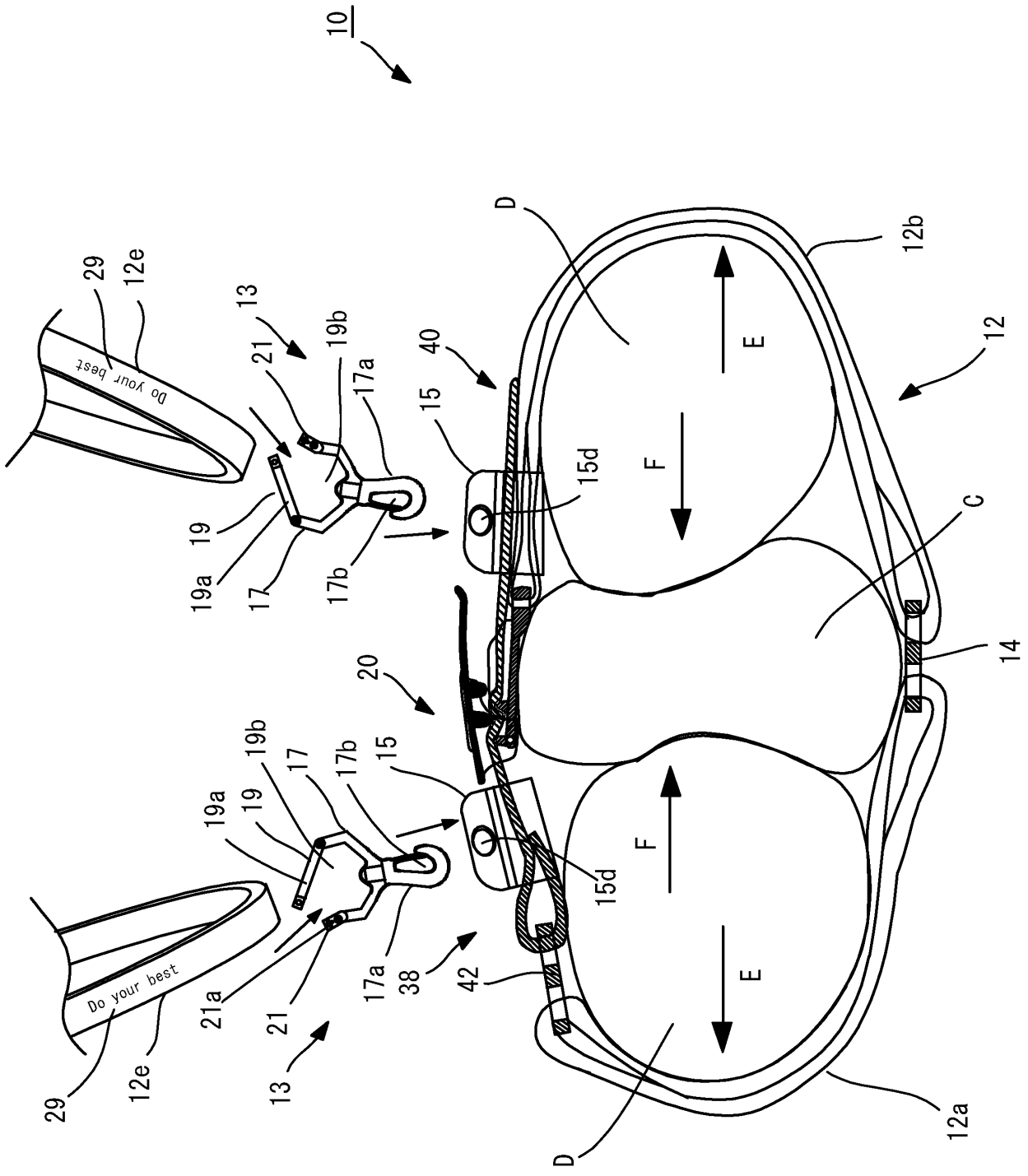


Fig. 22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17a
17b
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19a
19b
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42
C
D
E
F
Do your best

Fig. 23

Fig. 24

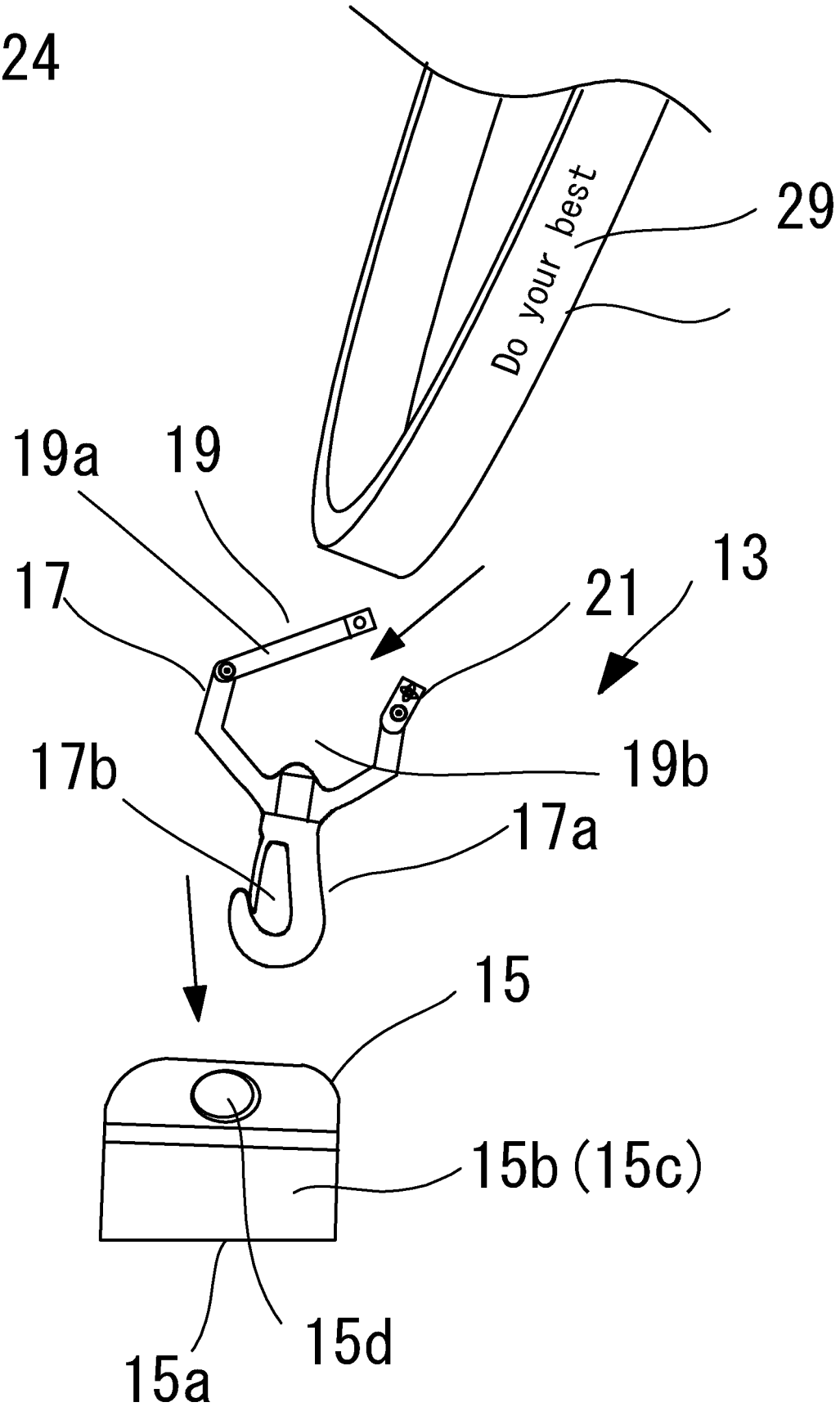


Fig. 25

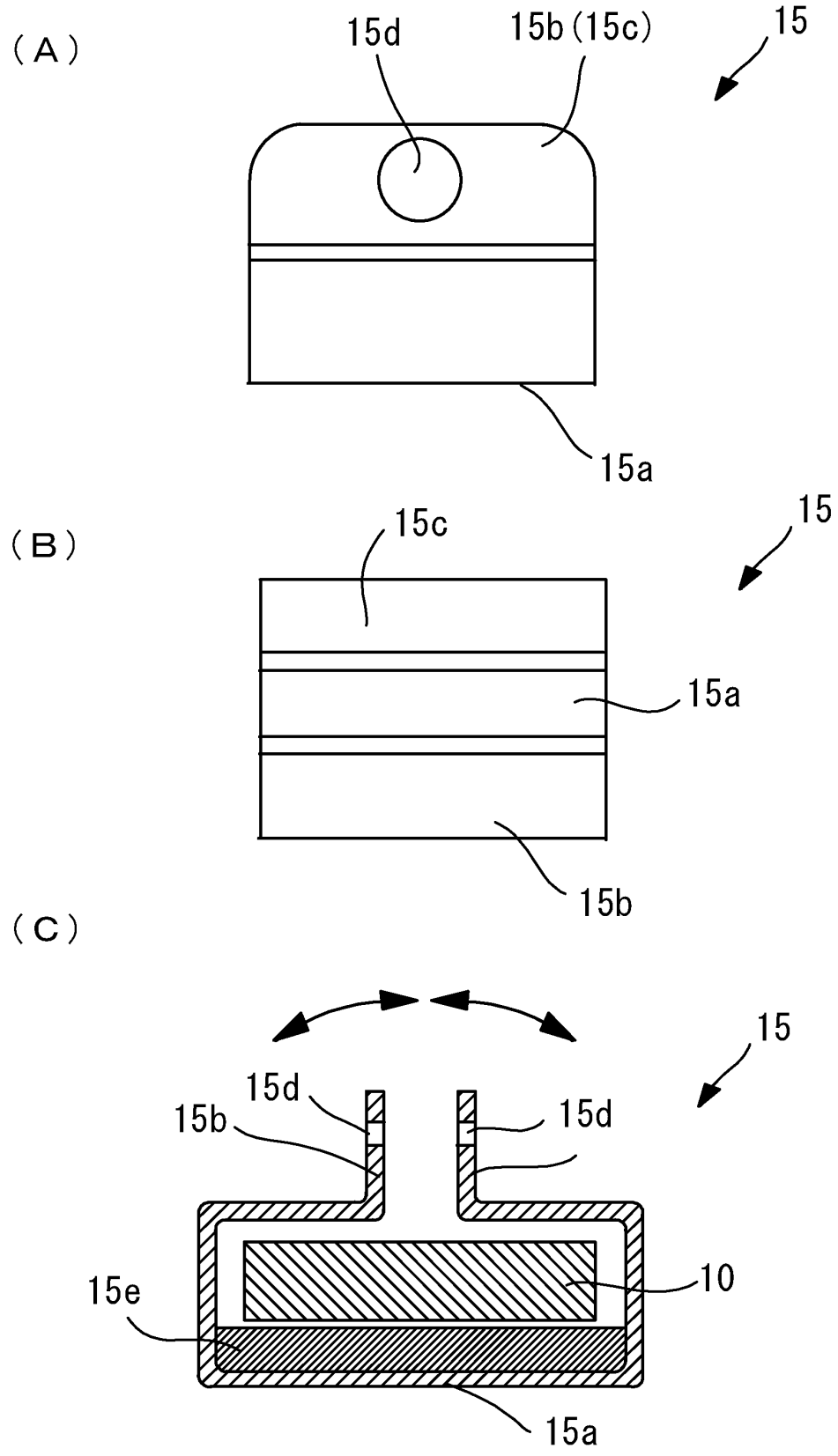


Fig. 26

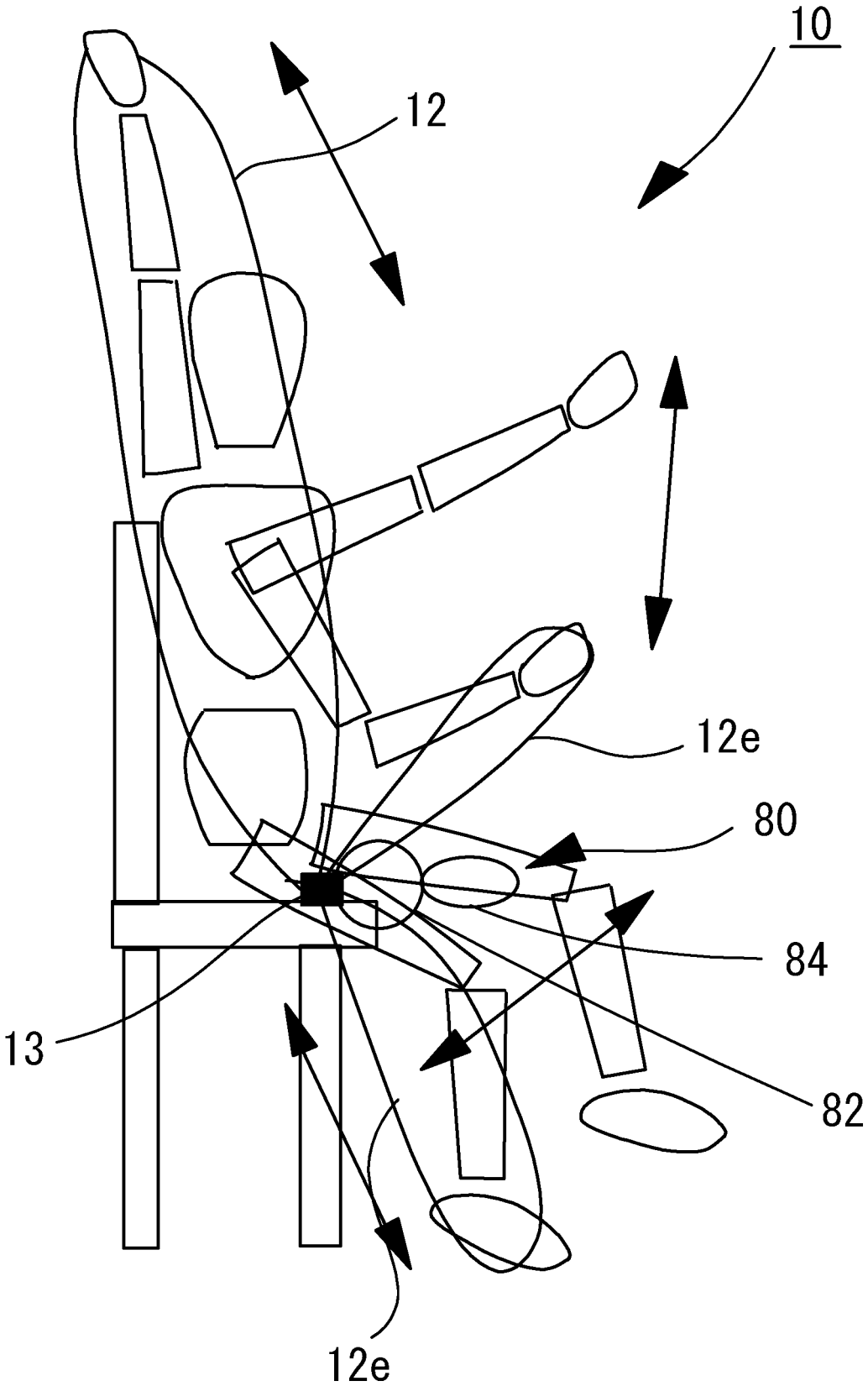
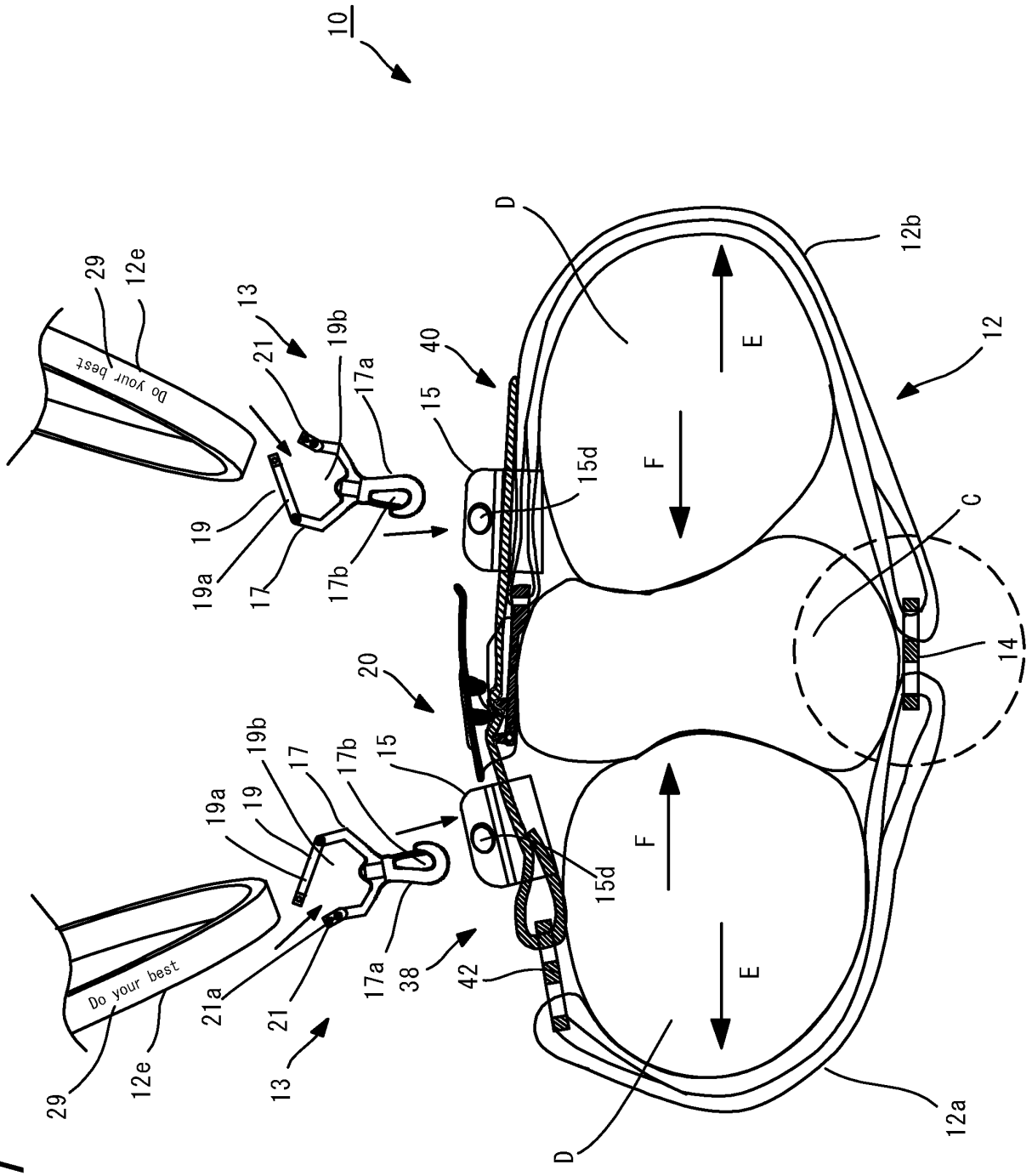


Fig. 27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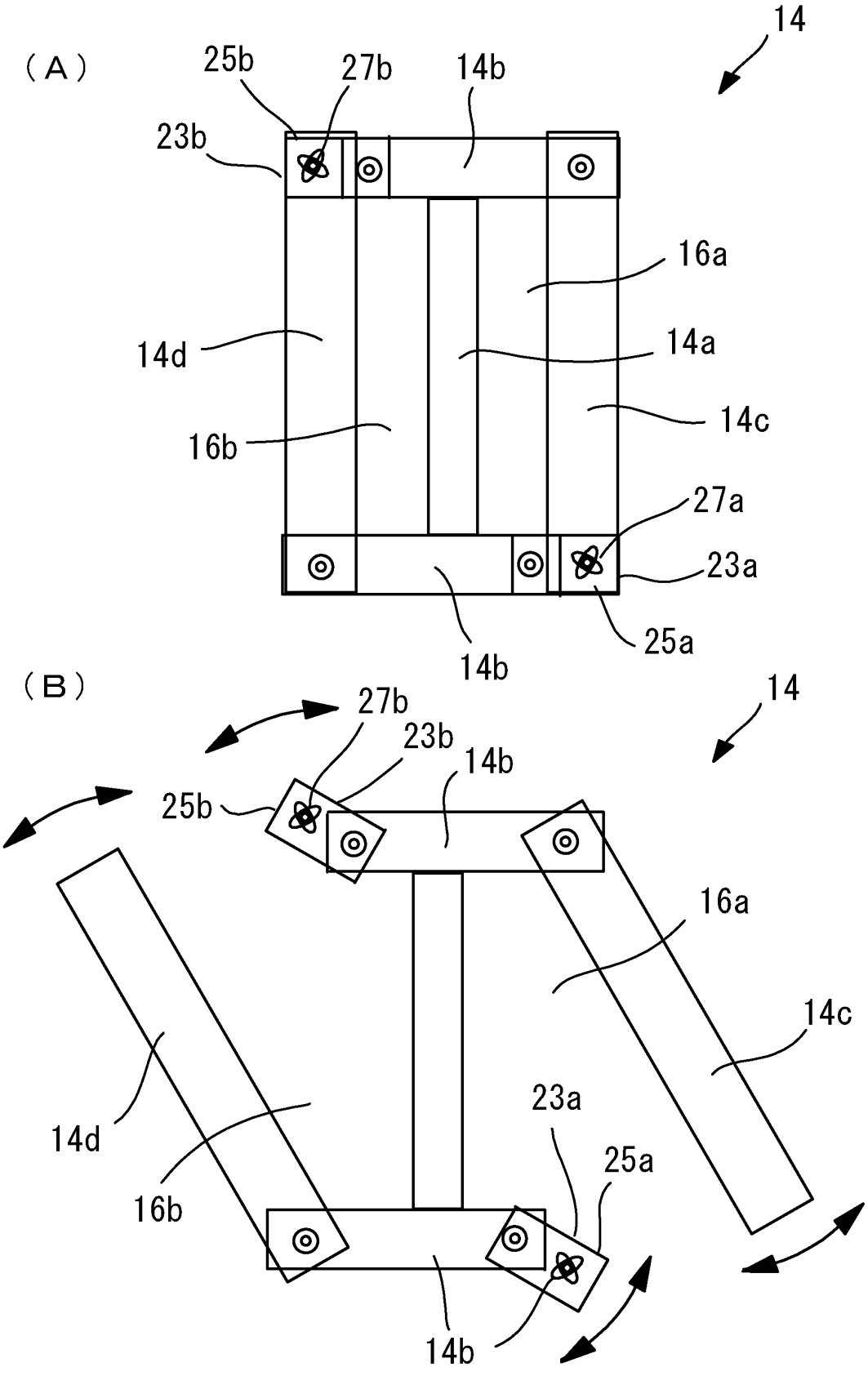
42
C
D
E
F
Do your best

Fig. 28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(B)
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14c
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16b
14b

Fig. 29

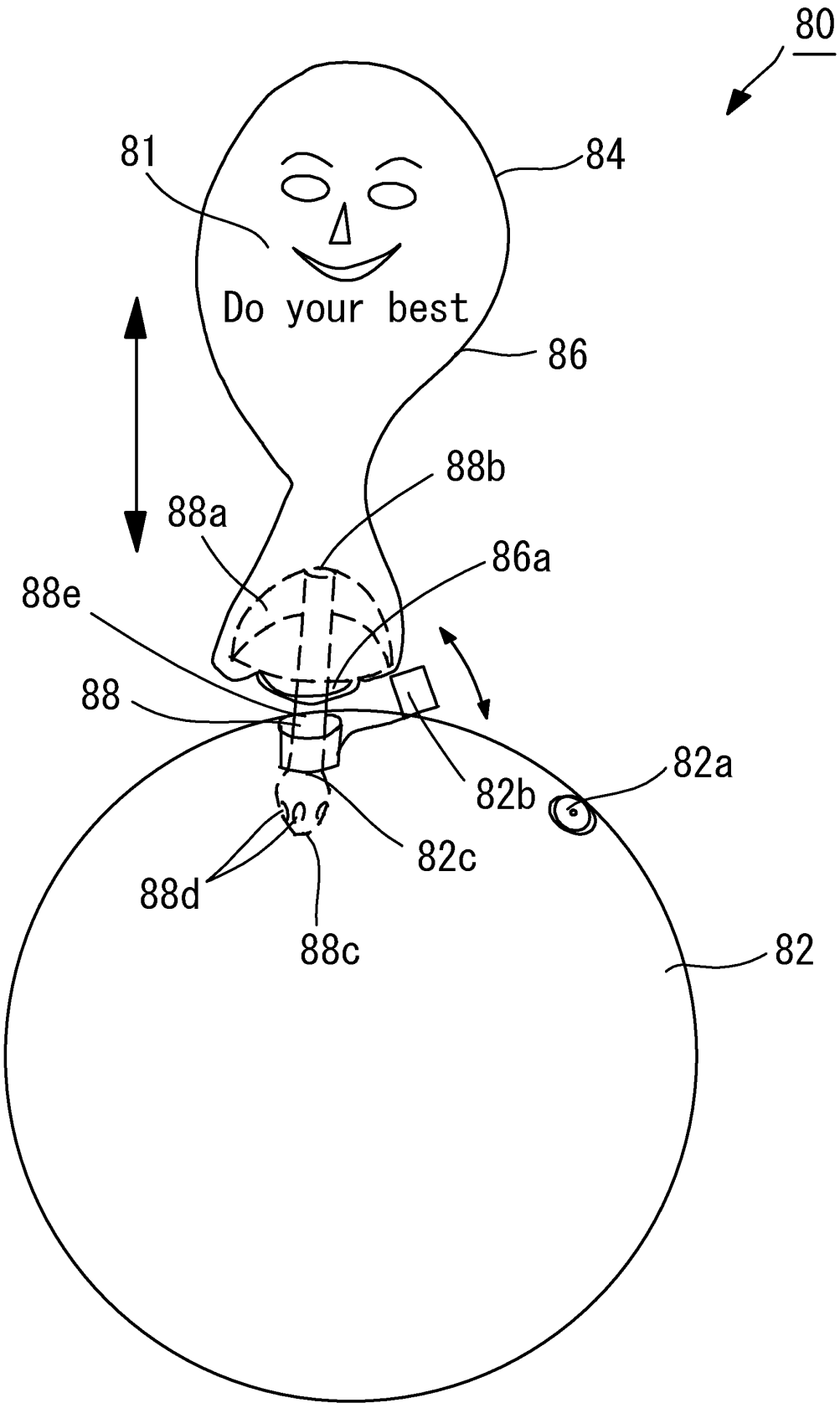
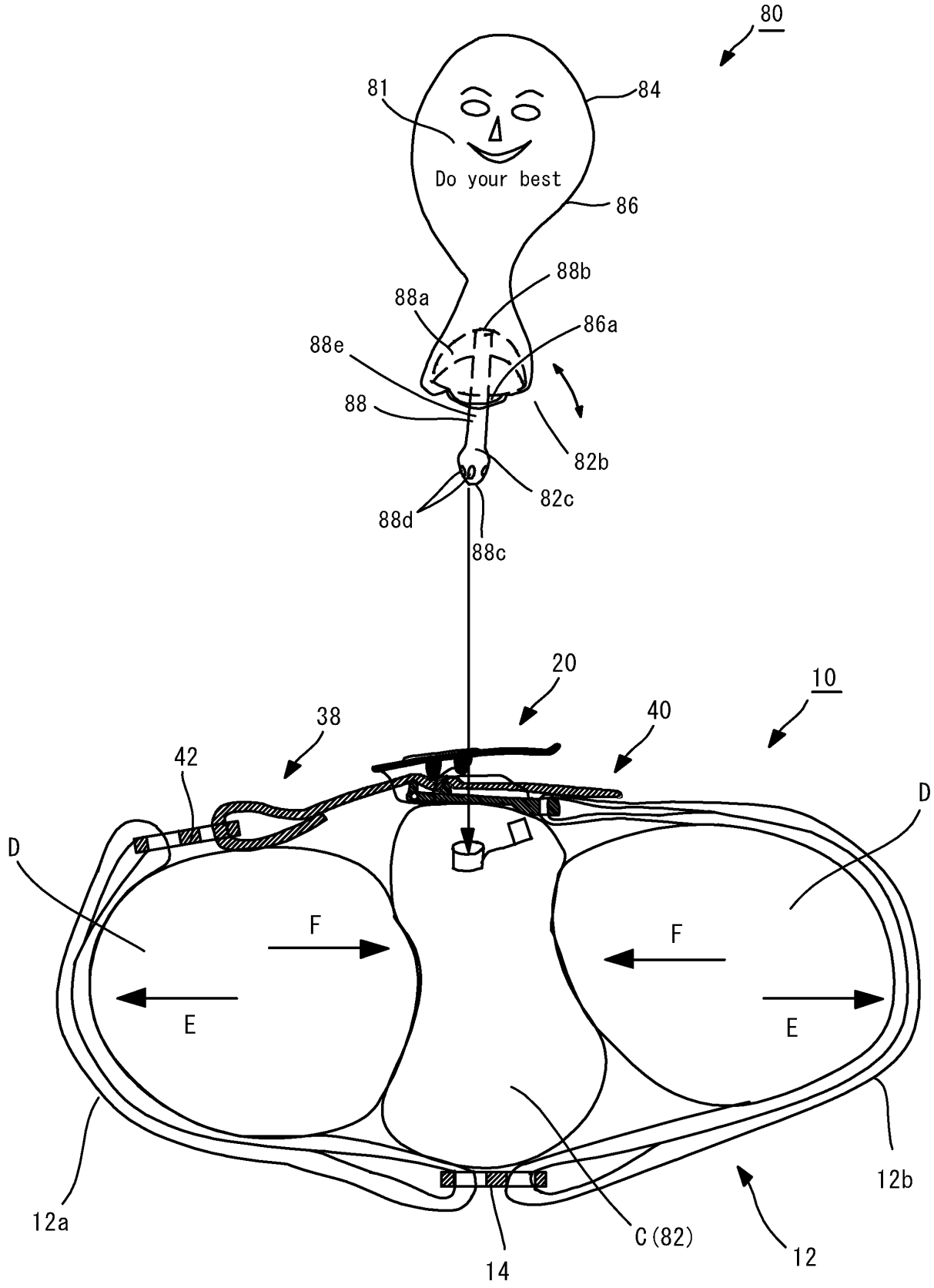


Fig. 30


80
81
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Do your best
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88b
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82b
82c
88d
88c
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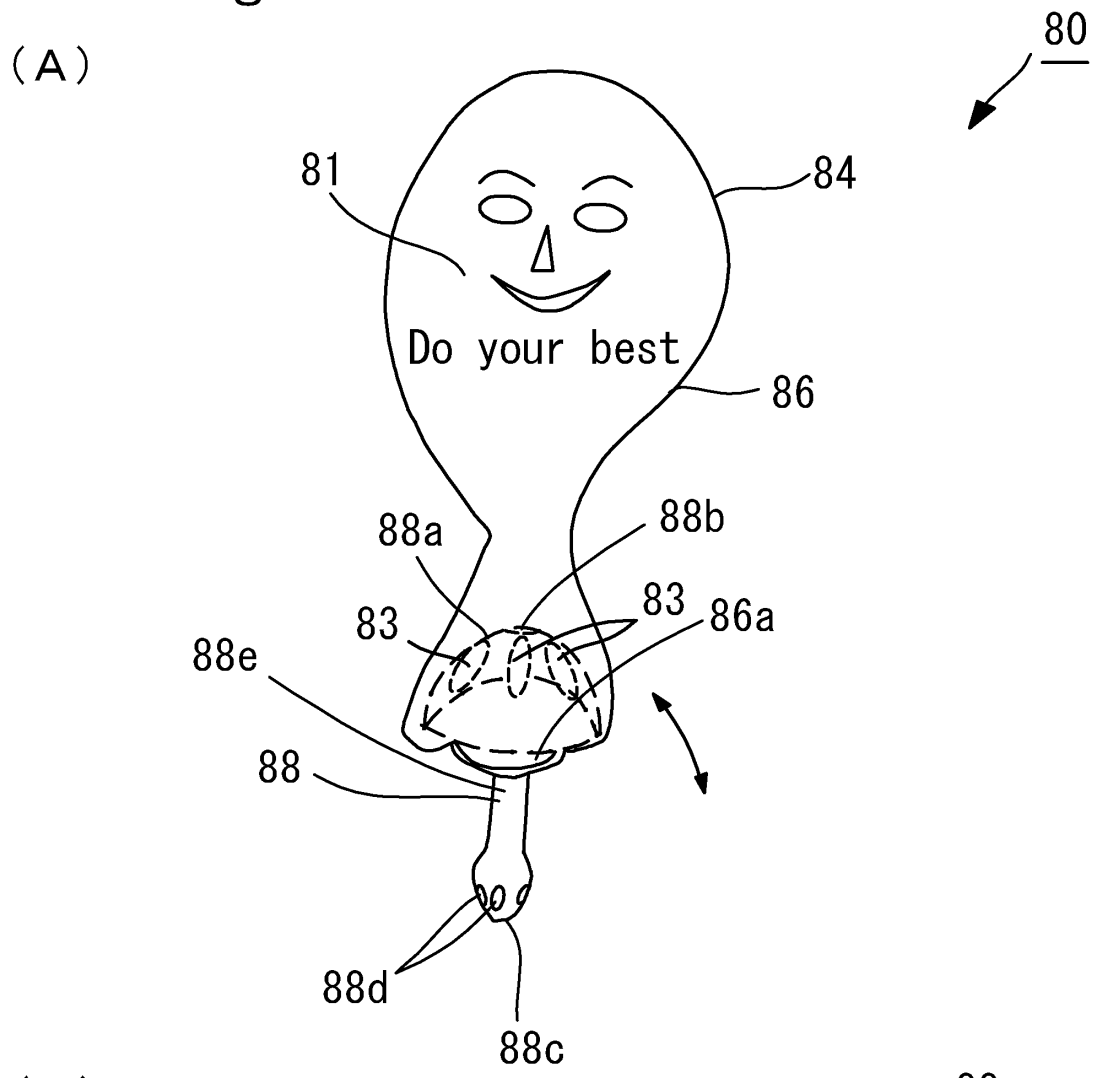
D
D
F
F
E
E
12a
12b
C(82)
12
14

Fig. 31


(A)
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Do your best
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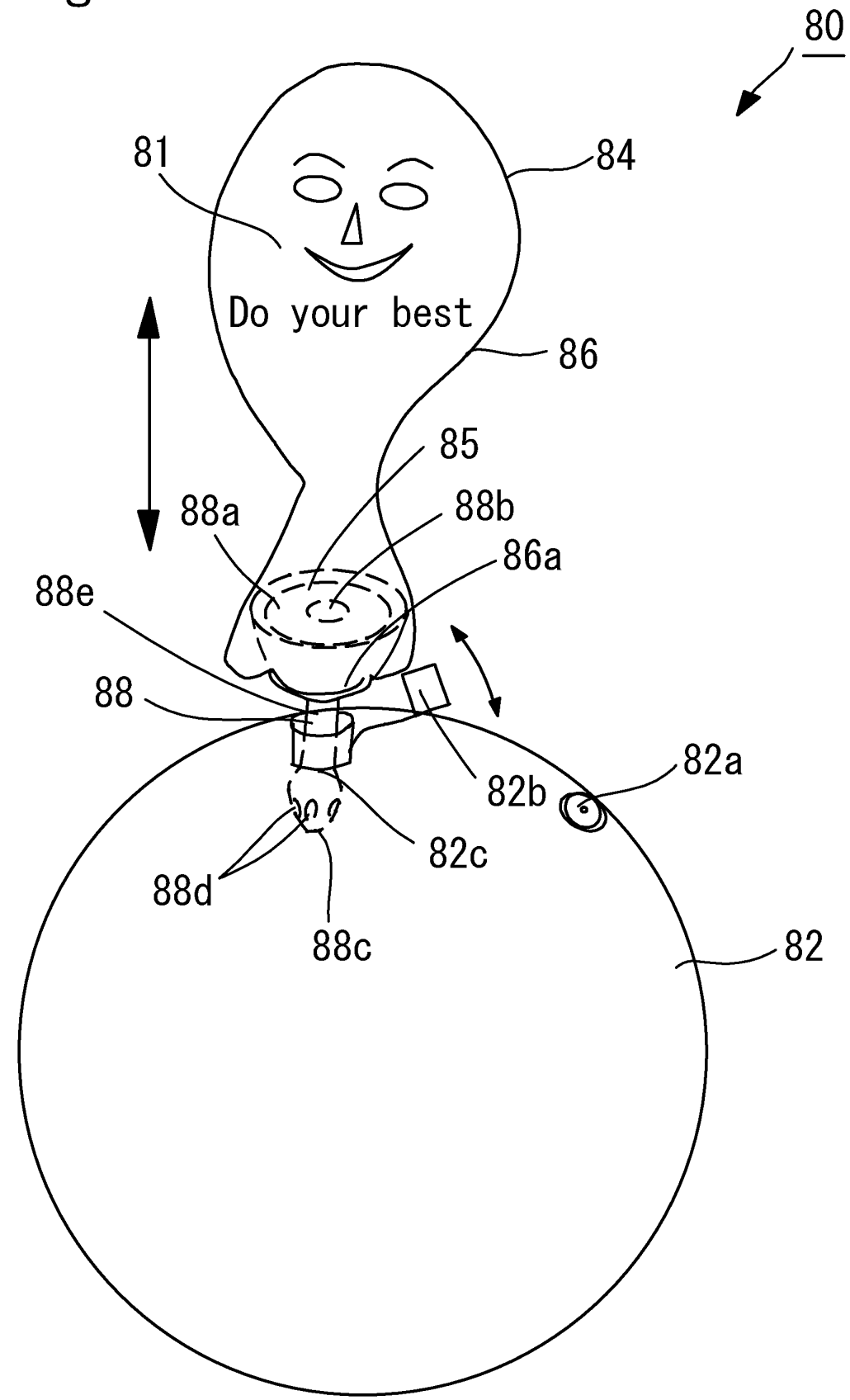
88d
88c
(B)
88a
88b
83

Fig. 32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88c
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Fig. 33

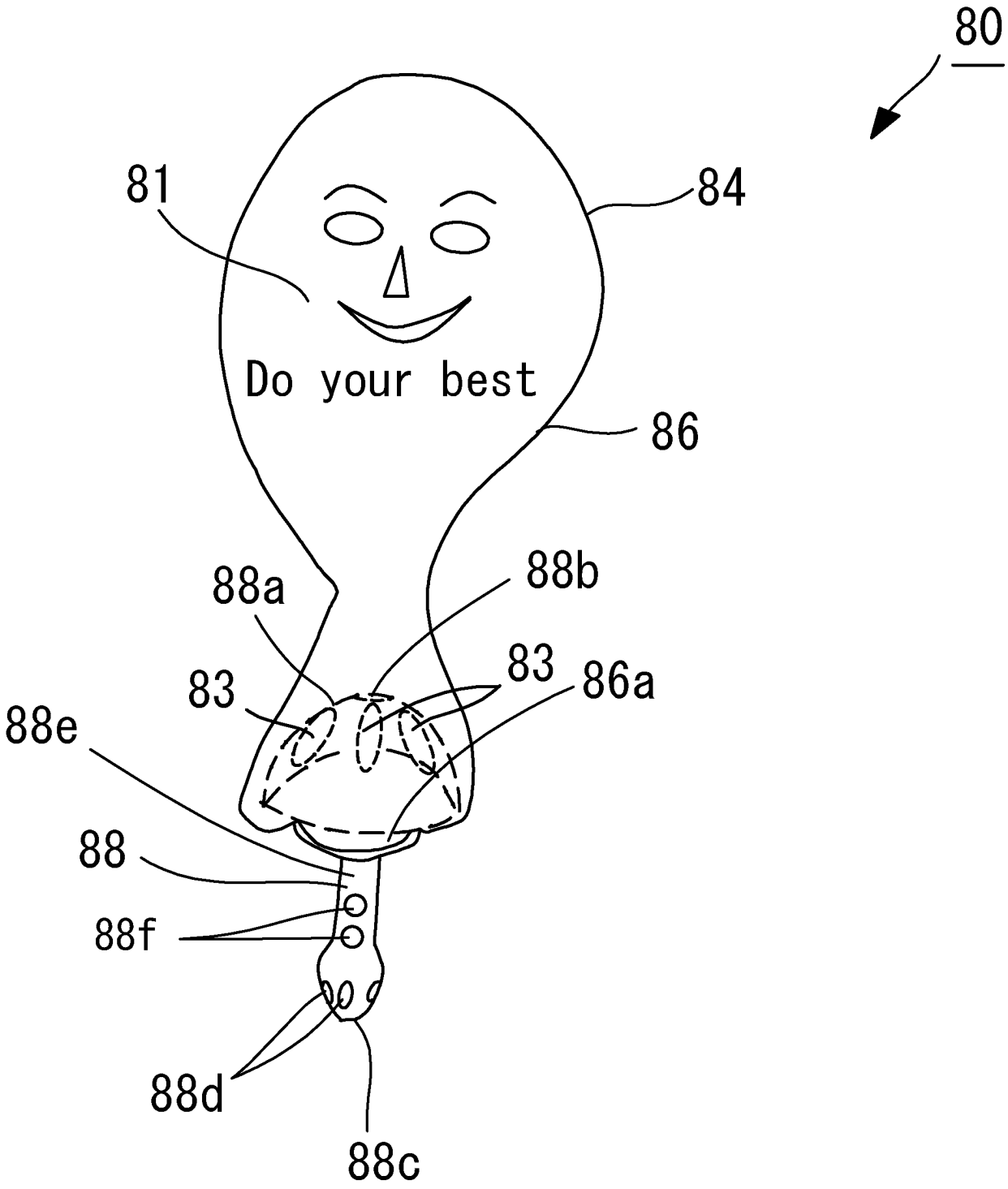
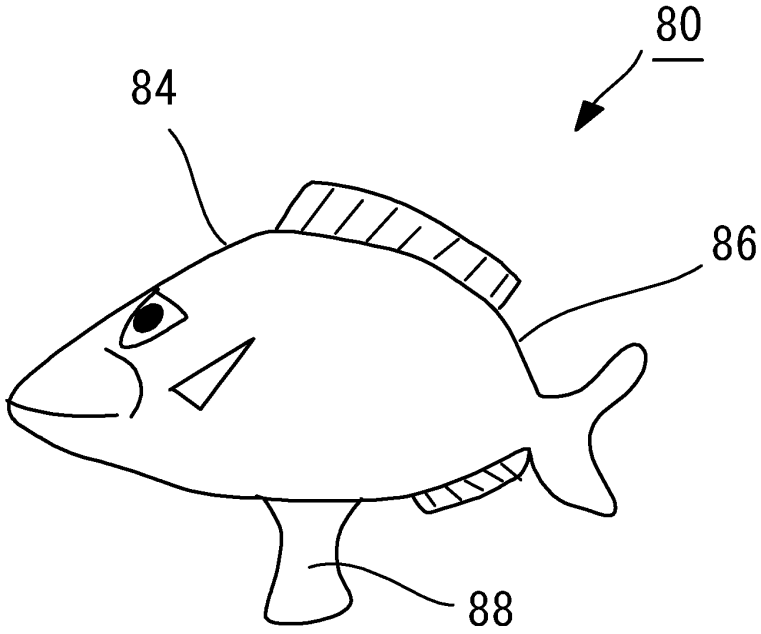


Fig. 34

(A)



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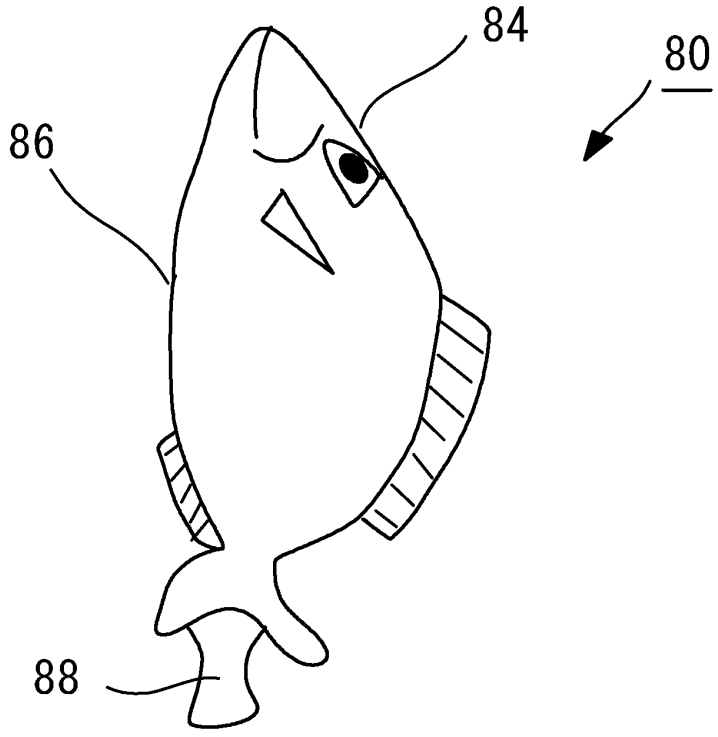

INTERNATIONAL SEARCH REPORT

International application No.
PCT/JP2019/019704

A. CLASSIFICATION OF SUBJECT MATTER
Int. Cl. A63B21/055(2006.01)i

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
Int. Cl. A63B21/00-A63B21/28, A63B23/00-23/20, A61H1/00-5/00, A61H99/00, A41F9/00-9/02, A63B41/00-41/12, A63B43/00-43/06

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Published examined utility model applications of Japan	1922-1996
Published unexamined utility model applications of Japan	1971-2019
Registered utility model specifications of Japan	1996-2019
Published registered utility model applications of Japan	1994-2019

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	EP 3207961 A1 (TECNOCOMPONENT S. R. L.) 23 August 2017, paragraphs [0086]-[0194], fig. 1-11 (Family: none)	1-19
A	JP 2002-191716 A (KITCHEN PROCESS KK) 10 July 2002, paragraphs [0016]-[0029], fig. 1-11 (Family: none)	1-19
A	US 8602952 B1 (CRUZ, Christian) 10 December 2013, column 3, line 44 to column 6, line 5, fig. 1-4 (Family: none)	1-19

☒ Further documents are listed in the continuation of Box C. ☐ See patent family annex.

* Special categories of cited documents:
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"E" earlier application or patent but published on or after the international filing date
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
"O" document referring to an oral disclosure, use, exhibition or other means
"P" document published prior to the international filing date but later than the priority date claimed
"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
30.05.2019	11.06.2019
Name and mailing address of the ISA/ Japan Patent Office 3-4-3, Kasumigaseki, Chiyoda-ku, Tokyo 100-8915, Japan	Authorized officer Telephone No.

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/JP2019/019704

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	JP 64-56072 A (SANCHEZ GIRALDEZ, Jose) 02 March 1989, claims, page 3, lower right column, line 7, to page 5, lower left column, line 7, fig. 1-4a (Family: none)	1-19
A	JP 2017-18243 A (ARUKA KK) 26 January 2017, paragraphs [0010]-[0014], fig. 1-3 (Family: none)	1-19
A	JP 3103331 U (LANA KK) 05 August 2004, claims, paragraphs [0006]-[0013], fig. 1-8 (Family: none)	1-19

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/JP2019/019704

Scope of search

Claims 8-10
(Specific scope of the examination)
The search was conducted with the understanding that "said female-shaped locking member" and "said first ring-type locking member" in claim 8 should be "said first ring-type locking member" and "said first insertion engagement member," respectively.

(Reason)
"Said female-shaped locking member" and "said first ring-type locking member" in claim 8 are both typographical errors, and, more properly, should be "said first ring-type locking member" and "said first insertion engagement member."
The typographical errors of claim 8 render the invention in claim 8 unclear.
The same is also true of claims 9-10.

Claim 17
(Specific scope of the examination)
The search was conducted with the understanding that the "claim 17" in claim 17 should be "claim 16."

(Reason)
The "claim 17" in claim 17 is a typographically, and, more properly, should be "claim 16." The typographical error in the wording of claim 17 renders the invention in claim 17 unclear.

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REFERENCES CITED IN THE DESCRIPTION

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Patent documents cited in the description

- JP 2017018243 A **[0007] [0012]**