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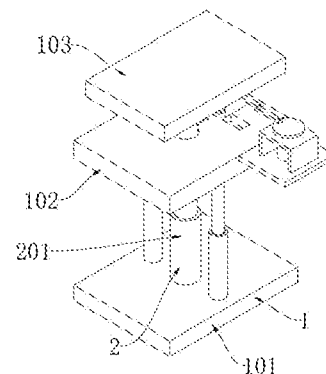
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AUXILIARY TRAINING DEVICE FOR NON-DIRECTIONAL NET-FRONT BADMINTON USED IN PHYSICAL EDUCATION.

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The invention relates to the technical field of sports equipment and provides an auxiliary training device for non-directional net-front badminton used in physical education. The device includes a training device assembly and a rotating rod. The training device assembly comprises a base, a lifting seat, a rotating seat, and fixed casters. Fixed casters are evenly fixed on both sides of the bottom end of the base. By being equipped with a rotating structure, the invention activates the driving motor, which drives the turntable to rotate. The turntable, through the hinged rod, drives the connecting rod to move. The connecting rod causes the moving seat to reciprocate, and the moving seat drives the slider to move inside the chute. The chute enhances the stability of the moving seat during movement. The moving seat drives the gear to rotate through the teeth. The gear drives the rotating seat to rotate through the rotating rod. The rotating seat drives the adjusting structure to rotate, thereby realizing the function of easily changing the serving direction of the device. This improves the applicability of the auxiliary training device for non-directional net-front badminton used in physical education during use.



AUXILIARY TRAINING DEVICE FOR NON-DIRECTIONAL NET-FRONT BADMINTON USED IN PHYSICAL EDUCATION

Technical Field

5 The invention relates to the technical field of sports equipment, particularly an auxiliary training device for non-directional net-front badminton used in physical education.

Background Technology

10 Badminton is an indoor sport where players use long-handled, netted rackets to hit a small ball made of feathers and cork over a net. Players use various serving, hitting, and movement techniques to rally the shuttlecock back and forth over the net. During badminton training, athletes often need to hit different rebound shots. To reduce labor costs, most training is conducted using serving equipment. To improve training quality,
15 an auxiliary training device for non-directional net-front badminton used in physical education is needed.

 However, the existing auxiliary training devices for non-directional net-front badminton used in physical education are functionally limited and cannot conveniently change the shuttlecock's direction. This limitation hinders the training of athletes'
20 reflexes and reduces the device's applicability during use.

Summary of the Invention

 The objective of the invention is to provide an auxiliary training device for non-directional net-front badminton used in physical education, aiming to address the
25 directional limitations of existing devices.

 To solve the above technical problems, the invention provides the following technical solution: an auxiliary training device for non-directional net-front badminton used in physical education, including a training device assembly and a rotating rod;

 the training device assembly includes a base, a lifting seat, a rotating seat, and

fixed casters. Fixed casters are evenly fixed on both sides of the base's bottom end, and a lifting structure is fixed on the top end of the base. The top end of the lifting structure is fixed with the lifting seat. The top of the lifting seat is rotatably connected with the rotating rod, and the top end of the rotating rod is fixed with the rotating seat;

5 one side of the top end of the rotating seat is equipped with an air pump, and the other side is equipped with an adjusting structure;

the outer side of the rotating rod is fixed with a gear, and a rotating structure is arranged on the top of the lifting seat on one side of the gear. The rotating structure comprises a moving seat, a slider, a connecting rod, a hinged rod, a turntable, a driving
10 motor, a support plate, a support frame, teeth, and a chute, wherein the chute is arranged on one side of the top of the lifting seat.

When using the device, the rotating structure enables the device to change the serving direction easily, thus enhancing the applicability of the auxiliary training device for non-directional net-front badminton used in physical education during use. The
15 lifting structure allows the device to adjust its height conveniently, thus improving the convenience of the auxiliary training device for non-directional net-front badminton used in physical education. The adjusting structure enables the device to change the serving angle easily, thus enhancing the comfort of the auxiliary training device for non-directional net-front badminton used in physical education during use.

20 Preferably, the lifting structure includes a first electric push rod, fixed cylinders, and movable rods. The first electric push rod is fixed on the top end of the base, and fixed cylinders are fixed on both sides of the top end of the base. Movable rods are arranged inside the fixed cylinders. The first electric push rod drives the lifting seat to move up and down, and the lifting seat drives the movable rods to move inside the
25 fixed cylinders.

Preferably, the top end of the first electric push rod is fixedly connected with the bottom end of the lifting seat, and the top end of the movable rod extends to the outside of the fixed cylinder and is fixedly connected with the bottom end of the lifting seat. The movable rod and the fixed cylinder form a sliding structure, which enhances
30 the stability of the lifting seat during movement under the guidance of the fixed

cylinder.

Preferably, the adjusting structure includes a serving tube, a ball storage tube, a telescopic tube, a first hinged seat, a fixed block, a second electric push rod, a second hinged seat, and a guide rod. The first hinged seat is fixed on the top end of the rotating seat, the top of the first hinged seat is hinged with the fixed block, the top end of the fixed block is fixed with the serving tube, and one side of the bottom end of the serving tube is fixed with the guide rod. The outer side of the guide rod is sleeved with the second hinged seat, and the bottom of the second hinged seat is hinged with the second electric push rod. One end of the serving tube is fixed with the telescopic tube, and the top end of the serving tube is fixed with the ball storage tube. The second electric push rod drives the second hinged seat to move on the outer side of the guide rod, and the guide rod drives the serving tube to move. The serving tube drives the fixed block to rotate around the top of the first hinged seat, thus changing the angle of the serving tube.

Preferably, one end of the telescopic tube is fixedly connected with the output end of the air pump. The second hinged seat and the guide rod form a sliding structure, and the bottom end of the second electric push rod is fixedly connected with the top end of the rotating seat. Shuttlecocks inside the ball storage tube fall into the serving tube. When the air pump is activated, it blows air through the telescopic tube into the serving tube, thereby launching the shuttlecock.

Preferably, a slider is arranged inside the chute. The top end of the slider extends to the outside of the lifting seat and is fixed with the moving seat. Teeth are evenly fixed on one side of the moving seat.

Preferably, the support plate is fixed on one side of the lifting seat, and the top end of the support plate is fixed with the support frame. The driving motor is installed at the bottom of the support frame, and the turntable is arranged on the top end of the support frame. The top end of the turntable is hinged with the hinged rod, and one side of the hinged rod away from the turntable is hinged with the connecting rod.

Preferably, the slider and the lifting seat form a sliding structure through the chute, and the teeth and the gear are meshed with each other. The driving motor drives the

turntable to rotate, the turntable drives the connecting rod to move through the hinged rod, the connecting rod drives the moving seat to reciprocate, and the moving seat drives the slider to move inside the chute.

Preferably, the output end of the driving motor extends to the outside of the support frame and is fixedly connected with the bottom end of the turntable. One end of the connecting rod away from the hinged rod is hinged with the top end of the moving seat. Under the action of the chute, the stability of the moving seat during movement is enhanced. The moving seat drives the gear to rotate through the teeth, the gear drives the rotating seat to rotate through the rotating rod, and the rotating seat drives the adjusting structure to rotate.

The auxiliary training device for non-directional net-front badminton used in physical education provided by the invention has the following advantages:

By being equipped with a rotating structure, the driving motor drives the turntable to rotate, the turntable drives the connecting rod to move through the hinged rod, the connecting rod drives the moving seat to reciprocate, and the moving seat drives the slider to move inside the chute. The chute enhances the stability of the moving seat during movement. The moving seat drives the gear to rotate through the teeth, the gear drives the rotating seat to rotate through the rotating rod, and the rotating seat drives the adjusting structure to rotate. This enables the device to change the serving direction conveniently, thus enhancing the applicability of the auxiliary training device for non-directional net-front badminton used in physical education during use.

By being equipped with a lifting structure, the first electric push rod drives the lifting seat to move up and down, and the lifting seat drives the movable rods to move inside the fixed cylinders. The fixed cylinders enhance the stability of the lifting seat during movement. This enables the device to adjust its height conveniently, thus improving the convenience of the auxiliary training device for non-directional net-front badminton used in physical education.

By being equipped with an adjusting structure, the second electric push rod drives the second hinged seat to move on the outer side of the guide rod, and the guide rod

drives the serving tube to move. The serving tube drives the fixed block to rotate around the top of the first hinged seat, thus changing the angle of the serving tube. Shuttlecocks inside the ball storage tube fall into the serving tube. When the air pump is activated, it blows air through the telescopic tube into the serving tube, thereby launching the shuttlecock. This enables the device to change the serving angle conveniently, thus enhancing the comfort of the auxiliary training device for non-directional net-front badminton used in physical education during use.

Description of the Drawings

- FIG.1: a three-dimensional structural schematic diagram of the invention.
- FIG.2: a front sectional structural schematic diagram of the invention.
- FIG.3: a front sectional structural schematic diagram of the adjusting structure of the invention.
- FIG.4: a side sectional structural schematic diagram of the invention.
- FIG.5: a three-dimensional structural schematic diagram of the rotating structure of the invention.
- FIG.6: a top view structural schematic diagram of the rotating structure of the invention.
- Reference numerals in the drawings: 1. Training device assembly; 101. Base; 102. Lifting seat; 103. Rotating seat; 104. Fixed casters; 2. Lifting structure; 201. First electric push rod; 202. Fixed cylinder; 203. Movable rod; 3. Rotating rod; 4. Gear; 5. Adjusting structure; 501. Serving tube; 502. Ball storage tube; 503. Telescopic tube; 504. First hinged seat; 505. Fixed block; 506. Second electric push rod; 507. Second hinged seat; 508. Guide rod; 6. Air pump; 7. Rotating structure; 701. Moving seat; 702. Slider; 703. Connecting rod; 704. Hinged rod; 705. Turntable; 706. Driving motor; 707. Support plate; 708. Support frame; 709. Teeth; 710. Chute.

Specific Embodiments

The following is a clear and complete description of the technical solutions in the embodiments of the invention, in conjunction with the attached drawings in the

embodiments. Obviously, the described embodiments are only a part of the embodiments of the invention, not all of them. Based on the embodiments of the invention, all other embodiments obtained by those of ordinary skill in the art without making creative efforts shall fall within the protection scope of the invention.

5 Please refer to FIGs. 1-6. The invention provides an auxiliary training device for non-directional net-front badminton used in physical education, comprising a training device assembly 1 and a rotating rod 3. The training device assembly 1 includes a base 101, a lifting seat 102, a rotating seat 103, and fixed casters 104. Fixed casters 104 are evenly fixed on both sides of the bottom end of the base 101. The top end of the base
10 101 is fixed with a lifting structure 2. The lifting structure 2 includes a first electric push rod 201, fixed cylinders 202, and movable rods 203. The first electric push rod 201 is fixed on the top end of the base 101. Fixed cylinders 202 are fixed on both sides of the top end of the base 101. Movable rods 203 are arranged inside the fixed cylinders 202. The top end of the first electric push rod 201 is fixedly connected with the bottom end
15 of the lifting seat 102. The top end of the movable rods 203 extends to the outside of the fixed cylinders 202 and is fixedly connected with the bottom end of the lifting seat 102. The movable rods 203 and the fixed cylinders 202 form a sliding structure.

Referring to FIGs. 1 and 4, the first electric push rod 201 is activated, driving the lifting seat 102 to move up and down. The lifting seat 102 drives the movable rods 203
20 to move inside the fixed cylinders 202, enhancing the stability of the lifting seat 102 during movement under the guidance of the fixed cylinders 202.

The top end of the lifting structure 2 is fixed with the lifting seat 102. The top of the lifting seat 102 is rotatably connected with the rotating rod 3. The top end of the rotating rod 3 is fixed with the rotating seat 103. One side of the top end of the rotating
25 seat 103 is equipped with an air pump 6, and the other side is equipped with an adjusting structure 5. The adjusting structure 5 includes a serving tube 501, a ball storage tube 502, a telescopic tube 503, a first hinged seat 504, a fixed block 505, a second electric push rod 506, a second hinged seat 507, and a guide rod 508. The first hinged seat 504 is fixed on the top end of the rotating seat 103. The top of the first
30 hinged seat 504 is hinged with the fixed block 505. The top end of the fixed block 505

is fixed with the serving tube 501. One side of the bottom end of the serving tube 501 is fixed with the guide rod 508. The outer side of the guide rod 508 is sleeved with the second hinged seat 507. The bottom of the second hinged seat 507 is hinged with the second electric push rod 506. One end of the serving tube 501 is fixed with the telescopic tube 503. The top end of the serving tube 501 is fixed with the ball storage tube 502. One end of the telescopic tube 503 is fixedly connected with the output end of the air pump 6. The second hinged seat 507 and the guide rod 508 form a sliding structure. The bottom end of the second electric push rod 506 is fixedly connected with the top end of the rotating seat 103.

Referring to FIGs. 2 and 3, the second electric push rod 506 is activated, driving the second hinged seat 507 to move on the outer side of the guide rod 508. The guide rod 508 drives the serving tube 501 to move. The serving tube 501 drives the fixed block 505 to rotate around the top of the first hinged seat 504, thereby changing the angle of the serving tube 501. Shuttlecocks inside the ball storage tube 502 fall into the serving tube 501. The air pump 6 is activated, blowing air through the telescopic tube 503 into the serving tube 501, thereby launching the shuttlecock.

The outer side of the rotating rod 3 is fixed with a gear 4. A rotating structure 7 is arranged on the top of the lifting seat 102 on one side of the gear 4. The rotating structure 7 comprises a moving seat 701, a slider 702, a connecting rod 703, a hinged rod 704, a turntable 705, a driving motor 706, a support plate 707, a support frame 708, teeth 709, and a chute 710. The chute 710 is arranged on one side of the top of the lifting seat 102. A slider 702 is arranged inside the chute 710. The top end of the slider 702 extends to the outside of the lifting seat 102 and is fixed with the moving seat 701. Teeth 709 are evenly fixed on one side of the moving seat 701. The support plate 707 is fixed on one side of the lifting seat 102. The top end of the support plate 707 is fixed with the support frame 708. The driving motor 706 is installed at the bottom of the support frame 708. The turntable 705 is arranged on the top end of the support frame 708. The top end of the turntable 705 is hinged with the hinged rod 704. One side of the hinged rod 704 away from the turntable 705 is hinged with the connecting rod 703. The slider 702 and the lifting seat 102 form a sliding structure

through the chute 710. The teeth 709 and the gear 4 are meshed with each other. The output end of the driving motor 706 extends to the outside of the support frame 708 and is fixedly connected with the bottom end of the turntable 705. One end of the connecting rod 703 away from the hinged rod 704 is hinged with the top end of the
5 moving seat 701.

Referring to FIGs. 2 and 4-6, the driving motor 706 is activated, driving the turntable 705 to rotate. The turntable 705 drives the connecting rod 703 to move through the hinged rod 704. The connecting rod 703 drives the moving seat 701 to reciprocate. The moving seat 701 drives the slider 702 to move inside the chute 710.
10 Under the action of the chute 710, the stability of the moving seat 701 during movement is enhanced. The moving seat 701 drives the gear 4 to rotate through the teeth 709. The gear 4 drives the rotating seat 103 to rotate through the rotating rod 3. The rotating seat 103 drives the adjusting structure 5 to rotate.

Although the invention has been described in detail with reference to the foregoing embodiments, it should be understood that those skilled in the art can still
15 make modifications to the technical solutions described in the foregoing embodiments or make equivalent replacements for some of the technical features. Any modifications, equivalent replacements, improvements, etc., made within the spirit and principle of the invention shall be included within the protection scope of the invention.

CLAIMS

1. An auxiliary training device for non-directional net-front badminton used in physical education, comprising a training device assembly (1) and a rotating rod (3);

characterized by:

5 the training device assembly (1) includes a base (101), a lifting seat (102), a rotating seat (103), and fixed casters (104), wherein fixed casters (104) are evenly fixed on both sides of the bottom end of the base (101), the top end of the base (101) is fixed with a lifting structure (2), the top end of the lifting structure (2) is fixed with the lifting seat (102), the top of the lifting seat (102) is rotatably connected with the rotating rod (3), and the top end of the rotating rod (3) is fixed with the rotating seat (103);

one side of the top end of the rotating seat (103) is equipped with an air pump (6), and the other side of the top end of the rotating seat (103) is equipped with an adjusting structure (5);

15 the outer side of the rotating rod (3) is fixed with a gear (4), one side of the gear (4) and the top of the lifting seat (102) are provided with a rotating structure (7), the rotating structure (7) comprises a moving seat (701), a slider (702), a connecting rod (703), a hinged rod (704), a turntable (705), a driving motor (706), a support plate (707), a support frame (708), teeth (709), and a chute (710), wherein the chute (710) is arranged on one side of the top of the lifting seat (102).

2. The auxiliary training device for non-directional net-front badminton used in physical education according to claim 1, characterized in that: the lifting structure (2) includes a first electric push rod (201), a fixed cylinder (202), and a movable rod (203),
25 the first electric push rod (201) is fixed on the top end of the base (101), fixed cylinders (202) are fixed on the top end of the base (101) on both sides of the first electric push rod (201), and movable rods (203) are arranged inside the fixed cylinders (202).

3. The auxiliary training device for non-directional net-front badminton used in

physical education according to claim 2, characterized in that: the top end of the first electric push rod (201) is fixedly connected with the bottom end of the lifting seat (102), the top end of the movable rod (203) extends to the outside of the fixed cylinder (202) and is fixedly connected with the bottom end of the lifting seat (102), and the movable
5 rod (203) and the fixed cylinder (202) form a sliding structure.

4. The auxiliary training device for non-directional net-front badminton used in physical education according to claim 1, characterized in that: the adjusting structure (5) includes a serving tube (501), a ball storage tube (502), a telescopic tube (503), a
10 first hinged seat (504), a fixed block (505), a second electric push rod (506), a second hinged seat (507), and a guide rod (508), wherein the first hinged seat (504) is fixed on the top end of the rotating seat (103), the top of the first hinged seat (504) is hinged with the fixed block (505), the top end of the fixed block (505) is fixed with the serving tube (501), one side of the bottom end of the serving tube (501) is fixed with the guide
15 rod (508), the outer side of the guide rod (508) is sleeved with the second hinged seat (507), the bottom of the second hinged seat (507) is hinged with the second electric push rod (506), one end of the serving tube (501) is fixed with the telescopic tube (503), and the top end of the serving tube (501) is fixed with the ball storage tube (502).

20 5. The auxiliary training device for non-directional net-front badminton used in physical education according to claim 4, characterized in that: one end of the telescopic tube (503) is fixedly connected with the output end of the air pump (6), the second hinged seat (507) and the guide rod (508) form a sliding structure, and the bottom end of the second electric push rod (506) is fixedly connected with the top end
25 of the rotating seat (103).

6. The auxiliary training device for non-directional net-front badminton used in physical education according to claim 1, characterized in that: a slider (702) is arranged inside the chute (710), the top end of the slider (702) extends to the outside of the
30 lifting seat (102) and is fixed with the moving seat (701), and teeth (709) are evenly

fixed on one side of the moving seat (701).

7. The auxiliary training device for non-directional net-front badminton used in physical education according to claim 1, characterized in that: the support plate (707)
5 is fixed on one side of the lifting seat (102), the top end of the support plate (707) is fixed with the support frame (708), the driving motor (706) is installed at the bottom of the support frame (708), the top end of the support frame (708) is provided with the turntable (705), the top end of the turntable (705) is hinged with the hinged rod (704), and one side of the hinged rod (704) away from the turntable (705) is hinged
10 with the connecting rod (703).

8. The auxiliary training device for non-directional net-front badminton used in physical education according to claim 6, characterized in that: the slider (702) and the lifting seat (102) form a sliding structure through the chute (710), and the teeth (709)
15 and the gear (4) are meshed with each other.

9. The auxiliary training device for non-directional net-front badminton used in physical education according to claim 7, characterized in that: the output end of the driving motor (706) extends to the outside of the support frame (708) and is fixedly
20 connected with the bottom end of the turntable (705), and one end of the connecting rod (703) away from the hinged rod (704) is hinged with the top end of the moving seat (701).

REVENDICATIONS

1. Un dispositif d'entraînement auxiliaire pour le badminton non directionnel devant le filet utilisé en éducation physique, comprenant un ensemble de dispositif
5 d'entraînement (1) et une tige rotative (3);

caractérisé par:

l'ensemble de dispositif d'entraînement (1) comprend une base (101), un siège
élevateur (102), un siège rotatif (103), et des roulettes fixes (104), où les roulettes fixes
(104) sont fixées uniformément des deux côtés de l'extrémité inférieure de la base
10 (101), l'extrémité supérieure de la base (101) est fixée avec une structure de levage (2),
l'extrémité supérieure de la structure de levage (2) est fixée avec le siège élévateur
(102), le sommet du siège élévateur (102) est rotativement relié à la tige rotative (3),
et l'extrémité supérieure de la tige rotative (3) est fixée avec le siège rotatif (103);

un côté de l'extrémité supérieure du siège rotatif (103) est équipé d'une pompe
15 à air (6), et l'autre côté de l'extrémité supérieure du siège rotatif (103) est équipé d'une
structure de réglage (5);

le côté extérieur de la tige rotative (3) est fixé avec un engrenage (4), un côté de
l'engrenage (4) et le sommet du siège élévateur (102) sont dotés d'une structure
rotative (7), la structure rotative (7) comprend un siège mobile (701), un curseur (702),
20 une tige de connexion (703), une tige articulée (704), un plateau tournant (705), un
moteur d'entraînement (706), une plaque de support (707), un cadre de support (708),
des dents (709), et une rainure (710), où la rainure (710) est disposée sur un côté du
sommet du siège élévateur (102).

25 2. Le dispositif d'entraînement auxiliaire pour le badminton non directionnel
devant le filet utilisé en éducation physique selon la revendication 1, caractérisé en ce
que : la structure de levage (2) comprend une première tige de poussée électrique
(201), un cylindre fixe (202), et une tige mobile (203), la première tige de poussée
électrique (201) est fixée sur l'extrémité supérieure de la base (101), des cylindres fixes

(202) sont fixés sur l'extrémité supérieure de la base (101) de chaque côté de la première tige de poussée électrique (201), et des tiges mobiles (203) sont disposées à l'intérieur des cylindres fixes (202).

5 3. Le dispositif d'entraînement auxiliaire pour le badminton non directionnel devant le filet utilisé en éducation physique selon la revendication 2, caractérisé en ce que : l'extrémité supérieure de la première tige de poussée électrique (201) est fixée de manière solidaire avec l'extrémité inférieure du siège élévateur (102), l'extrémité supérieure de la tige mobile (203) s'étend à l'extérieur du cylindre fixe (202) et est fixée
10 de manière solidaire avec l'extrémité inférieure du siège élévateur (102), et la tige mobile (203) et le cylindre fixe (202) forment une structure coulissante.

 4. Le dispositif d'entraînement auxiliaire pour le badminton non directionnel devant le filet utilisé en éducation physique selon la revendication 1, caractérisé en ce
15 que : la structure de réglage (5) comprend un tube de service (501), un tube de stockage de balles (502), un tube télescopique (503), un premier siège articulé (504), un bloc fixe (505), une deuxième tige de poussée électrique (506), un deuxième siège articulé (507), et une tige de guidage (508), où le premier siège articulé (504) est fixé sur l'extrémité supérieure du siège rotatif (103), le sommet du premier siège articulé
20 (504) est articulé avec le bloc fixe (505), l'extrémité supérieure du bloc fixe (505) est fixée avec le tube de service (501), un côté de l'extrémité inférieure du tube de service (501) est fixé avec la tige de guidage (508), le côté extérieur de la tige de guidage (508) est manchonné avec le deuxième siège articulé (507), le bas du deuxième siège articulé (507) est articulé avec la deuxième tige de poussée électrique (506), une extrémité du
25 tube de service (501) est fixée avec le tube télescopique (503), et l'extrémité supérieure du tube de service (501) est fixée avec le tube de stockage de balles (502).

 5. Le dispositif d'entraînement auxiliaire pour le badminton non directionnel devant le filet utilisé en éducation physique selon la revendication 4, caractérisé en ce
30 que : une extrémité du tube télescopique (503) est fixée de manière solidaire avec

l'extrémité de sortie de la pompe à air (6), le deuxième siège articulé (507) et la tige de guidage (508) forment une structure coulissante, et l'extrémité inférieure de la deuxième tige de poussée électrique (506) est fixée de manière solidaire avec l'extrémité supérieure du siège rotatif (103).

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6. Le dispositif d'entraînement auxiliaire pour le badminton non directionnel devant le filet utilisé en éducation physique selon la revendication 1, caractérisé en ce que : un curseur (702) est disposé à l'intérieur de la rainure (710), l'extrémité supérieure du curseur (702) s'étend à l'extérieur du siège élévateur (102) et est fixée avec le siège mobile (701), et des dents (709) sont fixées uniformément sur un côté du siège mobile (701).

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7. Le dispositif d'entraînement auxiliaire pour le badminton non directionnel devant le filet utilisé en éducation physique selon la revendication 1, caractérisé en ce que : la plaque de support (707) est fixée sur un côté du siège élévateur (102), l'extrémité supérieure de la plaque de support (707) est fixée avec le cadre de support (708), le moteur d'entraînement (706) est installé au bas du cadre de support (708), l'extrémité supérieure du cadre de support (708) est dotée du plateau tournant (705), l'extrémité supérieure du plateau tournant (705) est articulée avec la tige articulée (704), et un côté de la tige articulée (704) éloigné du plateau tournant (705) est articulé avec la tige de connexion (703).

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8. Le dispositif d'entraînement auxiliaire pour le badminton non directionnel devant le filet utilisé en éducation physique selon la revendication 6, caractérisé en ce que : le curseur (702) et le siège élévateur (102) forment une structure coulissante par la rainure (710), et les dents (709) et l'engrenage (4) sont en prise l'une avec l'autre.

25

9. Le dispositif d'entraînement auxiliaire pour le badminton non directionnel devant le filet utilisé en éducation physique selon la revendication 7, caractérisé en ce

que : l'extrémité de sortie du moteur d'entraînement (706) s'étend à l'extérieur du cadre de support (708) et est fixée de manière solidaire avec l'extrémité inférieure du plateau tournant (705), et une extrémité de la tige de connexion (703) éloignée de la tige articulée (704) est articulée avec l'extrémité supérieure du siège mobile (701).

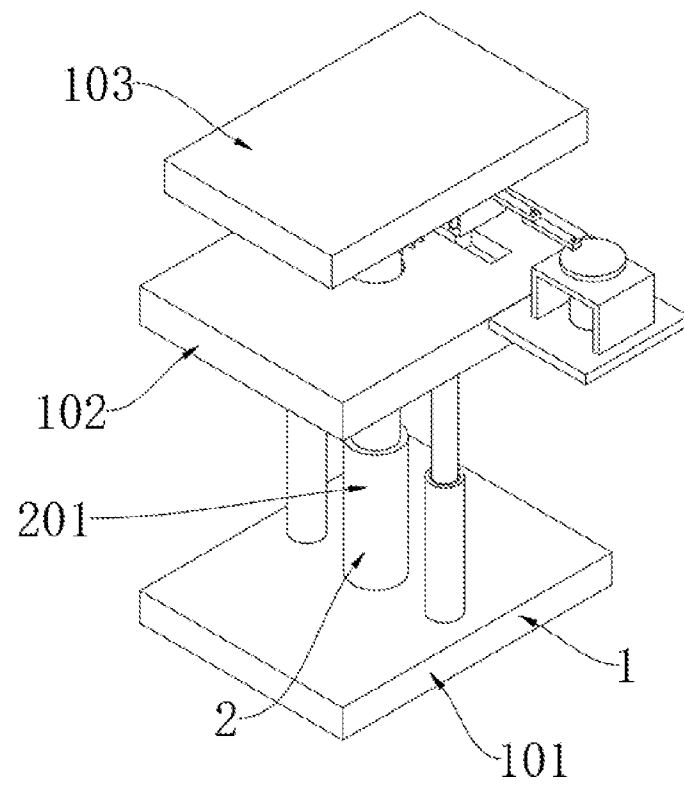


FIG.1

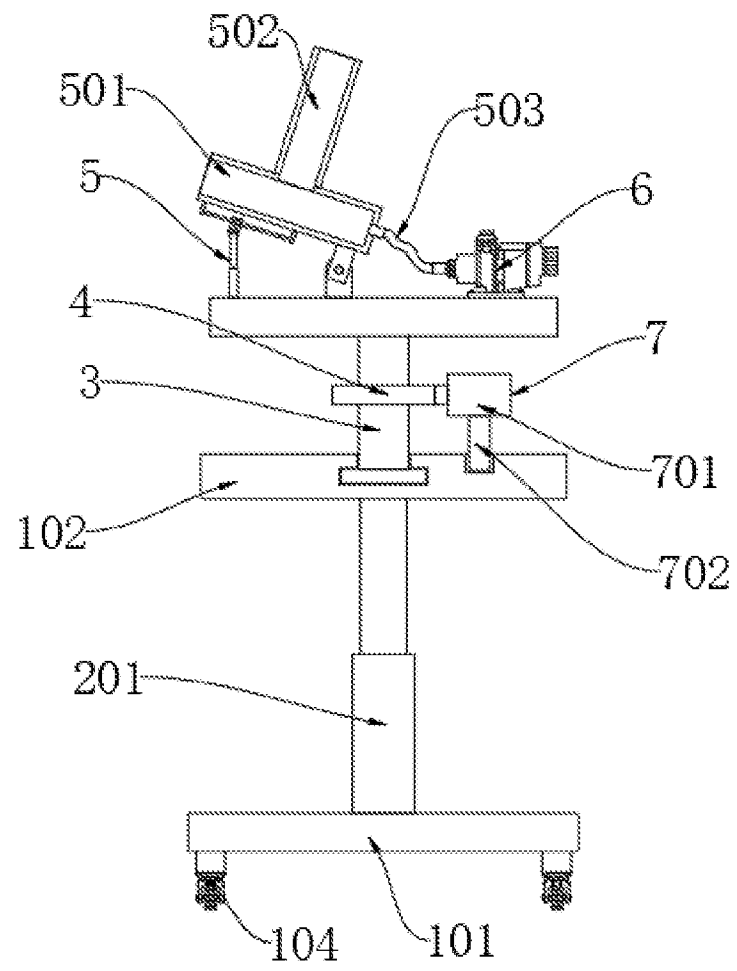


FIG.2

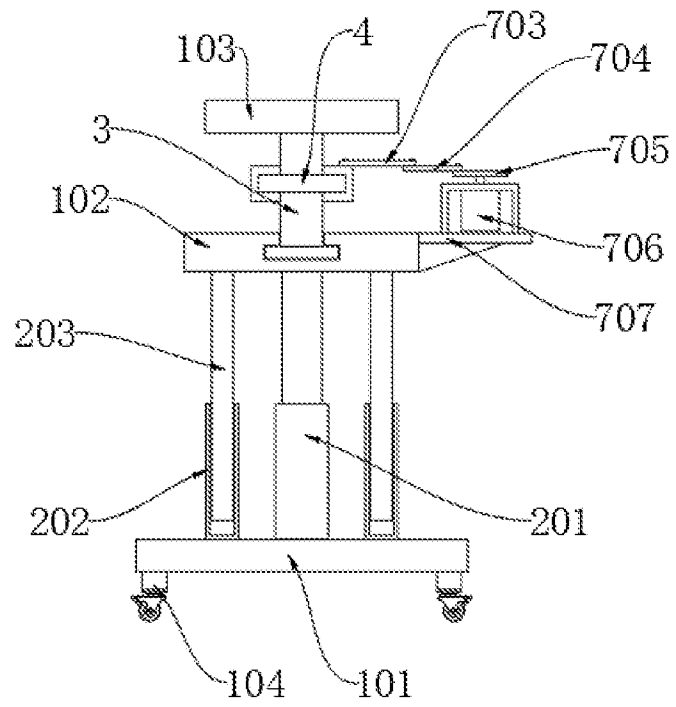


FIG.4

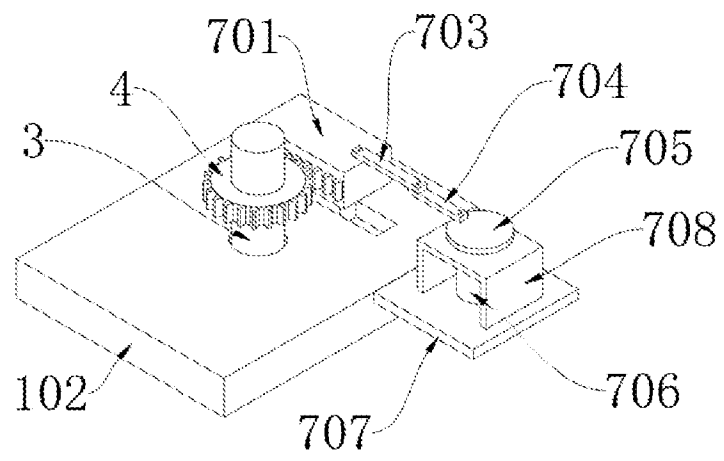


FIG.5

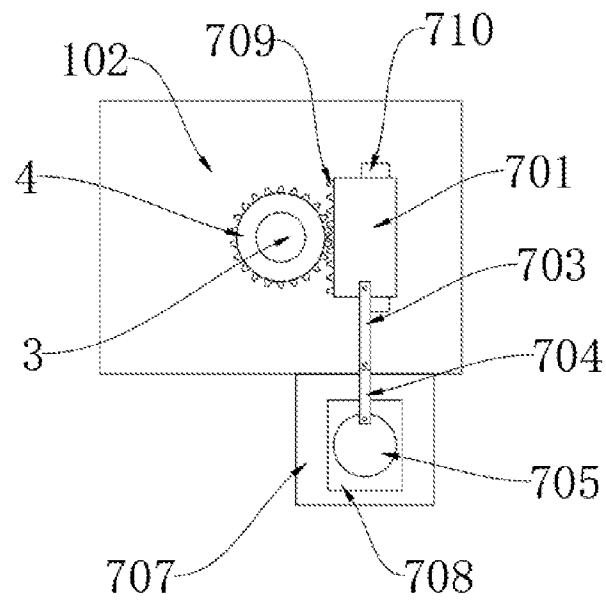


FIG.6