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PALLETIZING DEVICE FOR NEW ENERGY BATTERY PRODUCTION.

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The present invention provides a palletizing device for a new energy battery production, belongs to the technical field of battery production. An upper part of the chassis seat is arranged with a battery conveyor belt, one side of the battery conveyor belt is arranged with a battery sorting conveyor rack, a first fixed sorting rotation shaft and a second fixed sorting rotation shaft are symmetrically arranged on the other side of an upper part of the battery sorting conveyor rack. According to the present invention, a palletizing sorting channel is formed by an elastic/displacement sorting rotation shaft and three groups of fixed sorting rotation shafts, so that the adaptability of device is improved; and a palletizing seat can be achieved and conveniently adjusted in the horizontal and vertical directions by a first chassis sliding rail and a hydraulic telescopic rack, and an effect of the a battery automatic palletizing is achieved.

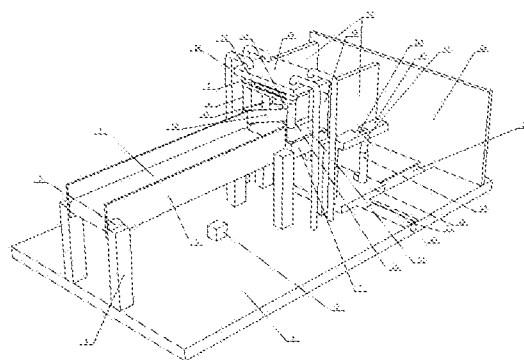


FIG. 1

PALLETIZING DEVICE FOR NEW ENERGY BATTERY PRODUCTION

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TECHNICAL FIELD

The present invention relates to the technical field of battery production, and especially, relates to a palletizing device for new energy battery production.

5 BACKGROUND

New energy refers to various forms of energy other than traditional energy, which refers to the energy that has just begun to be developed and utilized or is being actively studied and need to be promoted, such as solar energy, geothermal energy, wind energy, ocean energy, biomass energy and nuclear fusion energy. The new energy battery is an extremely important part of a
10 new energy industry. With the development of the new energy industry, a variety of new energy batteries are continuously produced. In a modern battery production line, the finished battery is to be packaged at last, and a single battery packaging is to be sent directly to the packaging or the battery packaging is to be palletized according to an actual demand.

The patent with the application number of CN202211256405.2 provides a palletizing
15 mechanism for an electric storage assembly line palletizer, including a conveying line, a palletizing rack and a palletizing device; the conveying line is used for conveying packaging boxes containing the battery; the conveying line includes a conveyor rack and a conveying roller; the conveyor rack is equipped with a conveying roller; the palletizing rack is equipped with a stacking sliding plate and a driving mechanism; an end of the conveying roller is equipped with a
20 palletizing device; the palletizing rack is equipped with a palletizing device above the stacking sliding plate; the palletizing device is used for vertically stacking the packing boxes containing batteries on the palletizing sliding plate in turn, and a pushing mechanism pushes the stacked packing boxes on the palletizing sliding plate to the palletizing rack as a whole.

Although this technical solution facilitates battery palletizing, there are still some problems.
25 In the production of batteries of different sizes, different palletizing devices needs to be replaced to adapt different specifications of batteries, which has a low automation and a low efficiency.

In view of this, it is necessary to invent a palletizing device for new energy battery production.

SUMMARY

30 In order to comprehensively solve the above problems, especially in view of the shortcomings of the prior art, the present invention provides a palletizing device for new energy battery production, which can completely solve the above problems.

In order to achieve the above objects, the present invention adopts the following technical solutions:

35 a palletizing device for new energy battery production includes a chassis seat, an upper part

of the chassis seat is arranged with a battery conveyor belt, one side of the battery conveyor belt is arranged with a battery sorting conveyor rack, a first fixed sorting rotation shaft and a second fixed sorting rotation shaft are symmetrically arranged on one side of an upper part of the battery sorting conveyor rack, a third fixed sorting rotation shaft, an elastic rotation shaft and a displacement sorting rotation shaft are arranged on the other side of the upper part of the battery sorting conveyor rack, a battery inlet end is formed between the third fixed sorting rotation shaft and the first fixed sorting rotation shaft, a battery outlet end is formed between the displacement sorting rotation shaft and the second fixed sorting rotation shaft, one end, away from the battery conveyor belt, of the battery sorting conveyor rack is arranged with a palletizing seat, and a battery pallet is placed on an upper part of the palletizing seat.

Preferably, two sides of the battery conveyor belt are arranged with battery baffles, one side of the battery baffle is mounted with a first driving motor, two sides of the battery baffle are arranged with supporting racks, and the upper part of the chassis seat is mounted with a controller.

Preferably, two sides of the battery sorting conveyor rack are arranged with fixed seats, the third fixed sorting rotation shaft, the first fixed sorting rotation shaft and the second fixed sorting rotation shaft are fixedly mounted at upper parts of the fixed seats on the two sides, an adjustment rack is arranged directly above the battery sorting conveyor rack, the adjustment rack is fixedly mounted on the chassis seats via supporting rods on two sides, and one side of the fixed seat is mounted with a fifth driving motor.

Preferably, a corner of a bottom of the adjustment rack is fixedly mounted with a second driving motor, an output end of the second driving motor is fixedly connected to the third fixed sorting rotation shaft, an adjusting conveyor belt is sleeved on the third fixed sorting rotation shaft, and the other end of the adjusting conveyor belt is arranged with the displacement sorting rotation shaft.

Preferably, the adjustment rack includes a first adjustment sliding rail and a second adjustment sliding rail, the first adjustment sliding rail is connected to a first sliding seat in a sliding mode, a bottom of the first sliding seat is arranged with the elastic rotation shaft, a middle of the first sliding seat is penetrated by a first lead screw, and a top end of the first lead screw is mounted with a third driving motor.

Preferably, one side of the third driving motor is arranged with a fourth driving motor, an output end of the fourth driving motor is connected to a second lead screw, a second sliding seat is sleeved on the second lead screw, and a bottom of the second sliding seat is mounted with the displacement sorting rotation shaft.

Preferably, the third fixed sorting rotation shaft is connected to the first fixed sorting

rotation shaft via a first synchronous conveyor belt, and the first fixed sorting rotation shaft is connected to the second fixed sorting rotation shaft via a second synchronous conveyor belt. LU505750

Preferably, the chassis seat includes a first chassis sliding rail and a second chassis sliding rail, one side of the first chassis sliding rail is arranged with a sixth driving motor, and the first chassis sliding rail is connected to a displacement seat in a sliding mode.

Preferably, an upper part of the displacement seat is arranged with four sets of hydraulic telescopic racks, upper parts of the hydraulic telescopic racks are mounted with the palletizing seat, one side of the palletizing seat is arranged with a seventh driving motor, an upper part of the palletizing seat is arranged with a clamped sliding rail, and the clamped sliding rail is connected to clamped plates in a sliding mode.

Preferably, an upper part of the second chassis sliding rail is connected to a lateral plate in a sliding mode, and one end of the second chassis sliding rail is mounted with eighth driving motors.

Compared with the prior art, the beneficial effects of the present invention are:

1. palletizing size can be adjusted to improve the adaptability of the device; according to the present invention, a right-angled trapezoid palletizing sorting channel is formed by an elastic/displacement sorting rotation shaft and three groups of fixed sorting rotation shafts, a bottom of the right-angled trapezoid is connected to a battery transmission belt and has the same width, and the width of the right-angled trapezoid upper bottom can be automatically adjusted according to the size of the battery, which improves the adaptability of the device and is convenient to operate; and

2. the palletizing is automatically to improve the convenience; according to the present invention, a convenient adjustment of the palletizing seat in the horizontal and vertical directions is realized by a first chassis sliding rail and a hydraulic telescopic rack, and an effect of the battery automatic palletizing is achieved. At the same time, an arrangement of the clamping plate and a side plate limits the battery on the palletizing seat to prevent it from falling and damaging, thus playing a protective role.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a structural schematic diagram according to the present invention;

FIG. 2 is a front view according to the present invention;

FIG. 3 is a right view according to the present invention;

FIG. 4 is a structural schematic diagram of a palletizing size adjustment according to the present invention;

FIG. 5 is a structural front view of the palletizing size adjustment according to the present invention;

FIG. 6 is an interior structural schematic diagram of the palletizing size adjustment according to the present invention;and

FIG. 7 is a structural schematic diagram of an automatic palletizing according to the present invention.

5 Among them:

1-battery conveyor belt; 2-battery baffle; 3-first driving motor; 4-supporting rack; 5-chassis seat; 6-controller; 7-fixed seat; 8-second driving motor; 9-third fixed sorting rotation shaft; 10-adjusting conveyor belt; 11-elastic rotation shaft; 12-first sliding seat; 13-first lead screw; 14-third driving motor; 15-displacement sorting rotation shaft; 16-second sliding seat; 17-second lead screw; 18-fourth driving motor; 19-first synchronous conveyor belt; 20-first fixed sorting rotation shaft; 21-second synchronous conveyor belt; 22-second fixed sorting rotation shaft; 23-battery sorting conveyor rack; 24-fifth driving motor; 25-adjustment rack; 26-supporting rod; 27-sixth driving motor; 28-displacement seat; 29-hydraulic telescopic rack; 30-palletizing seat; 31-seventh driving motor; 32-clamped plate; 33-battery pallet; 34-eighth driving motor; 15 35-lateral plate; 51-first chassis sliding rail; 52-second chassis sliding rail; 251-first adjustment sliding rail; 252-second adjustment sliding rail; and 301-clamped sliding rail.

DETAILED DESCRIPTION

The following is a further detailed description of the present invention by reference with the accompanying drawings:

20 Example 1

As shown in FIG. 1-FIG. 3 and FIG. 5-FIG. 7, an example of the present invention, the present invention provides a palletizing device for new energy battery production, including a chassis seat 5, an upper part of the chassis seat 5 is arranged with a battery conveyor belt 1, one side of the battery conveyor belt 1 is arranged with a battery sorting conveyor rack 23, a first fixed sorting rotation shaft 20 and a second fixed sorting rotation shaft 22 are symmetrically arranged on one side of an upper part of the battery sorting conveyor rack 23, a third fixed sorting rotation shaft 9, an elastic rotation shaft 11 and a displacement sorting rotation shaft 15 are arranged on the other side of the upper part of the battery sorting conveyor rack 23, a battery inlet end is formed between the third fixed sorting rotation shaft 9 and the first fixed sorting rotation shaft 20, a battery outlet end is formed between the displacement sorting rotation shaft 15 and the second fixed sorting rotation shaft 22, one end, away from the battery conveyor belt 1, of the battery sorting conveyor rack 23 is arranged with a palletizing seat 30, and a battery pallet 33 is placed on an upper part of the palletizing seat 30; two sides of the battery conveyor belt 1 are arranged with battery baffles 2, one side of the battery baffle 2 is mounted with a first driving motor 3, two sides of the battery baffle 2 are arranged with supporting racks 4, and the upper part 35 motor 3, two sides of the battery baffle 2 are arranged with supporting racks 4, and the upper part

of the chassis seat 5 is mounted with a controller 6; and two sides of the battery sorting conveyor rack 23 are arranged with fixed seats 7, the third fixed sorting rotation shaft 9, the first fixed sorting rotation shaft 20 and the second fixed sorting rotation shaft 22 are fixedly mounted at upper parts of the fixed seats 7 on the two sides, an adjustment rack 25 is arranged directly above the battery sorting conveyor rack 23, the adjustment rack 25 is fixedly mounted on the chassis seats 5 via supporting rods 26 on two sides, and one side of the fixed seat 7 is mounted with a fifth driving motor 24.

In the example, when the palletizing size is adjusted, a fourth driving motor 18 is started, the fourth driving motor 18 drives a second lead screw 17 to rotate, the second lead screw 17 drives the second sliding seat 16 to move back and forth, the second sliding seat 16 drives a displacement sorting rotation shaft 15 to move until a width of a battery outlet formed between the displacement sorting rotation shaft 15 and the second fixed sorting rotation shaft 22 is exactly the same as the battery width, and a third driving motor 14 is started at the same time when the fourth driving motor 18 is started to control an adjusting conveyor belt 10.

15 Example 2

As shown in FIG. 3-FIG. 7, an example of the present invention, the present invention provides a palletizing device for new energy battery production, a corner of a bottom of the adjustment rack 25 is fixedly mounted with a second driving motor 8, an output end of the second driving motor 8 is fixedly connected to the third fixed sorting rotation shaft 9, an adjusting conveyor belt 10 is sleeved on the third fixed sorting rotation shaft 9, and the other end of the adjusting conveyor belt 10 is arranged with the displacement sorting rotation shaft 15; the adjustment rack 25 includes a first adjustment sliding rail 251 and a second adjustment sliding rail 252, the first adjustment sliding rail 251 is connected to a first sliding seat 12 in a sliding mode, a bottom of the first sliding seat 12 is arranged with the elastic rotation shaft 11, a middle of the first sliding seat 12 is penetrated by a first lead screw 13, and a top end of the first lead screw 13 is mounted with a third driving motor 14; one side of the third driving motor 14 is arranged with a fourth driving motor 18, an output end of the fourth driving motor 18 is connected to a second lead screw 17, a second sliding seat 16 is sleeved on the second lead screw 17, and a bottom of the second sliding seat 16 is mounted with the displacement sorting rotation shaft 15; the third fixed sorting rotation shaft 9 is connected to the first fixed sorting rotation shaft 20 via a first synchronous conveyor belt 19, and the first fixed sorting rotation shaft 20 is connected to the second fixed sorting rotation shaft 22 via a second synchronous conveyor belt 21; the chassis seat 5 includes a first chassis sliding rail 51 and a second chassis sliding rail 52, one side of the first chassis sliding rail 51 is arranged with a sixth driving motor 27, and the first chassis sliding rail 51 is connected to a displacement seat 28 in a sliding mode; an upper part of

the displacement seat 28 is arranged with four sets of hydraulic telescopic racks 29, upper parts of the hydraulic telescopic racks 29 are mounted with the palletizing seat 30, one side of the palletizing seat 30 is arranged with a seventh driving motor 31, an upper part of the palletizing seat 30 is arranged with a clamped sliding rail 301, and the clamped sliding rail 301 is connected to clamped plates 32 in a sliding mode; and an upper part of the second chassis sliding rail 52 is connected to a lateral plate 35 in a sliding mode, and one end of the second chassis sliding rail 52 is mounted with eighth driving motors 34.

In the present example, surfaces of the adjusting conveyor belt 10 and the second synchronous conveyor belt 21 are attached with a buffer sponge protective layer, which protects the battery when adjusting the battery position to prevent collision damage to the battery.

Further, when palletizing, the battery moves to the battery sorting conveyor rack 23 along with the battery conveyor belt 1, and after a position of the battery is sorted by adjusting the adjusting conveyor belt 10 and the second synchronous conveyor belt 21, the battery is moved to the battery pallet 33 on the palletizing seat 30; and the palletizing seat 30 moves left and right along the first chassis sliding rail 51, so that the batteries can be conveniently placed horizontally. When the palletizing of one floor is finished, the controller 6 controls the four groups of hydraulic telescopic racks 29 to descend to a certain height to continue palletizing the next floor.

Further, at the same time of palletizing, the two groups of clamping plates 32 and side plates 35 limit the batteries on the battery pallet 33 to prevent them from falling and being damaged, thus playing a protective role.

An operation principle

When in used, the battery specification is transmitted to the controller 6 for analysis, and the palletizing size is adjusted by the controller 6 to improve the adaptability of the device.

When the palletizing size is adjusted, the fourth driving motor 18 is started, the fourth driving motor 18 drives a second lead screw 17 to rotate, the second lead screw 17 drives the second sliding seat 16 to move back and forth, the second sliding seat 16 drives a displacement sorting rotation shaft 15 to move until a width of a battery outlet formed between the displacement sorting rotation shaft 15 and the second fixed sorting rotation shaft 22 is exactly the same as the battery width, and a third driving motor 14 is started at the same time when the fourth driving motor 18 is started to control an adjusting conveyor belt 10.

The battery moves to the battery sorting conveyor rack 23 along with the battery conveyor belt 1, and after a position of the battery is sorted by adjusting the adjusting conveyor belt 10 and the second synchronous conveyor belt 21, the battery is moved to the battery pallet 33 on the palletizing seat 30; and the palletizing seat 30 moves left and right along the first chassis sliding rail 51, so that the batteries can be conveniently placed horizontally. When the palletizing of one

floor is finished, the controller 6 controls the four groups of hydraulic telescopic racks 29 to descend to a certain height to continue palletizing the next floor.

At the same time of palletizing, the two groups of clamping plates 32 and side plates 35 limit the batteries on the battery pallet 33 to prevent them from falling and being damaged, thus playing a protective role.

In the application of the invention, it is important to understand that the terms "up", "down", "front", "behind", "left", "right", "top", "bottom", "inner", "outer" etc. They indicated orientation or position relationships is based on the orientation or position relationship shown in the accompanying drawings, it is only to facilitate and simplify the description of this application, but it is not to indicate or imply that the device or element referred to must have a particular orientation, it is to be constructed and operated in a particular orientation, and therefore it cannot be constructed as a limitation of this application.

Finally, it is to be explained that above is only the preferred example of the present invention, and it is not to be used to limit the present invention. Despite the present invention is described in detail with reference to the above examples, for those skilled in the prior art, the technical solutions described in the above examples can be modified, or some of the technical features can be replaced equivalently. Within spirits and principles of the present invention, any modification, equivalent replacement, improvement, etc, are included in the scope of protection of the present invention.

1. A palletizing device for new energy battery production, comprising a chassis seat (5), wherein an upper part of the chassis seat (5) is arranged with a battery conveyor belt (1), one side
5 of the battery conveyor belt (1) is arranged with a battery sorting conveyor rack (23), a first fixed sorting rotation shaft (20) and a second fixed sorting rotation shaft (22) are symmetrically arranged on one side of an upper part of the battery sorting conveyor rack (23), a third fixed sorting rotation shaft (9), an elastic rotation shaft (11) and a displacement sorting rotation shaft (15) are arranged on the other side of the upper part of the battery sorting conveyor rack (23), a
10 battery inlet end is formed between the third fixed sorting rotation shaft (9) and the first fixed sorting rotation shaft (20), a battery outlet end is formed between the displacement sorting rotation shaft (15) and the second fixed sorting rotation shaft (22), one end, away from the battery conveyor belt (1), of the battery sorting conveyor rack (23) is arranged with a palletizing seat (30), and a battery pallet (33) is placed on an upper part of the palletizing seat (30).

15 2. The palletizing device for new energy battery production according to claim 1, wherein two sides of the battery conveyor belt (1) are arranged with battery baffles (2), one side of the battery baffle (2) is mounted with a first driving motor (3), two sides of the battery baffle (2) are arranged with supporting racks (4), and the upper part of the chassis seat (5) is mounted with a controller (6).

20 3. The palletizing device for new energy battery production according to claim 1, wherein two sides of the battery sorting conveyor rack (23) are arranged with fixed seats (7), the third fixed sorting rotation shaft (9), the first fixed sorting rotation shaft (20) and the second fixed sorting rotation shaft (22) are fixedly mounted at upper parts of the fixed seats (7) on the two sides, an adjustment rack (25) is arranged directly above the battery sorting conveyor rack (23),
25 the adjustment rack (25) is fixedly mounted on the chassis seats (5) via supporting rods (26) on two sides, and one side of the fixed seat (7) is mounted with a fifth driving motor (24).

4. The palletizing device for new energy battery production according to claim 3, wherein a corner of a bottom of the adjustment rack (25) is fixedly mounted with a second driving motor (8), an output end of the second driving motor (8) is fixedly connected to the third fixed sorting
30 rotation shaft (9), an adjusting conveyor belt (10) is sleeved on the third fixed sorting rotation shaft (9), and the other end of the adjusting conveyor belt (10) is arranged with the displacement sorting rotation shaft (15).

5. The palletizing device for new energy battery production according to claim 4, wherein the adjustment rack (25) comprises a first adjustment sliding rail (251) and a second adjustment
35 sliding rail (252), the first adjustment sliding rail (251) is connected to a first sliding seat (12) in

a sliding mode, a bottom of the first sliding seat (12) is arranged with the elastic rotation shaft (11), a middle of the first sliding seat (12) is penetrated by a first lead screw (13), and a top end of the first lead screw (13) is mounted with a third driving motor (14). AU505750

6. The palletizing device for new energy battery production according to claim 5, wherein one side of the third driving motor (14) is arranged with a fourth driving motor (18), an output end of the fourth driving motor (18) is connected to a second lead screw (17), a second sliding seat (16) is sleeved on the second lead screw (17), and a bottom of the second sliding seat (16) is mounted with the displacement sorting rotation shaft (15).

7. The palletizing device for new energy battery production according to claim 1, wherein the third fixed sorting rotation shaft (9) is connected to the first fixed sorting rotation shaft (20) via a first synchronous conveyor belt (19), and the first fixed sorting rotation shaft (20) is connected to the second fixed sorting rotation shaft (22) via a second synchronous conveyor belt (21).

8. The palletizing device for new energy battery production according to claim 1, wherein the chassis seat (5) comprises a first chassis sliding rail (51) and a second chassis sliding rail (52), one side of the first chassis sliding rail (51) is arranged with a sixth driving motor (27), and the first chassis sliding rail (51) is connected to a displacement seat (28) in a sliding mode.

9. The palletizing device for new energy battery production according to claim 8, wherein an upper part of the displacement seat (28) is arranged with four sets of hydraulic telescopic racks (29), upper parts of the hydraulic telescopic racks (29) are mounted with the palletizing seat (30), one side of the palletizing seat (30) is arranged with a seventh driving motor (31), an upper part of the palletizing seat (30) is arranged with a clamped sliding rail (301), and the clamped sliding rail (301) is connected to clamped plates (32) in a sliding mode.

10. The palletizing device for new energy battery production according to claim 8, wherein an upper part of the second chassis sliding rail (52) is connected to a lateral plate (35) in a sliding mode, and one end of the second chassis sliding rail (52) is mounted with eighth driving motors (34).

1. Un dispositif de palettisation pour la production de batteries à énergie nouvelle, comprenant un siège de châssis (5), dans lequel une partie supérieure du siège de châssis (5) est disposée
5 avec une bande transporteuse de batterie (1), un côté de la bande transporteuse de batterie (1) est disposé avec un rack de convoyeur de tri de batterie (23), un premier arbre de rotation de tri fixe (20) et un deuxième arbre de rotation de tri fixe (22) sont disposés symétriquement sur un côté d'une partie supérieure du rack de convoyeur de tri de batterie (23), un troisième arbre de rotation de tri fixe (9), un arbre de rotation élastique (11) et un arbre de rotation de tri de déplacement (15)
10 sont disposés sur l'autre côté de la partie supérieure du rack de convoyeur de tri de batterie (23), un arbre de rotation élastique (11) et un arbre de rotation de tri par déplacement (15) sont disposés de l'autre côté de la partie supérieure du support de convoyeur de tri de batteries (23), une extrémité d'entrée de batterie est formée entre le troisième arbre de rotation de tri fixe (9) et le premier arbre de rotation de tri fixe (20), une extrémité de sortie de batterie est formée entre
15 l'arbre de rotation de tri de déplacement (15) et le deuxième arbre de rotation de tri fixe (22), une extrémité, éloignée de la bande transporteuse de batterie (1), du rack de convoyeur de tri de batterie (23) est agencée avec un siège de palettisation (30), et une palette de batterie (33) est placée sur une partie supérieure du siège de palettisation (30).

2. Dispositif de palettisation pour la production de batteries à énergie nouvelle selon la
20 revendication 1, dans lequel deux côtés de la bande transporteuse de batteries (1) sont disposés avec des déflecteurs de batteries (2), un côté du déflecteur de batteries (2) est monté avec un premier moteur d'entraînement (3), deux côtés du déflecteur de batteries (2) sont disposés avec des crémaillères de support (4), et la partie supérieure du siège de châssis (5) est montée avec un contrôleur (6).

25 3. Dispositif de palettisation pour la production de batteries à énergie nouvelle selon la revendication 1, dans lequel deux côtés de la grille de convoyeur de tri de batterie (23) sont disposés avec des sièges fixes (7), le troisième arbre de rotation de tri fixe (9), le premier arbre de rotation de tri fixe (20) et le deuxième arbre de rotation de tri fixe (22) sont montés de manière fixe sur les parties supérieures des sièges fixes (7) sur les deux côtés, une crémaillère de
30 réglage (25) est disposée directement au-dessus de la crémaillère du convoyeur de tri des

batteries (23), la crémaillère de réglage (25) est montée de manière fixe sur les sièges de châssis (5) par l'intermédiaire de tiges de support (26) sur deux côtés, et un côté du siège fixe (7) est monté avec un cinquième moteur d'entraînement (24).

4. Dispositif de palettisation pour la production de batteries à énergie nouvelle selon la revendication 3, dans lequel un coin d'un fond de la crémaillère de réglage (25) est monté de manière fixe avec un deuxième moteur d'entraînement (8), une extrémité de sortie du deuxième moteur d'entraînement (8) est connectée de manière fixe au troisième arbre de rotation de tri fixe (9), une bande transporteuse de réglage (10) est manchonnée sur le troisième arbre de rotation de tri fixe (9), et l'autre extrémité de la bande transporteuse de réglage (10) est arrangée avec l'arbre de rotation de tri de déplacement (15).

5. Dispositif de palettisation pour la production de batteries à énergie nouvelle selon la revendication 4, dans lequel la crémaillère de réglage (25) comprend un premier rail coulissant de réglage (251) et un second rail coulissant de réglage (252), le premier rail coulissant de réglage (251) est relié à un premier siège coulissant (12) en mode coulissant, un fond du premier siège coulissant (12) est disposé avec l'arbre de rotation élastique (11), un milieu du premier siège coulissant (12) est pénétré par une première vis d'entraînement (13), et une extrémité supérieure de la première vis d'entraînement (13) est montée avec un troisième moteur d'entraînement (14).

6. Dispositif de palettisation pour la production de batteries à énergie nouvelle selon la revendication 5, dans lequel un côté du troisième moteur d'entraînement (14) est disposé avec un quatrième moteur d'entraînement (18), une extrémité de sortie du quatrième moteur d'entraînement (18) est connectée à une deuxième vis d'entraînement (17), un deuxième siège coulissant (16) est manchonné sur la deuxième vis d'entraînement (17), et un fond du deuxième siège coulissant (16) est monté avec l'arbre de rotation de triage de déplacement (15).

7. Dispositif de palettisation pour la production de batteries à énergie nouvelle selon la revendication 1, dans lequel le troisième arbre de rotation de tri fixe (9) est relié au premier arbre de rotation de tri fixe (20) par l'intermédiaire d'une première courroie transporteuse synchrone (19), et le premier arbre de rotation de tri fixe (20) est relié au deuxième arbre de rotation de tri fixe (22) par l'intermédiaire d'une deuxième courroie transporteuse synchrone (21).

8. Dispositif de palettisation pour la production de batteries à énergie nouvelle selon la

revendication 1, dans lequel le siège du châssis (5) comprend un premier rail coulissant de châssis (51) et un second rail coulissant de châssis (52), un côté du premier rail coulissant de châssis (51) est équipé d'un sixième moteur d'entraînement (27), et le premier rail coulissant de châssis (51) est relié à un siège de déplacement (28) en mode coulissant.

5 9. Dispositif de palettisation pour la production de batteries à énergie nouvelle selon la revendication 8, dans lequel une partie supérieure du siège de déplacement (28) est disposée avec quatre ensembles de crémaillères télescopiques hydrauliques (29), les parties supérieures des crémaillères télescopiques hydrauliques (29) sont montées avec le siège de palettisation (30), un côté du siège de palettisation (30) est équipé d'un septième moteur d'entraînement (31), une
10 partie supérieure du siège de palettisation (30) est équipée d'un rail coulissant à pinces (301), et le rail coulissant à pinces (301) est relié à des plaques à pinces (32) en mode coulissant.

10. Dispositif de palettisation pour la production de batteries à énergie nouvelle selon la revendication 8, dans lequel une partie supérieure du second rail de glissement du châssis (52) est reliée à une plaque latérale (35) en mode de glissement, et une extrémité du second rail de
15 glissement du châssis (52) est montée avec huit moteurs d'entraînement (34).

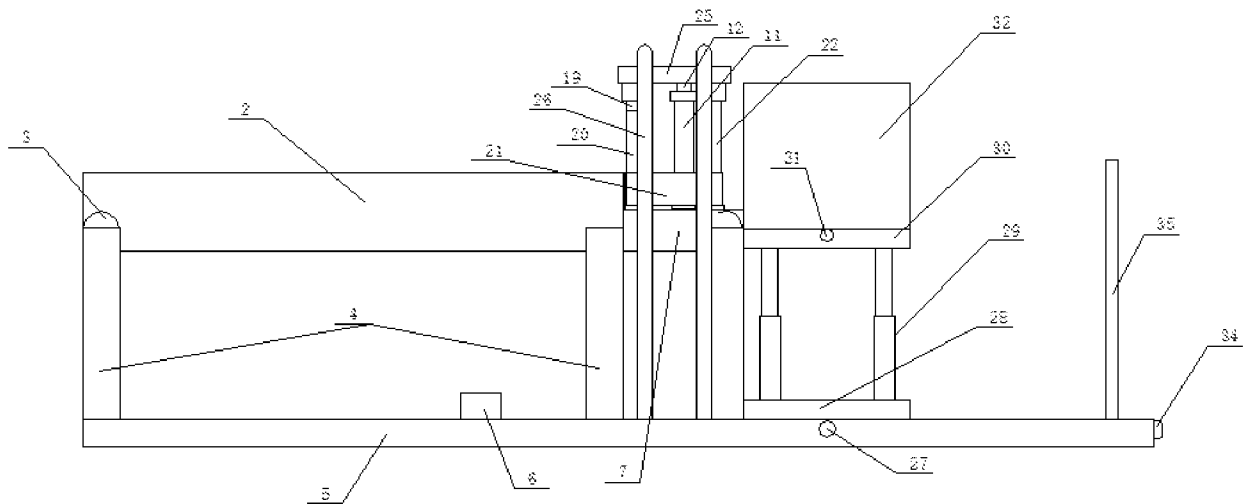


FIG. 2

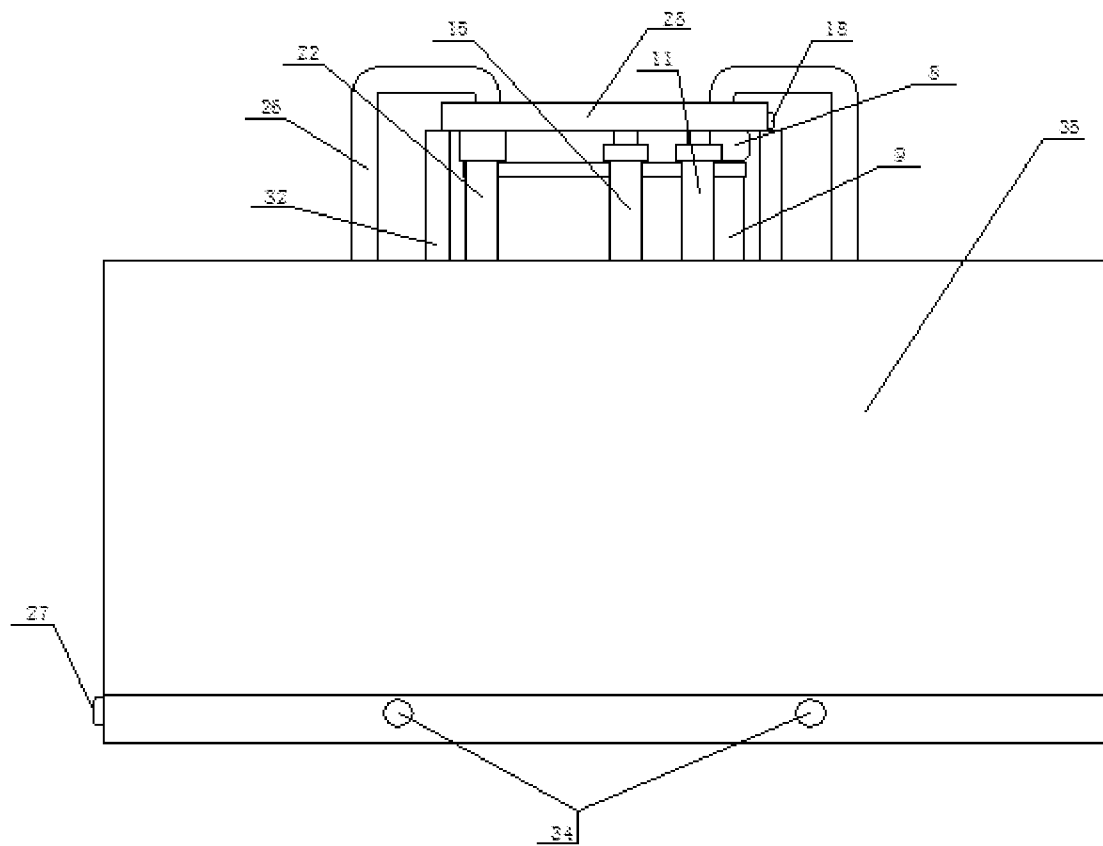


FIG. 3

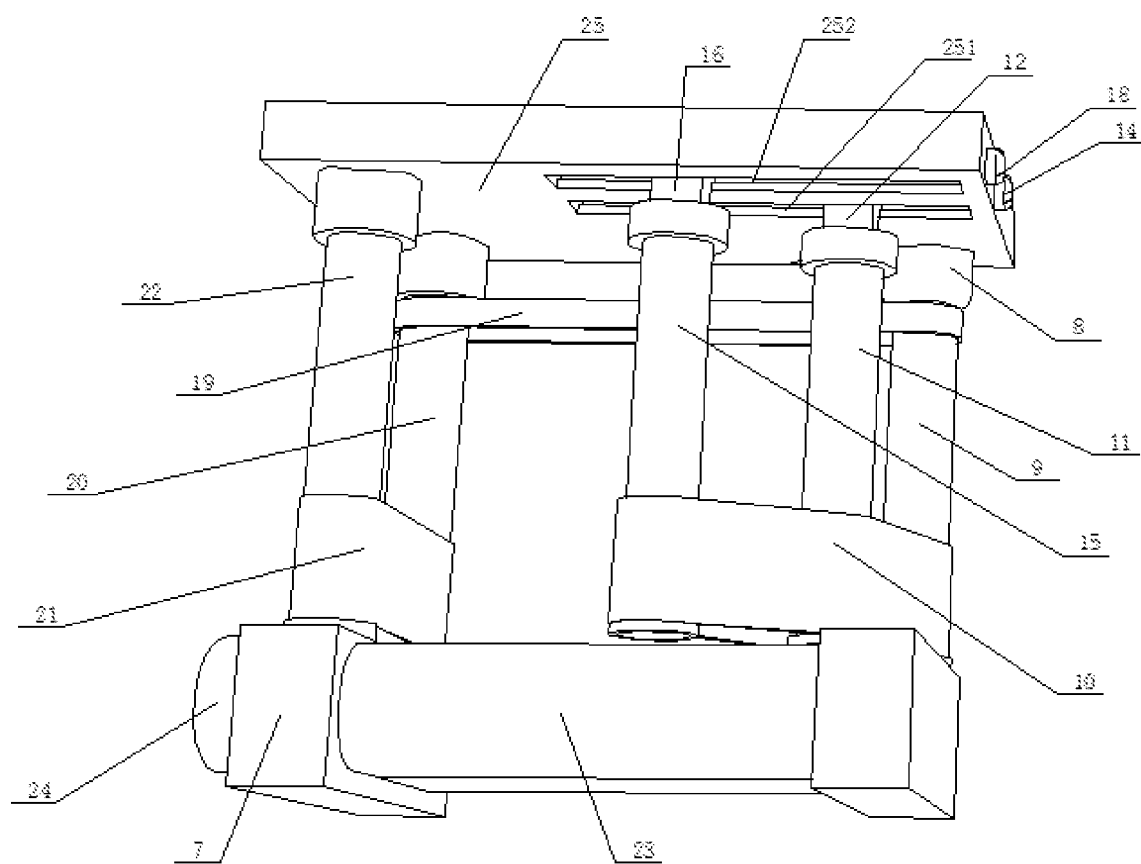


FIG.4

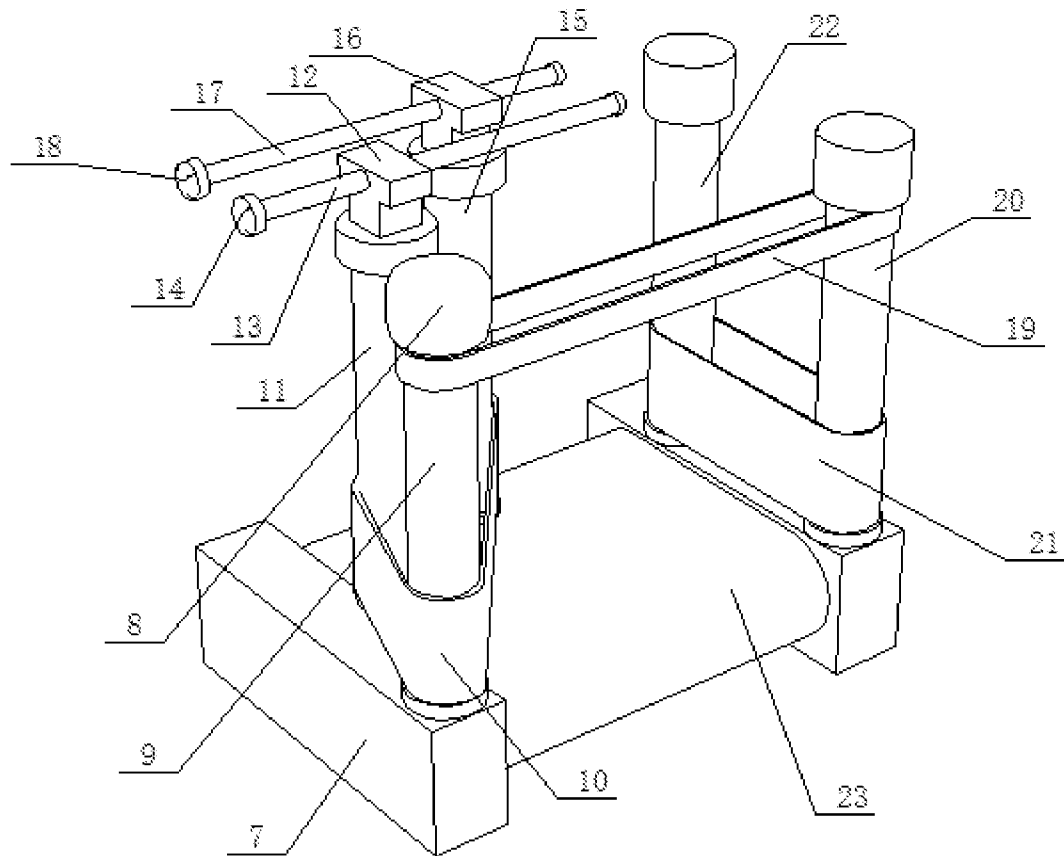


FIG. 6

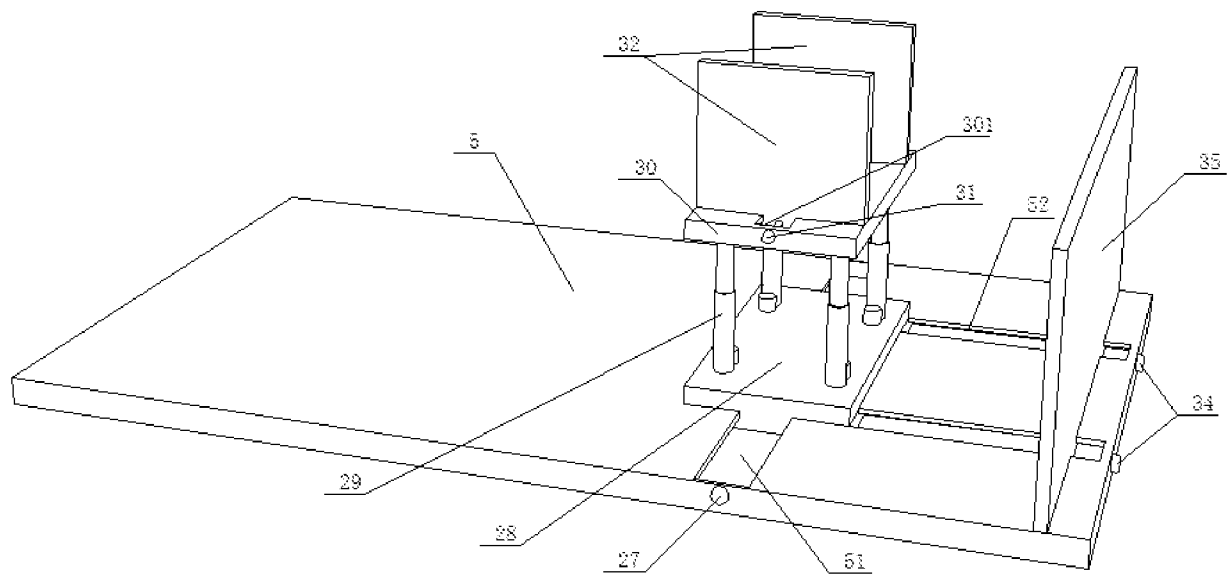


FIG. 7