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(54) Massage device

(57) A massage device includes a frame, a threaded rod vertically provided in the frame and engaging a move means, which has two sets of massage wheels, and two move wheels at two sides to move along two rails provided at two sides of the frame. One or two direction boards are fixed behind the frame to control moving direction, right and left and/or back and forth, of a second set of massage wheels when the moving means engaging the threaded rod is moved up and down by a gear fixed at the lower end of the threaded rod and engaging the shaft of a motor fixed beside the frame.

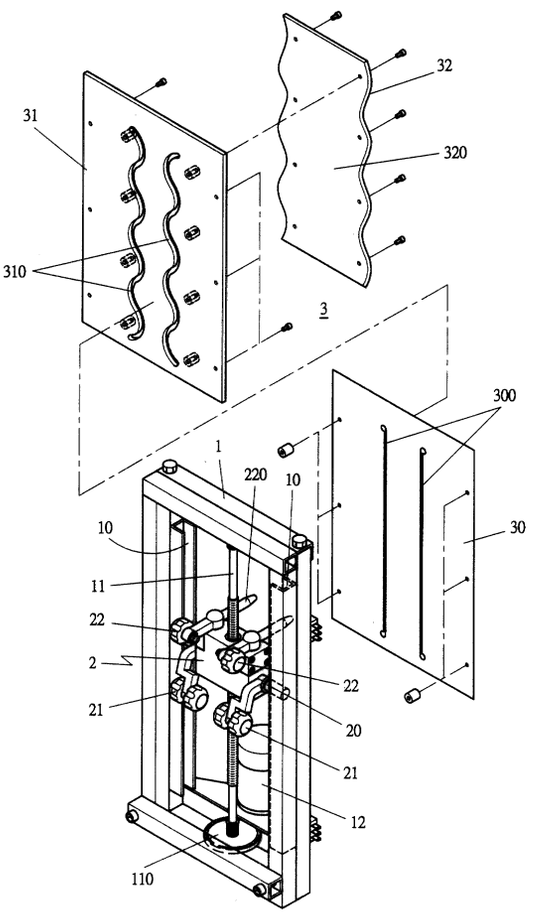


FIG 2

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Description

BACKGROUND OF THE INVENTION

[0001] This invention relates to a massage device, particularly to one having function to let massage means move not only tight and left but back and forth with only one motor as its power source to save electricity and reducing the dimensions of the massage device.

[0002] A known conventional massage device shown in Fig. 1, includes a frame A, a threaded rod A0 vertically fixed in the frame A, a movable means B0 engaged with the threaded rod A0 and combined with plural massage wheels B, and a motor to rotate the threaded rod A0 and then the movable. means with the plural massage wheels B lifted up and lowered down.

[0003] Although the known conventional massage device has the massage wheels B, which are moved right and left and back and forth as well for massaging the back of a user, using its power source coming from a wheel rod B1 fixed on an eccentric shaft B2, so then the eccentric rod B2 is rotated by a power source D, forcing the massage wheels B to move back and forth, and then move right and left at the same time by means of a sway rod B3 moving the wheel rod B1 eccentrically.

[0004] As can be understood from the above description of the known conventional massage device, the right and left movement and the back and forth movement of the massage wheels B have to be performed by a power means D (generally a pair of gear box) and the sway rod B3. Then the movable means B0 may have too large dimensions to have a high cost. IN addition, two motors have to be used to separately drive the threaded rod A0 and the power means D, consuming much electricity and requiring large dimensions and cost.

SUMMARY OF THE INVENTION

[0005] The invention has an object to offer a more practical massage device to comply with ergonomics to perform soft massage to the back of a person.

[0006] The feature of the invention is that a direction control board provided behind a frame for controlling moving direction of massage wheels according to the principle of ergonomics to give comfortable massage, and that the direction control boards consists of a right and left direction board and a back and forth direction board to guide the massage wheels to move right and left, and back and forth as well without using a motor as the conventional one uses.

BRIEF DESCRIPTION OF DRAWINGS

[0007] This invention will be better understood by referring to the accompanying drawings, wherein:

Figure 1 is a side view of a known conventional massage device;

Figure 2 is a part exploded perspective view of a first embodiment of a massage device in the present invention;

Figure 3 is a part exploded perspective view of a second embodiment of a massage device in the present invention;

Figure 4 is a part exploded perspective view of a third embodiment of a massage device in the present invention;

Figure 5 is a part cross-sectional view of a second set of massage wheels in the present invention;

Figure 6 is another part cross-sectional view of the second set of massage wheels in the present invention;

Figure 7 a cross-sectional view of the first embodiment of a massage device in the present invention, showing its action;

Figure 8 is a cross-sectional view of the second embodiment of a massage device in the present invention, showing its action; and,

Figure 9 is a cross-sectional view the third embodiment of a massage device in the present invention, showing its action.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIEMTNS

[0008] A first embodiment of a massage device in the present invention, as shown in Fig. 2, includes a frame 1, a rail 10 provided respectively in an inner wall of two sides, a move means 1 having a move wheel 20 respectively at two sides to fit and move along the rails 10 so that the move means 2 may move up and down in the frame 1 in a definite route. A threaded rod 11 is provided vertically in the frame 1 and fixed with a gear 110 at its lower end to engage a g ear on the shaft of a motor 12 located beside the frame 1. Then the threaded rod 11 may be rotated rightward or leftward by rotation of the motor 12, moving up or down the move means 2, the engagement of the move means 2 and the threaded rod 11 is a conventional well-known art, not described here.

[0009] The move means 2 is fixed with two sets of massage wheels 21(a first one), 22(a second one), and the first set of massage wheels 21 only move back and forth, connected to the move wheel 20 of the move means 2, but its connect art is also conventional and well-known, not described here.

[0010] The second set of massage wheels 22 shown in Figs. 5 and 6 has a wheel rod 220 with a bead hole 221 for a first bead 23 to fit and rotate therein, and the first bead 23 is fixed with a bead rod 230 at one end and a second bead 231 fixed at the other end of the bead rod 230 and contained in another bead hole 323. Thus, the massage wheels 22 may sway right and left by means of the first bead 23, and sway back and forth by means of the second bead 231. However, the power of sway of the massage wheels 22 comes from a direction

control board 3, which is fixed behind the frame 1 and the move means 2. Then a cover 30 made of soft cloth or leather is covered outside of the direction control board 3., having vertical elongate holes for the wheel rod 220 to protrude through and move up and down therein.

[0011] The direction control board 3 in the first embodiment consists of a right and left direction board 31 and a back and forth direction board 32 placed behind the right and left direction board 31 as shown in Figs. 2 and 7. But the second embodiment only has the right and left direction board 31 as shown in Figs. 3 and 8, and the third embodiment only has the back and forth direction board 32. So the three kinds of massage devices have respectively different massage direction for consumer to select to get according to their liking.

[0012] The above mentioned direction control board 3 consists of the right and left direction board 31 and/or the back and forth direction board 32, and the right and left direction board 31 has one or more regular or irregular curved holes 310 for the wheel rods 220 to protrude through and move up and down therein to let the massage wheels 22 to sway right and left to make massage. The back forth direction board has a continually curved surface 320 for outer ends of the wheel rods 220 to touch and move along up and down to let the massage wheels 22 to make massage.

[0013] In general, the massage device in the invention makes use of the direction control board 3 as a power source of the massage wheels, needing no motors to get the same effect. So electricity is saved and the dimensions of the massage device are also reduced. In addition, the curved holes of the right and left direction board and the curved surface of the back and forth direction board can be changed in any shape, to let the massage wheels to make massage against the back of a user according to the shape of a human body.

[0014] While the preferred embodiments of the invention have been described above, it will be recognized and understood that various modifications may be made therein, and the appended claims are intended to cover all such modifications that may fall within the spirit and scope of the invention.

Claims

1. A massage device comprising a frame, a rail formed respectively in an inner wall of two sides, a move means having a move wheel respectively at two sides to fit with and move up and down along said two rails of said frame to let said move means move up and down with a definite route, a threaded rod located vertically in a center portion of said frame, said threaded rod having its lower end fixed with the center of a gear, said gear engaging with a gear fixed on a shaft of a motor located beside said frame, said motor rotating said threaded rod, said move means engaging with said threaded rod, direction control boards fixed behind said frame, and **characterized by** said direction control boards controlling moving directions of said massage wheels and having a right and left direction board and a back and forth direction board, said right and left direction board having one or more regular or irregular elongate holes for said wheel rods to protruded therein to move right and left to let said massage wheels to move right and left when said move means is moved up and down by said threaded rod, said back and forth direction board having a continually curved surface for outer ends of said wheel rods to touch and move along said curved surface to let said massage wheels to move back and forth to make massage against the back of a user.

2. A massage device comprising a frame, a rail formed respectively in an inner wall of two sides, a move means having a move wheel respectively at two sides to fit with and move up and down along said two rails of said frame to let said move means move up and down with a definite route, a threaded rod located vertically in a center portion of said frame, said threaded rod having its lower end fixed with the on a shaft of a motor located beside said frame, said motor rotating said threaded rod, said move means engaging with said threaded rod, a direction control board fixed behind said frame, and **characterized by** said direction control board controlling moving direction of said massage wheels, said direction control board forming a right and left direction board and having one or more regular or irregular curved holes for said wheel rods to protrude through and move up and down along said curved holes to let said massage wheels to move right and left to make massage to the back of a user when said move means is moved up and down by said threaded rod.

3. The massage device claimed as in Claim 2, wherein said direction control board is a back and forth direction board, which has a continual regular curved surface for outer ends of said wheel rods to tough and move along to let said massage wheels move back and forth to make massage against the back of a user when said move means is moved up and down.

4. The massage device claimed as in Claim 2, wherein said direction control board is a back and forth direction board, which has a continual irregular curved surface for outer ends of said wheel rods to tough and move along to let said massage wheels move back and forth to make massage against the back of a user when said move means is moved up and down.

5. The massage device claimed as im Claim 1, where-

in said wheel rods is provided with a bead hole for a first bead to fit therein, said first bead fixed with a bead rod at one end, said bead rod fixed with a second bead at the other end, said second bead fitted in another bead hole so as to let said massage wheels may sway right and left by means of said first bead and back and forth by means of said second bead.

6. The massage device as claimed in Claim 1, wherein said direction control board fixed with said frame is covered by a soft cover having elongate holes for said outer ends of said wheel rods to protrude out.

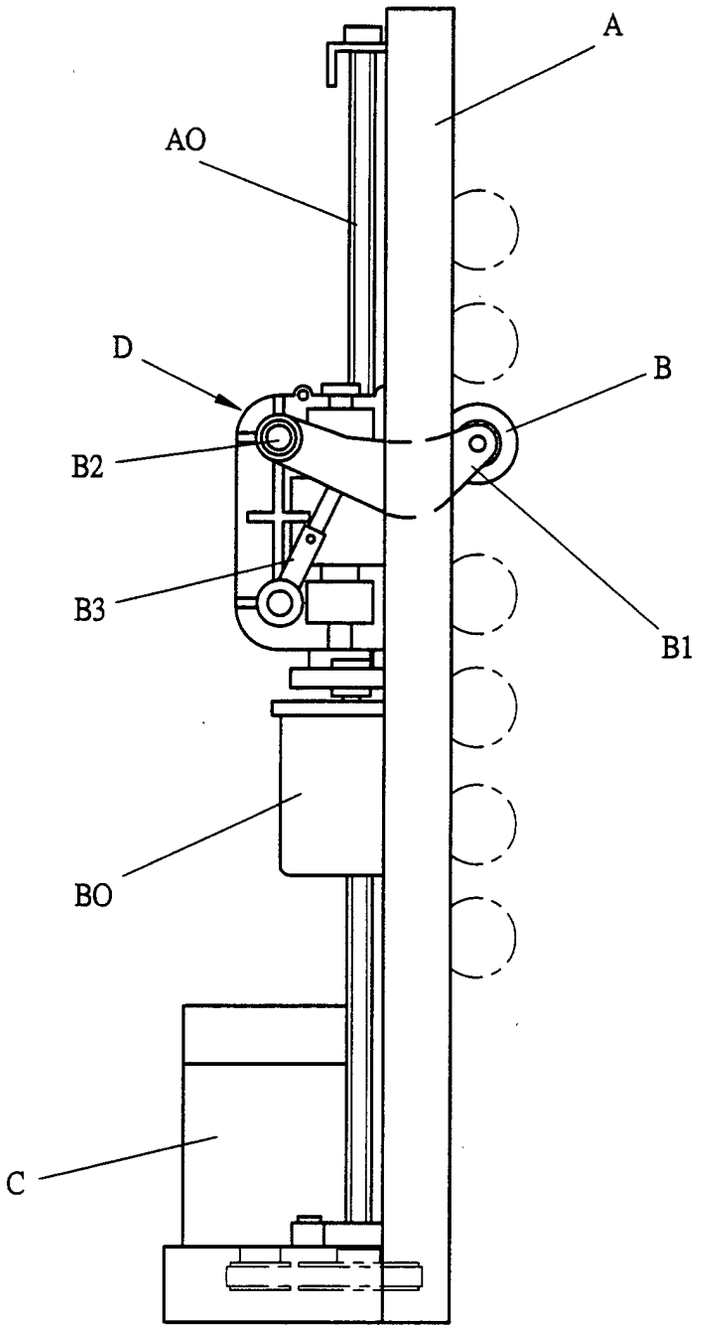


FIG 1 (PRIOR ART)

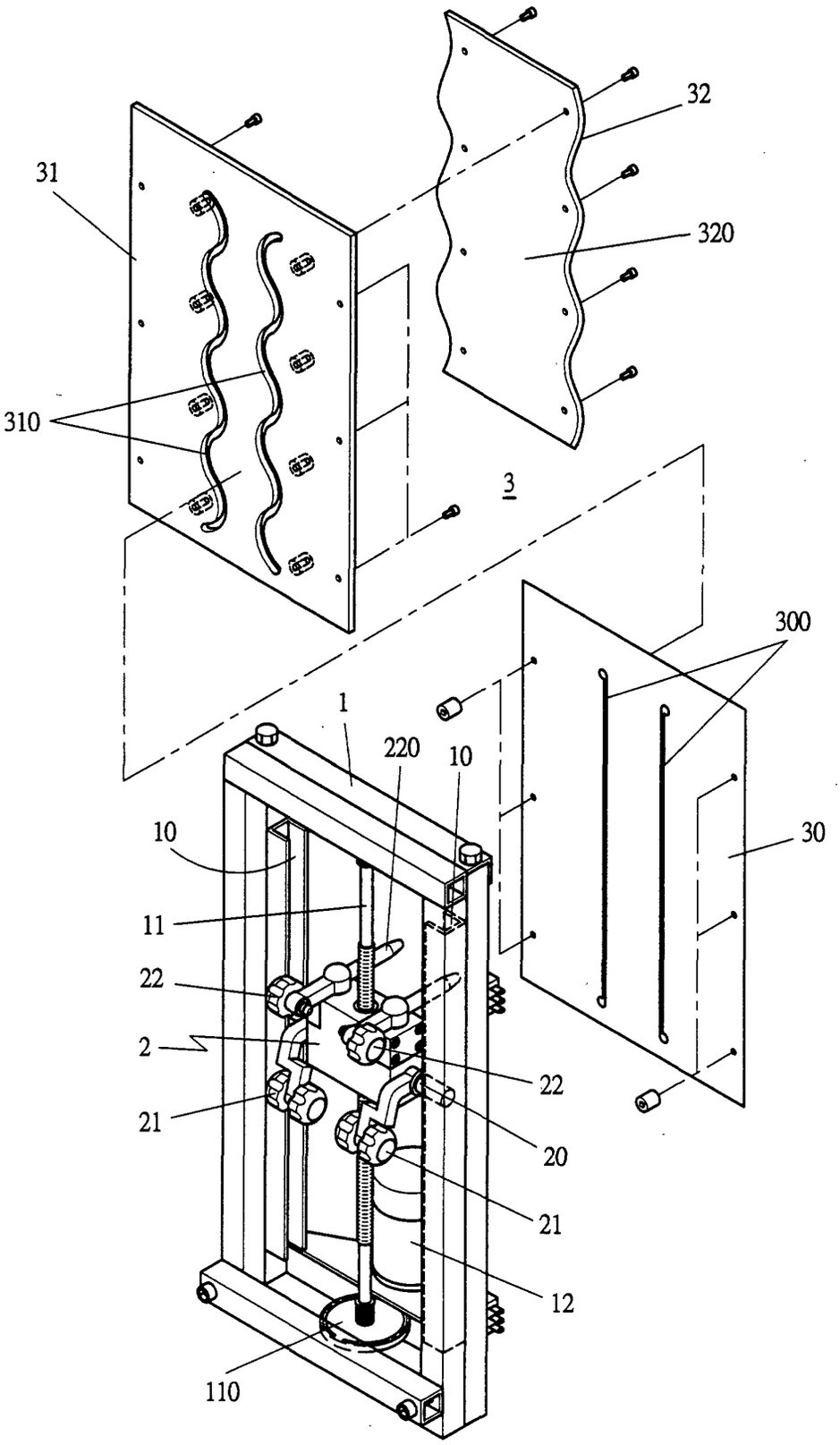


FIG 2

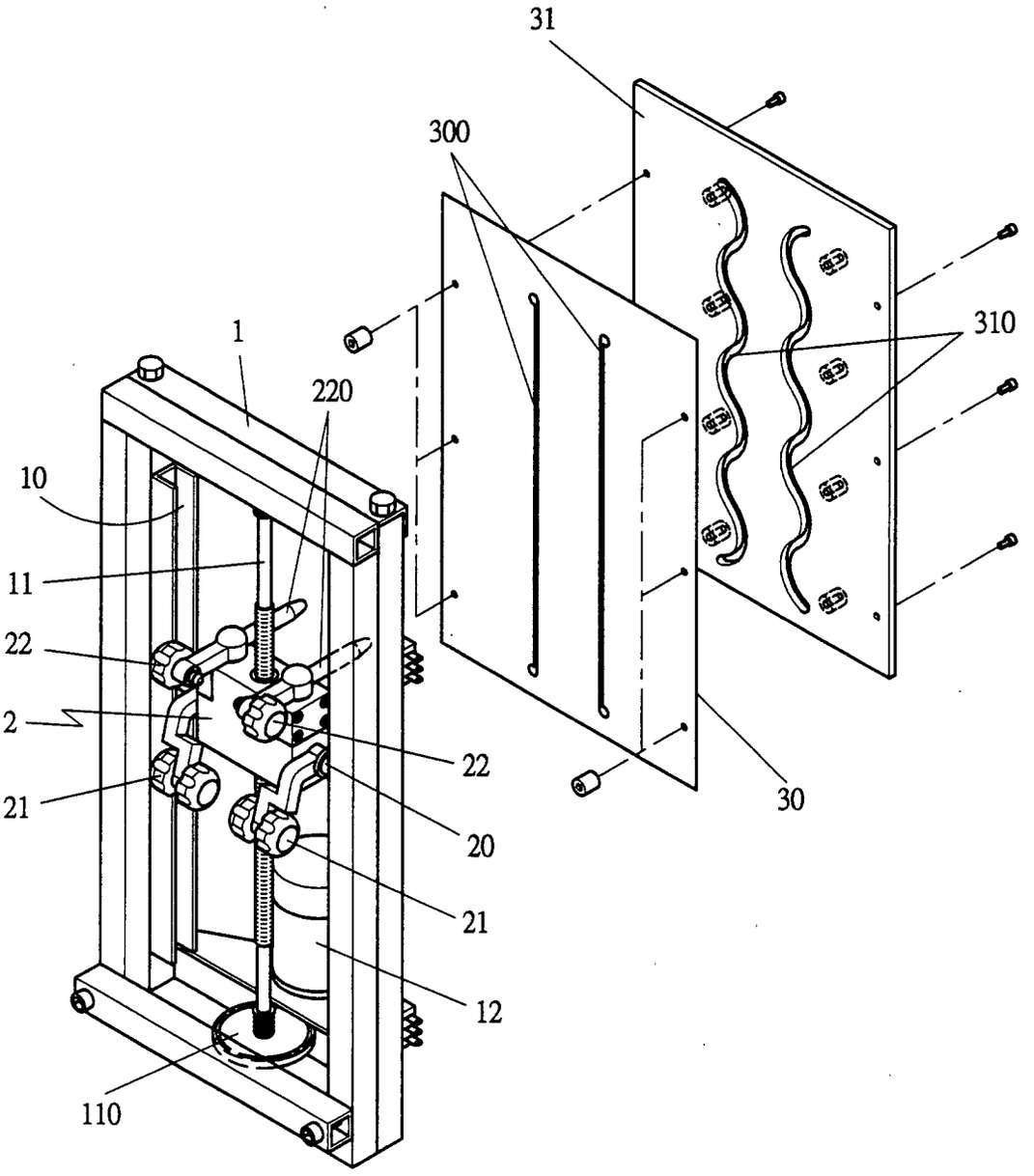


FIG 3

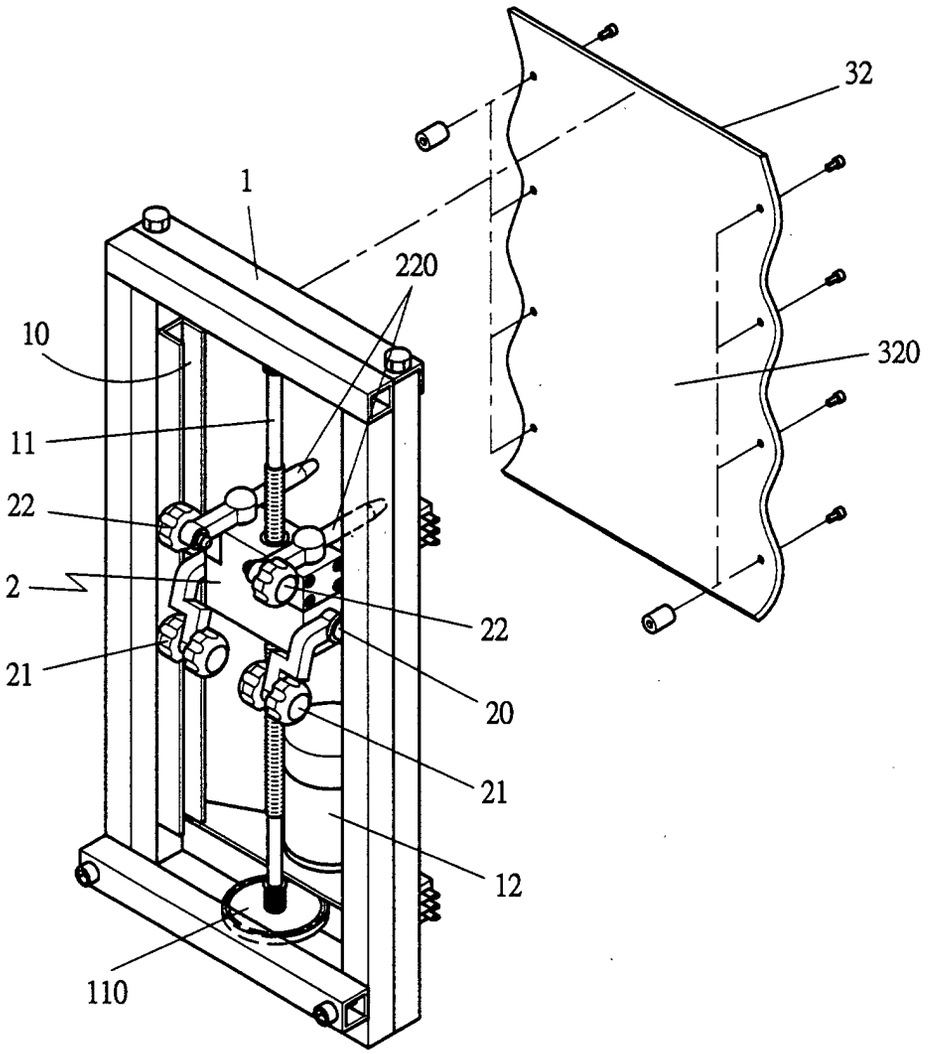


FIG 4

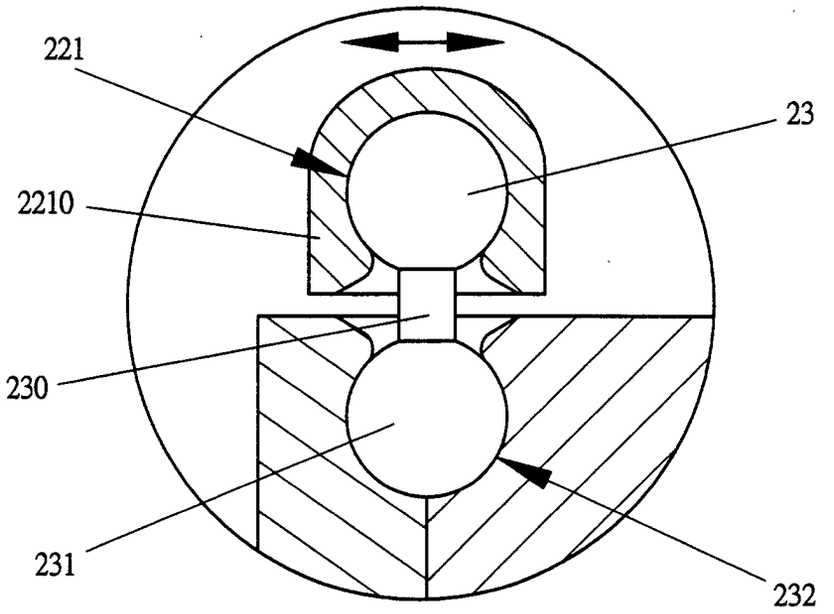


FIG 5

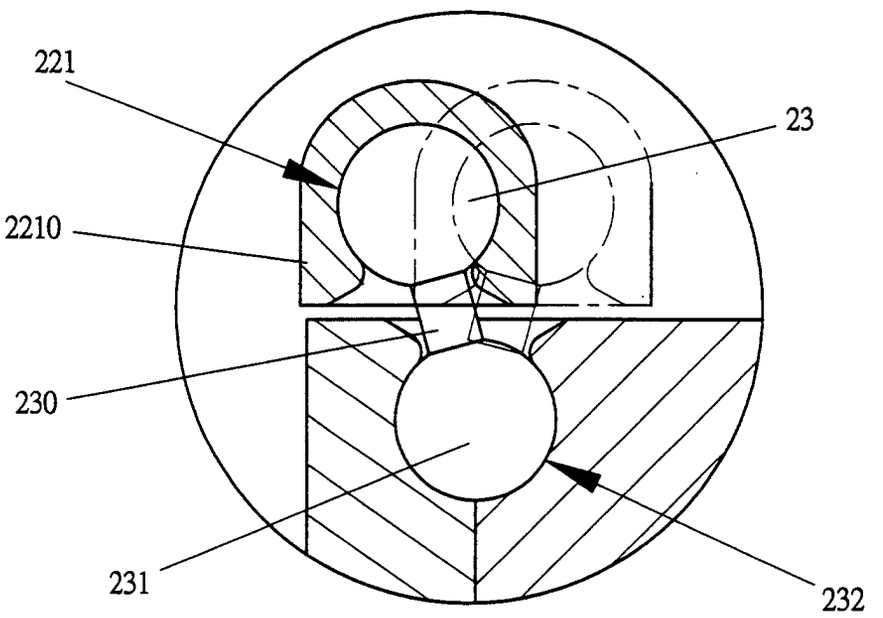


FIG 6

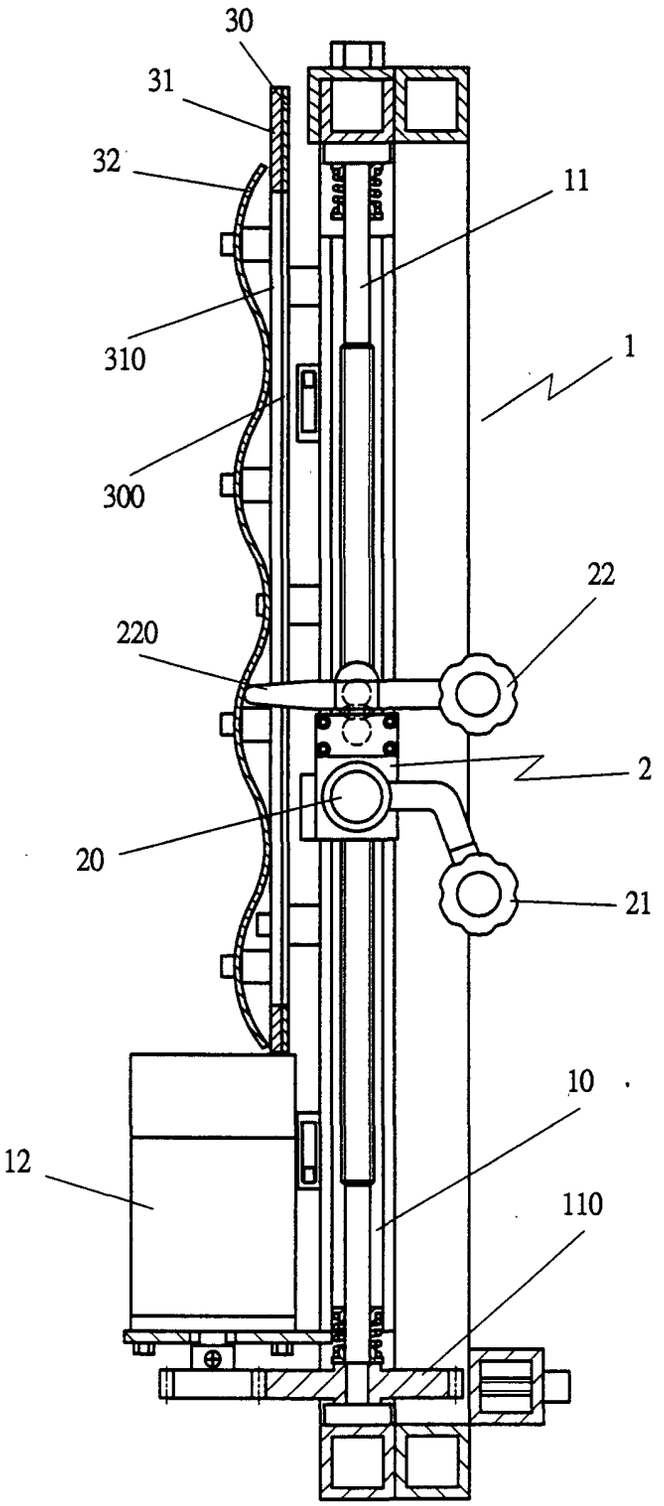


FIG 7

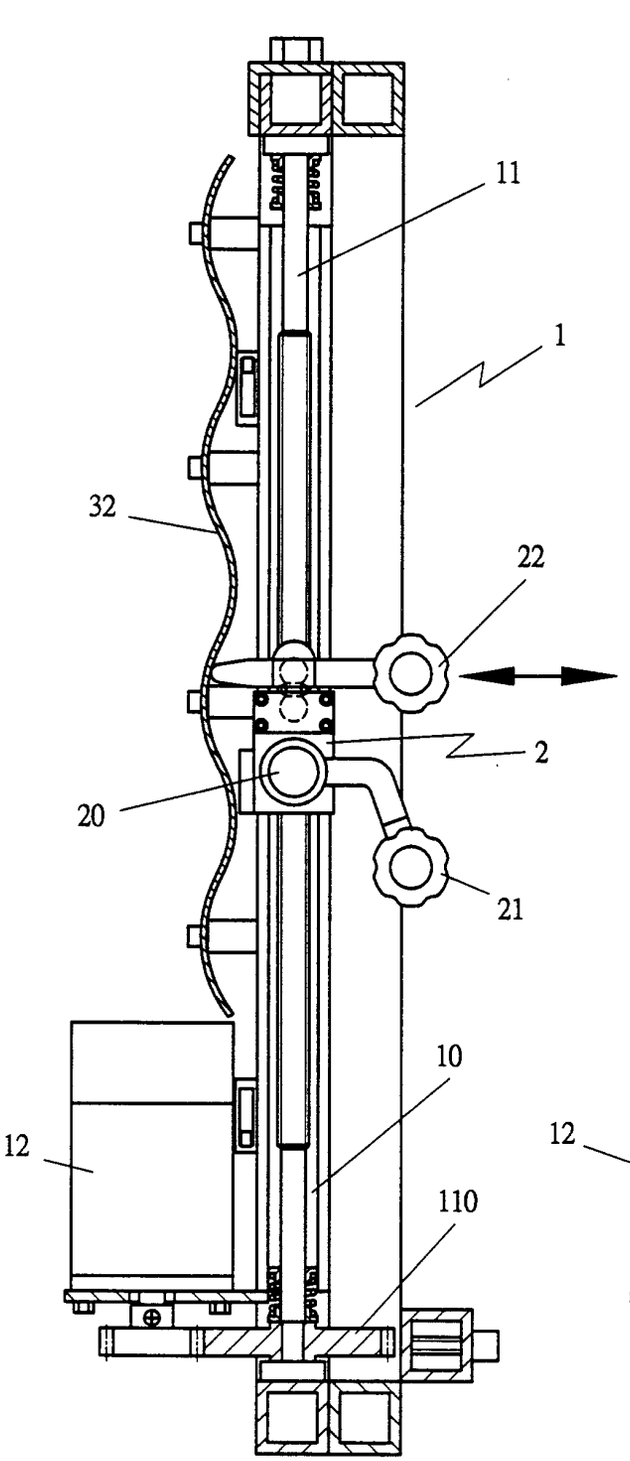


FIG 9

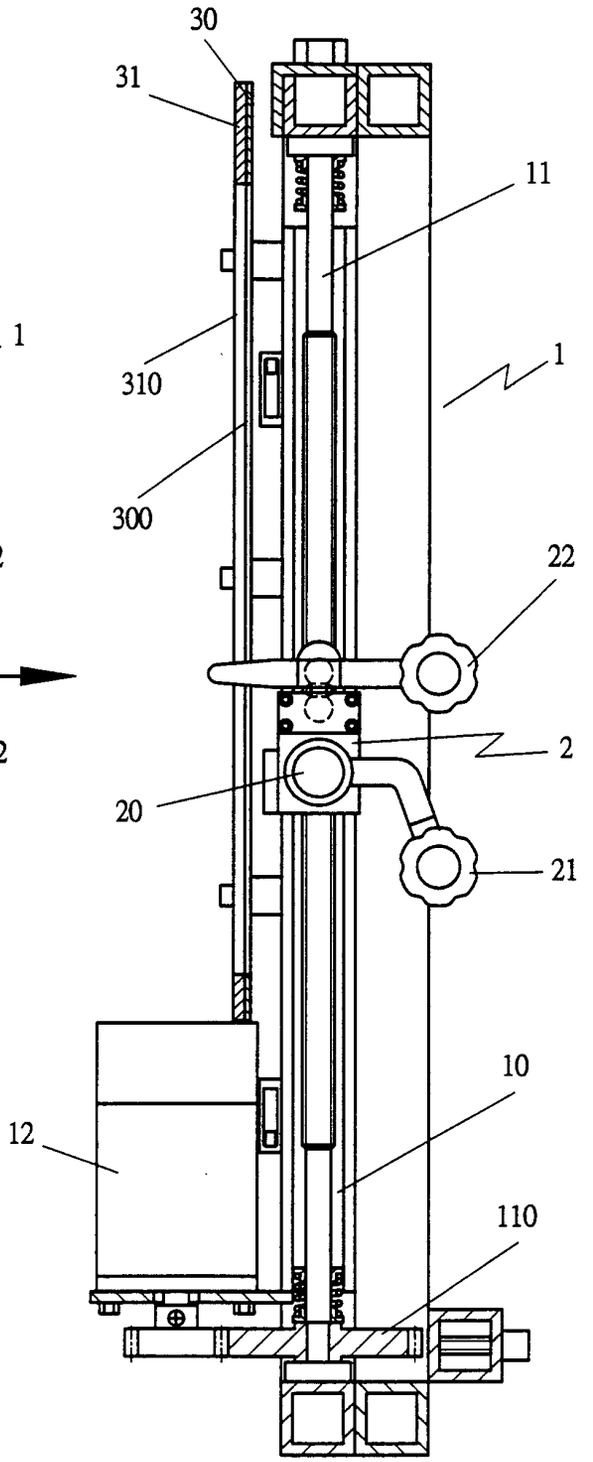


FIG 8

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EUROPEAN SEARCH REPORT

Application Number
EP 00 85 0062

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
A	WO 98 30187 A (GUERRI FOSCO ;ROSSI ENZO (IT)) 16 July 1998 (1998-07-16) * the whole document *	1,2	A61H37/00
A	GB 1 400 473 A (INADA N) 9 July 1975 (1975-07-09) * the whole document *	1,2	
A	US 5 902 258 A (CZIRIAK ATTILA) 11 May 1999 (1999-05-11) * column 5, line 18 - column 6, line 5; figures 8,9 *	1,2	

TECHNICAL FIELDS SEARCHED (Int.Cl.7)

A61H
A47C

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
THE HAGUE	13 September 2000	Millward, R

CATEGORY OF CITED DOCUMENTS

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