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(72) Inventors:  
• **Chuang, Jin Chen**  
**Taichung Hsien 42083 (TW)**  
• **Chuang, Lung Fei**  
**Taichung Hsien 42083 (TW)**

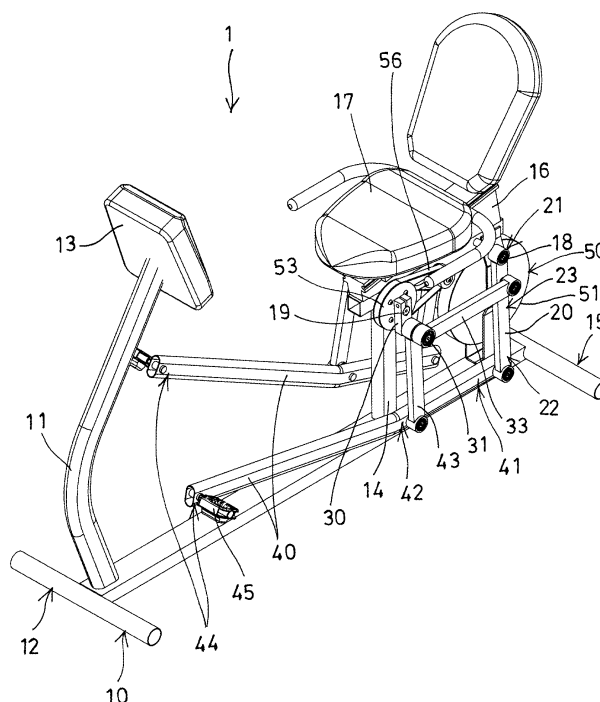
(71) Applicants:  
• **Chuang, Jin Chen**  
**Taichung Hsien 42083 (TW)**  
• **Chuang, Lung Fei**  
**Taichung Hsien 42083 (TW)**

(74) Representative: **Beck & Rössig**  
**European Patent Attorneys**  
**Cuvilliesstrasse 14**  
**81679 München (DE)**

(54) **Stationary exerciser**

(57) A stationary exerciser includes a column (14) for supporting a spindle (19) and a shaft (18), two lovers (20) having an upper portion (21) pivotally attached to the column (14) with the shaft (18), two cranks (30) rotatably attached to the column (14) with the spindle (19) and each having a rod (31), and two foot supports (40) each having a rear portion (41) pivotally coupled to the

lever (20) and a middle portion (42) pivotally coupled to the rod (31) of the crank (30), and a foot pedal (45) attached to the front portion (44) and moveable elliptically relative to the column (14) for being stepped or actuated by the user to move along an elliptical moving path different from the circular cycling moving path of that of the pedaling or cycling exercisers.



**FIG. 1**

**Description**

**[0001]** The invention relates to a stationary exerciser.

**[0002]** Typical cycling exercisers comprise two foot pedals stepped by the users in the circular cycling moving path, but may not be moved in an oval or elliptical moving stroke.

**[0003]** The invention is to provide an exerciser including two foot supports or foot pedals for being stepped along an elliptical moving path different from the circular cycling moving path.

FIGS. 1, 2 are perspective views of a stationary exerciser;

FIG 3 is a side plan view of the stationary exerciser;

FIGS. 4, 5 are partial exploded views of the exerciser; and

FIGS. 6, 7 are side plan views of the exerciser.

**[0004]** Referring to FIGS. 1-5, a stationary exerciser comprises a post 11 extended from a front portion 12 of a base 10 for attaching a control device 13, a column 14 extended from the rear portion 15 of the base 10 for attaching a rail 16, and a seat 17 adjustably attached to the rail 16. Two levers 20 each include an upper portion 21 attached to the column 14 with a shaft 18, and two cranks 30 are attached to the column 14 with a spindle 19 and each include a rod 31 attached to the free end, the spindle 19 is spaced from the shaft 18 and located in front of the shaft 18. Two foot supports 40 each include a rear portion 41 attached to the lower portion 22 of the levers 20, and a middle portion 42 attached to the rods 31 with a link 43 by the cranks 30 for allowing the foot supports 40 to be moved elliptically (FIGS. 6, 7). A foot pedal 45 is attached to the front portion 44 of each foot support 40 for being stepped elliptically by the user.

**[0005]** Two arms 33 are coupled between the rods 31 of the cranks 30 and the middle portions 23 of the levers 20, and may be adjusted along the levers 20 for adjustably determining the moving stroke of the foot supports 40. A resistive device 50 includes a wheel 51 attached to the column 14 with an axle 52, a rotary member 53 attached to the spindle 19, a follower 54 attached to the column 14 with a pin 55, and a coupling belt or device 56 for coupling the spindle 19 or the rotary member 53 to the pin 55 or the follower 54, and another coupling belt or device 57 for coupling the pin 55 or the follower 54 to the axle 52 or the wheel 51, or the wheel 51 may be directly coupled to the spindle 19 or the rotary member 53 without the pin 55 or the follower 54. A magnetic braking device (not shown) may be coupled the wheel 51 for braking the wheel 51.

**[0006]** The foot pedals 45 or the foot supports 40 may be stepped elliptically by the user, and the foot pedals 45 or the foot supports 40 may be stepped for a longer

distance than that for the pedaling or cycling exercisers.

**Claims**

1. An exerciser comprising a column extended from a base for supporting a seat, a spindle and a shaft attached to the column, two cranks attached to the column with the spindle and each including a rod, and two foot supports each including a front portion and a rear portion,  
**characterized in that:**

two levers each include an upper portion attached to the column with the shaft, and each include a lower portion, the rear portions of the foot supports are coupled to the lower portions of the levers, and the foot supports each include a middle portion coupled to the rod with a link, and the foot supports each include a foot pedal for being stepped elliptically by a user.

2. An exerciser as claimed in claim 1, wherein an arm is coupled between the crank and the lever for pivotally coupling the lever and the crank together.

3. An exerciser as claimed in claim 2, wherein the arm is coupled to a middle portion of the lever.

4. An exerciser as claimed in claim 2, wherein the arm is coupled to the rod of the crank.

5. An exerciser as claimed in one of claims 1 to 4, wherein a rotary member is attached to the spindle.

6. An exerciser as claimed in claim 5, wherein a follower is attached to the column with a pin and coupled to the rotary member with a coupling device.

7. An exerciser as claimed in claim 6, wherein a wheel is attached to the column with an axle and coupled to the follower with a coupling device.

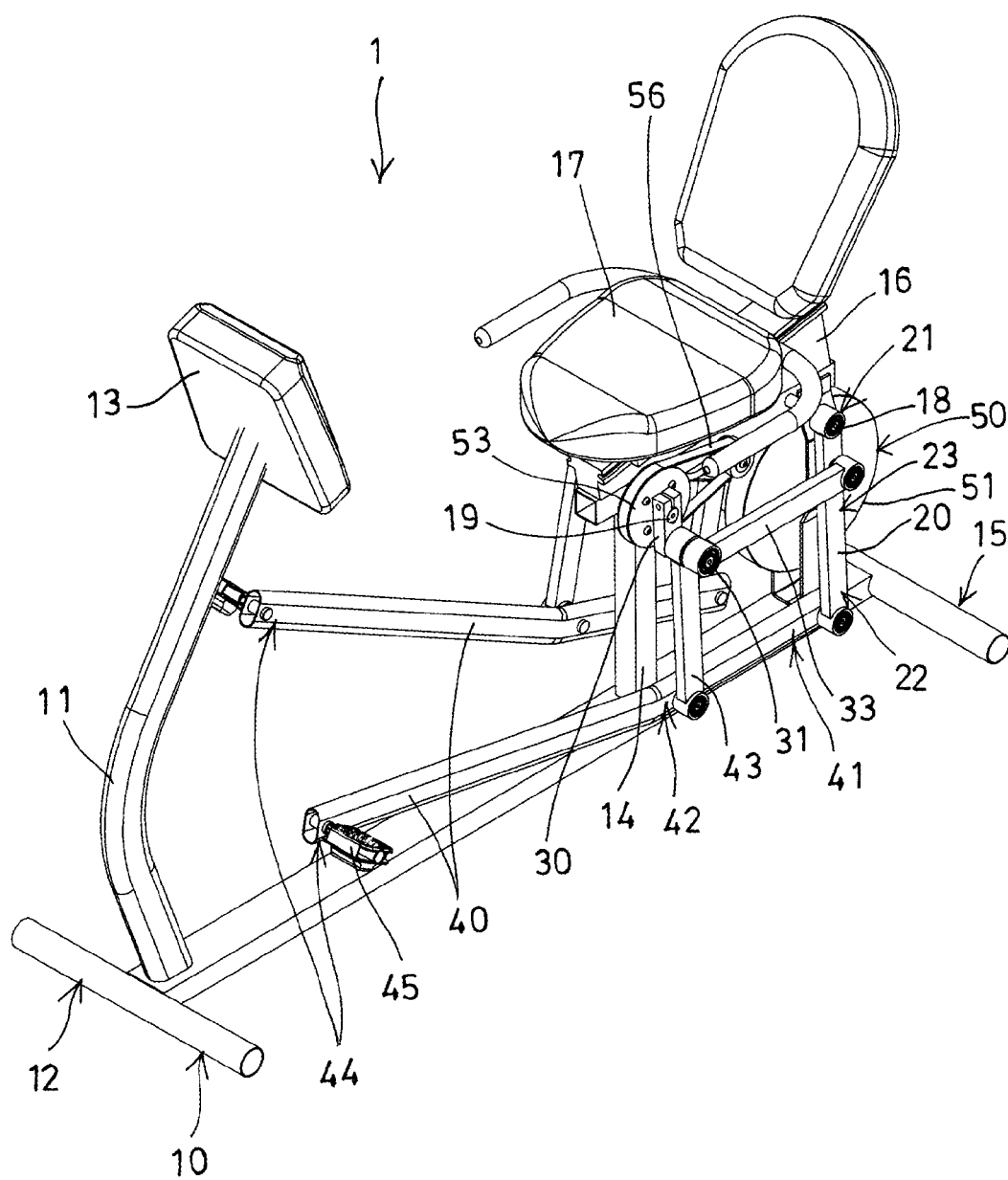


FIG. 1

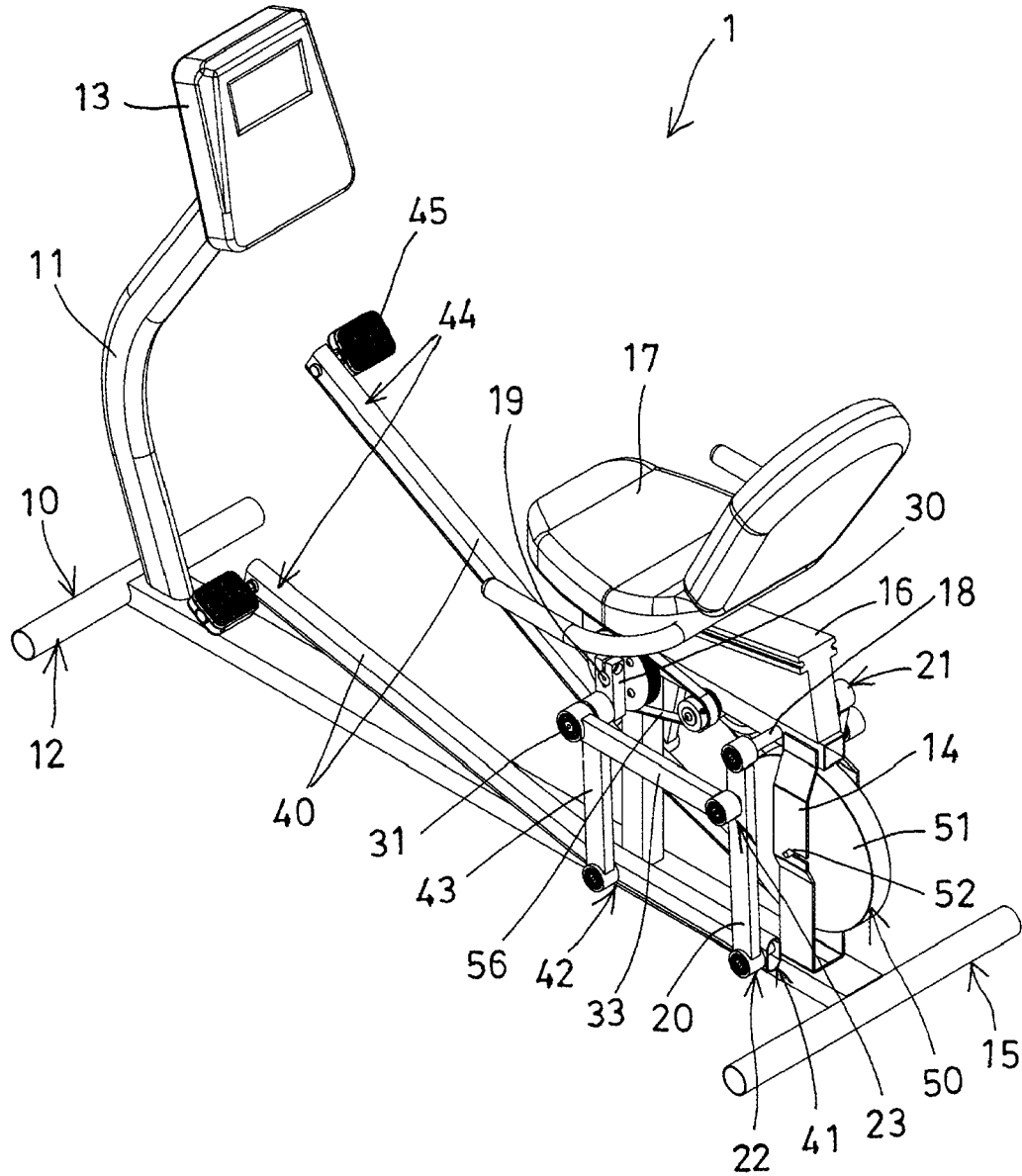
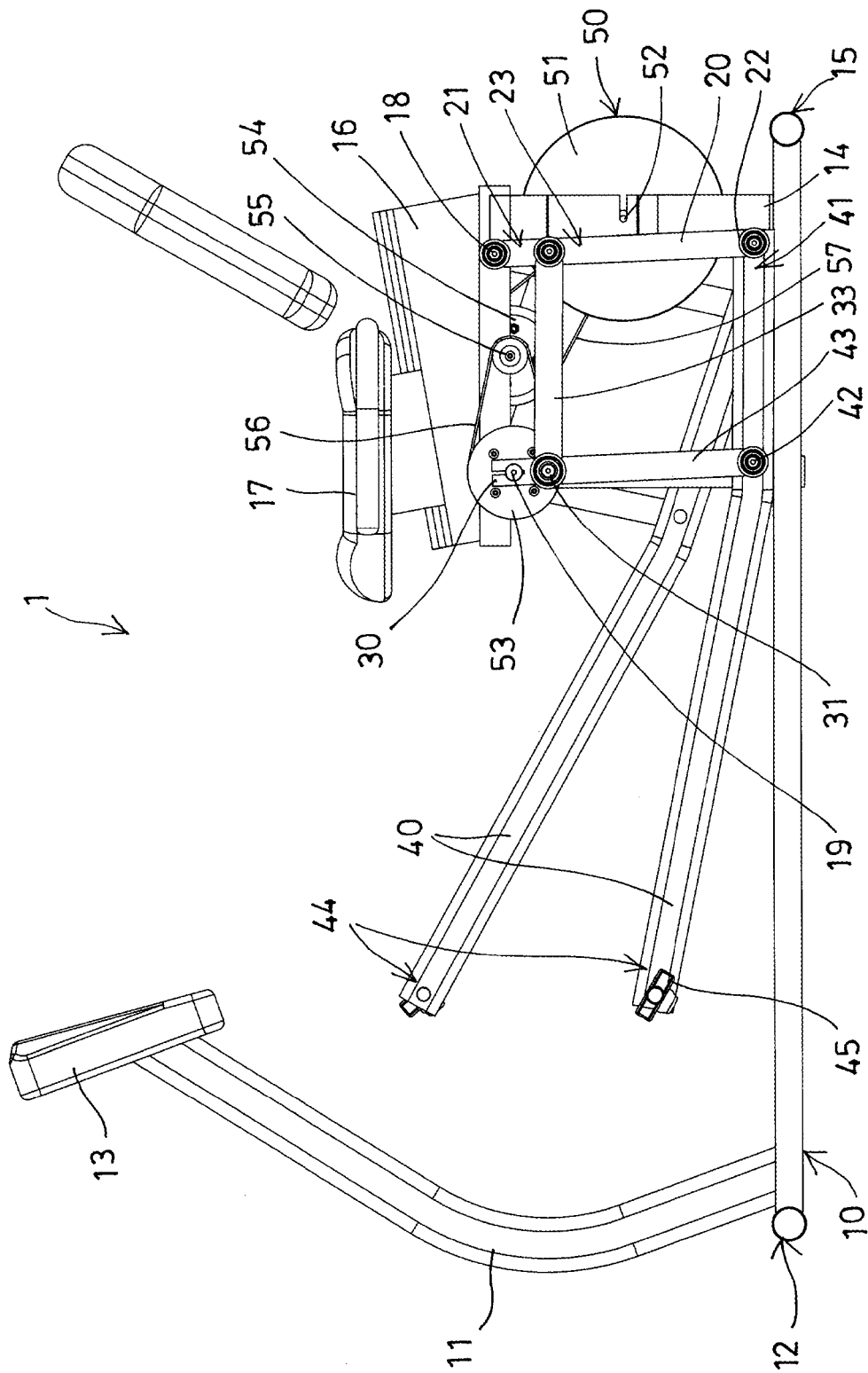


FIG. 2



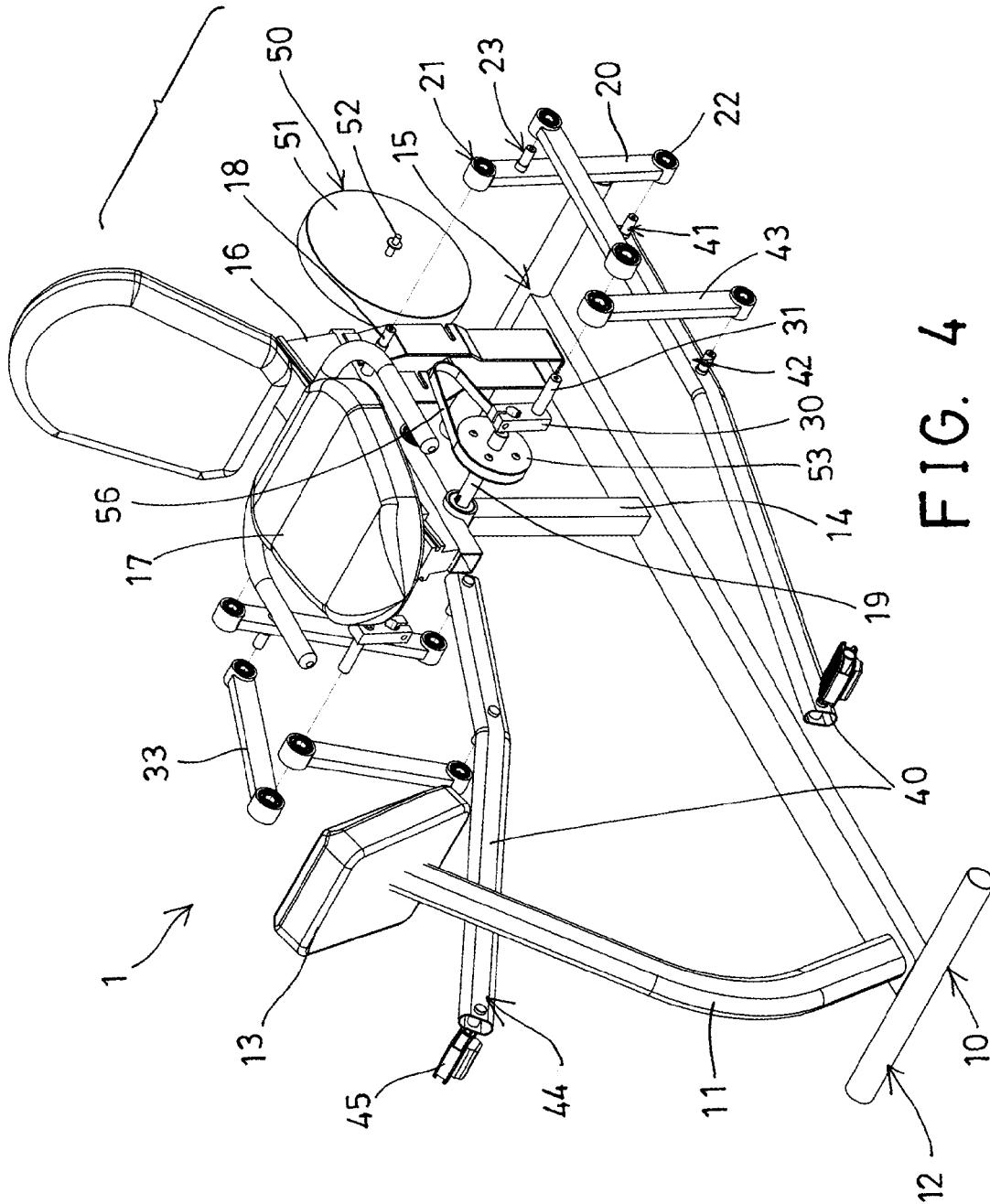


FIG. 4

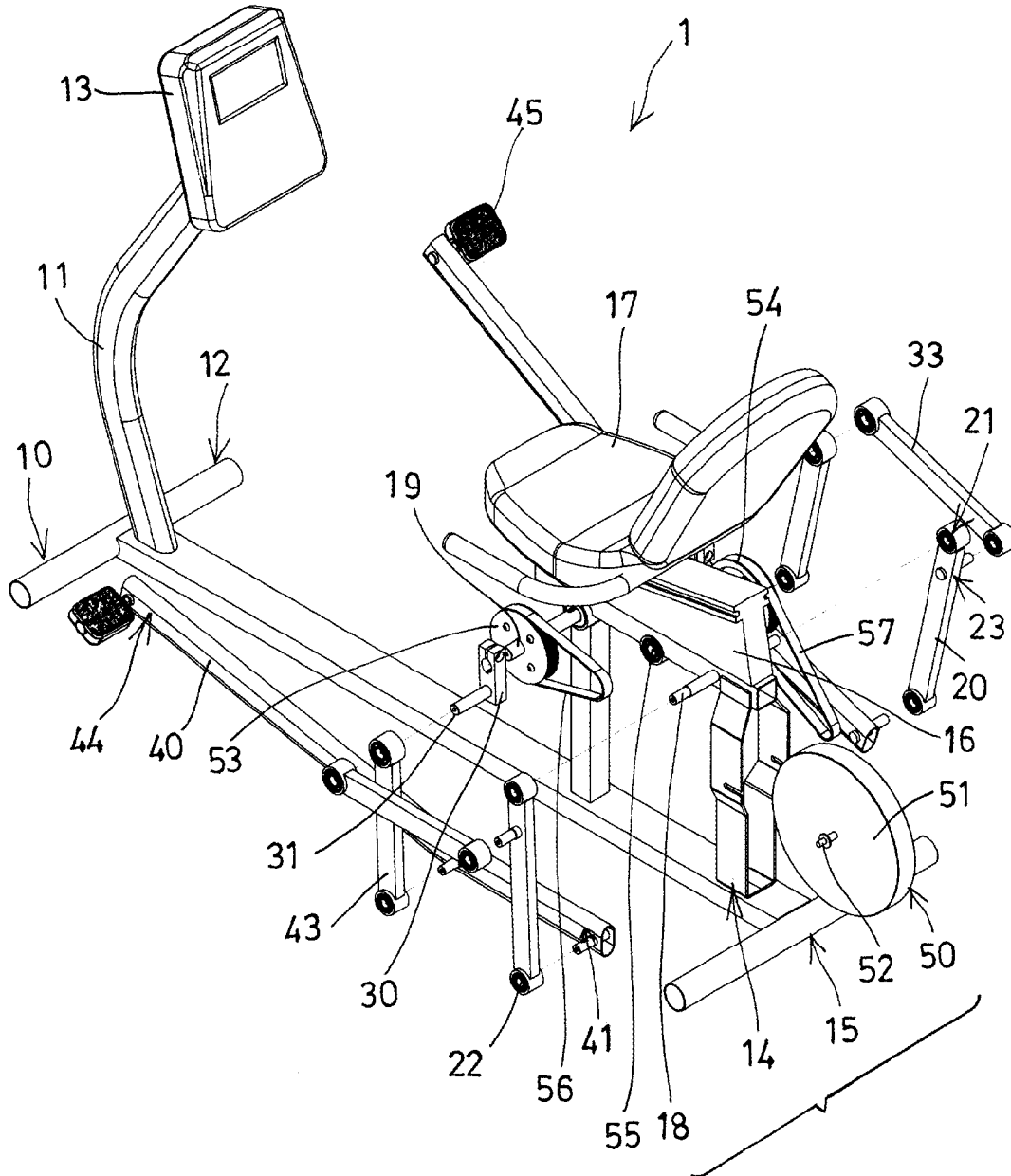
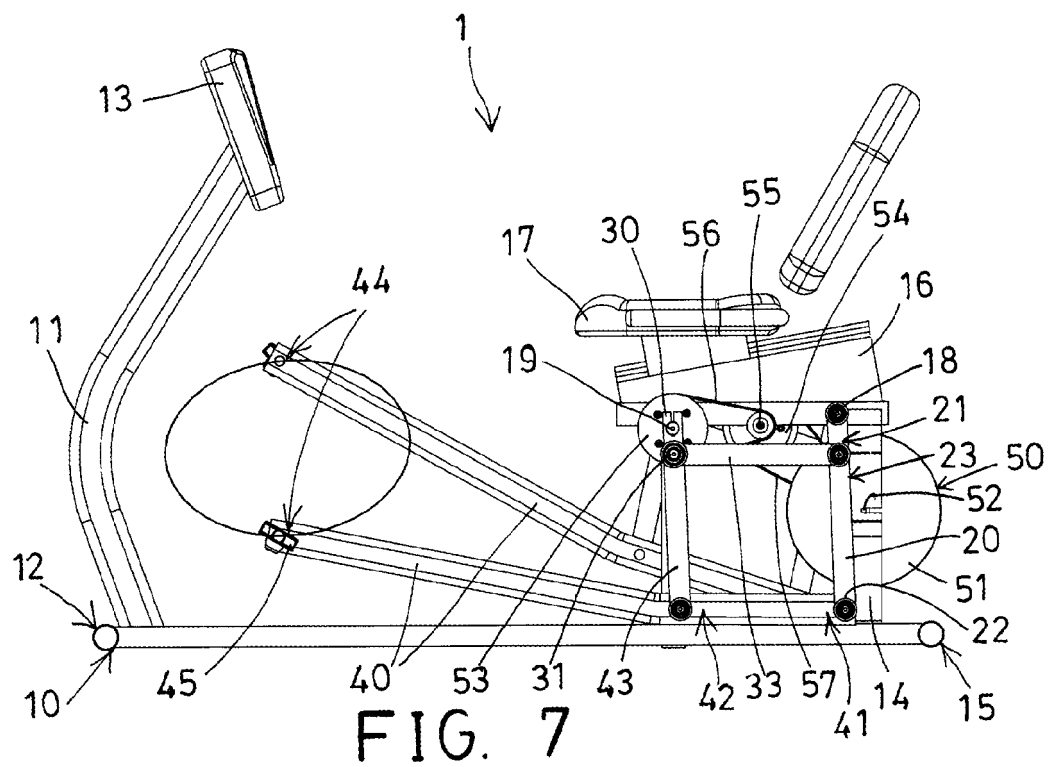
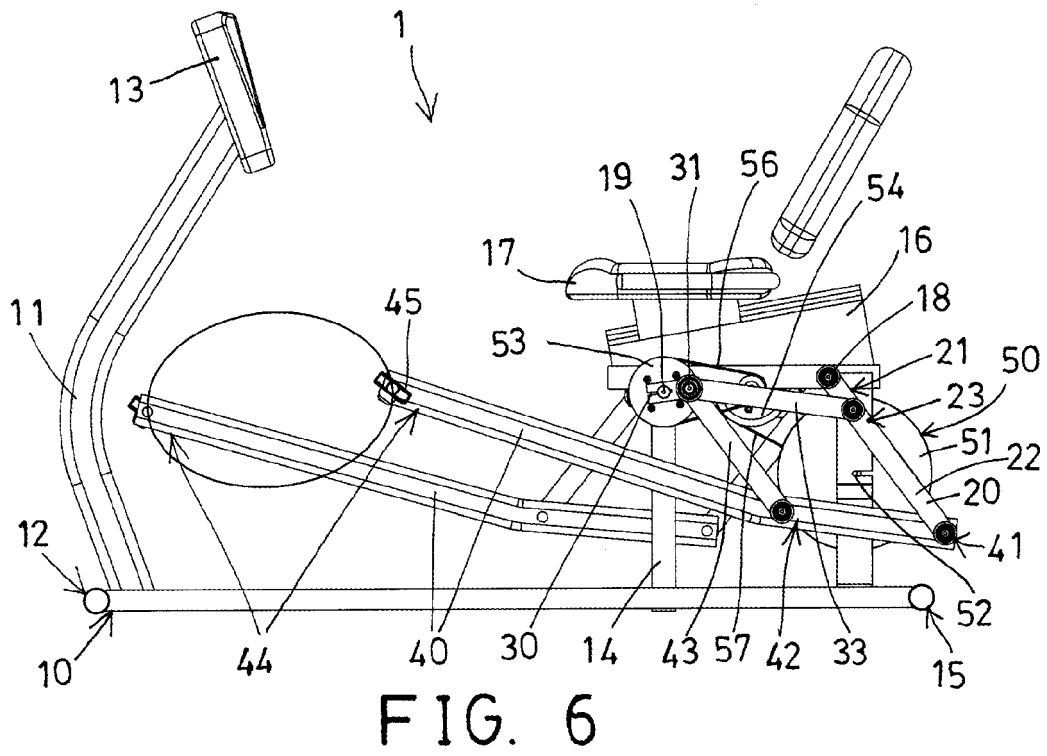


FIG. 5







## EUROPEAN SEARCH REPORT

Application Number  
EP 08 15 7372

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	US 5 836 855 A (ESCHENBACH PAUL WILLIAM [US]) 17 November 1998 (1998-11-17) * the whole document *	1-7	INV. A63B23/04
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X	WO 2006/014183 A (RODGERS ROBERT E JR [US]) 9 February 2006 (2006-02-09) * the whole document *	1-7	
The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (IPC)
			A63B
Place of search		Date of completion of the search	Examiner
The Hague		4 November 2008	Millward, Richard
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons ..... &amp; : member of the same patent family, corresponding document</p>			

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EPO FORM 1503 03 82 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT  
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EP 08 15 7372

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.  
The members are as contained in the European Patent Office EDP file on  
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04-11-2008

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