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United States Patent

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(12) **United States Patent**
Dzvonik

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(54) **HUMAN-POWERED CYCLE WHICH IS RIDDEN WHILE LYING DOWN**

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

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(56) **References Cited**

U.S. PATENT DOCUMENTS

4,592,563 A	*	6/1986	Dean et al.	280/253
4,700,962 A	*	10/1987	Salmon	280/220
4,796,907 A	*	1/1989	Geller	280/220
4,838,568 A	*	6/1989	Arroyo	280/234

4,878,684 A	*	11/1989	Lemle	280/288.1
D357,889 S	*	5/1995	Jones	D12/111
5,833,256 A	*	11/1998	Gilmore	280/224
5,979,922 A	*	11/1999	Becker et al.	280/252
6,000,707 A	*	12/1999	Miller	280/288.1
6,155,584 A	*	12/2000	Dallet	280/252

FOREIGN PATENT DOCUMENTS

DE	35 16 322	10/1986
DE	91 03 403	9/1991
DE	296 22 231	3/1997
EP	706 934	4/1996
JP	09095282	4/1997

* cited by examiner

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(57) **ABSTRACT**

A cycle having front wheel forks with a front wheel, a steering device connected to the front wheel forks, and rear stays with a rear wheel that has a free-wheeling hub. The cycle of this invention also includes a frame which connects the forks and the stays, a seat that can be fastened to the frame, a rear wheel drive, and foot actuating means for the rear wheel drive. The frame is formed by an individual essentially horizontal rail. The foot actuating devices are displaceably guided in the longitudinal direction of the rail. The foot actuating devices are formed by a foot rest for both feet. The seat can be displaced on the rail in a longitudinal direction of the rail, and the steering device is formed by handlebars between which the rail extends. The handlebars are provided with hand grips.

20 Claims, 5 Drawing Sheets

