



(19)

Europäisches Patentamt

European Patent Office

Office européen des brevets



(11)

EP 0 804 891 A1

(12)

EUROPEAN PATENT APPLICATION

published in accordance with Art. 158(3) EPC

(43) Date of publication:

05.11.1997 Bulletin 1997/45

(51) Int. Cl.⁶: **A47D 9/02**

(21) Application number: **96932602.4**

(86) International application number:

PCT/ES96/00181

(22) Date of filing: **20.09.1996**

(87) International publication number:

WO 97/10738 (27.03.1997 Gazette 1997/14)

(84) Designated Contracting States:

AT BE CH DE FR GB IT LI NL PT

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(30) Priority: **22.09.1995 ES 9502426 U**

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C/Explanada 8

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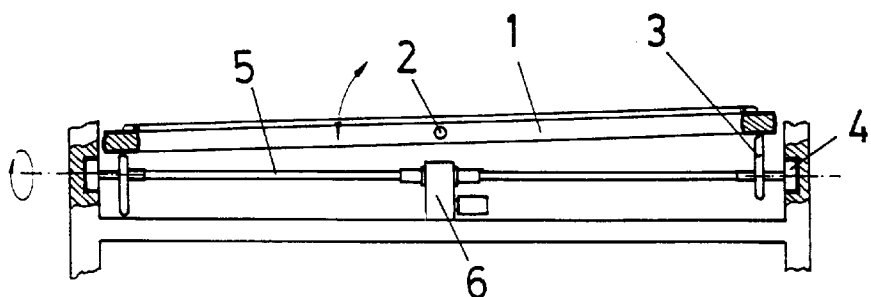
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(54) **AUTOMATIC ROCKING CRADLE**

(57) It incorporates a mattress (1) pivoting on the frame by means of projections (2), with limitation of the down or up motion of the longitudinal sides, by means of discs (3) which act as excentrics of a shaft (5) on which is mounted a demultiplication device or a coinoperated direct current motor (6) with simultaneous and synchronous playing of a music or prerecorded sounds, the

discs (3) being provided with protuberances (4), having bearings (4') for the alternating resting of the mattress (1), and being situated in a radial position and closer to the extremity, so that the protuberances are on diametrically opposite positions and at different heights with respect to the mattress (1).

FIG. 2 Secc. A-B



EP 0 804 891 A1

Description

OBJECT OF THE INVENTION

The proposed invention consists in an automatic rocking cradle based on a rigid structure cradle frame and its corresponding mattress which pivots on opposing projections of the mattress located in the center of its respective short sides.

The mattress has a limited lowering or raising motion of its long sides provided by side disks fitted with mattress supporting projections of different heights which in turn act as diametrically opposite cams in a shaft extending from a direct current motor which is manually activated by a switch, a coin insertion mechanism, a sound detector or some other conventional means, and which also provides the rocking cradle with music or relaxing sounds.

BACKGROUND OF THE INVENTION

The applicant is not aware of the existence of rigid, fixed cradle frames which possess a means of rocking the mattress, independent from the rest of the cradle, through motor driven means programmed or activated by different methods.

DESCRIPTION OF THE INVENTION

The invention that is the object of the present specification refers to an automatic rocking cradle based on a rigid structure for the frame, supported by conventional legs and provided with known lateral protectors and possibly anti-tilting means and which incorporates a mattress or equivalent element that pivots on the frame and over opposite lodging extensions of the mattress located in the center of its respective short sides.

The mattress is provided with a limited lowering or raising motion of its long sides by means lateral disks fitted with mattress supporting projections, so that the mattress leans on one of its long sides, specifically the one in the lower position, over the extension of the corresponding disk projection being applied.

The disks are identical, their projections being arranged in a radial position closer to the end than to the center, the disks themselves being positioned over the ends of a "U" installed below the mattress and arranged transverse to the mattress, so that the respective projections are positioned diametrically opposite each other and thus at different heights in respect to the mattress.

The disks in turn act as eccentric diametrically opposite wheels of a shaft extending transversely from a reduction gear or directly from a direct current motor activated either by periodic programming or manually through a switch, or else by means of a coin insertion mechanism, a sound detector or some other conventional means which accompanies the rocking cradle with the playing of music or pre-recorded sounds which

have a relaxing effect.

DESCRIPTION OF THE DRAWINGS

In order to complement the description set forth and provide a better and easier understanding of the characteristics of the invention, a set of drawings is attached to this specification, forming an integral part thereof, wherein the following is represented with an illustrative, non-limiting character:

Figure 1 shows a lower plan view of the rocking cradle frame, the mattress that pivots on the frame, the motor driving means and one of the cradle's conventional driving means.

Figure 2 shows a side elevation section of the invention illustrated in the previous drawing which better illustrates the arrangement of the motor driving means and the mattress activating disks.

PREFERRED EMBODIMENT OF THE INVENTION

In the light of these figures, the proposed invention shows an automatic rocking cradle fitted with a frame and known fixed side protectors, with or without anti-tilting means, which incorporates a mattress (1) that pivots over the frame by means of projections (2) in the center of its respective short sides, the frame being provided with a limited lowering or raising motion of its long sides by means of side disks (3) positioned over the ends of a "U" placed transverse to the mattress (1), the disks (3) being fitted with projections (4) and extensions at the other end of the disk (3) which receive an alternative support bearing (4') for the mattress and are located in a radial position closer to the end than the center, so that the respective projections are positioned diametrically opposite and at different heights in respect to the mattress (1).

The disks (3) act as diametrically opposite cams in an extended transverse shaft (5) of a reduction gear or directly from a direct current motor (6) activated either by periodic programming or manually through a switch, or else by means of a coin inserting mechanism (7), a sound detector or some other conventional means which synchronously accompanies the rocking cradle with the playing of music or pre-recorded sounds.

This description is not made more extensive in the understanding that an expert on the subject will have sufficient information to perceive the scope of the invention and the advantages deriving therefrom, and also to reproduce said invention.

It should be understood that, provided the essence of the invention is not altered, the materials, shape, size and arrangement of the elements are liable to variation.

The terms used in this description, and their meaning, must always be taken in a non-limiting sense.

Claims

1. Automatic rocking cradle of the type fitted with a frame and known fixed side protectors, with or without anti-tilting means, essentially characterized in that it incorporates a mattress (1) that pivots over the frame by means of projections (2) in the center of its respective short sides, the frame being provided with a limited lowering or raising motion of its long sides by means of side disks (3) positioned over the ends of a "U" placed transverse to the mattress (1), the disks (3) being fitted with projections (4) with alternative supporting bearings (4') for the mattress (1) located in a radial position closer to the end than the center, so that the respective projections are positioned diametrically opposite and at different heights in respect to the mattress (1). 5 10 15
2. Automatic rocking cradle according to the preceding claim, characterized in that the disks (3) act as diametrically opposite cams fitted onto the extended transverse shaft (5) of a reduction gear or directly on the shaft of a direct current motor (6). 20
3. Automatic rocking cradle according to the preceding claims, characterized in that the motor (6) is programmed for periodic activation, or else is manually activated by a switch, by a coin inserting mechanism (7), a sound detector or some other conventional means. 25 30
4. Automatic rocking cradle according to the preceding claims, characterized in that its motion is accompanied by the simultaneous and synchronous playing of music or pre-recorded sounds. 35

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FIG. 1

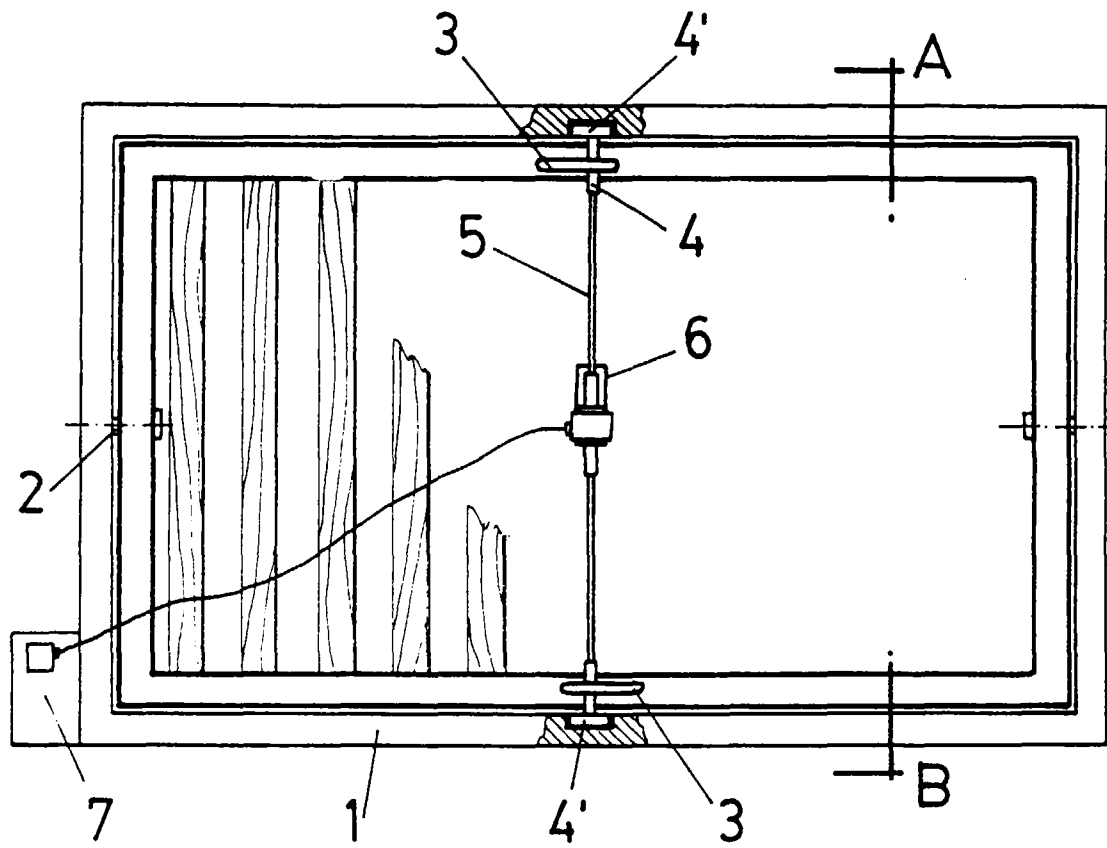
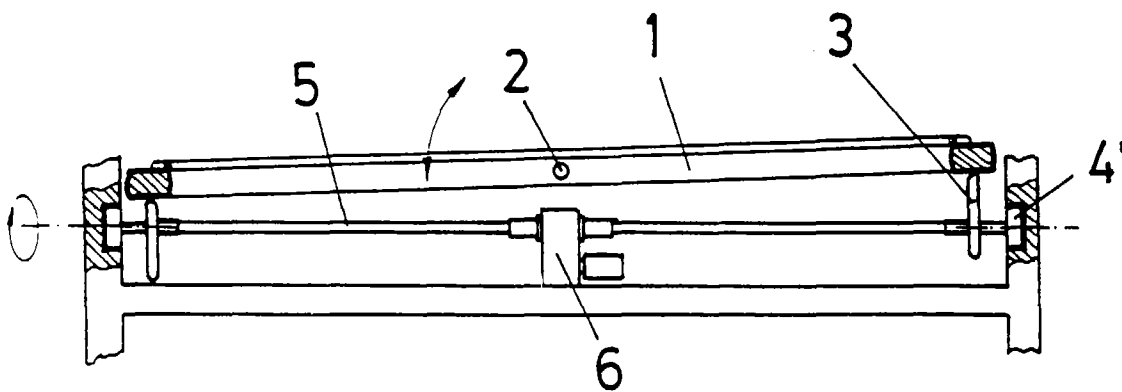


FIG. 2 Secc. A-B



INTERNATIONAL SEARCH REPORT

International application No.

PCT/ES 96/00181

A. CLASSIFICATION OF SUBJECT MATTER

IPC⁶ A47D9/02

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC⁶ A47D A47C

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

CIBEPAT, EPODOC, WPIL

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US,A,3 439 363 (MEEKS) 22 April 1969 (22. 04. 69) see the whole document	1,2
A	---	3
Y	US,A,3 570 023 (BENNETT) 16 March 1971 (16. 03. 71) see the whole document	1,2
A	---	1-3
A	US,A,3 849 812 (WALSH) 26 November 1974 (26. 11. 74) see the whole document	1-3
A	---	1-3
	ES,U,1 023 443 (SALAS ARROYO) 1 July 1993 (01. 07. 93) see the whole document & EP,A,0 606 815 (SALAS ARROYO) 20 July 1994 (20. 07. 94)	
A	---	3,4
	ES,A,322 635 (CABEZOS GONZALEZ) 1 December 1966 (01. 12. 66) see the whole document -----	

☐ Further documents are listed in the continuation of Box C.☒ See patent family annex.

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"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

14 January 1997 (14. 01. 97)

Date of mailing of the international search report

16 January 1997 (16. 01. 97)

Name and mailing address of the ISA/

S.P.T.O.

Authorized officer

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INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/ES 96/00181

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
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