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(54)A mobile filing cabinet

(57)A mobile filing cabinet provided with a moving device, which moving device comprises ground wheels, which can run over a runway, and a toothed wheel, which is in engagement with a profiled track extending along said runway. The toothed wheel can run over the track while being in engagement therewith. The profiled track comprises a perforated section, whereby a pitch distance between the perforations formed in said section is the same as the pitch of the toothed wheel.

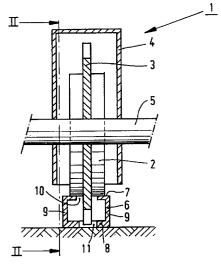


FIG. 1

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Description

The invention relates to a mobile filing cabinet provided with a moving device, which moving device comprises ground wheels, which can run over a runway, and a toothed wheel, which is in engagement with a profiled track extending along said runway, whereby said toothed wheel can run over said track while being in engagement therewith.

The invention furthermore relates to a moving device for moving an object.

In a filing cabinet known from German Patent DE-A1-1,258,344 the profiled track is a gear rack, which is disposed parallel to a runway.

One drawback of said known device is the fact that the manufacture of such a gear rack is relatively costly and time-consuming.

The object of the invention is to provide a mobile filing cabinet wherein the profiled track is relatively simple and inexpensive.

This objective is accomplished with the filing cabinet according to the invention in that said profiled track comprises a perforated section, whereby the pitch distance between the perforations formed in said section is the same as the pitch of the toothed wheel.

A perforated section of this kind can be obtained in a simple manner, for example by means of a cutting operation.

It is noted that from German Patent Application No. 1079296 a mobile filing cabinet is known wherein the filing cabinet is at a bottom side provided with rails, which each comprise two strips extending parallel to each other, with distance pieces mounted therebetween. The manufacture of rails of this type is relatively costly and time-consuming.

One embodiment of the filing cabinet according to the invention is characterized in that at least one of said ground wheels and said toothed wheel are rotatable in one and the same plane, with said runway and said profiled track being positioned one above the other.

This leads to a compact, relatively narrow moving device.

Another embodiment of a filing cabinet according to the invention is characterized in that a tubular section comprises said runway and said profiled track, whereby an upper side of said tubular section provided with an elongated slot comprises said runway and a bottom surface of said tubular section extending parallel to said upper surface comprises said profiled track, whereby said toothed wheel extends through said slot in said upper surface into said profiled track.

A tubular section of this kind is relatively inexpensive to produce.

The invention will be explained in more detail hereafter with reference to the drawing, in which:

Figure 1 is a cross-sectional view of a moving device for a filing cabinet according to the invention; Figure 2 is a longitudinal sectional view of the mov-

ing device shown in Figure 1;

Figure 3 is a perspective view of a tubular section according to the invention;

Figure 4 is a plan view of the tubular section shown in Figure 3;

Figure 5 is a cross-sectional view of a second embodiment of a moving device for a filing cabinet according to the invention; and

Figure 6 is a longitudinal sectional view of the moving device shown in Figure 5.

Like parts are numbered alike in the Figures.

Figure 1 is a cross-sectional view of a moving device for a filing cabinet according to the invention. The moving device 1 comprises a pair of ground wheels 2 and a toothed wheel 3, whereby said ground wheels 2 and said toothed wheel 3 lie in one and the same plane. Wheels 2 and 3 are rotatably journal led in an encasing 4. Toothed wheel 3 is provided with a driving shaft 5, which can be rotatably driven by means which are known per se and which are not shown, therefore.

The moving device 1 is furthermore provided with an elongated tubular section 6, which comprises an upper surface 7, a bottom surface 8 extending parallel to said upper surface and two lateral surfaces 9 extending transversely between upper surface 7 and the end surface, which lateral surfaces interconnect upper surface 7 and bottom surface 8. Upper surface 7 is provided with a slot 10 extending in the longitudinal direction of tubular section 6. A perforated track 11, which comprises perforations 12 which are spaced apart by a fixed pitch distance, is formed in bottom surface 8, opposite slot 8. The ground wheels 2 are supported on the upper surface 7 of tubular section 6. Toothed wheel 3 extends through slot 10 in upper surface and is in engagement with perforations 12 in perforated track 11. The pitch between two successive teeth of toothed wheel 3 corresponds with the pitch between perforations 12. Toothed wheel 3 runs over the perforated track as a result of being driven by driving shaft 5, and the filing cabinet connected to the encasing 4 is moved. Encasing 4 is secured to the filing cabinet by means which are known per se and which are not shown, therefore.

Figures 5 and 6 show a second embodiment of a moving device 13 for a filing cabinet according to the invention. The moving device 13 comprises a tubular section 14, whose upper surface 15 comprises the runway. Disposed within said tubular section 14 is a U-shaped section 16, of which a surface 17 extending parallel to the upper surface is provided with perforations 18 which are spaced apart by a fixed pitch distance. Opposite the track provided with perforations 18 a slot is formed in the upper surface, through which slot toothed wheel 3 extends.

Instead of providing slot 19 it is also possible to provide a perforated section in the upper surface 15 of tubular section 14. In that case U-shaped section 16 will be left out.

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Claims

- 1. A mobile filing cabinet provided with a moving device, which moving device comprises ground wheels, which can run over a runway, and a toothed wheel, which is in engagement with a profiled track extending along said runway, whereby said toothed wheel can run over said track while being in engagement therewith, characterized in that said profiled track comprises a perforated section, whereby the pitch distance between the perforations formed in said section is the same as the pitch of the toothed wheel.
- 2. A filing cabinet according to claim 1, characterized in that at least one of said ground wheels and said toothed wheel are rotatable in one and the same plane, with said runway and said profiled track being positioned one above the other.
- 3. A filing cabinet according to claim 2, characterized in that a tubular section comprises said runway and said profiled track, whereby an upper side of said tubular section provided with an elongated slot comprises said runway and a bottom surface of said tubular section extending parallel to said upper surface comprises said profiled track, whereby said toothed wheel extends through said slot in said upper surface into said profiled track.
- **4.** A moving device for moving an object such as defined in claims 1, 2 or 3.

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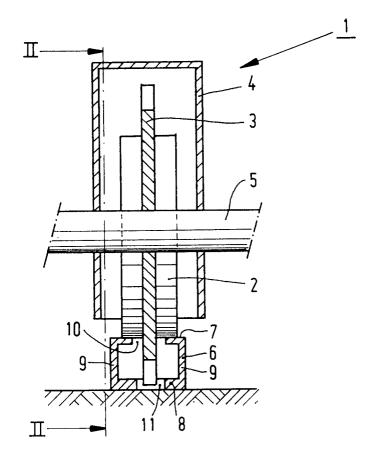
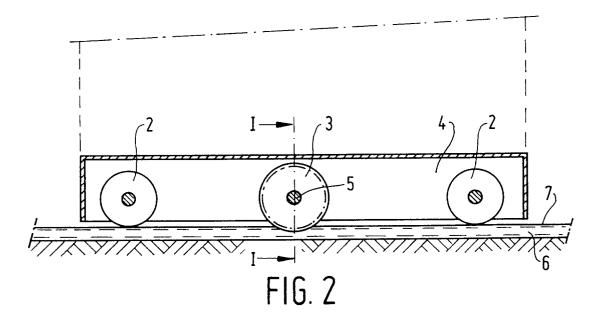


FIG. 1



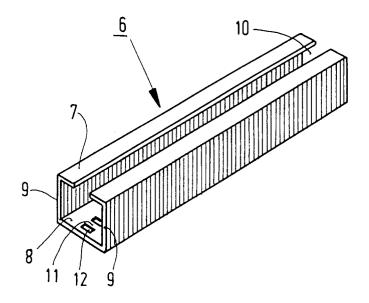
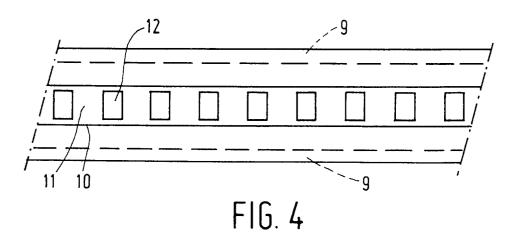
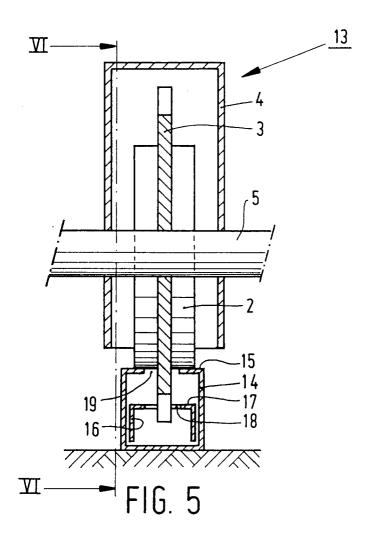
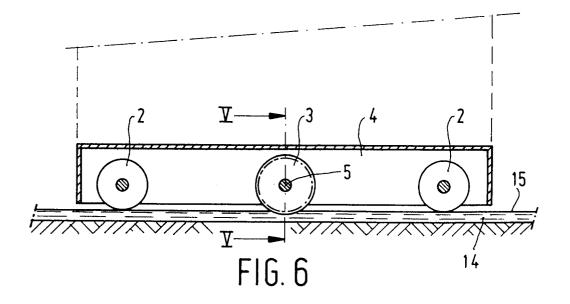


FIG. 3









EUROPEAN SEARCH REPORT

Application Number EP 96 20 3302

DOCUMENTS CONSIDERED TO BE RELEVANT Citation of document with indication, where appropriate, Relev			Relevant	CLASSIFICATION OF THE	
Category	of relevant passages		to claim	APPLICATION (Int.Cl.6)	
Y,D	DE 12 58 344 C (THIEME) * column 2, last paragi) 4 January 1968 raph - column 3,	1	A47B53/00	
Y	DE 10 79 296 C (STEINIOn to the column 1, paragraph 1 to the column 4, line 69 - 6	l; figures 1,3 *	1		
A	GB 934 891 A (KULTNER) * page 3, line 3 - line	- 21 August 1963 2 28; figures 6,8 *	1-3		
A	CH 580 524 A (FOCO FOR 1976 * figures 1,2 *	STER AG) 15 October	2		
				TECHNICAL FIELDS SEARCHED (Int.Cl.6)	
	The present search report has been d	rawn up for all claims			
Place of search Da		Date of completion of the search		Examiner	
THE HAGUE		11 March 1997	Jor	Jones, C	
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