Oct. 22, 1957 S. D. LAPHAM 2,810,151

CASTORED ROLLER WITH SELF-LAYING TRACK

Filed Sept. 26, 1955

FIG_1

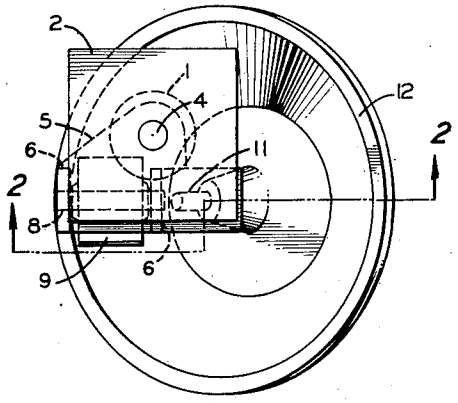


FIG_2

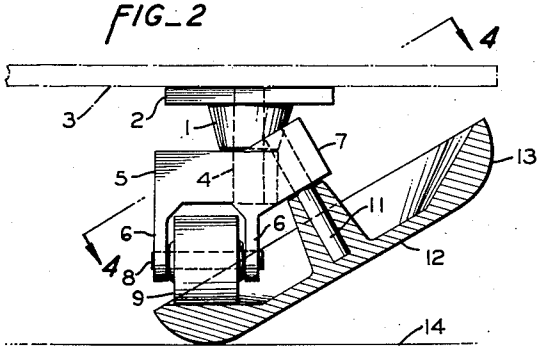


FIG_3

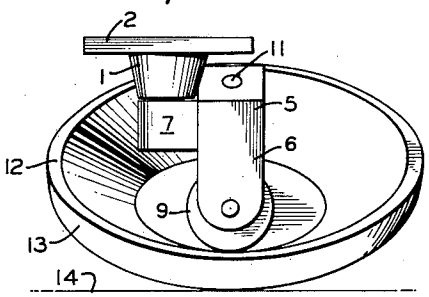
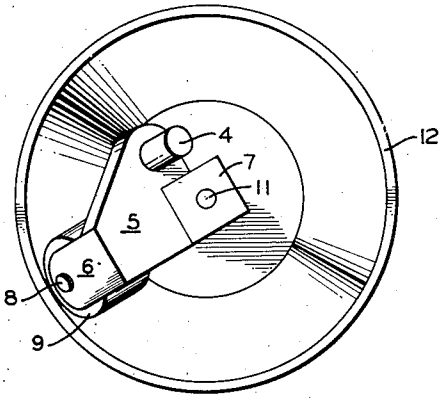


FIG_4



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CASTORED ROLLER WITH SELF-LAYING TRACK

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3 Claims. (Cl. 16—18)

This invention relates to and in general has for its object the provision of a castor for transports such as pallet dollies.

Pallets currently used for moving pallet loads of articles within the confines of cold storage rooms and box cars are preferably of a low height. This places a limitation on the maximum diameter of the castors on which the dollies ride. However, the floors of such rooms and box cars are usually slatted or provided with perforations of substantially large diameter for the circulation of air. It can therefore be appreciated that considerable difficulty is often experienced in moving and properly directing such dollies over floors of this character.

More specifically, one of the objects of this invention is the provision, in combination with a castor, of a self-laying track in the form of a relatively large inclined disc arranged for traction with the floor and on which the castor is arranged to track.

A further object of this invention is the provision of a combination of the character above described wherein the castoring point of the castor is laterally offset from the plane in which it would normally lie so that the castor will automatically align itself in the direction of travel of the dollie in which it is used.

The invention possesses other advantageous features, some of which, with the foregoing, will be set forth at length in the following description where those forms of the invention which have been selected for illustration in the drawings accompanying and forming a part of the present specification, are outlined in full. In said drawings, one form of the invention is shown, but it is to be understood that it is not limited to such form, since the invention as set forth in the claims may be embodied in other forms.

Referring to the drawings:

Fig. 1 is a top plan view of a castor self-laying track combination embodying the objects of my invention.

Fig. 2 is a vertical section taken on the offset section line 2—2 of Fig. 1.

Fig. 3 is a left hand elevation of the structure illustrated in Fig. 2.

Fig. 4 is a section taken on the section line 4—4 of Fig. 2.

The structure shown in these various figures comprises a pintle bearing 1 formed on its upper end with flange 2 for attachment to the bottom or frame of a dollie or other transport 3.

Journaled in the bearing 1 is a pintle 4 fixed at its lower end to a castor bearing block 5 formed with downwardly extending, spaced bearing ears 6 and with an inclined bearing lug. 7. Journaled in the ears 6 is a horizontal pin 8, and coaxially affixed to said pin is a castor roller 9. Journaled in the lug 7 is a pin 11, and secured to the lower end thereof is a dished disc 12 having a rounded outer peripheral edge 13 arranged for traction with a floor indicated by the line 14.

Although the pins 8 and 11 are inclined relative to each other, it is to be noted that they lie in a common vertical plane. It should also be noted that the roller 9 in addition to being rearwardly offset relative to the pintle 4 is also laterally offset relative thereto, whereas conventionally, a castor roller is only rearwardly offset relative to its pintle so as to track therewith. The bearing block 5 is free to rotate about the axis of pintle 4, the roller 9 is free to rotate about the axis of its pin 8 in traction with the inner face of the disc 12, and the disc 12 is free to rotate about the axis of its inclined pin 11 in traction with the floor. It is therefore apparent that the disc 12 serves as a self-laying track for the castor roller. Since the disc is inclined, it is possible to make it of a diameter considerably greater than the diameter of a conventional castor wheel, and the very fact that it is inclined increases its ability to bridge relatively large cracks and perforations.

It will be seen that as a result of this expedient it is possible to readily make a dollie pass over planked floors without increasing the height of the dollie and without the inconvenience of having the conventional castor rolls drop into the floor cracks or perforations.

I claim:

1. A structure of the character described comprising: a castor bearing block; a castor roller journaled in said block; and a dished disc journaled in said block on an inclined axis and with a portion thereof underlying said roller and in transaction therewith.

2. A structure of the character described comprising: a castor bearing block provided with an upstanding pintle; a castor roller journaled in said block rearwardly and laterally of said pintle; and a dished disc journaled in said block on an inclined axis and with a portion thereof underlying said roller and in traction therewith, the axis of said pintle being transversely offset relative to said roller.

3. A structure of the character described comprising: a castor bearing block provided with an upstanding pintle; a castor roller journaled in said block for rotation on a substantially horizontal axis; and a self-laying track disc journaled in said block for rotation on an inclined axis lying in a vertical plane containing the axis of said roller, said roller being in traction with the upper face of said disc and the lower face of said disc being arranged for traction with a floor.

References Cited in the file of this patent

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