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Lindelöw

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[54] **DEVICE FOR ROTATABLE SUPPORT OF ROLLS COMPRISING A WEB OF CLOTH OR SIMILAR**

[76] Inventor: **Björn T. Lindelöw,** Korshamnsvagen 8384, 430 41 Kullavik, Sweden

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[51] **Int. Cl.** **A47h 1/00,** 47g 5/02

[58] **Field of Search** 160/120, 241, 238, 242, 160/319; 242/55.2, 55.3, 66, 68.7, 73.5

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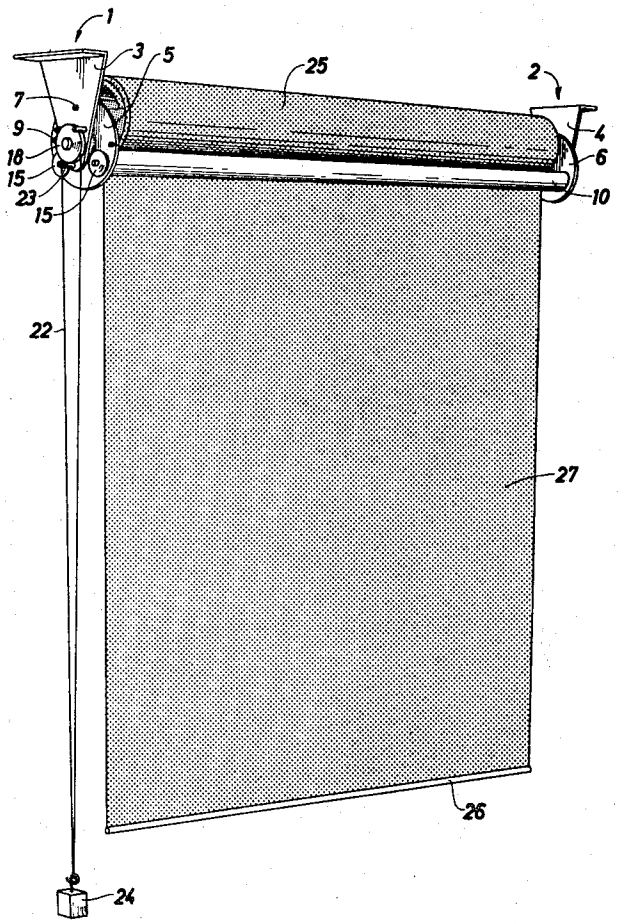
Primary Examiner—Peter M. Caun

[57] **ABSTRACT**

A device for the rotatable support of rolls of cloth or the like webs, which webs can be lowered from the device by the rotation of the roll to serve as a back ground screen, for example, in photographic studios and the web raised by rewinding the same to roll form on the device which is supported at an appropriate height when in use.

2 Claims, 4 Drawing Figures



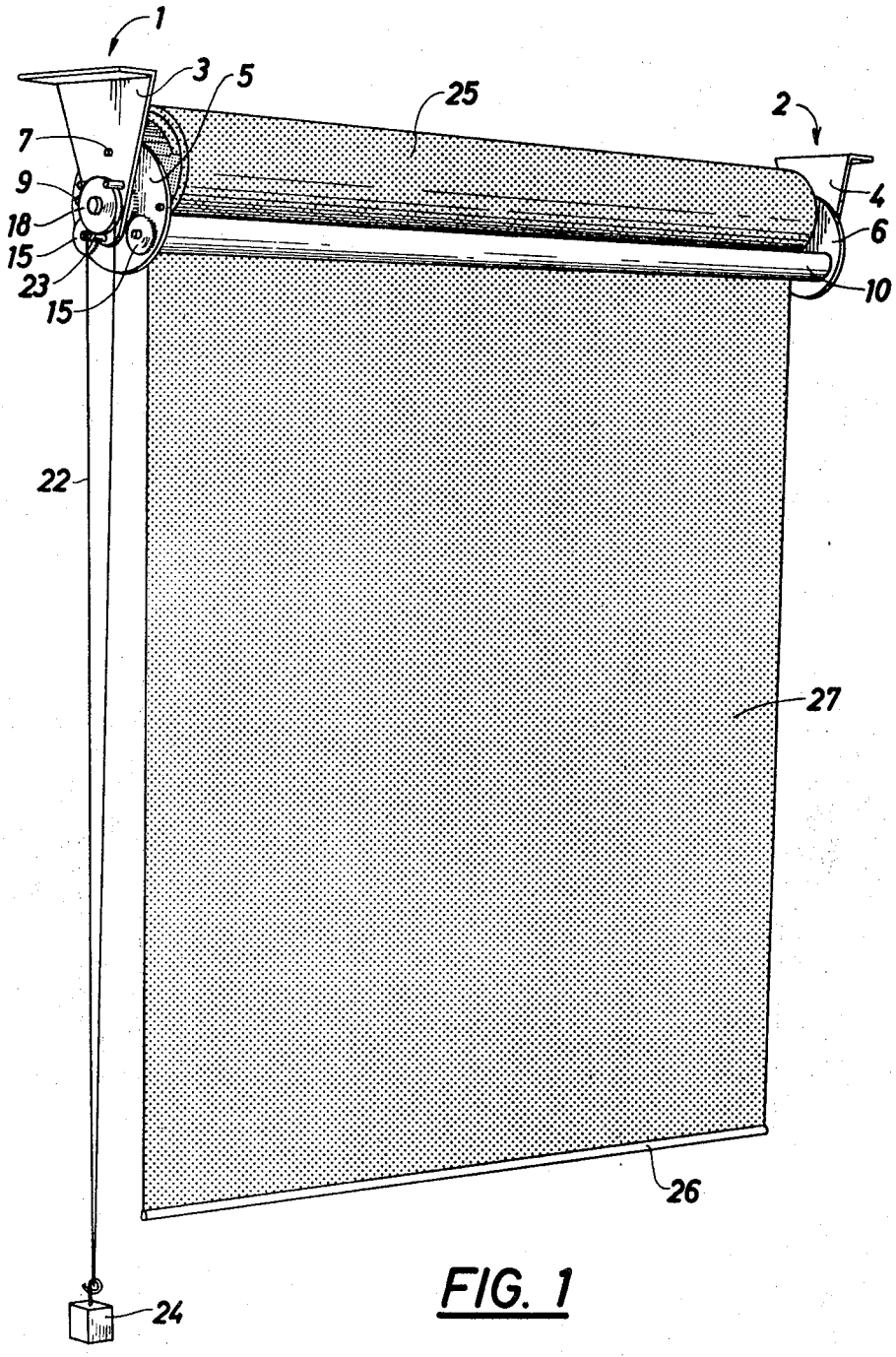


FIG. 1

INVENTOR.
BJÖRN LINDELÖW
BY
Linton and Linton
ATTORNEYS

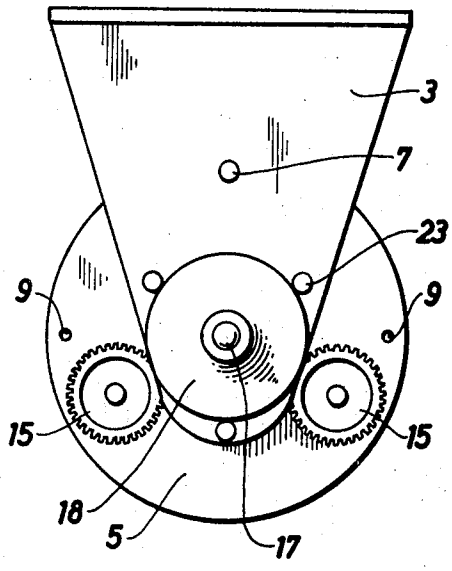


FIG. 2

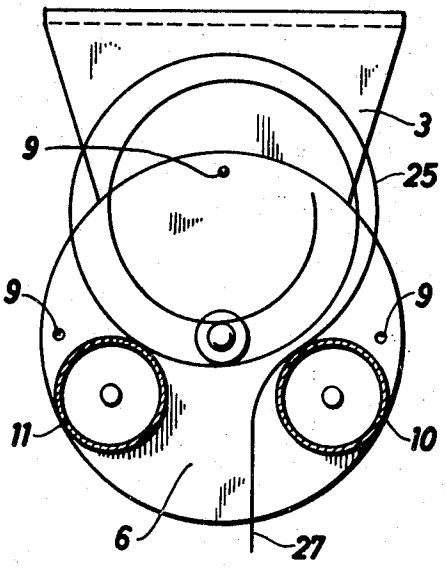


FIG. 3

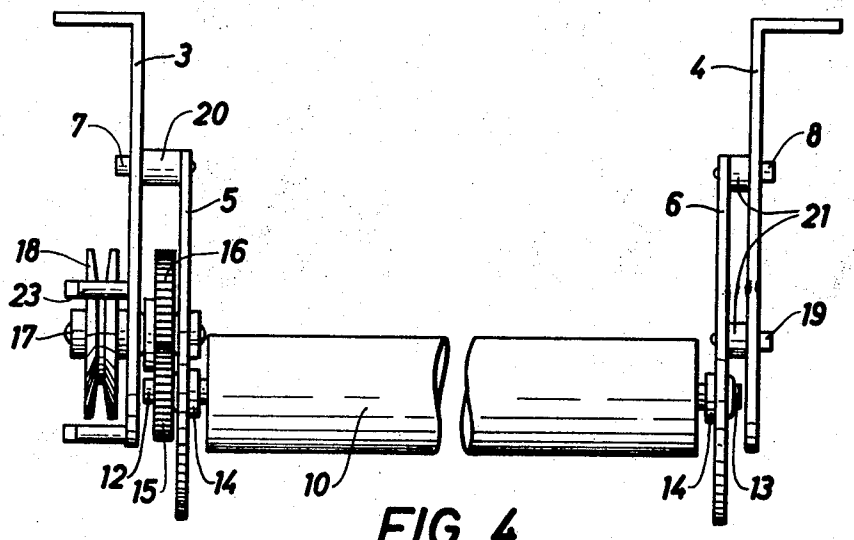


FIG. 4

INVENTOR.
BJÖRN LINDELÖW
BY
Linton and Linton
ATTORNEYS

DEVICE FOR ROTATABLE SUPPORT OF ROLLS COMPRISING A WEB OF CLOTH OR SIMILAR

The present invention relates to a device for rotatable support of rolls comprising a web of cloth or similar, which web by the rotation of the roll is unwound and lowered from the device, which is positioned at a suitable height level, said web thereby serving the purpose of a back ground screen by way of example in photographic studios, the device being arranged also for rewinding of the web to a roll form, and comprising two rotatably mounted and interspaced rollers, between which the web shall hang in suspension and the longitudinal axis of which are in a common horizontal plane in the intended working position.

When using roller screens as backgrounds in for example photographic studios it is of great value, if the screens are rapidly interchangeable. Because of the fact that quite a number of screens generally must be available it is also desirable that each screen roll shall be as simple as possible, as light as possible and occupy as little space as possible. Said conditions are not fulfilled in roller devices for said purpose according to the prior art. Such known roller devices require for their proper functioning that the roll is provided with a rotatable core, which means that in each mounting operation the core must be connected with the supporting means and be coupled to a rotation device for rewinding of the web. In order that the time required for change shall not be further prolonged, it is in addition a common feature that the web material of the roll is fastened to its own core, which, when a great number of rolls are involved, can mean a considerable investment and also that the rolls are heavy and bulky. It is an object of the present invention to eliminate these drawbacks by providing a device, which permits the roll simply to be placed into the same without the necessity to engage any shafts, and moreover, if the web is made of fairly stiff material, there is no need at all to have the roll provided with any core structure.

The object of the invention is obtained by making the device in such a manner that the rollers alone suspend and guide the screen roll and that they are coupled to a gear transmission enabling them simultaneously and at the same speed to be driven from said transmission, the screen roll bearing against the rollers thereby being rotated by friction.

An embodiment of the invention will now be described with reference to the accompanying drawings, in which

FIG. 1 illustrates a perspective view of the device carrying a screen roll,

FIG. 2 shows a view from the left of the device in FIG. 1, while

FIG. 3 is the device in FIG. 1 in a vertical cross sectional view at the right end along the center axis, as seen from the inside, and

FIG. 4 is a front view of the device, the longtudinal extension of the rollers being shortened by a portion having been cut off.

According to FIG. 1 the device comprises two end portions 1 and 2, each one comprising an angular support 3 and 4 respectively and a circular disc 5 and 6 respectively, which can be rotated in relation to its support around its centre, it also being possible to fix said disc at the support by means of a screw 7 and 8 respectively (see also FIG. 4) in three different positions in steps of 90° by the arrangement of three holes 9 correspondingly located in the discs 5 and 6 (see also FIGS. 2 and 3). The supports 3 and 4 as shown in FIG. 1 are intended to be fixed to a roof, but also to a wall, in the latter case the supports being pivoted 90° from the position illustrated in FIG. 1 in relation to the discs 5 and 6 respectively by changing the screws 7 and 8 to another one of the holes 9. The supports 3 and 4 can of course also be interconnected by an elongated bar, not shown, which in its turn is fixed or suspended. The end portions 1 and 2 after the mounting shall exhibit a predetermined distance in between them, which is adjusted according to two rollers 10 and 11, which by means of pivot pins 12 and 13 are pivotably suspended in bushings 14 of the discs 5 and 6. The pivot pins 12 of the rollers 10, 11 at the disc 5 as shown in FIGS. 2 and 4 are provided each one with identically shaped gears 15, which engage a gear 16 concentrically journalled in the disc 5. The gear 16 is mounted on a shaft 17, which extends through the support 3 and at the outside of said support carrying a pulley 18.

The rollers 10 and 11 according to FIG. 3 are suitably made of tubular material provided with inserted end portions with pivot pins, and they are suitably at least in part coated with or made of a friction material, by way of example, rubber. The discs 5 and 6 according to FIG. 4 are pivotably mounted relative to the respective supports on the disc 6 by means of a centric screw 19 and on the disc 5 by means of the shaft 17 journalled in said disc and the support 3. By spacers 20 and 21 an interspace is obtained between the discs and the respective supports, in which the ends of the shafts, the gear transmission, etc., are received.

The pulley 18 is intended to receive an endless cord 22 (see FIG. 1) which is impeded from sliding off the pulley by means of pins 23 and which is kept in tension by means of a weight 24.

The screen roll 25, which is going to be used together with the device, is made of fairly stiff material and is not equipped with any core, but at its free edge it is provided with a weighting bar 26. As is evident from FIGS. 1 and 3 the screen roll is placed on the rollers 10 and 11 with the portions 27 of the web, which shall be unwound, hanging down between the rollers.

When the device is going to be used, a screen roll 25 of the web material, stored in wound-up roll form is placed on the rollers 10 and 11. Thereafter the web material can be unwound by rotating the pulley 18 clockwise by means of the cord 22, the gear 16 by means of the shaft 17 joining in the resulting movement, so that also the gears 15 rotate. In the movement of the gears 15 the rollers 10 and 11 take part and are therefore rotating counterclockwise. By contact between the rollers and the web material the screen roll is rotating and its outer layers are successively unwound, whereby the web is lowered between the rollers. When approximately one layer of the screen roll is left, the unwinding movement is interrupted, so that the web material is not fed out between the rollers 10 and 11 in its intirety. When so desired the web material can again be rewound to roll shape by rotating the pulley 18 counterclockwise. By the weight 24 a braking action is obtained by means of friction between the hook of the weight and the cord, so that the web material cannot be unwound by its own weight.

As is evident from the above, a device is provided by the invention in which a screen roll can be placed in ro-

tatable mounting merely by simply placing the same on the two rollers, and in which arrangement the screen roll only in case it is made of very soft material does require any core, which in any case then can be of a very simple construction without pivot pins. Within the scope of the following claims the means for providing said object can be varied without therefore parting from the fundamental idea of the invention.

What we claim is:

1. A background screen device attachable to a wall or a ceiling comprising a rolled web for forming the background screen, two rotatably mounted and interspaced rollers whose longitudinal axises are parallel and positioned in the same horizontal plane, a rollers gear transmission connected to said rollers and capable of driving said rollers at the same speed in both directions, said web having a portion extending between and frictionally engaging said rollers for being unwound and wound by said rollers with the free end of said web portion hanging down between and from said rollers.

2. Background screen according to claim **1,** characterized by said rollers at each end being journalled on circular discs which at their center are pivotably mounted on supports and means for fixing said discs relative to said supports in two positions differing 90° depending on whether said supports are fixed to a wall or a ceiling whereby said rollers are placed in a horizontal plane.

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