No. 774,140. PATENTED NOV. 1, 1904.

L. & E. E. THOMAS.

PICTURE HANGER.

APPLICATION FILED NOV. 20, 1903.

NO MODEL.

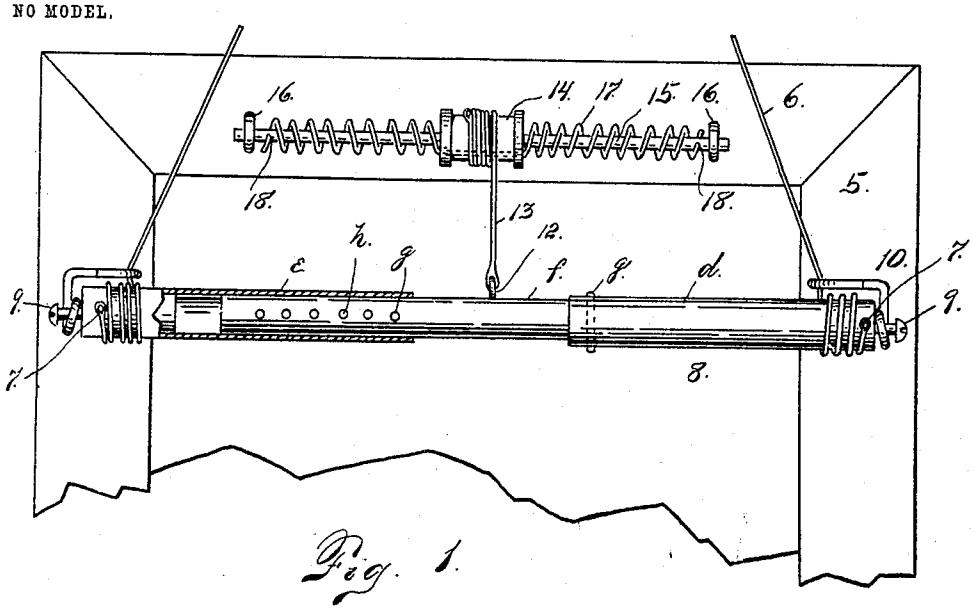


Fig. 1.

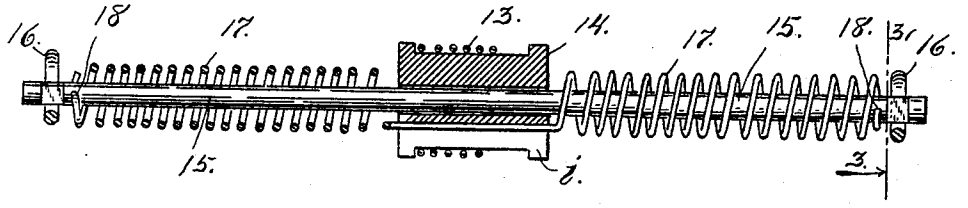


Fig. 2.

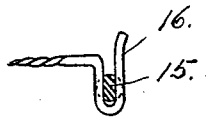


Fig. 3.

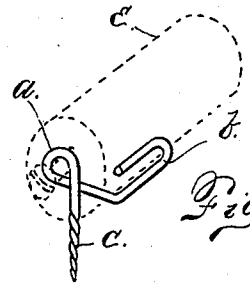


Fig. 4.

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UNITED STATES PATENT OFFICE.

LEMIEL THOMAS AND ELZA E. THOMAS, OF EDGEWATER, COLORADO.

PICTURE-HANGER.

SPECIFICATION forming part of Letters Patent No. 774,140, dated November 1, 1904.

Application filed November 20, 1903. Serial No. 181,975. (No model.)

To all whom it may concern:

Be it known that we, LEMIEL THOMAS and ELZA E. THOMAS, citizens of the United States of America, residing at Edgewater, in the county of Jefferson and State of Colorado, have invented certain new and useful Improvements in Picture-Hangers; and we do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

Our invention relates to improvements in picture or mirror hangers, our object being to provide a device adapted to be connected with the frame of a picture, mirror, or like article, whereby the article may be vertically adjusted upon the wall at will, the mechanism being so constructed and arranged that when the article is adjusted it will normally remain in the adjusted position until it is desired to change that position. The invention will now be described in detail, reference being made to the accompanying drawings, in which is illustrated an embodiment thereof.

In the drawings, Figure 1 is a rear view of a picture or mirror frame with our improved device applied. Fig. 2 is an enlarged sectional view of the spring-held spool shown in connection with its spindle. Fig. 3 is a section taken on the line 3 3, Fig. 2. Fig. 4 is a perspective detail view of one end of the roller, which is indicated by dotted lines, while the bracket which the roller engages is shown in full lines.

The same reference characters indicate the same parts in all the views.

Let the numeral 5 designate the frame of the article to be suspended, and 6 the cord or wire employed for suspending or hanging the article. The extremities of this cord remote from the wall-support (not shown) are secured at 7 to a roller 8, whose extremities are provided with screws 9, forming journals for the roller. These screws pass through brackets 10, each of which is formed from an integral piece of wire bent to form an eye *a*, a guide *b*, and a retaining-screw shank *c*. The shank *c* is screwed into the frame of the article on the rear side, while the guide *b* projects above the roller extremity. (See Fig. 1.) The roller 8 is composed of three parts *d*, *e*, and *f*. The parts *d* and *e* are tubular, and the central part *f* telescopes in the said tubular parts, whereby the roller is extensible to adapt it for use with frames of varying width. The parts *d* and *e* are connected with the part *f* by means of pins *g*, which may be removed when it is desired to change the length of the roller, the part *f* being provided with a number of pin-holes *h* for this purpose. Hence when the roller is adjusted and the connections made by the insertion of the pins *g* the roller is practically an integral device. The central portion of this roller is provided with an eye 12, to which is connected one extremity of a cord 13, whose opposite extremity is made fast to a spool 14, journaled upon a spindle 15, whose extremities are held fast in eyes 16, made fast to the frame 5 above the brackets 10. A coil-spring 17 surrounds the spindle 15, and its central portion engages a slot *i*, formed in the spool, whereby as the latter is rotated in one direction the tension of the spring is increased, since the extremities of the spring are made fast to the spindle, as shown at 18.

When the device is applied to the frame, the tension of the spring 17 is regulated to balance the weight of the article to be suspended. It may be assumed that the cord 13 is wound a number of times upon the spool 14 and that the extremities of the supporting-cord 6 are wound a number of times upon the roller 8. Now if it be assumed that the frame 5 is suspended by the cord 6, if it be desired to lower the frame a downward pull thereon will cause the cord 6 to unwind from the roller 8, turning the latter and winding the cord 13 around the said roller in the opposite direction from the cord 6. This can be continued until the convolutions of the cord 6 on the roller are unwound therefrom, in which event the frame will be suspended directly from the points where the cord 6 is attached to the roller. The weight of the frame, together with the picture or mirror, will then be such as to balance the tension of the spring

17. It will be understood that the tension of this spring has been increased by the winding of the cord 13 upon the roller 8. Now if it be desired to raise the picture, mirror, or other suspended article all that is necessary is to lift the picture, when the tension of the spring 17 will cause the cord 13 to unwind from the roller 8, turning the latter and winding the cord 13 upon the spool, while the cord 6 is wound upon the extremities of the roller 8. As soon as the article has been properly adjusted it is released and maintains itself in the proper position through gravity, thus preventing the further unwinding of the cord 13, assuming that the latter has not been entirely unwound from the roller 8.

Having thus described our invention, what we claim is—

1. In a hanger for pictures, mirrors or similar articles, the combination with the article to be supported, of a spring-tensioned spool mounted on the said article, a roller also journaled on the article in suitable proximity to the spool, a cord connected with the spool at one extremity and with the roller at the opposite extremity, and a suspension-cord whose extremities remote from the point of suspension are connected with the extremities of the roller, the tension of the spool being regulated to balance the weight of the suspended article when the latter is properly adjusted.

2. The combination with the article to be supported of a spool mounted to rotate upon the said article, a spring connected with the spool and whose tension is controlled by the turning of the latter, a roller journaled on the article to be supported, a cord connecting the spool with the roller, and a suspension-cord whose extremities remote from the point of suspension are connected with the extremities of the roller, and suspension-cord guides mounted on the frame at the roller extremities, substantially as described.

3. The combination with the article to be supported of a rod mounted on the said article, a spool loose on the rod, a coil-spring surrounding the rod and connected with the spool whereby the rotation of the latter controls the tension of the spring, a roller also mounted on the article to be supported, a cord connecting the spool with the roller, and a suspension-cord connected with the extremities of the roller.

4. The combination with the article to be supported of a spool mounted to rotate on the said article, a spring connected with the spool whereby the tension of the spring is regulated by the movement of the spool, an extensible roller journaled on the article to be supported, a cord connected with the spool at one extremity and with the roller at the opposite extremity, and a suspension-cord whose extremities are connected with the opposite extremities of the roller.

5. In a hanger of the class described, the combination with the article to be supported of a rod, devices connected with the article to be supported and engaging the rod extremities to prevent the latter from turning, a spool centrally mounted on the rod and provided with a longitudinal slot, a coil-spring mounted on the rod and whose central portion engages the slot of the spool, whereby the tension of the spring is controlled by the rotation of the spool on the rod, a roller journaled on the article to be supported, a suspension-cord whose extremities remote from the point of suspension are connected with the roller, and a cord connected with the spool at one extremity and with the roller at the opposite extremity.

In testimony whereof we affix our signatures in presence of two witnesses.

LEMIEL THOMAS.
ELZA E. THOMAS.

Witnesses:
DENA NELSON,
A. J. O'BRIEN.