(No Model.)

L. CHURCH.

PICTURE HANGER.

No. 522,510. Patented July 3, 1894.

Fig.1

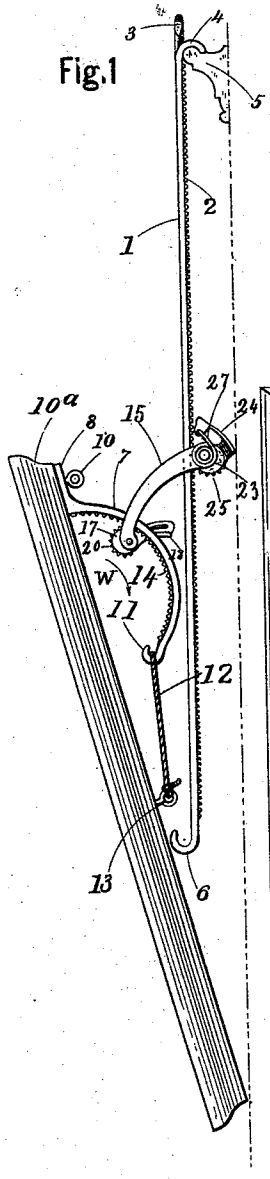


Fig.2

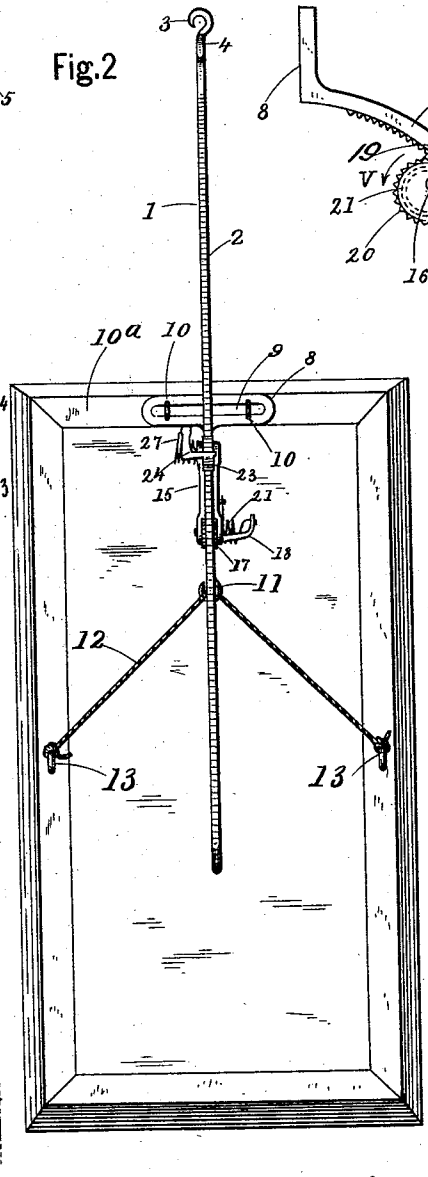


Fig.3

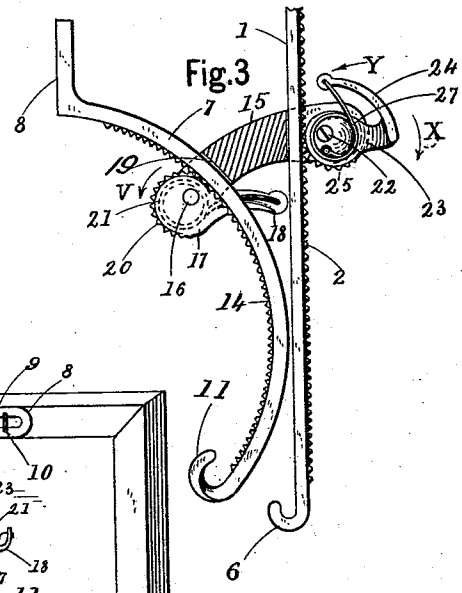
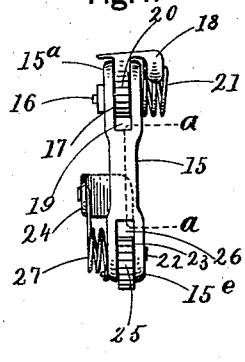


Fig.4.



Witnesses.

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UNITED STATES PATENT OFFICE.

LOUIS CHURCH, OF BUFFALO, NEW YORK.

PICTURE-HANGER.

SPECIFICATION forming part of Letters Patent No. 522,510, dated July 3, 1894.

Application filed November 1, 1893. Serial No. 489,691. (No model.)

To all whom it may concern:

Be it known that I, LOUIS CHURCH, a citizen of the United States, residing in Buffalo, in the county of Erie and State of New York, have invented certain new and useful Improvements in Picture-Hangers, of which the following is a specification.

My invention relates to certain improvements in picture hangers whereby a single suspending rod is combined with adjusting devices for adjusting the picture frame either up, down, or sidewise and also for adjusting its inclination, all of which will be fully and clearly hereinafter described and claimed reference being had to the accompanying drawings, in which—

Figure 1, is a side elevation, showing the device connected with a picture frame. Fig. 2, represents a back view of the same, also showing it attached to a picture frame. Fig. 3, is an enlarged detached side elevation of the picture frame adjusting device, showing only a portion of the suspending rod, the arm for carrying the toothed cams being in section, on line, *a*, *a*, Fig. 4. Fig. 4, represents a rear view of the arm for carrying the toothed cams.

Referring to the drawings in detail, 1, represents the substantially vertical suspending rod. It is preferably made round or nearly so in cross section, of brass or iron, but any other suitable material may be used. At the back of the suspending rod 1, is a series of notches or teeth, 2, which extend nearly the whole length of said rod. The top of the suspending rod is provided with two hooks, 3 and 4, the hook 3, being used to connect it to a nail when required, the hook 4, being adapted to catch over a molding, 5, substantially as shown in Fig. 1. The hook, 3, if required may be made in the form of a loop or ring adapted to be easily placed over a nail. At the lower end of the suspending rod is another hook portion, 6, the object of which is to prevent the rod from being pulled entirely out from its holding device. It will be noticed that the hook, 4, is placed substantially at right angles to the hook, 3, thereby adapting it to catch over a molding as hereinbefore mentioned.

7, represents a nearly semicircular supporting bar. It is provided with a base or attaching portion, 8, having a slot, 9. This portion, 7, is adapted to be attached to the back of the frame at the top by means of screws or screw eyes, 10, which pass through the slot, 9, into the frame, 10^a. This slot, 9, is made long enough to allow the device to be adjusted laterally when required.

The lower end of the supporting bar, 7, is provided with a hook, 11, which catches over and holds the suspending cord, 12. This cord, 12, is made of wire or other well known material adapted for the purpose, it is attached to the frame in the usual way by screw eyes, 13.

On the inner side of the curved supporting bar 7, is a series of notches or teeth, 14, the object of which will appear farther on. The toothed cam supporting arm 15, is slotted at each end at 15^a, and 15^c. In the end 15^a, is pivoted eccentrically by a pin, 16, a toothed cam, 17, it is provided with a thumb piece, 18, by which it is turned on its pivot, 16. Between the periphery of the cam and end of the slot at 15^a, is an opening 19, in which the curved bar, 7, is placed so that the teeth, 20, in the cam, 17, engage with the teeth, 14, in the curved bar, 7, and are kept in engagement by means of a spring, 21. The cam is easily disengaged by pressing on the thumb piece, 18, so as to turn the cam in the direction of the arrow, *v*, Fig. 3. From the above description it will be seen that by thus disengaging the cam, the arm, 15, can be moved along the curved bar, 7, in either direction, and that on releasing the thumb piece, the spring will immediately act and bring the teeth into close engagement so that the arm, 15, cannot be moved downward or in the direction of the arrow *w*, (see Fig. 1,) and that the greater the force brought against it in that direction, the stronger it will be held at the point to which it may have been adjusted. At the opposite end of the arm, 15, or at the end 15^c, is pivoted eccentrically by a pin, 22, another toothed cam wheel, 23. This cam wheel is also provided with a thumb piece, 24, by which it may be turned on its pivot. Between the teeth, 25, of this cam wheel and the end of the slot or opening at 15^c, is a space, 26, large enough to allow the vertical rod, 1, to slide between them when the cam is in position to permit it.

To keep the cam, 23, in its normal position

or its teeth in contact with the teeth, 2, (see Fig. 3,) a spring, 27, is used which holds it back in the direction of the arrow, *x*. To release the cam so that the rod, 1, may be slipped easily up or down, all that is necessary to do is to press on the thumb piece, 24, in the direction of the arrow, *y*, and the moment the thumb piece is released, the spring acts and the can holds the arm, 15, rigidly at the point to which it may have been adjusted.

From the above description it will be seen that a picture frame may be easily adjusted up or down by means of the toothed cam, 23, and the toothed rod, 1. The inclination of the frame may be adjusted by means of the curved bar, 7, and its connecting cam wheel, or the frame may be adjusted laterally by means of the slot, 9, and the holding screws.

I claim as my invention—

1. In a picture frame hanger, the combination with a single vertical suspending rod provided with a series of teeth extending down one side, of a cam supporting arm, having one end secured to an attachment adapted to be fastened to a frame and its opposite end provided with a toothed cam wheel pivoted eccentrically to the supporting arm and adapted to engage with the teeth in the vertical supporting rod, a spring for holding the cam wheel in engagement therewith and a thumb piece by which it may be disengaged therefrom, whereby the frame may be adjusted vertically up or down and firmly secured at the point adjusted, substantially as described.

2. In a picture frame hanger, the combination of a single nearly vertical suspending rod having a series of teeth extending down one side, a cam supporting arm having at one end a toothed cam wheel pivoted eccentrically thereto, a curved bar adapted to be secured to a frame and having teeth on its inner side for engaging with the teeth in the cam wheel, a spring for holding the cam wheel in engagement and a thumb piece for disengaging it, and means for holding the opposite end of the cam supporting arm to the vertical suspending rod, whereby the inclination of a frame to which the device may be attached can be adjusted and secured, substantially as described.

3. In a picture frame hanger, the combination of a single nearly vertical suspending rod having a series of teeth extending down one side, a cam supporting arm having at both ends a toothed cam wheel pivoted eccentrically thereto, each wheel having a spring for keeping it in engagement and a thumb piece for disengaging it, a curved bar having a slotted base by which it is adapted to be attached to a frame so as to have a lateral adjustment, a series of teeth on the inner side of said curved bar for engaging with the teeth in the pivoted cam wheel at one end of the cam wheel supporting arm, the vertical supporting bar teeth engaging with the teeth in the cam wheel at the opposite end of the cam wheel supporting arm, substantially as and for the purposes described.

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Witnesses:
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