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C. NEVATT

WINDOW BLIND FITTING

Filed Nov. 27, 1922

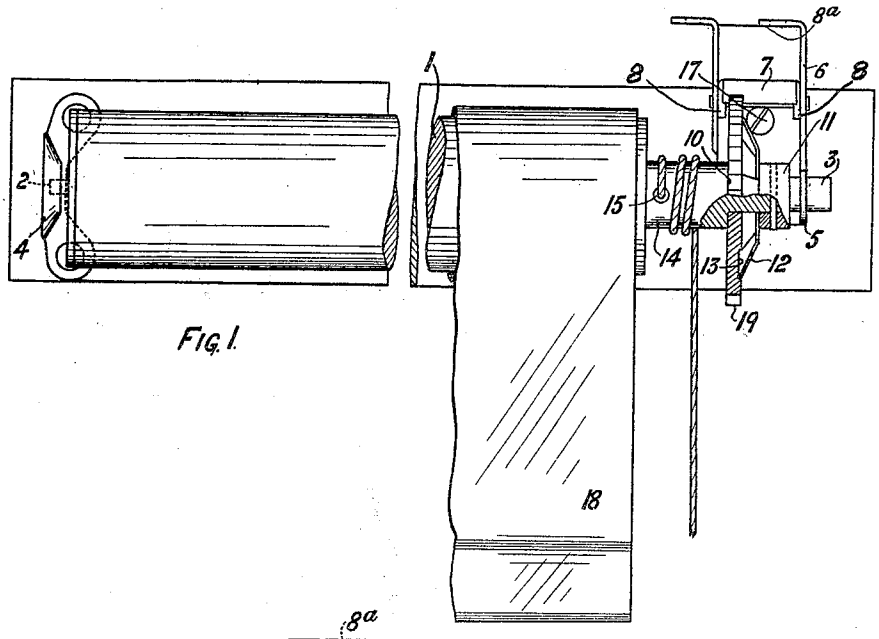


FIG. 1.

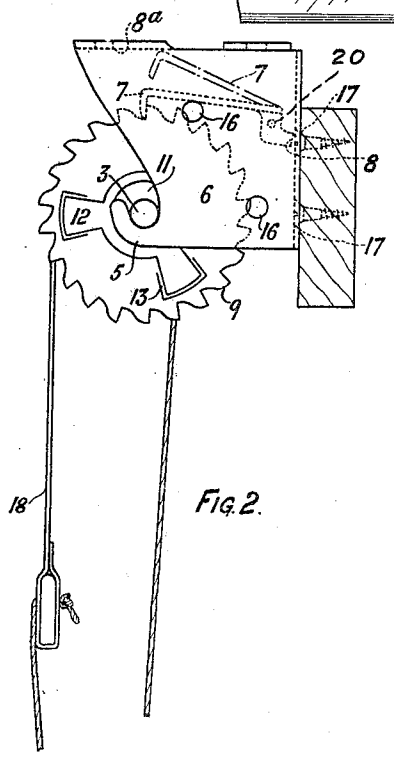


FIG. 2.

Inventor
Charles Nevatt

By Pennie, Davis, Marvin & Edmonds
Attorneys

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UNITED STATES PATENT OFFICE.

CHARLES NEVATT, OF GLASGOW, SCOTLAND.

WINDOW-BLIND FITTING.

Application filed November 27, 1922. Serial No. 603,410.

To all whom it may concern:

Be it known that I, CHARLES NEVATT, a subject of the King of the United Kingdom of Great Britain and Ireland, residing at Pollokshields, Glasgow, Scotland, have invented a certain new and useful Improvement in Window-Blind Fittings, of which the following is a specification.

This invention relates to window-blind fittings of the type including a ratchet wheel held to the blind roller by friction for permitting the blind to be lowered while the ratchet wheel is locked.

The main object of the invention is to provide an improved fitting of this type of simple and inexpensive construction.

A further object is to provide a fitting of this type which permits of speedy and simple insertion or removal of the roller.

The invention is illustrated in the accompanying drawing in which Fig. 1 is a fragmentary front elevation, and Fig. 2 an end elevation.

The improved window blind fitting shown comprises a blind roller 1 having journals 2, 3 at its ends. The journal 2 is adapted for insertion in a bearing aperture 4 and the journal 3 is receivable in a hook member 5 carried by a bracket 6. Pivoted to the bracket 6 is a detent 7 or escapement device having a small range of movement limited by stops 8, 8ª, the stop 8ª ensuring that the detent will not fall over backwardly and the stop 8 ensuring that the detent will not fall into the space occupied by the ratchet wheel. A ratchet wheel 9 is held between a shoulder 10 at the end of the cord drum 14 of the journal 3 and a collar 11 secured thereto and is pressed against the shoulder 10 by spring means such as the washer 12 bearing against the collar 11. The washer has radiating arms which enter recesses 13 which may be formed, if desired in the adjacent end face of the ratchet wheel 9. 15 denotes the cord aperture of the drum 14. The bracket 6 is formed as a channel with spaced side walls accommodating the detent and retaining it in proper position while preventing lateral play. The detent being mounted upon a pin 20 which is pivoted in both of the side walls of the bracket 6, does not cant when the parts become somewhat worn as does the usual detent which is pivoted on only one side, being broad and always held properly in place between the side walls it will always automatically engage the ratchet on the insertion thereof between the walls. The inner wall is cut away to small dimensions to provide clearance for the cord drum 14 while the outer wall of the channel is partly cut away to form the hook member 5 and provided with perforations 16 for attachment of the bracket by screws to woodwork disposed vertically at right angles to the axis of the roller. The web of the channel is perforated at 17 for attachment by screws to vertical woodwork disposed parallel to the axis of the blind and both walls of the channel are formed with perforated lugs for attachment by screws to horizontally disposed woodwork, one of the lugs constituting the stop 8ª aforesaid.

The operation of the device is as follows:

The roller is fitted in position by inserting the journal 2 in the bearing aperture 4 and simply placing the journal 3 into the gape of the hook member 5. In so doing the detent 7 is raised by the sloping parts of the ratchet teeth and thereafter automatically falls again into position under the action of gravity. Stops 8 prevent the detent 7 from falling too far downwards and thus preventing easy insertion of the roller. The roller is held in working position simply by the action of gravity.

When a downward force or pull is applied to the lower edge of the blind 18 or to the end of the cord attached thereto, the blind is unrolled from the roller against the friction induced between the side of the ratchet wheel 9, which is held stationary by the detent 7, and the shoulder 10 of the revolving drum 14, the ratchet wheel being pressed against said shoulder by the action of the spring washer 12. The operation of lowering the blind coils the cord 19 on the drum 14 so that by exerting a downward force on that part of the cord depending from the drum the roller will be rotated in a clockwise direction (Fig. 2) and the blind raised, the detent 7 then riding over the sloping parts of the ratchet-wheel teeth so that the said wheel is free to turn with the roller, the friction between the ratchet wheel and shoulder 10 being sufficient to carry the wheel round with the roller.

To withdraw the roller from the brackets, its right hand end (Fig. 1) is simply raised and passed over the hook 5 and the journal 2 is withdrawn from the bearing aperture 4.

What I claim is:—

1. A window blind fitting comprising, in

combination, a blind roller, a ratchet wheel coaxial with said roller, and two bearing brackets, one bracket formed with a hooked member for retaining the roller in operative position while permitting its speedy insertion in and withdrawal from the bracket, means pivoted to the same bracket for the retention of the ratchet wheel against rotation in one direction and means for preventing the downward movement of said pivoted means from interfering with the easy insertion of the roller into correct position.

2. A window blind fitting comprising, in combination, a blind roller, a drum-forming journal and a bearing journal one at each end of the said roller, said drum-forming journal being adapted to receive the cord and provided with a shoulder and a collar, a ratchet wheel held between said shoulder and said collar, a spring washer holding said wheel in contact with said shoulder, a bearing having an aperture to receive said bearing journal, a double walled bracket having its outer wall formed with a forwardly projecting hook to receive and support said drum-forming journal and having a detent mounted on a pin pivoted to and between both of its side walls.

3. A window blind fitting comprising, in combination, a blind roller, a drum-forming journal and a bearing journal one at each end of said roller, said drum-forming journal being adapted to receive the cord and provided with a shoulder and a collar, a ratchet wheel held between said shoulder and said collar and provided with recesses in its outer face, a spring washer pressing said wheel against said shoulder, said washer having radiating arms entering said recesses, a bearing having an aperture to receive said bearing journal, a double walled bracket having its outer wall formed with a hook to receive and support said drum-forming journal, a detent mounted on a pin pivoted to and between the side walls of the bracket, an inwardly projecting flange on the said outer wall to limit movement of the detent in an upward direction, and a rearward extension of the detent adapted to contact with the web of the bracket between its walls to limit movement of the detent in a downward direction.

4. An improved window blind fitting comprising, in combination, a blind roller, a drum-forming journal and a bearing journal disposed one at each end of said roller, said drum-forming journal adapted to receive the cord and provided with a shoulder and a collar, a bearing having an aperture to receive said bearing journal, a double-walled bracket with its outer wall presenting a hooked member adapted to receive said drum-forming journal, a detent pivoted to said bracket between its walls and held against lateral play thereby, means on the detent for limiting its downward pivotal movement, the flange on the outer wall of the bracket serving to limit its movement in the upward direction, a ratchet wheel held between said shoulder and said collar, and a spring washer pressing said wheel against said shoulder.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CHAS. NEVATT.

Witnesses:
ISABELL ROLLS,
ANNE L. WATT.