

G. SOLLITT.
VENETIAN BLIND.
APPLICATION FILED AUG. 6, 1909.

1,001,469.

Patented Aug. 22, 1911.

FIG. 1.

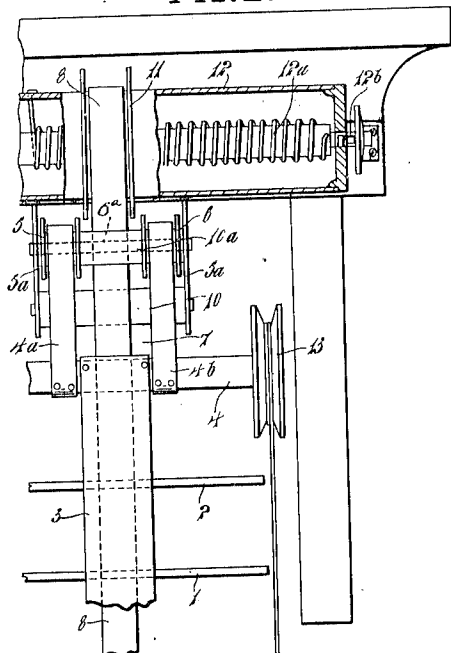


FIG. 2.

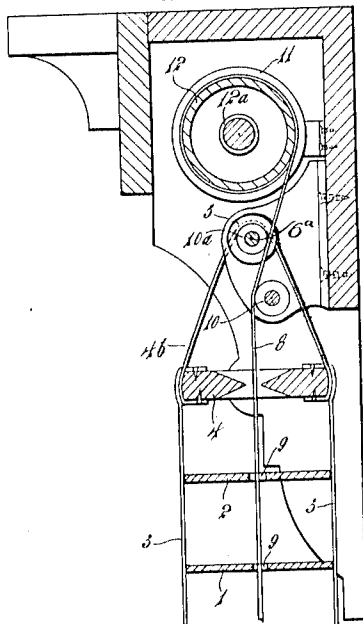


FIG. 3.

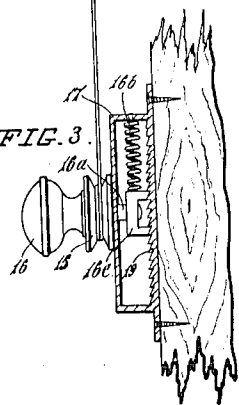
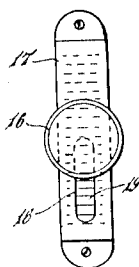


FIG. 4.



Witnesses.

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UNITED STATES PATENT OFFICE.

GEORGE SOLLITT, OF HASTINGS, NEW ZEALAND.

VENETIAN BLIND.

1,001,469.

Specification of Letters Patent. Patented Aug. 22, 1911.

Application filed August 6, 1909. Serial No. 511,652.

To all whom it may concern:

Be it known that I, GEORGE SOLLITT, a subject of His Majesty the King of Great Britain and Ireland, residing at Hastings, in the Provincial District of Hawkes Bay, in the Dominion of New Zealand, have invented certain new and useful Improvements in and Relating to Venetian Blinds, of which the following is a specification.

The invention relates to the operating mechanism of Venetian blinds, raised by a roller revolved by an internal spring after the manner of the well known spring roller blind.

According to my invention thin metal tapes passing over guide rollers are used in place of the pulleys and cords usually employed for raising the slats, and the angling of the slats or louvers is effected by an endless cord passing around a sheave fixed to the top slat, to which slat ladder tapes are fixed in the ordinary way. Tapes supporting the slats are fixed to the top slat and passing over guide rollers provide a passage for the metal tapes referred to.

Referring to the accompanying drawings:—Figure 1, is a front elevation, and Fig. 2 is a sectional view taken on a vertical plane through one of the ladder tapes. Figs. 3 and 4, are respectively front and side elevations of the bottom sheave and operating knob for effecting the angling of the slats.

The slats, two only of which are shown, 1 and 2, are carried in ladder tapes one pair only 3 of which is shown; and these ladder tapes are secured to the edges of the angling slat 4. Supporting tapes 4^a and 4^b also fixed to the edges of the slat 4 upon each side of the ladder tapes 3 pass over guide rollers 5 and 6 respectively mounted in brackets 5^a upon a spindle 6^a, and leave a space 7 through which a thin metal suspending tape 8 preferably of thin sheet copper passes, which tape, at its lower end, is connected to the bottom slat of the blind in any ordinary way. Each metal tape is secured to and adapted to wind upon a drum 11, and is guided accurately through slots 9 provided in the slats and by guide rollers 10 and 10^a between which said tape passes, the roller 10^a being mounted loosely upon the spindle 6^a to which the rollers 5 and 6 are secured. The drums are connected to a light metal roller 12 adapted to be revolved by an internal spring 12^a in the direction that will cause the blind to be raised.

This internal spring and the ratchet and pawl arrangement 12^b are such as commonly employed in spring operated roller blinds.

To the end of the upper slat 4 is fixed the angling pulley 13 around which an endless operating cord 14 for angling the slats is passed one and a half times. This pulley cord is led one and a half times around a sheave 15 secured to a knob 16, which is turned one way or other upon its stud 16^a according to the angling which it is desired the slats shall assume. The cord is kept taut by a spring 16^b in compression between a bracket 17 and a pawl 16^c fixed upon the stud 16^a. The knob can be moved up and down in the bracket 17 which has a slot 18 in which the stud 16^a may slide to regulate the tension of the operating cord. A rack 19 integral with the bracket 17 engages the pawl 16^c to prevent slackening of the cord 14 after it has been made taut by the spring 16^b.

The blind is lowered by pulling it down as in the case of the ordinary spring roller blind. To raise it, the ratchet mechanism on the spring roller is released by giving the blind a quick pull at the bottom. The roller will then revolve until it is checked when the blind is at the required height.

What I claim and desire to secure by Letters Patent of the United States is:—

1. In a Venetian blind, the combination with a plurality of slats, and ladder tapes connecting said slats, of supporting tapes attached to the upper slat, rollers over which the supporting tapes pass, a winding roller, and lifting tapes attached to said roller and to the bottom slat and guided by rollers mounted in the support for the rollers over which the supporting tapes pass.

2. In a Venetian blind, the combination with a plurality of slats, and ladder tapes connecting said slats, of a pair of supporting tapes attached to the upper slat, a winding roller, and a lifting tape attached to the bottom slat and to said roller and extending between said pair of supporting tapes.

3. In a Venetian blind, the combination with a plurality of slats, and ladder tapes connecting said slats, of means for supporting the upper slat, a winding roller, a lifting tape attached to said roller and to the lower slat, and a pair of guide rollers arranged between the upper slat and the winding roller and between which said lifting tape passes.

4. In a Venetian blind, the combination

with a plurality of slats, and ladder tapes
connecting said slats, of a pair of supporting
tapes having both ends attached to the
upper slat, rollers over which said tapes
5 pass, a winding roller, a lifting tape connect-
ing the lower slat with said winding roller
and extending through slots in the other
slats and between said supporting tapes, and
means for adjusting the supporting tapes
10 about their supporting rollers.

5. In a Venetian blind, the combination
with a plurality of slats and ladder tapes
connecting said slats, of a winding roller,
having flanges providing annular guides

about its body, a lifting tape attached to the
lowest slat and to said roller between two of
said flanges, two supporting tapes attached
at both ends to the upper slat and situated
on opposite sides of said lifting tape, and
rollers over which said supporting tapes 20
pass.

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

GEORGE SOLLITT.

Witnesses:

SAMUEL T. TONG,
GEORGE FREDERICK ROACH.