# J. T. TAYLOR. ADJUSTABLE WINDOW SHADE.

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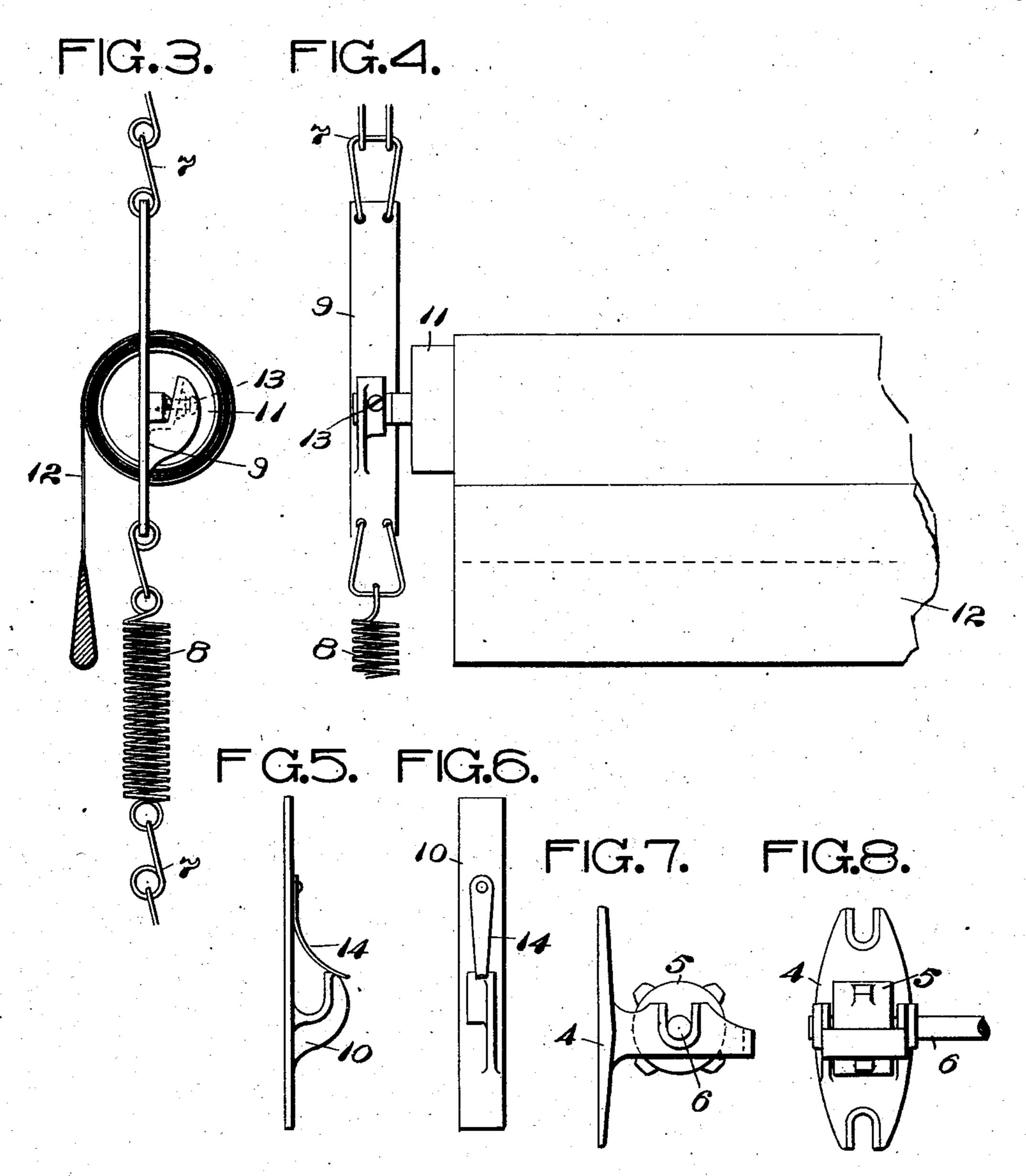
#### J. T. TAYLOR.

#### ADJUSTABLE WINDOW SHADE.

APPLICATION FILED FEB. 6, 1903.

NO MODEL.

2 SHEETS-SHEET 2.



#### WITNESSES:

J. H. Carl. J. E. Excepts.

### INVENTOR

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# United States Patent Office.

JOHN T. TAYLOR, OF PITTSBURG, PENNSYLVANIA.

## ADJUSTABLE WINDOW-SHADE.

SPECIFICATION forming part of Letters Patent No. 726,006, dated April 21, 1903.

Application filed February 6, 1903. Serial No. 142,135. (No model.)

To all whom it may concern:

Be it known that I, John T. Taylor, a citizen of the United States, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Adjustable Window-Shades, of which improvement the following

is a specification.

This invention relates to that class of window-shades which may be adjusted vertically to any desired height to permit the light being shut off at the top or bottom of the window, as desired. In this class of window-shades it has been found difficult to adjust the shade-holder so that it will at all times maintain a true horizontal position relative to the window, thereby causing the holder to become "bound" or the shade attached thereto to become more or less disposed diagonally or out of alinement with the window or its frame when the shade is unwound from the holder.

The object of my invention is to overcome the above and other difficulties encountered in shade-holders of this class, which will be hereinafter set forth.

In the accompanying drawings I have illustrated my improved window-shade in application to a window and in detail, in which

30 drawings—

Figure 1 is a front view of a window and frame, showing the application of my improved adjustable shade-holder thereto. Fig. 2 is a side view of the frame, also showing the shade and holder attached. Fig. 3 is an enlarged end view of the shade-holder and a portion of the adjusting attachments. Fig. 4 is a front view of the parts shown in Fig. 3. Fig. 5 is a side view of one of the shade-supporting brackets detached from the adjusting member. Fig. 6 is a front view of said bracket. Fig. 7 is a side view of one of the sprocket-chain wheels and its support. Fig. 8 is a front view of said wheel and support.

Further reference being had to said drawings for a description of the detail parts, their application, and the operation of the device, the numeral 1 designates a window-frame, to the lower opposite sides of which are attached suitable brackets 2, each having rotatably mounted therein a sprocket-wheel 3. Similar brackets 4 are attached at opposite sides of

the window-frame at the top in vertical aline ment with those at the bottom, the sprocket-wheels 5 of which are secured upon a shaft 55 6, extending all the way across the window-frame from one bracket to the other. Endless sprocket-chains 7, having interposed between their connecting ends at the rear sides near the frame the spiral springs 8 and brack- 50 ets 9 and 10 to support the roller 11 of the shade 12, are mounted upon said sprocket-wheels to adjust the shade-roller vertically.

The bracket 9 for supporting the end of the shade-roller carrying the shaft or-pin of the 65 internal winding-spring is provided with a set-screw 13 to lock the shaft end to the bracket, and the bracket 10 for the reception of the pin at the opposite end of the roller is provided with a leaf-spring 14 to prevent pos-70 sible displacement at that end of the roller.

In adjusting the shade-roller the chain at either side of the frame is grasped and pulled up or down in accordance to the adjustment desired, and as the chain-wheels at the top 75 are both secured to the same shaft, and as the chains in passing over said wheels engage the links of the chain and are not given to stretching like that of a cord, the adjustment of one will be equal to that of the other, and 80 consequently cause the shade-roller to be adjusted vertically and maintain a true horizontal position at all times and at any position.

One of the most important features of this device is the employment of the spiral springs 85 8 in the chains, for by means of these springs the "slack" of one or both chains may be taken up if the distance between the top and bottom wheels on one or both sides of the frame should vary when applied to the frame. 90 Furthermore, the said springs will at all times insure perfect engagement of the chain-links and the wheels, as well as take up expansion and contraction. The form of brackets employed with the chains are also admirably 95 adapted for preventing displacement of the shade-roller in adjusting the same.

Having thus fully shown and described my invention, what I claim as new, and desire to secure by Letters Patent, is—

In an adjustable window-shade of the class set forth, the combination of a horizontallydisposed shaft mounted in bearings at the upper part of the window-frame and having at each end a sprocket-wheel, a pair of independent sprocket-wheels mounted on said frame near the base to aline with those of said shaft, a pair of parallel endless link chains mounted on said sprocket-wheels, a spring-shade, a pair of supporting-brackets for said shade connected in said chains at the rear sides thereof one of which is provided with a set-screw to engage and secure thereto the flattened end of the shade-spring journal and the other with a leaf-spring to maintain the journal at the opposite end in position, and

a spiral spring interposed in each of said chains between the brackets and the chain ends, all arranged and combined as shown and 15 for the purpose set forth.

In testimony whereof I have hereunto signed my name in the presence of two sub-

scribing witnesses.

JOHN T. TAYLOR.

In presence of— RICHARD S. HARRISON, JOHN GROETZINGER.