

E. O. ENGBERG.
WINDOW SHADE ROLLER SUPPORT.
APPLICATION FILED FEB. 19, 1908.

979,752.

Patented Dec. 27, 1910.

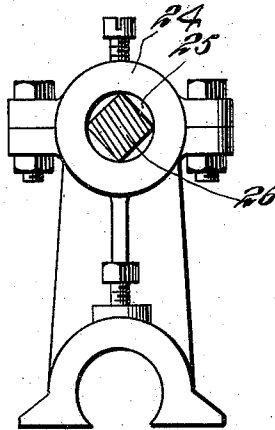
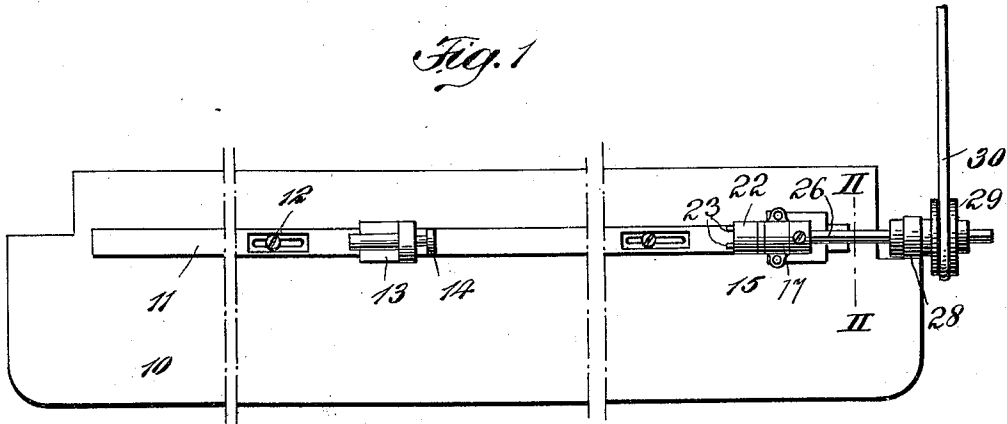


Fig. 2.

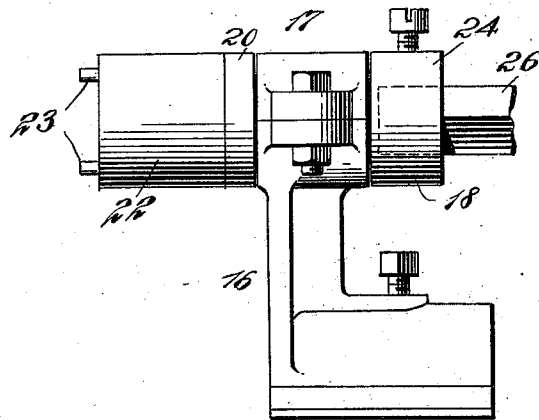
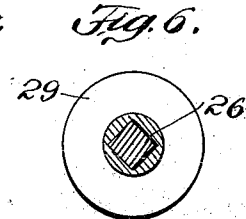
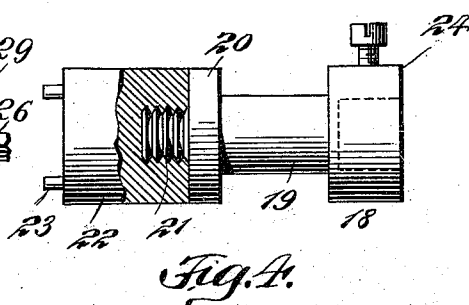
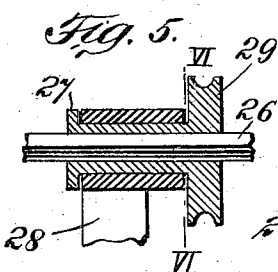


Fig. 3.



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WINDOW-SHADE-ROLLER SUPPORT.

979,752.

Specification of Letters Patent.

Patented Dec. 27, 1910.

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To all whom it may concern:

Be it known that I, EPHRAIM O. ENGBERG, a citizen of the United States, and a resident of Salt Lake City, county of Salt Lake, and State of Utah, have invented certain new and useful Improvements in Window-Shade-Roller Supports, of which the following is a full, clear, and exact description.

This invention relates to means for rotating a shade roller to wind the fabric thereon, and more particularly to the class of machine disclosed in my Patent No. 883,795, granted April 7, 1908.

The main object of the invention is to provide an adjustable bracket and rotary means arranged therein, to which heads or chucks may be detachably held in order that different sizes of chucks may be readily attached to or removed from the rotary means to adapt the attachment to rotate different sizes of shade rollers according to the width of the shade without any adjustment of the parts that engage the shade roller.

A further object of the invention is to provide a simple operating connection with the shade roller supporting means so as to avoid the necessity of exact alinement of the parts which support and rotate the shade roller.

The invention will be hereinafter more particularly described with reference to the accompanying drawings, which form a part of this specification, and will then be pointed out in the claims at the end of the description.

In the drawings, Figure 1 is a fragmentary plan view of the table of one form of shade machine with the invention applied thereto. Fig. 2 is a transverse section taken on the line II—II of Fig. 1 showing the means for operating the rotary spindle. Fig. 3 is a side elevation of the supporting bracket and spindle. Fig. 4 is a detail view, partly in section, of the operating spindle and chuck. Fig. 5 is a section showing how the operating shaft for rotating the spindle may be adjustably held; and Fig. 6 is a transverse section taken on the line VI—VI of Fig. 5.

The machine frame at or near the front part thereof is provided with a suitable table 10, and on this table is a partly round bar 11 of any suitable form, and which may be adjusted transversely of said table by means of screws 12 or otherwise. A bracket

13 may be adjustably held on the bar 11, and in this bracket is a tail-piece 14 provided with an opening which is adapted to receive and support the end of the roller carrying the usual pin, and the other end of said roller is supported and rotated by a device or attachment 15. This device may comprise a bracket 16 which may be adjusted along said bar, and said bracket has a bearing 17, and is adapted to rotatably hold a spindle 18. This spindle has its shank or shaft portion 19 rotatably held in the bearing 17, and has a collar 20 at one end thereof, which is provided with a screw-threaded portion 21. On the threaded portion 21 and adapted to be removed therefrom is a chuck or member 22, which has a screw-threaded opening adapted to fit the threads of the projecting portion 21, and said member 22 is provided with pins 23 or other means, which are adapted to enter openings in one end of the shade roller, and positively rotate the same to wind the shade thereon. By this means different sizes of heads or chucks 22 may be removably held to the spindle 18 to adapt the machine to rotate various sizes of shade rollers which vary in diameter according to their width.

The spindle 18 is provided with a collar or boss 24 at its end opposite the collar 20, and these collars 20 and 24 are arranged to span the bearing 17 of the spindle 18 so as to properly hold the spindle against lengthwise movement in said bearing. The collar 24 is provided with an opening 25, and this opening is adapted to receive and fit the end of a square or otherwise formed shaft 26 (see Fig. 2), which may be held in said opening by means of a screw or by other means. The outer end of the shaft 26 is adapted to pass through a sleeve 27, and this sleeve is journaled in a bracket 28, and on the end of said sleeve is arranged a pulley 29, which may be rotated by a belt 30 from a part of the machine or in any suitable way. The shaft or spindle 26 may be of any desired length, and by having angular sides it may be adjusted lengthwise of the bracket 28, and still be rotated as the pulley 29 is rotated in order that the bracket 16 may be adjusted to different lengths of shade roller. By having the spindle or shaft 26 independent of the spindle 18 the alinement of the several brackets does not have to be as exact as when the said shaft is

fixed to the spindle 18 as in my pending application referred to, and said spindle 18 may be more readily removed or the shaft 26 more readily removed than if the parts 5 were fixed together. The means for rotating the shaft 26, as well as the tail-piece 14 and the bracket 13, is substantially the same as shown in said application.

From the foregoing it will be seen that 10 simple and efficient means is provided for supporting and rotating various sizes of shade rollers, and that the shade rollers and the supporting means for the shade rollers may be readily supported and adjusted on 15 the machine.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:—

1. The combination with a table, of a bar 20 adjustably held on said table, brackets held to said bar, means carried by one of the brackets for supporting one end of the shade roller, a spindle having an opening at one end and a threaded projecting portion on 25 its other end, rotatably held by the other bracket, a chuck removably held to said threaded portion of the spindle and adapted to support and rotate a shade roller, and a shaft held in the opening of the spindle for 30 rotating the spindle.

2. In a window shade machine, the combination with means for supporting one end of a shade roller, of a bracket adapted to

support the other end of said roller a spindle rotatably held in the bracket and 35 provided with collars at each end thereof, a threaded projecting portion on the spindle, a chuck removably held to the threaded portion and provided with pins adapted to engage the end of a shade roller to rotate the 40 same, said spindle having a circular opening at one end thereof, a square shaft entering the opening in said spindle, means for holding the shaft to the spindle, together with means for rotating the shaft. 45

3. In a window shade machine, the combination with means for supporting one end of a shade roller, of a bracket adapted to support the other end of said roller, a spindle rotatably held in the bracket and 50 provided with collars at each end thereof, a threaded projecting portion on the spindle, a chuck removably held to the threaded portion and provided with means adapted to engage the end of a shade roller to rotate the 55 same, said spindle having an opening at one end thereof, a rectangular shaft entering the opening in said spindle, means for removably holding the shaft to the spindle, together with means for rotating the shaft. 60

This specification signed and witnessed this 12th day of February A. D. 1908.

EPHRAIM O. ENGBERG.

Witnesses:

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