This invention relates to tools and appliances such as winders, and particularly to a shade-roller winder.

The main object of my invention is to provide a winder for winding up shade rollers to proper tension.

Another object is to provide a winder of the indicated character which is capable of being temporarily slipped on the end of a spring shaft of a shade roller for winding up the spring, and thereafter readily removed to allow returning the roller to normal operating position adjacent to the window.

A further object is to make a shade roller winder of sheet metal in flat form so that it may be manufactured as a simple stamping at low cost to encourage wide distribution thereof.

It is also an object to have a shade-roller winder which is a single unitary article of manufacture, so simple that it cannot get out of order and likewise of such nature as to occupy a very small space when it is to be stored away.

Other objects and advantages of my invention will appear in further detail as the specification proceeds.

In order to bring out the salient features of this invention in comprehensive form, the same is illustrated on the accompanying drawing forming part hereof, and in which:

Figure 1 is a fragmentary perspective view illustrating the end of a shade roller with a shade depending therefrom and the shade-roller winder in place upon the end of the spring shaft and embodying the present invention in a practical form;

Figure 2 is a front elevation of a shade-roller winder alone;

Figure 3 is a vertical section taken on line 3—3 in Figure 2.

In the views the same reference numerals indicate the same parts.

Shade rollers frequently are accidentally released so as to raise and wind up the shade at great speed, continuing to spin even after the shade is entirely rolled up on the roller, and sometimes also pulling the shade cord with it. Then, when the shade is to be pulled down again, the roller immediately shows that the tension of the spring has weakened by unwinding to such an extent that the roller may not even be capable of rolling up the shade thereon. It is then necessary to release the flattened end shaft of the roller from the roller bracket associated with the window frame and then awkwardly attempt to wind up the spring, at least part way, so that the roller will operate properly again.

It has occurred to me that some convenient means should be available for quickly winding up the spring of a roller shade whenever a mishap occurs in connection with the roller shade. After duly considering this problem, I have found it quite feasible to produce a special shade-roller winder which serves to fulfill the foregoing objects, as will now be particularly described.

Hence in the practice of my invention, and referring again to the drawing, the shade roller 4 has the usual shade 5 partly rolled up thereon with the depending portion 6 of the shade extending at least a short distance down from the roller.

From the end of the roller 4 extends the conventional flattened end 7 of the spring shaft connected with the spring within the roller, which need not be shown inasmuch as it forms no part of the present invention, and is well known, while the conventional pawls are also present at the end of roller 4, to hold the shaft 7 in any attained position upon being wound.

When the mentioned end 7 of the roller shaft is released from the window bracket normally holding the mentioned shaft end 7 stationary to prevent the same from rotating, a special generally L-shaped winder 8 having an elongated slot 9 in the wider longitudinal portion 10 thereof is readily slipped on the shaft through the mentioned slot 9. The mentioned winder has an integral transverse arm 11, extending laterally beyond one side of the longitudinal portion 10 of the winder, the end of the arm 11 being pierced by a hole 12 making it possible to insert a nail punch, nail or the end of a pencil into the hole 12 and while holding the roller and the shade thereon stationary with one hand, the winder may be rotated with shaft 7 until the proper tension of the spring within the roller has been attained. Then the winder is simply slid off the end of the roller shaft 7 and the latter restored into position in the bracket upon the window frame and the shade will again be ready for normal use.

If desired, one finger of the hand, a lead pencil or any other suitable implement may be positioned in the corner 11' for turning the winder 8. The L-shaped construction of the winder will prevent the finger or implement from slipping radially out of engagement with the winder during the turning of the same. The hole 12 is employed, as explained above, when it is desired to apply greater leverage to the winder 8. By engaging the finger in the corner 11', the winder 8 may be turned conveniently and rapidly for taking up the slack in the shade roller spring.

The winder may readily be made of a single
sheet metal stamping, and as it is perfectly flat it may even be carried in the pocket or dropped into a desk or bureau drawer.

Manifestly, variations may be resorted to and parts and features may be modified or used without others within the scope of the appended claims.

Having now fully described my invention, I claim:

1. In a winder for a shade roller spring shaft, the shaft having a flattened end, a unitary plate having a longitudinally elongated portion and a transversely extending portion connected at one end to an end of said longitudinal portion, said longitudinal and transverse portions forming a crotch between them for receiving an implement for turning the winder, said longitudinal portion being formed at the end thereof remote from said transverse portion with an elongated opening for removably and non-rotatably receiving the flattened end of the shaft.

2. In a winder for a shade roller spring shaft, the shaft having a flattened end, a unitary plate having a longitudinally elongated portion and a transversely extending portion connected at one end to an end of said longitudinal portion, said longitudinal and transverse portions forming a crotch between them for receiving an implement for turning the winder, said longitudinal portion being formed at the end thereof remote from said transverse portion with an elongated opening for removably and non-rotatably receiving the flattened end of the shaft.

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