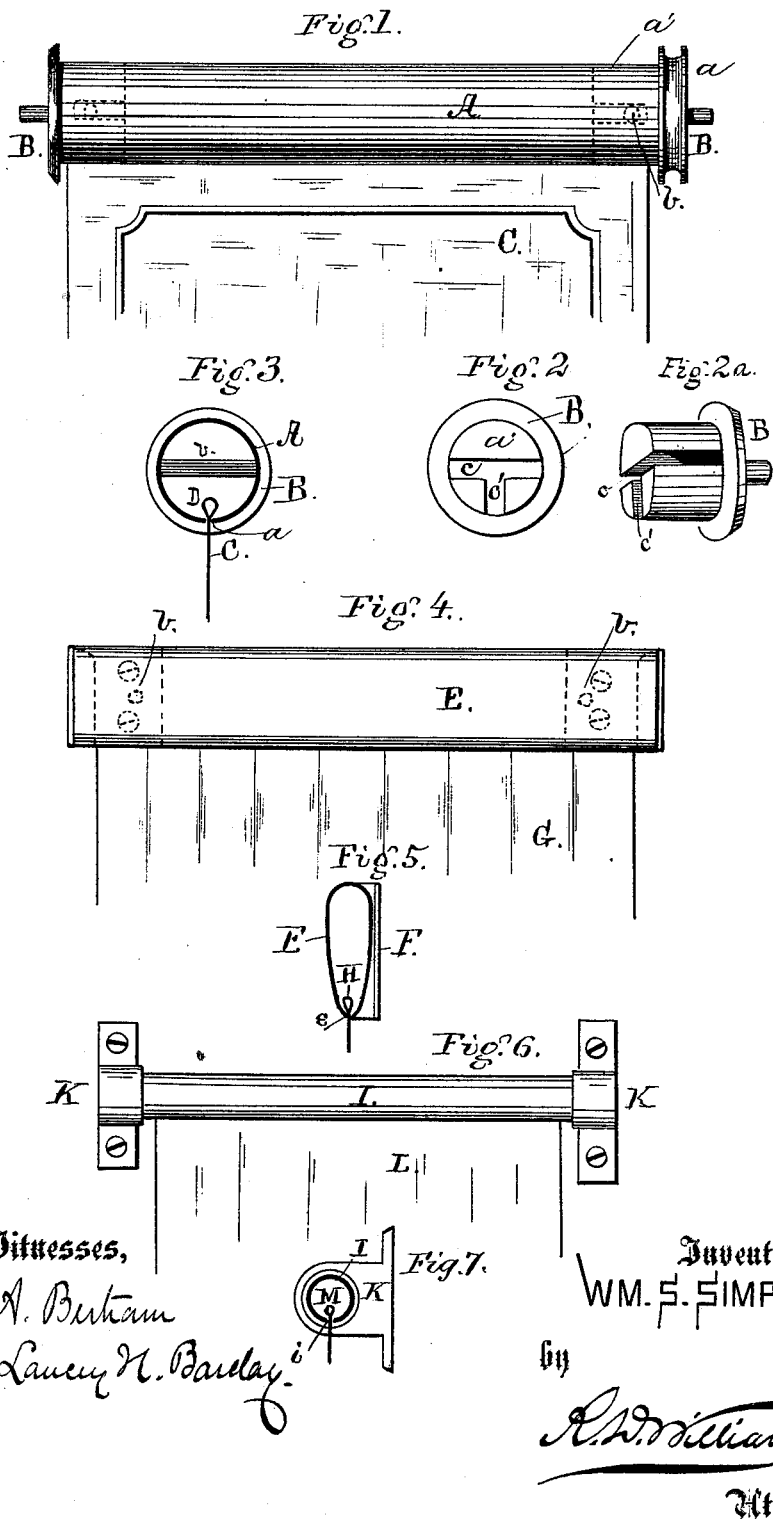


W. S. SIMPSON.
Rollers, Rods, or Bars for Window-Blinds.
No. 220,257. Patented Oct. 7, 1879.



Witnesses,
W. A. Burham
Dr. Laurey H. Baulay.

Inventor
WM. S. SIMPSON
by
A. D. Williams.
Attorney.

UNITED STATES PATENT OFFICE.

WILLIAM S. SIMPSON, OF BATTERSEA, COUNTY OF SURREY, ENGLAND.

IMPROVEMENT IN ROLLERS, RODS, OR BARS FOR WINDOW-BLINDS.

Specification forming part of Letters Patent No. **220,257**, dated October 7, 1879; application filed February 25, 1879.

To all whom it may concern:

Be it known that I, WILLIAM SPEIRS SIMPSON, of Battersea, in the county of Surrey and Kingdom of England, have invented a new and useful Improvement in Rollers, Rods, or Bars for Window-Blinds, of which the following is a specification.

This invention relates to a means of facilitating the fixing of a blind upon its roller, rod, or bar, and the removal of the blind for cleaning or the substitution of another.

Heretofore blinds suspended from the top of a window have been mostly tacked upon wooden rollers, and unless this was very carefully done the blind would not hang straight, and was usually damaged if removed.

The invention consists in making the rollers by cutting off suitable lengths from metal tubing of any desired diameter, and slitting these tubes from end to end, and opening this slit so that it will permit the passage of only a single thickness of the material used for the blind, which is provided with an end hem, and the curtain being secured in the roller by means of end pieces constructed as hereinafter described.

I fit onto one end of the roller a metal or wooden plate, with a pin or spindle to enter into a bracket on one side of the window, and upon the other end I fit a pulley also with pin or spindle to enter a bracket on the opposite side of the window, and I make the one or other of these end spindle-plates removable, so that when the roller is taken from its brackets I may take off this plate and leave one end of the aforesaid slit open to receive the blind, making this spindle-plate so that, when put onto the roller, it will turn it when the roller-cord is pulled, or I may provide the roller with a spring, if desired.

My invention applies not only to blinds hanging from a top roller, but equally to those blinds or curtains suspended by a rod or bar crossing the window at any desired height. In this case no spindles are required, but the rod or bar is slit or grooved to receive the hemmed part of the blind, and is hung upon suitable brackets or catches on each side of the window, or held by any suitable device.

On the accompanying drawings, Figure 1 is

a front view, illustrating the application of my invention to the ordinary roller-blind. Fig. 2 represents one of the end blocks withdrawn from the barrel or roller; Fig. 2^a, a perspective view of the same, Fig. 3 being a cross-section through the barrel or roller.

A is the roller or barrel, in which is a narrow opening, *a*, running from end to end. B B are the end blocks, one forming the pulley for cord. C is the blind; D, the hem; *b*, the pin-braces; *c c'*, slots for pin and hem.

Fig. 4 is a front view of a curtain-bar of an oval form embodying my invention; Fig. 5, a cross-section through the same.

E, curtain-bar; *e*, slit or opening in same; F F, supports for bar E; G, the curtain; H, the hem.

Fig. 6 is a front view, showing a similar application of the curtain to an ordinary round curtain-rod; this rod may form bottom rod to the curtain, Figs. 4 and 5; Fig. 7 being a cross-section through the same.

I is a curtain rail or rod; *i*, opening in same for curtain; K K, supports for rod I; L, the curtain; M, the hem.

All that is needed to insure the perfect fitting of the blind upon a roller thus made is that a straight hem, D H M (Figs. 3, 5, and 6,) be sewed at the top of the blind, which is then pulled down the slit *a e i*, with the double-hemmed part within the cylinder, out of which it cannot be pulled when the roller is in a horizontal position, as the hem cannot pass out of the cylinder through the slit, but can only be withdrawn by removing the roller from its brackets and drawing it out parallel with the slit.

Instead of using rollers cut from metal piping, I may use cylinders of any suitable material, providing them with a longitudinal opening running from end to end, and suitable plates or spindle and pulley ends.

That part of the blind which is to pass within the slit or groove may be made sufficiently thick to prevent its being drawn through the slit by any suitable means; but a simple hem will be found sufficient for this purpose.

I may use adjusting-screws or any suitable device to regulate the width of the slit according to requirement.

I am aware that tubular slotted curtain-rods are not new, and such I do not claim; but

What I claim is—

1. The sheet-metal tube A, slotted as described, the edges of the slot being in close opposition, as shown, in combination with the end pieces *a'*, slotted for the insertion of the curtain-hem, as set forth.

2. The metallic tube, slotted and braced, as described, in combination with the end pieces *a'*, having radial slots *c c'*, and the curtain B with a hem, D, as set forth.

W. S. SIMPSON.

Witnesses:

ALBERT VERNON JOHNSON,
WILLIAM EDWARD GEDGE.