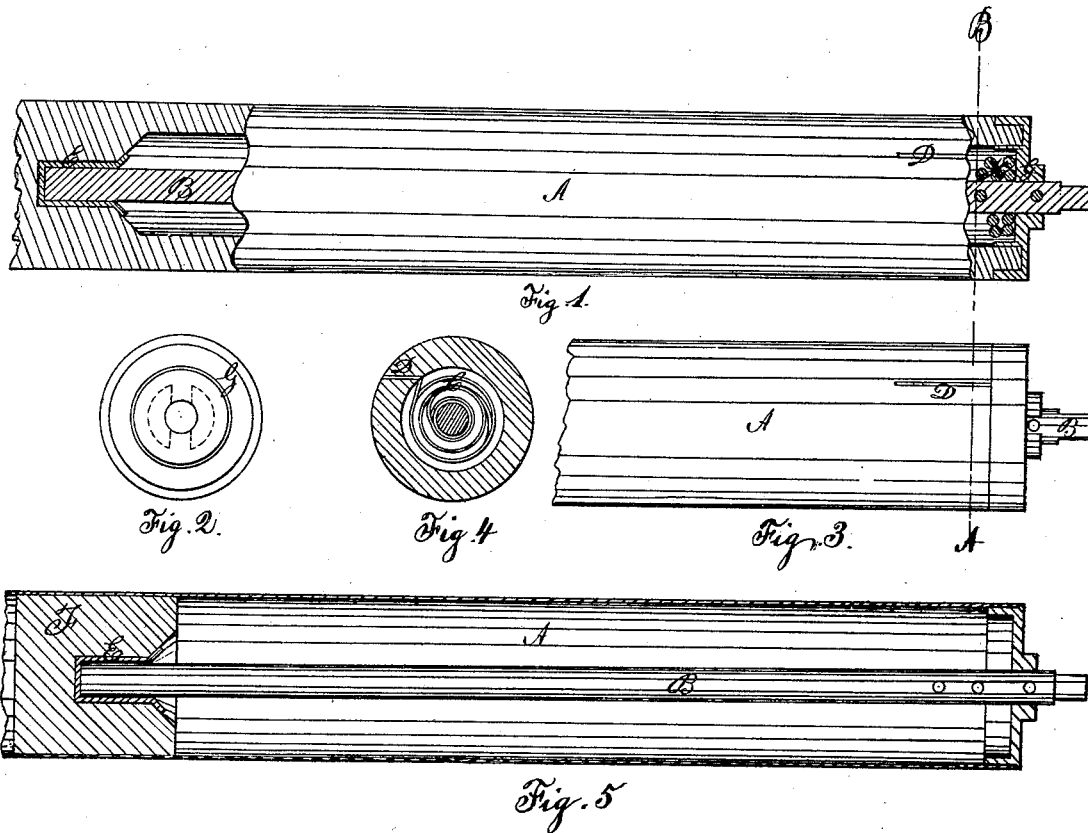


P. W. Phillips,

Curtain Fixture.

No. 111,967.

Patented Feb. 21, 1871.



Witnesses
O. C. Smith
J. R. Nichols

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PHINEAS W. PHILLIPS, OF SALEM, MASSACHUSETTS, ASSIGNOR TO JAMES F. ALMY, OF SAME PLACE.

Letters Patent No. 111,967, dated February 21, 1871.

IMPROVEMENT IN CURTAIN-FIXTURES.

The Schedule referred to in these Letters Patent and making part of the same.

I, PHINEAS W. PHILLIPS, of Salem, in the county of Essex and State of Massachusetts, have invented certain Improvements in Curtain-Fixtures, of which the following is a specification.

My invention relates to that form of curtain-fixture in which a coiled spring, in connection with a weight, is used to balance a shade; and consists in certain devices by which the production of the shade-roller, in its various parts, is cheapened, simplified, and made more durable in working.

The drawing represents, in—

Figure 1, a partial sectional view of the shade-roller, showing section of cap, wire shoulder, and step.

Figure 2 is a plan view of flanged cap.

Figure 3 is an elevation of the roller, showing the slot.

Figure 4 is a section of shade-roller on the line A B of figs. 1 and 3.

Figure 5 is a sectional view of shade-roller, showing the step inserted in the wooden plug.

Similar letters of reference indicate alike parts in all the figures.

A represents the hollow roller, which is made of wood.

B represents the shaft upon which the spring is wound.

C represents the spring which balances the shade.

One end of the spring C is attached to the shaft B. The other end is bent outwardly, and secured and retained in the slot D, cut in the wooden roll A.

The inner end of the shaft B revolves in the step or bearing E. This step is made of metal, struck up by dies into the proper form, and then driven into the wooden plug F, which has previously been hollowed out so as to receive and retain it exactly in the center of the plug. This plug is then driven into and through the hollow roll B to the position shown, where it is properly secured.

By this means the shaft is certain to be placed in the center of the wooden roll A.

The cap G is made of metal, with two flanges, which are made to inclose and hold the end of the hollow roll A, which is very thin and liable to be crushed or broken, accidents which the flanges entirely

prevent. The flanged cap may be cemented to the end of the roll to hold it in place.

The end of the shaft B nearest the end of the roll has a coil of wire, H, wound tightly around it, and secured to it so as to form a shoulder, against which the flanged cap G presses tightly, thus retaining the shaft in its proper position on the roll.

These improvements relate to the details of manufacture, and are the result of practical experience in the production of the fixtures which are here shown and set forth.

The slot in the end of the shade-roller for receiving and retaining the spring should be very narrow and near the end. The flanged cap closes the end of the slot and prevents the end of the spring from working out.

It is important, in the class of fixtures which this form of construction represents, that the inner end bearing should coincide with the axis of the cylindrical roll, and the device shown is an effective and economical method of securing this result. The shade also runs easier than when the shaft is simply driven into the wood, where it soon wears loose.

In order not to have too large a hollow roll, which would be objectionable, the end of the roll is required to be very thin, and the risk of injury by splitting and breaking is overcome by the flanged cap shown, which incloses and protects the end of the roll.

The plan for retaining the end of the shaft in its place in the roll by means of the coil of wire, has the merit of being the cheapest method of accomplishing this result. By any other method it would be necessary to use a larger shaft, and turn or mill down the end projecting through the cap. This is rendered unnecessary by the use of the device shown.

I claim as my invention—

A shade-roller, in which the following elements are combined, viz: A flanged metal cap, a hollow slotted roll, and metal step, made and used substantially as described, the whole operating together in the manner and for the purpose set forth.

P. W. PHILLIPS.

Witnesses:

O. C. SMITH,
WM. A. PERKINS.