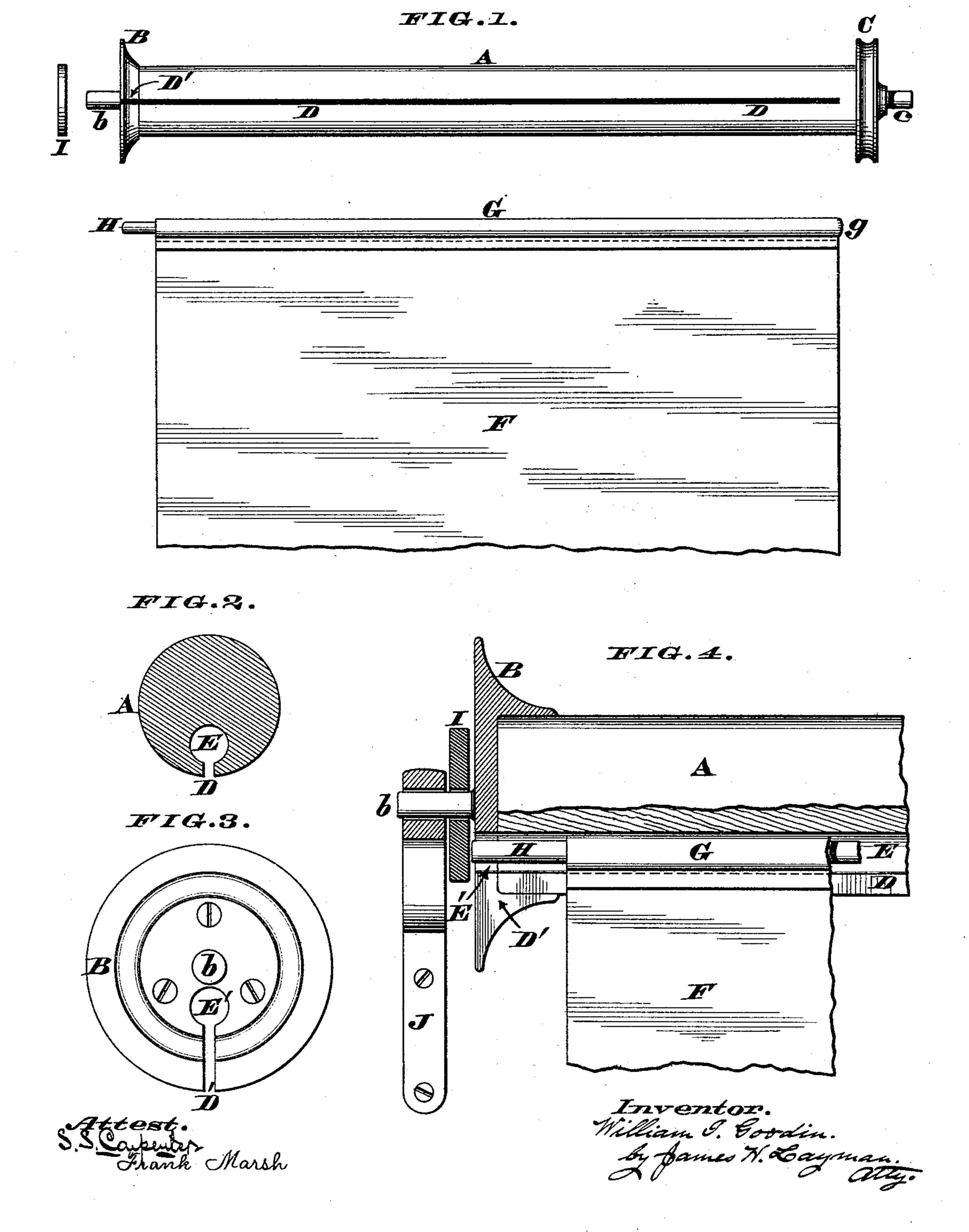
(No Model.)

## W. I. GOODIN.

## WINDOW SHADE ROLLER.

No. 330,015.

Patented Nov. 10, 1885.



## United States Patent Office.

WILLIAM I. GOODIN, OF CINCINNATI, OHIO.

## WINDOW-SHADE ROLLER.

SPECIFICATION forming part of Letters Patent No. 330,015, dated November 10, 1885.

Application filed November 17, 1884. Serial No. 148,072. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM I. GOODIN, a citizen of the United States, residing at Cincinnati, in the county of Hamilton and State 5 of Ohio, have invented certain new and useful Improvements in Window-Shade Rollers, of which the following is a specification, reference being had therein to the accompanying draw-

ings.

This invention relates to those shade-rollers which are provided with a longitudinal slot communicating with an enlargement or bore, into which latter is inserted a tuck or hem of a flexible curtain, the tuck being expanded by 15 means of a small rod, wire, or cane, so as to secure the shade to the roller without employing tacks or other similar retaining devices; and the first part of my improvements consists in applying a disk or washer to the journal or 20 gudgeon of one of the roller-caps. washer or disk is interposed between the cap and its supporting-bracket, and prevents the rod or wire slipping out of the slot or other opening in said cap, and thereby coming in 25 contact with said bracket, as hereinafter more fully described.

The second part of my improvements consists in closing one end of the tuck or hem for the purpose of facilitating the insertion of said 30 tuck within the groove of the roller, as here-

inafter more fully described.

In the annexed drawings, Figure 1 is an elevation showing the various members of my improved window-shade roller detached from 35 each other. Fig. 2 is an enlarged transverse section of the roller. Fig. 3 is an end elevation showing the slotted cap-plate attached to said roller. Fig. 4 is an enlarged section through said cap-plate and a portion of the roller.

The roller A has at one end a cap-plate, B, and at its opposite end a grooved pulley, C, said plate and pulley being provided, respectively, with customary journals, b c, adapted to revolve in suitable brackets or bearings at-45 tached to the window frame or casing. Furthermore, this roller has a narrow longitudinal slot or kerf, D, that communicates with an enlargement or bore, E, the latter being preferably circular in transverse section, as more 50 clearly seen in Fig. 2. The cap-plate B has a correspondingly-shaped slot, D', and bore E', as seen in Fig. 3.

The curtain or shade F, which may be made of any suitable material, has a tuck, G, at its upper edge, said tuck being closed at g, but 55open at its opposite end to admit a bar, wire, or stick, H.

I is a washer having a central perforation or eye to permit free passage of the journal b,

as seen in Fig. 4.

To apply the curtain F to the roller A the rod H is first inserted in the tuck G, and said tuck is then caused to traverse the communicating bores E' and E of the cap-plate and roller while the curtain is being slipped edge- 65 wise along the narrow slots D' and D. This application of the curtain is readily effected, because the end g of the tuck is closed, and as soon as this closed end reaches the extremity of slot D the protruding end of rod or stick H 70 is about flush with the exterior of cap-plate B, as seen in Fig. 4. The journal b of said capplate is now passed through the perforation of washer I, and is inserted in the bearing of any approved bracket, J, while the journal  $c_{75}$ of pulley C is supported in a similar bracket at the opposite side of the window-frame. The shade or curtain can then be raised or lowered in the usual manner, the washer I serving to prevent the rod H slipping out of 80 the bore D and coming in contact with the bracket or other bearing, J, when the roller A is turned either to the right or left.

It is evident the curtain can be readily taken down at any time by first unshipping the roller 85 from the brackets, then removing the washer and pulling the rod H and tucked portion G of the shade out of the bore of said roller.

Finally, as the rod H is too large in diameter to be pulled out of the narrow slot D, it is 90 evident the curtain can never be accidentally detached from the roller, and as said slot is cut perfectly straight and parallel with the axis of said roller said curtain is applied in the most accurate manner.

I am aware it is not new to slot and groove a roller longitudinally and insert a stick or cane within the hemmed portion of a curtain for the purpose of securing the latter to the roller, as such a construction is seen in sev- 100 eral patents. Therefore my claim is not designed to include these devices unless they are combined with a washer or disk that rides on the journal of one of the roller caps, and there-

by prevents the rod or cane working out of the curtain-hem and coming in contact with the bracket.

I claim as my invention—

The combination of slotted and bored roller A D E, tucked curtain F G, and rod H, said tuck being closed at one end, as at g, but being open at its opposite end to admit said rod, for the purpose specified.

2. The combination of slotted and bored roller A D E, slotted and bored cap-plate Bb

D' E', tucked shade or curtain F G, rod H, and pierced washer I, which washer is interposed between the supporting-bracket and roller-cap and rides on the journal of the latter, for the purpose described.

In testimony whereof I affix my signature in

presence of two witnesses.

WILLIAM I. GOODIN.

Witnesses:

JAMES H. LAYMAN, SAML. S. CARPENTER.