No. 798,624. PATENTED SEPT. 5, 1905.

G. J. RECORD.

CURTAIN ROLLER.

APPLICATION FILED APR. 6, 1905.

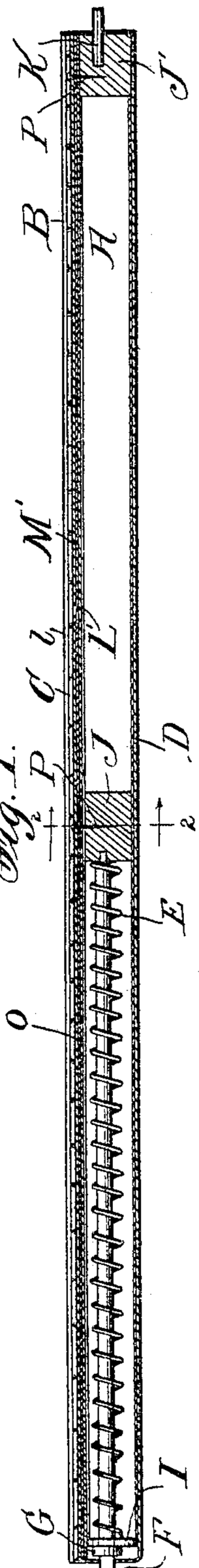

Fig. 1.

Fig. 3.

Fig. 2.

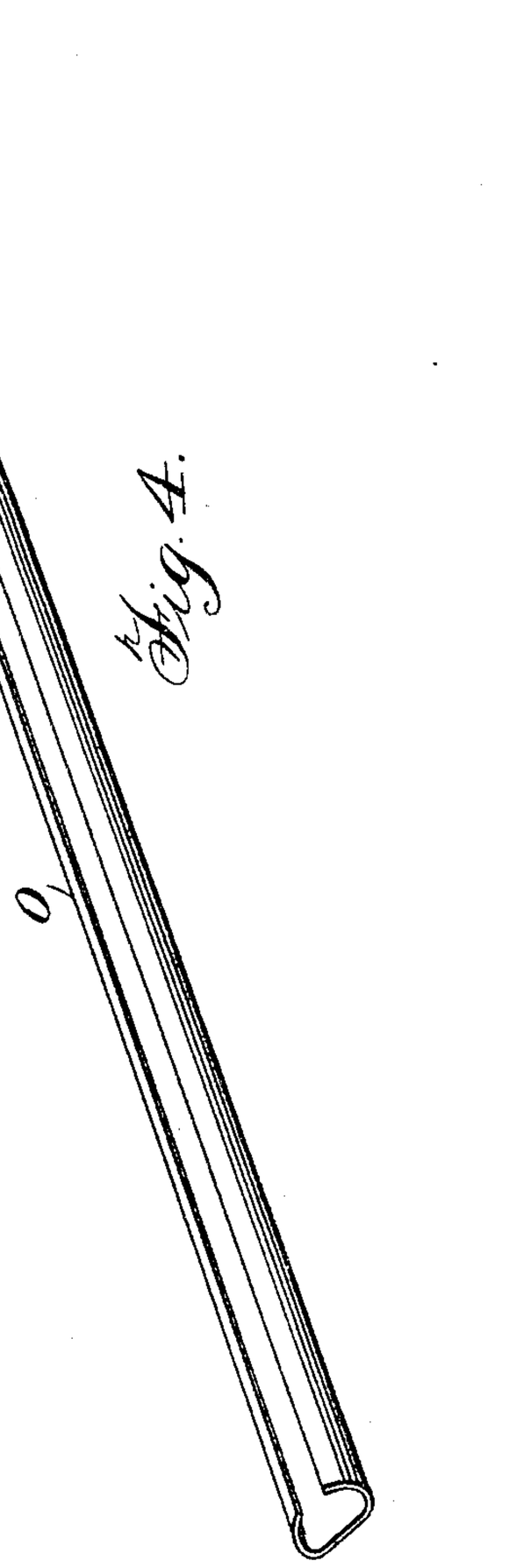

Fig. 4.

Witnesses
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GEORGE J. RECORD, OF CONNEAUT, OHIO.

CURTAIN-ROLLER.

No. 798,624. Specification of Letters Patent. Patented Sept. 5, 1905.

Application filed April 6, 1905. Serial No. 254,103.

To all whom it may concern:

Be it known that I, GEORGE J. RECORD, a citizen of the United States, residing at Conneaut, in the county of Ashtabula and State of Ohio, have invented certain new and useful Improvements in Curtain-Rollers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to curtain-rollers and rollers for similar uses having longitudinal grooves in which the fabric of the curtain or other flexible material may be detachably fastened, and is an improvement on the subject-matter of my Letters Patent No. 783,759, dated February 28, 1905.

The said invention has for its chief object to strengthen the wall of the said groove, especially guarding against injury by torsional strain; and to this end it consists in the construction and combination of parts hereinafter particularly set forth and claimed.

In the accompanying drawings, Figure 1 represents a longitudinal section of a spring-roller embodying my invention. Fig. 2 represents an enlarged transverse section of the same on the line 2 2 of Fig. 1. Fig. 3 represents an enlarged end view looking toward the right in Fig. 1, and Fig. 4 represents a detail view of the cap.

A designates the body of the roller, B the longitudinal dovetailed groove, and C the undulating fastening-rod applied in said groove to hold the material of the curtain, as set forth in said patent. For bracing the roller-body and groove-wall and adjusting the length of the roller to the width of a window I prefer to employ a tubular grooved reinforcing lining and adjusting piece D, as in my application Serial No. 252,007, which more fully describes it. The spring E in one end of the said roller, the prismatic-ended journal F, to which the outer end of said spring is attached, the recessed hub G, integral with said journal, the pawls H, arranged and adapted to engage the recess of said hub when opposite the same and not held out of engagement by centrifugal force, the partition I, which affords a bearing for the cylindrical part of said journal, the wooden plug J, fast within the said roll and having the inner end of the said spring attached thereto, the plug J′ in the other end of the said roller, and the cylindrical journal K, fixed in and projecting from the center of the latter plug, are all well known and need no further explanation. The said dovetailed groove B is formed by depressing within the roll two bent flanges L and M, each integral with one of the edges of the longitudinal seam, and subsequently drawing the parts *l* and *m* at the neck of the groove more nearly together for the purpose of narrowing the neck. The horizontal parts L′ and M′ of the said flanges overlap each other across the full width of the bottom of the groove, making said groove double. A longitudinal cap O, shaped to fit the exterior of the wall of said groove, clasps the neck thereof and is in contact with its sides and the said bottom, being held securely in this position by fastening-pins or rivets P, which pass through overlapping parts or layers L′ M′ and into wooden plugs J J′, or they may be headed or otherwise secured without the aid of the said plug. The number of said fastening-pins and their location along the groove may be varied, as found convenient. The said cap is of course between the groove-wall and the reinforcing-piece D. No solder is needed. The said cap and pins securely brace the wall of the groove, hold the overlapping parts L′ M′ together, and guard against any injury from torsion or other strain. The edge of the upper overlapping part L′ bears outwardly against the wall of the other flange M just above the part M′, and this prevents the sides of the groove from being pressed in when the cap is applied. In all subsequent use of the roll these overlapping parts effectually brace the sides of the groove-wall against lateral strain and twist, coöperating with the cap, the pins, and the reinforcing-piece in strengthening the groove-wall and seam. After the cap has been fitted on the groove-wall, as stated, and the overlapping and bracing bottom parts L′ and M′ have been fastened to the corresponding portion of said cap by the said pins, as aforesaid, any movement of any of the parts forming the groove and seam is impossible, even without the addition of the tubular reinforcing and adjusting piece; but the latter obviously will add another element of strength.

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

1. A roller provided with a longitudinal dovetailed groove formed by flanges which overlap at the bottom, the horizontal lower part of each extending the full width of the groove, in combination with a device against

which the lower flange bears to assist in bracing the wall of said groove substantially as and for the purpose set forth.

2. A roller having a longitudinal groove formed by overlapping parts which are fastened together at the bottom of said groove by devices passing through the said overlapping parts, the latter extending entirely across the bottom of the groove, in combination with a part against which the lower flange bears, the upper flange bearing against the inner face of the opposite wall of the groove and both flanges thereby combining to brace the wall of said groove substantially as set forth.

3. A roller having a longitudinal groove formed by parts overlapping to form a bottom of two layers and provided with an external cap fitting the wall of said groove to hold said parts together, the part constituting the upper layer of the bottom being in contact with the inner face of the opposite wall of the groove and the part constituting the lower layer of the bottom being similarly in contact with the opposite side wall of the cap, whereby the said layers and the said cap combine to brace the sides of the groove-wall and maintain its shape substantially as set forth.

4. A roller having a longitudinal groove formed by two parallel flanges having bottom parts which overlap the full width of the groove to brace each other and provided with an external cap fitting against the side walls of the said flanges and against the bottom and edge of the lower flange to protect the groove-wall and hold the said overlapping parts in place substantially as set forth.

5. A roller having a longitudinal dovetailed groove formed by flanges having parts which overlap the full width of the groove at the bottom thereof and provided with a cap which fits on the exterior of the groove-wall and fastening-pins which pass through the said overlapping parts and the corresponding part of the said cap, in combination with a lining or reinforcing piece D which fits the interior of the roll and grips on both sides the neck of the groove to coöperate in bracing the groove-wall substantially as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

GEORGE J. RECORD.

Witnesses:
ALLEN M. COX,
H. G. KINGDOM.