(No Model.)

W. P. POPE.

PAPER HANGER'S ROLLER.

No. 352,351. Patented Nov. 9, 1886.

FIG. 1.

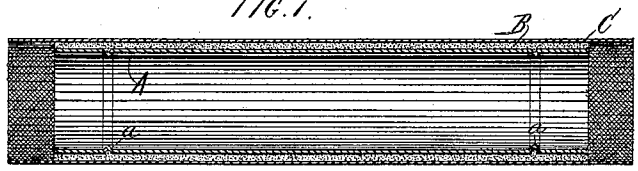


FIG. 2.

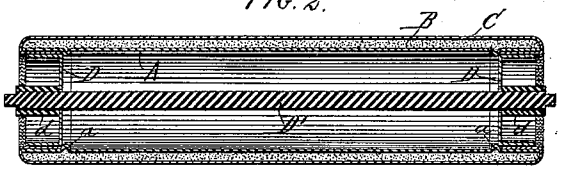


FIG. 3.

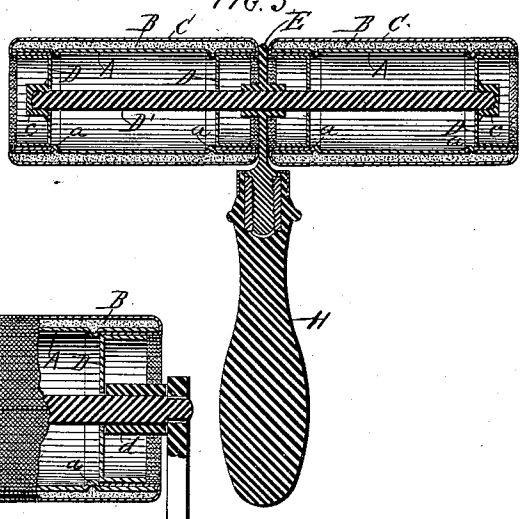
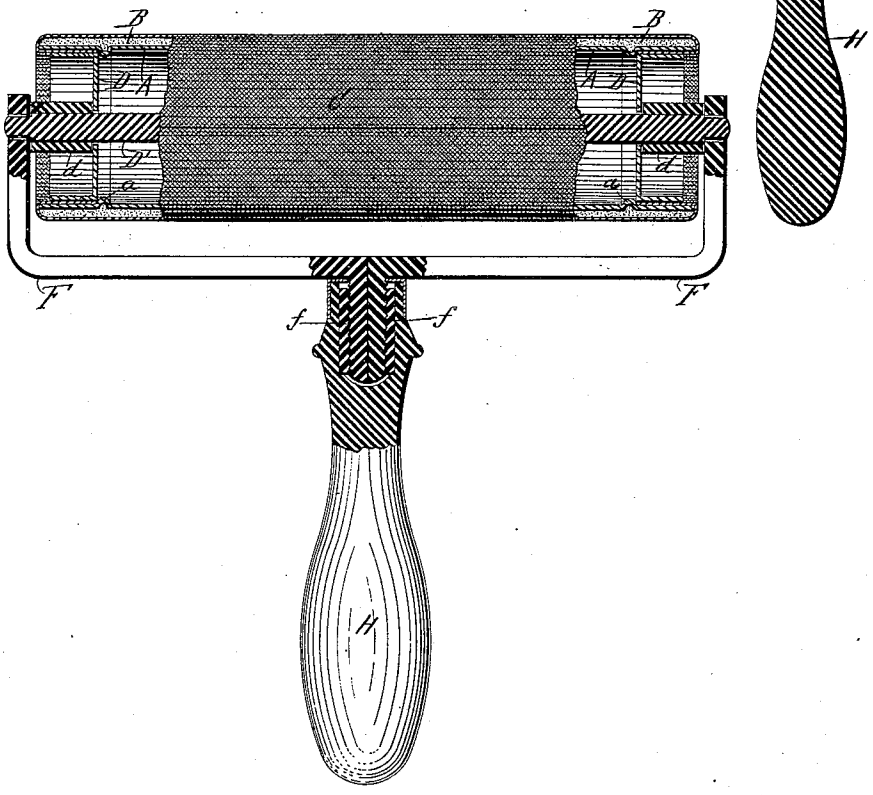


FIG. 4.



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UNITED STATES PATENT OFFICE.

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PAPER-HANGER'S ROLLER.

SPECIFICATION forming part of Letters Patent No. 352,351, dated November 9, 1886.

Application filed April 7, 1886. Serial No. 198,065. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM P. POPE, of Brooklyn, county of Kings, and State of New York, have invented certain new and useful Improvements in Paper-Hangers' Rollers, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

My invention has special relation to that class of devices known as "paper-hangers' rollers," and employed by paper-hangers for smoothing and otherwise treating or operating upon wall-papers; but, manifestly, my improvements may be employed in rollers of like general character for any analogous purposes.

The objects of my invention are, first, to provide simple, cheap, convenient, and effective means for properly securing the covering of muslin or fabric upon the body of the roller, and admitting its ready removal therefrom; and, second, to provide the roller with a divided yoke which may be readily detached and readily applied for use, affording the necessary end bearings for the roller-axis, and insuring accurate movements of the roller while being used.

To accomplish these objects, and to secure other advantages, my improvements involve certain new and useful peculiarities of construction, relative arrangements or combinations of parts, and principles of operation, all of which will be herein first fully described, and then pointed out in the claims.

In the accompanying drawings, forming part of this specification, Figure 1 is a longitudinal section of the body of a roller, showing the muslin or fabric sleeve or covering drawn over the padding, but not secured at the ends. Fig. 2 is a similar view showing the ends of the covering held in place according to my invention, and the axis adjusted to receive a yoke upon the ends. Fig. 3 is a sectional view showing the roller made in two parts, the axis having a central support, the ends of the covering on each part being secured in accordance with my invention. Fig. 4 is a partial section and elevation showing the roller mounted in the divided yoke, the axis having end bearings, and the whole adjusted for use.

In all these figures like letters of reference, wherever they occur, indicate corresponding parts.

A is the interior portion of the roller, of any desired length. This is preferably made in the form of a tube of metal or other material. In these rollers this interior portion generally has a padding of some elastic or semi-elastic material—such, for instance, as felt or rubber—substantially as indicated at B. This padding may be simply for the purpose of affording a generally uniform and slightly-yielding surface, or, as is sometimes required, it may be figured in a variety of ways and intended to reproduce (or print) the figures upon the paper, or to distribute colors thereon, or made to conform to the irregularities of the surface of the paper. Whatever may be the purpose of the padding, it is covered with a close-fitting sleeve of muslin or like material, such as represented at C. Heretofore the sleeve or covering has been commonly secured at the ends by tacking, the body of the roller being made of wood. The covering quickly becomes soiled and has to be removed and a clean or dry covering substituted.

With the tacks the operation of mounting, as well as dismounting, the covering is difficult and unhandy, requiring much time and resulting in damage to the covering as well as to the roller, and seldom affording that smoothness and regularity at the ends that are practically indispensable. I make the covering C so that it projects beyond the ends of the roller, as shown in Fig. 1. To hold it in place at the ends, I use metallic or other plugs, such as D D, of such diameter that they will wedge the inturned ends of the fabric against the inner surface of the shell. The cover being drawn over the roller, the ends are turned in and the plugs applied, as indicated. These hold the cover smoothly and tightly, and when being forced to place draw the cover so that the ends of the finished roller are quite even and regular, an important feature of a good working roller. The plugs are perforated at their centers, and the axis D′ of the roller is passed through the perforations, and thereby maintained in a central position with respect to the body of the roller.

Upon the interior of tube A are ledges or other stops, as *a*, which prevent the plugs from

being forced in beyond a certain point. This means of securing the covering may be employed in any roller, whether the axis be connected with the handle through bearings at each end or a single bearing at the center. In Fig. 2 the axis is arranged to be mounted in end bearings. In Fig. 3 it is connected with the handle H by a central plate or support, as E, and a pair of short rollers are mounted upon it, each roller having the improved cover-fastenings.

Rollers with the central support for the axis are employed in cases requiring the roller to be moved in close proximity to some projecting object—as in a corner—where end bearings would prevent the proper operation of the roller, all of which is well understood.

In the form shown in Fig. 3 the axis is threaded at or near the ends, and the rollers are held in place thereon by nuts, as *c c*, which bear against the bottoms of the cup-like plugs. These short rollers are easily removed whenever it is required to place new coverings upon them. F F, Fig. 4, are two sections which together constitute a yoke, within which the axis is supported at each end, and in which the axis turns as the roller is used. The tangs *f f* of the two parts F F being brought together, form a cylindrical extension upon which a thread or winding is cut, and upon which the handle is turned or screwed. When the handle is in place, the two parts of the yoke are firmly held together.

To prevent the roller from moving in the direction of its axis, I employ a couple of loose sleeves, as *d d*, cut of a length just sufficient to touch the bottoms of the plugs and the sides of the yoke when the latter is mounted in place. The axis being in place, the sleeves *d d* are applied and the two parts of the yoke adjusted so as to receive the ends of the axis. The handle is then screwed to place, holding all firmly and properly. The handle being removed, the two parts of the yoke free the axis, and the plugs may be withdrawn, the covering removed and replaced, and the implement reassembled, as will be readily understood. The yoke thus constructed affords the necessary rigid and durable bearings for the axis, at the same time admitting of the ready and easy mounting and dismounting of the roller.

When constructed and arranged for operation substantially as above explained, the improved roller is found to admirably answer the purposes or objects of the invention as previously set forth.

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

1. In a roller of the character herein set forth, the outer or covering sleeve turned in at the ends and held in place by removable plugs, substantially in the manner and for the purposes explained.

2. The combination, with the roller, of the centrally-perforated removable end plugs and the roller-axis passing through said plugs, substantially as shown and described.

3. In combination with a roller-axis projecting beyond the ends of the roller, a yoke for receiving the ends of the axis, said yoke being made in two separate parts arranged to be held together by the removable handle, substantially as and for the purposes explained.

In testimony that I claim the foregoing I have hereunto set my hand in the presence of two witnesses.

WILLIAM P. POPE.

Witnesses:
JOHN BUCKLER,
WORTH OSGOOD.