

A. GROSS.
METAL ROLLER.
APPLICATION FILED AUG. 23, 1910.

976,171.

Patented Nov. 22, 1910.

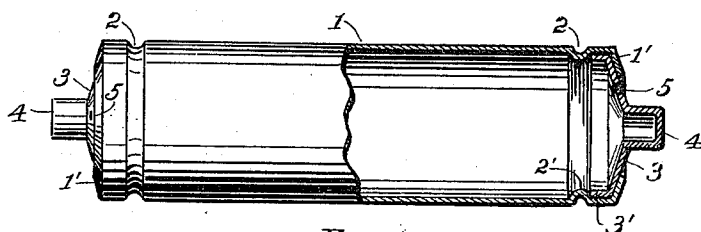


Fig. 1.

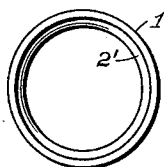


Fig. 2.

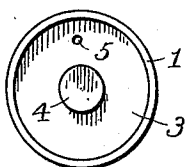


Fig. 3.

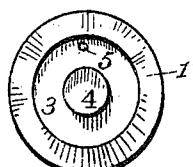


Fig. 4.

WITNESSES:

Charles V. Sawyer
Arthur E. Dempsey.

INVENTOR

August Gross,

BY
E. F. Samuels
ATTORNEY

UNITED STATES PATENT OFFICE.

AUGUST GROSS, OF CORONA, NEW YORK, ASSIGNOR TO THE MANHATTAN BRASS COMPANY, OF NEW YORK, N. Y., A CORPORATION OF NEW YORK.

METAL ROLLER.

976,171.

Specification of Letters Patent. Patented Nov. 22, 1910.

Application filed August 23, 1910. Serial No. 578,520.

To all whom it may concern:

Be it known that I, AUGUST GROSS, a citizen of the United States, and resident of Corona, in the county of Queens and State of New York, have invented certain new and useful Improvements in Metal Rollers, of which the following is a specification.

My invention relates to that class of rollers more particularly adapted for so-called "office furniture" cabinets in which record books are kept, the object being to produce rollers having strength, lightness and stability so that heavy books passing over them will not have their edges injured, nor render the rollers inoperative.

In the accompanying drawing, Figure 1 is a side elevation of my improved roller partly broken away; Fig. 2 is an end elevation of the cylinder, Fig. 3 is an end view of the cylinder with a cap inserted, and Fig. 4 is an end view of the complete roller.

Similar reference characters denote like parts in the several views.

The cylinder, 1, may be a tube of the desired length and diameter, and made of steel, brass or any other suitable metal. An annular groove 2 is rolled in at a proper distance from each end to stiffen the metal and to afford an internal shoulder 2' against which the edge of the flange of the cap 3 rests when in place: the cap is slightly conoidal in shape the truncated part extending into an integral projection 4 which acts as a bearing or pivot upon which the roller revolves; a small hole, 5, may be pierced in the cap to permit any liquid to run out, in case the roller is plated or otherwise finished in a solution. An annular flange, 3', extends at an angle from the conoidal part and is of a diameter to fit tightly into the end of the cylinder.

Such being the construction, the operation is as follows:—The cylinder is provided with the grooves—forming internal shoulders—at each end by a suitable tool, the cap is inserted until the edge rests against the shoulder; the edge 1' of the cylinder is then rolled or otherwise turned over the cap, considerable power being exerted to lay the edge down tightly. When both caps have been thus inserted and seated, the roller is ready for polishing or any succession of desired finishes to suit, the holes in the caps permitting any solution to run out freely to avoid rust or otherwise affecting the interior of the roller.

The bearing extends out beyond the cap, so that the roller can revolve freely in a journal—not shown—without touching the supporting means and being hollow throughout it is light yet very strong owing to its construction.

What I claim is—

A metal roller comprising a cylinder provided near each end with an internal shoulder, and a conoidal cap for each end of the cylinder, provided with an integral journal projection, and an annular flange, the latter adapted to bear against the shoulder, the end of the cylinder being clamped over the cap to hold the latter in place within the cylinder.

Signed at New York city in the county of New York and State of New York this 22d day of August A. D. 1910.

AUGUST GROSS.

Witnesses:

CHARLES V. DWYER,
ARTHUR E. DEMPSEY.