(No Model.)

P. J. PAULY, Jr.

ROLLER FOR BOOK SHELVES.

No. 523,483. Patented July 24, 1894.

Fig. 1.

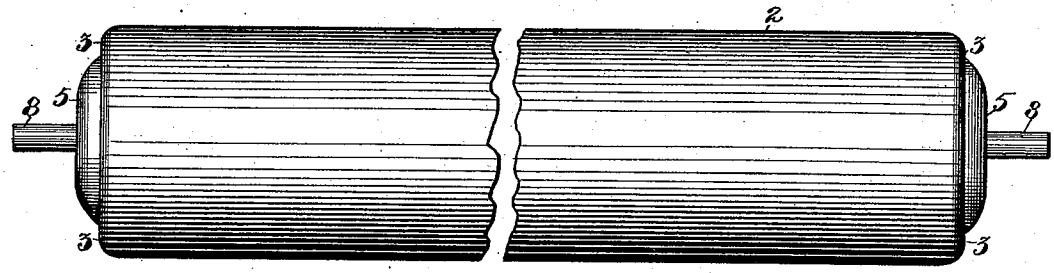


Fig. 2.

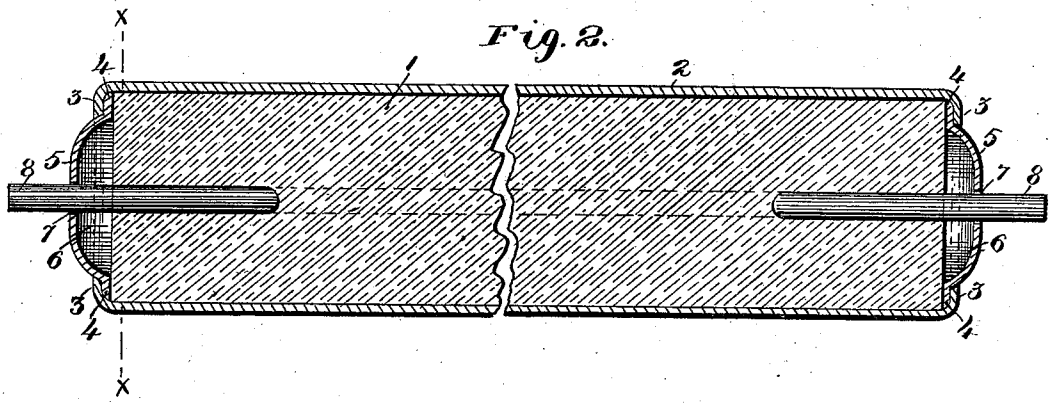


Fig. 3

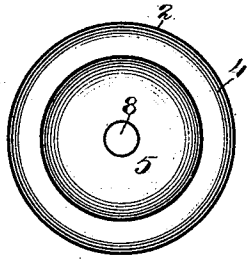


Fig 4

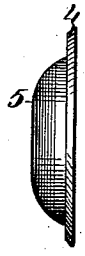


Fig. 5.

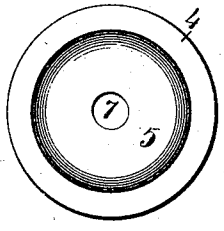
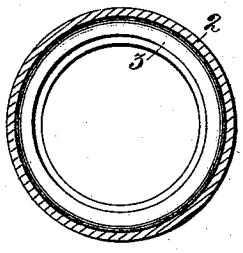


Fig. 6.



Witnesses;
J. J. O'Donohoe
J. P. Vastine—

Inventor.
P. J. Pauly Jr.
By, Keller & Starck
Attorneys.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

PETER J. PAULY, JR., OF ST. LOUIS, MISSOURI.

ROLLER FOR BOOK-SHELVES.

SPECIFICATION forming part of Letters Patent No. 523,483, dated July 24, 1894.

Application filed February 1, 1894. Serial No. 498,818. (No model.)

To all whom it may concern:

Be it known that I, PETER J. PAULY, Jr., of the city of St. Louis, State of Missouri, have invented certain new and useful Improvements in Rollers for Book-Shelves and the Like, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention has relation to improvements in rollers for book shelves and the like and consists in the novel arrangement and combination of parts more fully set forth in the specification and pointed out in the claims.

In the drawings, Figure 1 is a side elevation of my complete roller. Fig. 2 is a vertical longitudinal section of the same. Fig. 3 is a front view of the cap piece. Fig. 4 is a side view of the cap piece. Fig. 5 is a rear view of the cap piece; and Fig. 6 is a section on the line x—x of Fig. 2.

My invention has for its object to provide a novel, simplified and light construction in rollers for book shelves and the like, said rollers being composed of an inner body or core of wood or similar light material having an outer case or tube of metal, suitable caps at the ends of said tube, both the inner core and cap pieces having suitable registering openings for the reception of bearings, as will hereinafter more fully appear.

Referring to the drawings, 1 represents an inner cylindrical core or body of wood or equivalent light material. Over this is snugly passed a sheet metal tube or case 2 the free ends of which project a suitable distance from the ends of the core. The free ends of the case are bent inwardly at right angles to the length of the roller forming annular flanges 3 but leaving a sufficient space between the inner surface of the flanges and the outer ends of the core or body portion. This space is filled up by the annular rim 4 of a cap piece 5 located at either end of the roller. The cap piece is outwardly convex leaving a space 6 between the inside surface of the same and the end of the core, and, as will appear from Fig. 2 the central opening 7 of said cap piece forms a support for the bearing 8 the latter being additionally supported by the core within a suitable opening or depression formed in the same. The cap pieces being convex outwardly present less rubbing surface against the walls of the casing within which the bearings 8 are carried than would be the case if said cap pieces were flat. The cap pieces are stamped out by a suitable die and in the formation of the roller the rim 4 is placed against the outer end of the core whereupon the flanges 3 of the tube 2 are formed or pressed over the said rim.

It is not to be understood that I confine the core or body portion to the material wood, but any equivalent natural or artificial product can be substituted therefor. The tube and cap pieces may be made of any suitable metal.

Having described my invention, what I claim is—

1. A roller composed of a suitable inner core, an exterior case or tube having its free edges projecting beyond the ends of the core, inner flanges formed on said edges, and suitable outwardly-convex cap pieces having annular rims interposed between said flanges and the ends of the core, substantially as set forth.

2. A roller composed of a suitable inner wooden core or body portion, an exterior metallic tube or case, annular flanges formed on the free ends of said tube, suitable outwardly convex cap pieces having annular rims interposed between said annular flanges and the ends of the core, openings in said cap pieces, depressions or sockets in said core registering with the openings in said cap pieces, and suitable bearings passing through said openings and into the depressions in said core, substantially as set forth.

In testimony whereof I affix my signature in the presence of two witnesses.

PETER J. PAULY, JR.

Witnesses:
JAMES J. O'DONOHOE,
C. F. KELLER.