

Tyler & Lathrop,

Furniture Casters.

N^o 11,502.

Patented Aug 8, 1854.

Fig. 4.

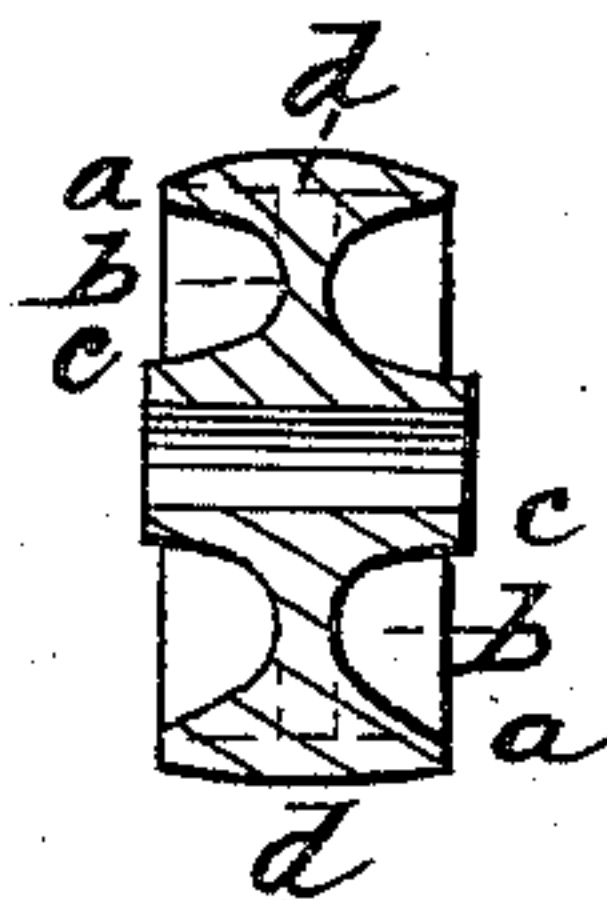


Fig. 2.

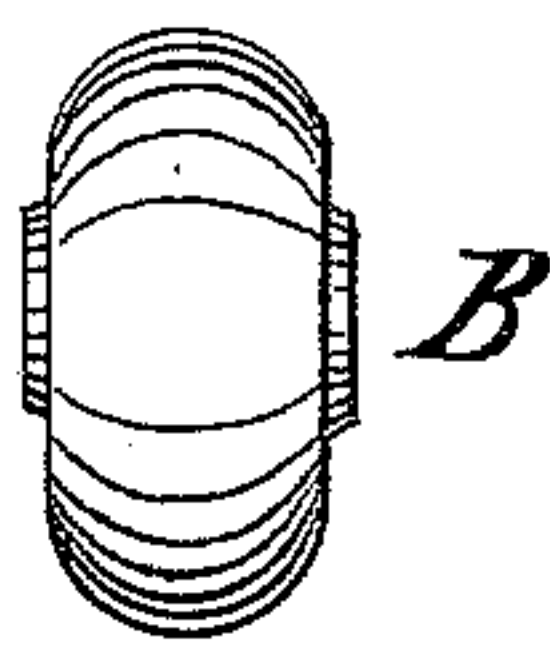


Fig. 1.

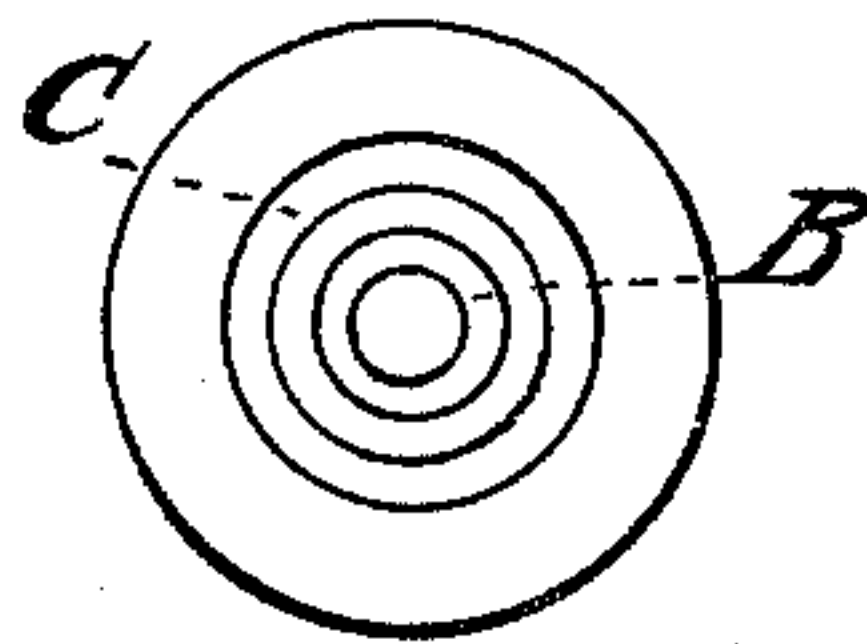


Fig. 3.

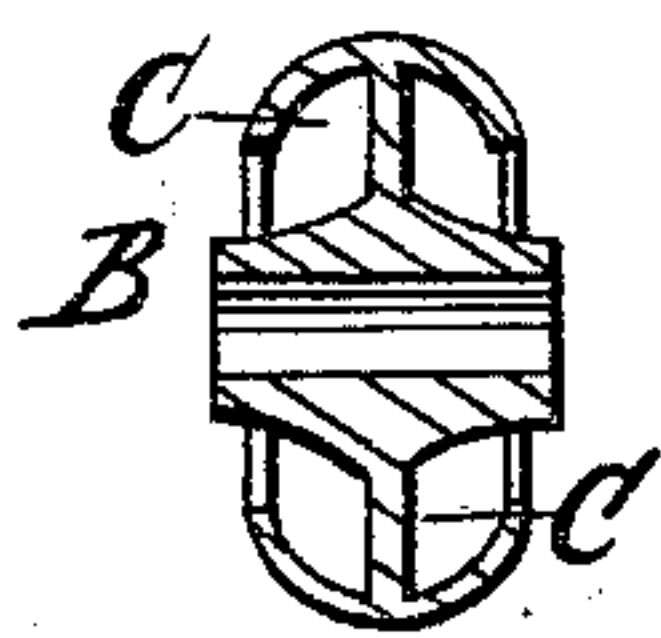
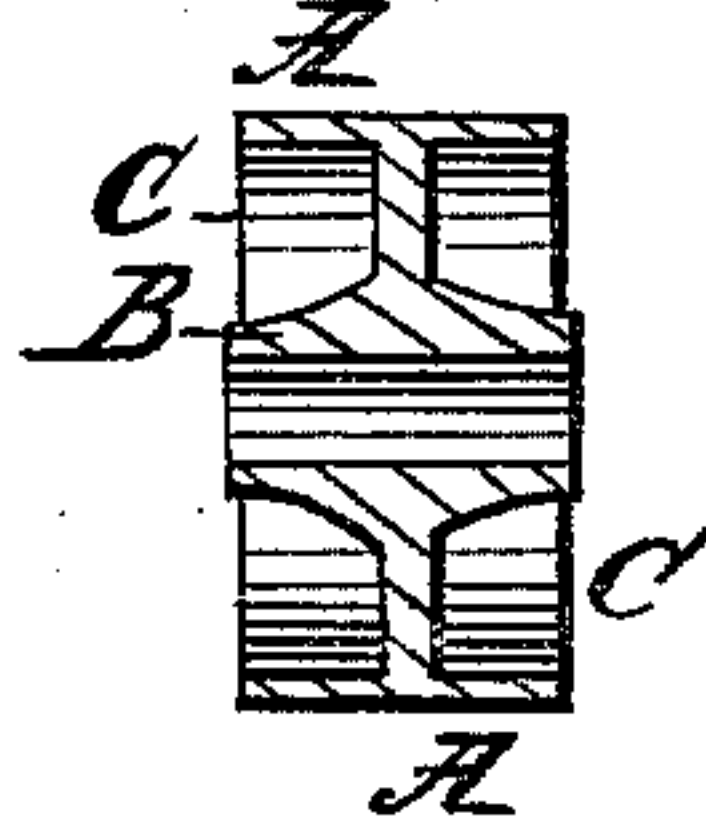


Fig. 5.



UNITED STATES PATENT OFFICE.

PHILOS B. TYLER AND BENJN. LATHROP, OF SPRINGFIELD, MASSACHUSETTS.

ROLLER OF FURNITURE-CASTERS.

Specification of Letters Patent No. 11,502, dated August 8, 1854.

To all whom it may concern:

Be it known that we, PHILOS B. TYLER and BENJAMIN LATHROP, of Springfield, in the county of Hampden and State of Massachusetts, have invented a new and useful Improvement in the Rollers of Furniture-Casters; and we do hereby declare that the same is fully described and represented in the following specification and the accompanying drawings, letters, figures, and references thereof.

Of the said drawings, Figure 1, denotes a side view—Fig. 2, an edge view, and Fig. 3, a transverse section of our improved metallic caster roller. Fig. 4, is a transverse section of a metallic caster roller of the ordinary kind or that in common use. Fig. 5, exhibits a section of our caster roller as it appears when first cast or formed.

We would remark that as the consumption or use of casters for furniture is very great, it becomes a highly important desideratum to construct these rollers with the least amount of metal to insure the requisite strength, and shape for the saving of a very small amount of metal in the making a caster roller is a material item, when large quantities are manufactured.

The metallic caster roller in common use, is most always constructed with a section essentially as exhibited in Fig. 4, it being cast in such form, and subsequently in order to smooth or polish it, it is finished in a lathe or on a mandrel. The periphery of this caster roller is made curved in transverse section, and is usually a very flat curve and from the inner edge of the rim, the roller is curved inward toward the hub with a semicircular curve or an approximation thereto as seen at, *a, b, c*. If we draw a line, *a, d*, parallel to the outer edge of the rim, and also draw another line, *b, d*, perpendicular to the axis of the hub we obtain a section, *a, b, d*, of an annulus of metal which by means of our improvement we dispense with on each side of the caster roller, while we produce a caster roller having all the requisites of strength of material and sev-

eral important advantages over the common metallic rollers as thus represented.

In making our improved roller, we first cast or found it, with its end cylindrical and tubular as seen at, *A, A*, in Fig. 5, and we connect this rim with the hub, *B*, by means of a flat annulus *C, C*, and while the roller is in the lathe or on a mandrel in revolution, we bring up and bear against its periphery a roller grooved around its periphery or such a tool or instrument as will cause the rim to be bent down toward the hub in the manner indicated in section by the dotted lines of Fig. 5, and so as to impart to the rim about a semicircular curve in its transverse section. This upsetting or bending down of the metal greatly condenses and strengthens it, while the form of the bend renders the rim quite as well if not better prepared to resist blows and strains laterally or vertically as the rim of the form exhibited in Fig. 4. The curve of the inner side of the rim is the reverse in our caster roller, to what it is in the roller shown in Fig. 4, while that of the outer surface is semicircular and not a flat one.

We do not claim the metallic caster roller, as exhibited in Fig. 4, but we do claim—

The improved caster roller as made both externally and internally as denoted in transverse section in Fig. 3. That is to say, with a bended rim united to an annulus or disk, made flat for some distance, from the rim toward the hub, the bended rim and flat disk producing a saving of the usual amount of metal which would have to be employed in the angles between them in order to insure the requisite strength and stiffness to the roller.

In testimony whereof we have hereunto set our signatures this twenty first day of February, A. D. 1854.

PHILOS B. TYLER.
BENJN. LATHROP.

Witnesses:

O. A. SEAMANS,
SAMUEL J. ROSS.