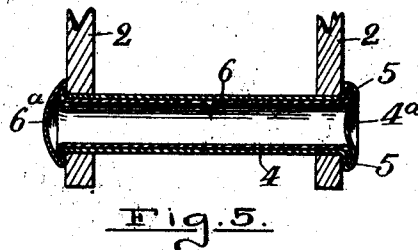
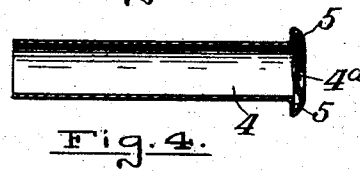
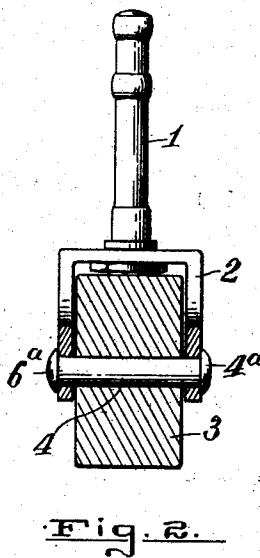
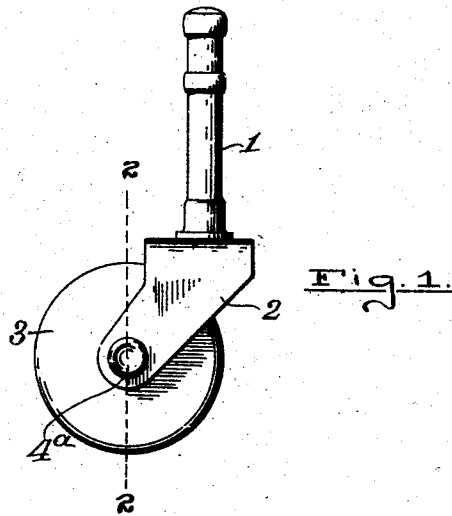


B. P. KENYON.
TUBULAR AXLE FOR CASTERS.
APPLICATION FILED JAN. 15, 1910.

973,515.

Patented Oct. 25, 1910.



Witnesses
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TUBULAR AXLE FOR CASTERS.

973,515.

Specification of Letters Patent.

Patented Oct. 25, 1910.

Application filed January 15, 1910. Serial No. 538,198.

To all whom it may concern:

Be it known that I, BERTRAND P. KENYON, a citizen of the United States of America, residing at Grand Rapids, in the county of Kent and State of Michigan, have invented certain new and useful Improvements in Tubular Axles for Casters; 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.

My invention relates to improvements in tubular axles for casters, and more particularly to such axles adapted to be used in the manufacture of furniture casters, and on which the caster wheel is journaled.

My invention consists essentially in an axle made in two tubular telescoping parts, each being provided with a head, and the inner tube held in place by clenching the open end of the same within the hollow head of the outer tube, as hereinafter more fully described and particularly pointed out in the claims, reference being had to the accompanying drawings, in which:

Figure 1 is a side elevation of a caster having my improved axle therein; Fig. 2 a vertical section of the same on the line 2—2 of Fig. 1; Fig. 3 a longitudinal axial section of the inner member of the axle; Fig. 4 the same of the outer member; and, Fig. 5 the same showing the device assembled and in place in the horn of the caster, Figs. 3, 4, and 5 being on an enlarged scale.

Like numbers refer to like parts in all of the figures.

1 represents the pintle of a caster; 2 the horn, and 3 the wheel of the same. This wheel is journaled on an axle which comprises my invention, said axle being tubular throughout their entire length and with hollow heads. The outer member 4 is provided with a head 4^a, the central portion of which head is concave on the outside and convex on the inside, and the overhanging margin 5 is hollow to receive the outwardly turned end of the inner member 6, which is of substantially the same length as the outer member, and telescopes within the same; fitting closely therein and provided with an externally convex head 6^a. These tubular portions are of such length

that when in place, the heads will engage the outer surfaces of the horn of the caster, 55 and when the inner member is inserted in the outer member 4 and forced to place, the convex inner surface of the head 4^a will turn the end of the inner tube 6 outward into the hollow margin 5, and thus clench 60 the inner tube in place and securely hold the same. By this construction, I am able to plate, polish, or otherwise finish the horn and both heads of the axle before assembling the device, and then assemble the 65 same without marring or in any wise injuring the finish of the same. These axles are also light and strong, and at the same time can be provided with large and finished heads such as could not be made by the 70 ordinary method of riveting and forming one head after assembling. They can also be made from flat sheet metal and drawn to tubular shape in a manner usual in making metallic ammunition shells. 75

What I claim is:

1. An axle for furniture casters, comprising two hollow members tubular throughout their entire length each having a finished head, and one of said members adapted to be 80 forced into the other member and retained therein.

2. An axle for furniture casters, comprising two tubular members of substantially equal length, one of the same adapted to be 85 forced into the other, and having its end turned or clenched within a circumferential enlargement in the head of the other member.

3. An axle for furniture casters, comprising an outer tubular member having a hollow head, and a tubular inner member having an open inner end adapted to clench within the head of the outer member when forced to place within the same. 95

4. An axle for furniture casters, comprising an outer tubular member having a head convex on the inner side and having hollow margins, an inner tubular member having an open inner end and a head at the outer end, 100 said inner member also having its inner end turned outward within the margin of the head of the outer member when forced to place in the same.

5. An axle for casters, consisting of a tubular outer member, a head on the same con- 105

cave on the outside and convex on the inside
and also having a hollow margin, and a tu-
bular inner member of substantially the
same length as the outer member having a
5 head at one end and having the other end
open and turned outward within the hol-
low margin of the head of the outer member.

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

BERTRAND P. KENYON.

Witnesses:

PALMER A. JONES,
MINNIE JOHNSON.