

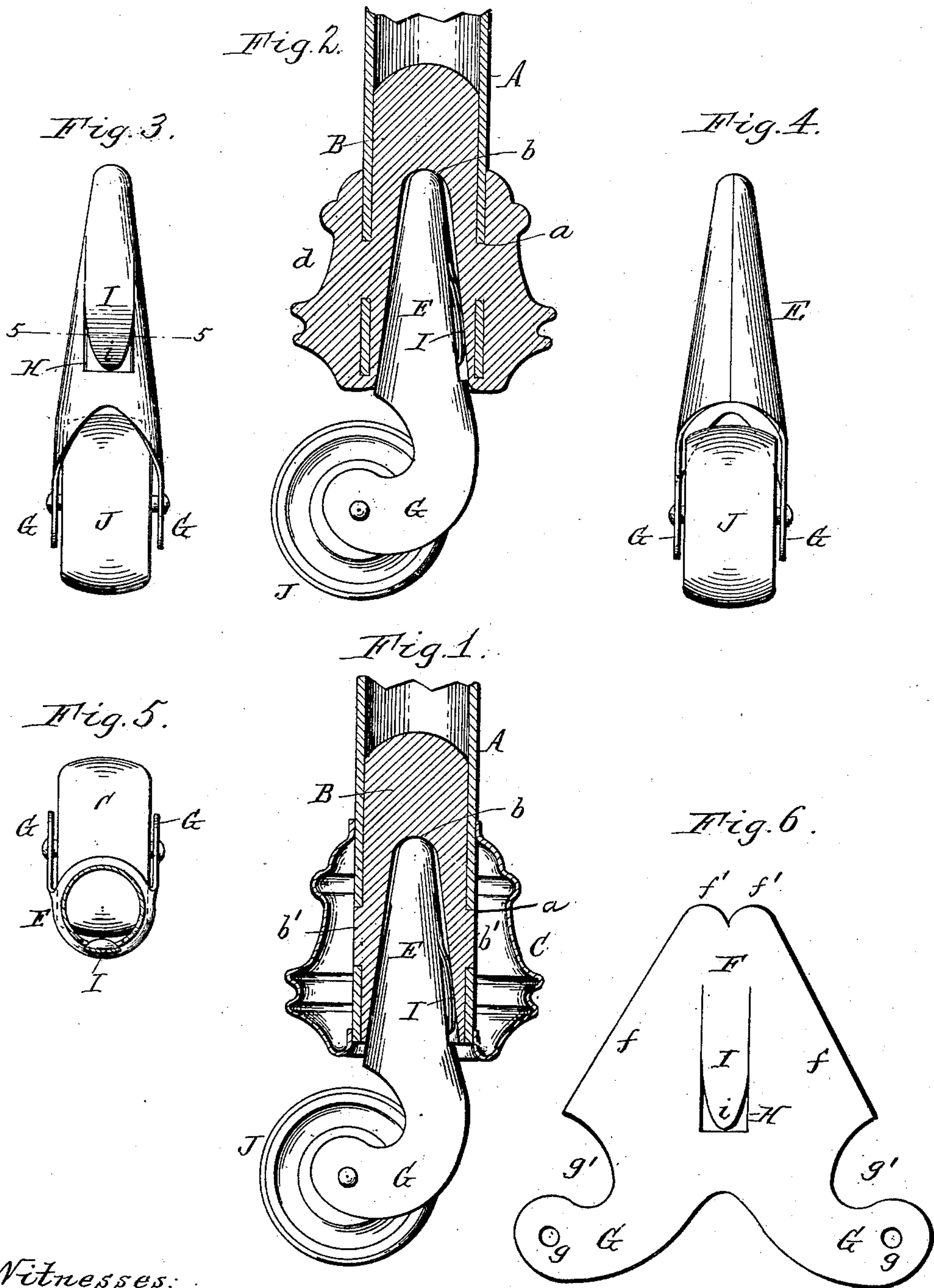
No. 713,839.

Patented Nov. 18, 1902.

E. C. BAYNES.
CASTER.

(Application filed June 26, 1901.)

(No Model.)



Witnesses:
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UNITED STATES PATENT OFFICE.

EDWARD C. BAYNES, OF BUFFALO, NEW YORK.

CASTER.

SPECIFICATION forming part of Letters Patent No. 713,839, dated November 18, 1902.

Application filed June 26, 1901. Serial No. 66,044. (No model.)

To all whom it may concern:

Be it known that I, EDWARD C. BAYNES, a citizen of the United States, residing at Buffalo, in the county of Erie and State of New York, have invented new and useful Improvements in Casters, of which the following is a specification.

This invention relates to a caster and socket therefor; and the invention is especially designed for casters and sockets intended for use in connection with furniture-legs made of metal tubes or pipes, such as are common at the present time in metal bedsteads and the like. In such metal tubular legs it is quite common to provide a caster-socket which is separate from the leg and is inserted therein and to provide means for detachably or permanently securing the socket in the leg. It has also been proposed to permanently secure a sheet-metal caster-socket in a tubular leg by casting an ornamental base on the leg, in which portions of the caster are embedded in the act of casting. All of these various casters and means for securing the same in the legs are more or less expensive and objectionable in that they are liable to be misplaced or broken and necessarily multiply the number of parts of the article of furniture to which the caster is to be applied. It is the main object of the present invention to provide a metal tubular leg or the like with a caster-socket which shall be exceedingly simple and which can be quickly and cheaply applied to the leg, forming a permanent part thereof.

A further object of the present invention is to provide a tubular leg with a caster-socket and an ornamental base or foot therefor cast integrally and constituting in effect a single part permanently attached to the lower end of the leg.

A further object of the invention is to produce an exceedingly simple and cheap caster shank or pintle made of a single piece of sheet metal and provided with an integral retaining tongue or part for detachably retaining the shank in the caster-socket.

In the accompanying drawings, Figure 1 is a vertical sectional view through the lower portion of a metal tubular leg provided with a caster-socket and caster embodying my invention. Fig. 2 is a sectional view of a por-

tion of the tubular leg, showing a slightly-modified embodiment of the caster-socket. Fig. 3 is a front elevation of the caster removed from the socket. Fig. 4 is a rear elevation. Fig. 5 is a cross-section in line 5 5, Fig. 3. Fig. 6 is a plan view of the sheet-metal blank from which the caster shank or stem is made.

Like letters of reference refer to like parts in the several figures.

Referring to the drawings, A indicates a tubular metal leg, the lower portion only being shown, which is preferably provided with one or more holes *a*, extending through the walls of the tube at or near the lower end thereof.

B, Fig. 1, indicates a caster-socket which is of cast metal and occupies the lower portion of the bore of the tubular leg extending up into the same above the holes *a* and having a pintle-cavity preferably provided with an upper rounded or dome-shaped top *b*. The walls of the cavity preferably taper toward the upper rounded portion thereof, so as to form a substantially conical cavity with a rounded top or apex. The socket, as will be seen from Fig. 1, has laterally-projecting integral portions or lugs *b'* extending into the holes *a* in the leg. These lugs or portions securely hold the socket in place in the leg and insure against any possibility of the socket being removed from or forced upwardly into the leg.

C, Fig. 1, indicates a base ornament or foot, such as are commonly employed on brass-trimmed beds.

The socket is formed by placing the lower end of the leg having the holes *a* therein into a mold provided with a suitable core of a shape corresponding with the desired shape of the cavity of the socket extending up into the lower end of the leg; a space being left between the core and the inner wall of the leg. Molten metal is then poured into the mold and finds its way through the holes or openings *a* or under the lower end of the leg into the leg, forming therein a plug or socket substantially as shown and having the central cavity formed by means of the core.

In the manufacture of iron beds the legs of the same are usually provided with a cast-metal ornamental foot or base, such as indi-

cated at *d* in Fig. 2. This ornamental base or foot and a socket substantially like that indicated in Fig. 1 may be formed in a single operation on the lower end of the leg as
 5 a single casting or integral part in a similar manner to that just described, the only difference being that a suitable molding cavity or space is left in the mold surrounding the lower portion of the leg and of a shape to
 10 give the desired configuration to the ornamental base or foot. When the metal is poured into the mold, it fills the cavity and also the lower part of the leg-bore by passing through the holes *a* or under the lower end
 15 of the leg, the ornamental base and the socket being joined by the metal occupying the holes *a* or extending under the end of the leg.

E indicates the caster-shank. This shank is formed from a single-piece sheet-metal
 20 blank of substantially the form shown in Fig. 6. From this figure it will be seen that the blank is provided with a substantially triangular upper portion F, having at opposite sides thereof wings *f*, which have straight inclined outer edges or sides and upper rounded
 25 or substantially semicircular end portions, (indicated at *f'*.) Projecting laterally and downwardly from the opposite sides of the lower portion of the blank are legs G, provided near their outer ends with holes *g*. The
 30 upper sides of the legs preferably extend upward and join the inner lower edges of the wing portions *f*, providing cut-out portions or pockets *g'* between the upper sides of the
 35 legs and the upper sides of the wings.

H indicates a substantially vertical U-shaped slit or cut in the central upper portion of the top of the blank. This cut provides a
 40 tongue I, which preferably has a lower rounded end *i*. The blank thus formed is bent, as by stamping, so as to bring the outer inclined or side edges of the wings *f* together, so as to meet on a central longitudinal line at the front. The shape of the blank is such that when the
 45 wings are thus bent around and brought together the triangular portion F and the wings *f* of the blank form a conical caster-shank proper or pintle, as indicated in Figs. 3 and 4. The upper rounded portions *f'* when
 50 brought together form the upper rounded or dome-shaped end of the shank. The lower portion of the legs G extend downwardly from the shank substantially parallel and spaced apart for the reception of the caster-
 55 wheel, which is indicated at J. It will be observed that the upper portions of the legs—that is, near where they join the lower end

of the conical shank—are curved or rounded. This formation of the upper portions of the legs adds materially to the strength of the
 60 same and prevents the bending or breaking thereof under the weight to which the caster is to be exposed. The cut-out portions *g'* permit the side edges of the wings to meet at the front of the shank over the caster-wheel
 65 and leave ample space for the latter. The tongue I extends downwardly and outwardly from the outer surface of the shank and has its lower end *i* bent inwardly, so as to form a rounded or smooth lower portion. This
 70 tongue is adapted when the shank is inserted in the caster-socket to engage the inner wall thereof or a shoulder thereon and retain the shank in the socket against accidental
 75 displacement. It does not interfere with the easy placement and removal of the shank from the socket.

It will be observed that with the socket and caster-shank formed as above described there are no base-engaging shoulders or parts
 80 on the shank and socket, but the socket bears directly upon the upper rounded end of the shank.

I claim as my invention—

1. The combination with a tubular metal
 85 leg, of a socket-plug cast in said leg and having one or more integral projecting parts which interlock with holes in said leg to prevent the detachment of said socket-plug there-
 90 from, substantially as set forth.

2. The combination with a tubular metal
 leg, of a metal socket-plug in the lower por-
 95 tion thereof, and an external metal base or foot integral with said socket-plug and connected thereto by one or more parts which
 pass through holes in said tubular leg to pre-
 vent the detachment of said plug and base from said leg, substantially as set forth.

3. The combination with a tubular metal
 100 leg, of a metal socket-plug in the lower portion thereof, an external metal base or foot integral with said socket-plug and connected thereto by one or more integral parts which
 pass through holes in said leg, and a caster
 105 having a shank entering said socket and bearing at its upper end on said socket-plug, said shank being provided with means for retaining it in the socket, substantially as set forth.

Witness my hand this 20th day of June, 1901.

E. C. BAYNES.

Witnesses:

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