No. 652,426. Patented June 26, 1900.

G. D. CLARK.

FURNITURE CASTER.

(Application filed Aug. 26, 1899.)

(No Model.)

Fig. 1.

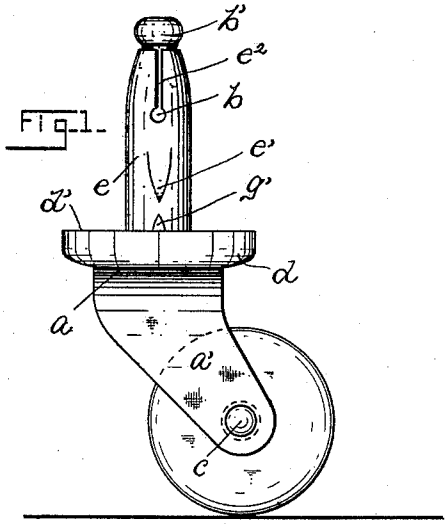


Fig. 3.

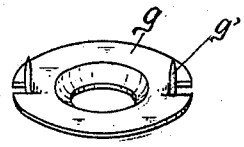
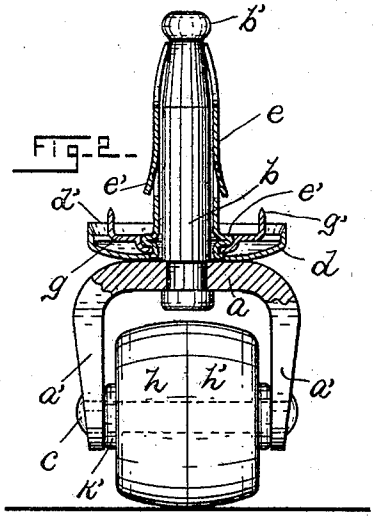


Fig. 2.



WITNESSES

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GEORGE DWIGHT CLARK, OF PLAINVILLE, CONNECTICUT.

FURNITURE-CASTER.

SPECIFICATION forming part of Letters Patent No. 652,426, dated June 26, 1900.

Application filed August 26, 1899. Serial No. 728,639. (No model.)

To all whom it may concern:

Be it known that I, GEORGE DWIGHT CLARK, a citizen of the United States, residing at Plainville, county of Hartford, State of Connecticut, have invented certain new and useful Improvements in Furniture-Casters, of which the following is a full, clear, and exact description.

The chief aim of this invention is to provide a cheap and serviceable furniture-caster, particular attention being given to the improvement of the connection between the socket and cupped plate and to the construction of the track-plate. Incidentally other details of construction have been improved, as I shall explain.

My several improvements are illustrated in the accompanying sheet of drawings, Figure 1 being a side elevation of a complete caster embodying the several features of my invention. Fig. 2 is a view of said caster, showing the same partly in front elevation and partly in vertical central section. Fig. 3 is a detached perspective view of a disk or washer used to bind together the so-called "socket" and "track-plate."

The body or "horn" of this caster is substantially like that of casters as ordinarily constructed—that is to say, it has an upper plate portion *a*, in which is riveted the pintle *b*, and it has also depending side plates *a'*, that are perforated to receive the rivet *c*, on which the wheel is axially mounted.

The letter *d* denotes the track-plate, and *e* the socket, the latter being of suitable size to fit easily over the pintle *b*, so that the pintle may revolve therein. The track-plate *d* is perforated centrally to receive the lower end of the socket *e*, as is best seen in Fig. 2, the lower end of the socket in the finished caster being flush or approximately flush with the lower face of the track-plate. It should be noted that the socket is not secured in the track-plate, but is fastened to a washer *g*, which washer is then forced into the cupped track-plate with sufficient pressure to make the combined socket, washer, and track-plate practically a single structure.

The socket is flanged or beaded, as at *e'*, to limit its entrance into the washer, and after the latter has been forced up to its place against the said flange the lower end of the socket is slightly headed to prevent the separation of the socket and washer. After the socket and washer have been thus joined the washer is forced down into the cupped track-plate, as seen in Fig. 2, the lower or headed end of the socket being then substantially flush with the lower face of said track-plate, as stated above. This construction provides a very rigid structure and one that may be readily and cheaply produced.

In order to secure the track-plate and connected parts in the leg of a piece of furniture, I make the upper edge of the said plate with a chisel edge *d'*, that may be readily driven into the wood. Heretofore it has been common to serrate the upper edge of the track-plate; but I find in practice that such serrations are more likely to split the wood than the continuous chisel edge *d'* as now provided by me. The continuous chisel edge when forced into the wood completely incloses the latter and prevents the radial breakage of the wood that frequently occurs when the serrations are provided. In order to further aid in retaining the track-plate in engagement with the furniture-leg, I preferably strike up one or more spurs *g'*, of considerable length, in the washer *g*, which spurs are forced into the wood simultaneously with the knife-edge *d'* and serve to prevent the undue rotation of the thin edge of the track-plate in the wood. I also preferably form the socket *e* with one or more spurs *e'*, that extend downwardly and outwardly, as seen in Figs. 1 and 2, these spurs being struck up from the thin sheet-stock of which the socket is formed. When the socket is forced into the hole usually provided for it in the furniture-leg, the spurs yield sufficiently to allow the socket to enter and then serve as barbs to prevent the ready removal of said socket.

The upper end of the pintle *b* is headed, as at *b'*, and the upper portion of the socket is slitted and contracted, as at e^2, to form a spring that yields when the pintle is forced into the socket and then clamps the pintle below the head *b'* with sufficient force to retain the pintle in the socket under all ordinary conditions.

The several parts of my described caster may be quickly and cheaply produced by punching and swaging, and the finished struc-

ture has the desirable qualities of extreme lightness and great strength.

Particular attention is called to the fact that the track-plate is made of wrought metal instead of cast metal, that the chisel-edged flange *d'* has a vertical outer surface and an angular inner surface, (the bevel being wholly on the inside is at the periphery of said plate instead of at a place between the periphery of the plate and the central perforation of the latter,) and also that said flange is continuous throughout its entire length and that every portion is equidistant from the central opening in the plate. A track-plate thus constructed is very advantageous, not only because it is lighter, stronger, and cheaper than if made of cast metal, but also in that its rim is sufficiently thin and may be milled or swaged to a chisel edge, so as to drive readily into the wood of the furniture-leg and will not tend to split the same, and, further, for the reason that its rim being continuous and unbroken will render unnecessary the provision of supplemental fastening means, such as screws or nails, for holding the plate to the furniture-leg.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. In a caster-socket, a tubular member, a circular plate at the foot thereof, an annular, continuous, upturned, integral flange at the edge thereof, said flange being of such height as to act as a retaining means to hold the socket to the furniture, the external wall of said flange being vertical, and the internal wall thereof being inclined outwardly to prevent splitting of the furniture and to form a chisel-like edge at the upper portion thereof.

2. In a furniture-caster, the combination with the cupped track-plate having a continuous rim to be driven into the wood of the furniture-leg, said rim having its sharpened edge beveled on the inner side only, a socket, and a washer securing said socket to the track-plate, said washer having integral spurs which are driven into the wood of the furniture-leg simultaneously with said rim.

3. A furniture-caster, comprising a cup-shaped track-plate, formed with a central opening, and having a rim formed to be driven into the wood of the furniture-leg, a socket projecting into said opening and having a bead within the track-plate and above the base thereof, and a flat washer forced into the track-plate and having a depending interior flange which engages beneath said bead, said washer serving to secure the track-plate and socket together and having upwardly-projecting spurs which are driven into the leg simultaneously with the rim of the track-plate and assist said rim in securing the caster to the leg.

4. In a furniture-caster, the combination of a track-plate having a rim formed to be driven into a furniture-leg, a socket for the caster-pintle, and a washer to which said socket is secured, said washer being secured in the track-plate and having upwardly-projecting spurs which are driven into the furniture-leg simultaneously with the rim of the track-plate and assist said rim in securing the caster to the leg.

Signed at Plainville, Connecticut, this 12th day of August, 1899.

GEORGE DWIGHT CLARK.

Witnesses:
M. G. CLARK,
AGNES SUGDEN.