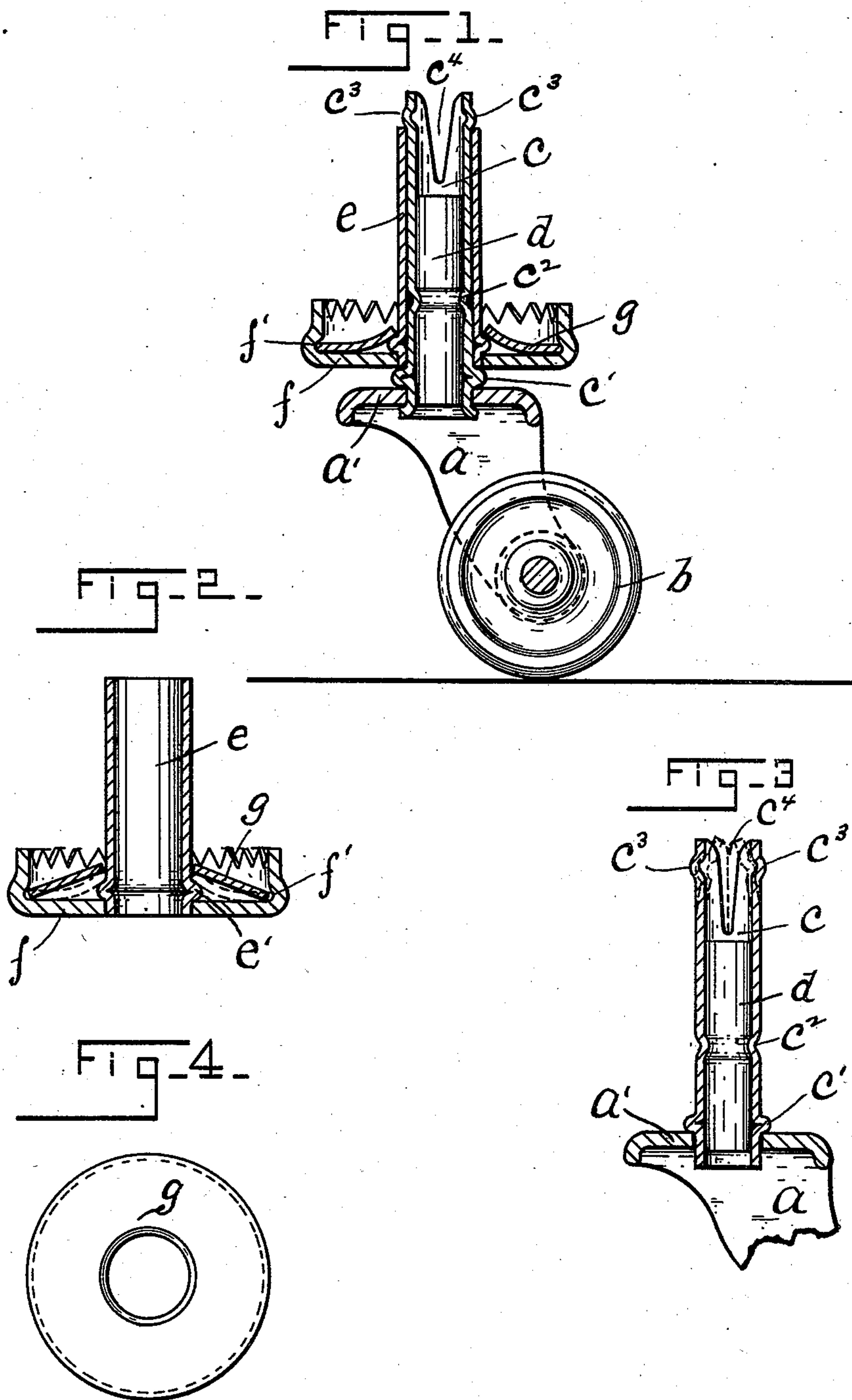


(No Model.)

G. D. CLARK.
FURNITURE CASTER.

No. 548,825.

Patented Oct. 29, 1895.



Witnesses
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UNITED STATES PATENT OFFICE.

GEORGE DWIGHT CLARK, OF PLAINVILLE, CONNECTICUT.

FURNITURE-CASTER.

SPECIFICATION forming part of Letters Patent No. 548,825, dated October 29, 1895.

Application filed January 19, 1895. Serial No. 535,550. (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, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Furniture-Casters, which improvements are fully set forth and described in the following specification, reference being had to the accompanying sheet of drawings, in which—

Figure 1 is a vertical central sectional view of a caster embodying my improvements; and Fig. 2 is a similar view of the track-plate, socket, and locking-washer. Fig. 3 is a similar view of the pintle and frame-plate as they appear when assembled, but not locked together. Fig. 4 is a plan view of the locking-disk *g*.

The object of this invention is to improve the pintle, socket, and track-plate of furniture-casters, to the end that the said elements may be more rapidly and cheaply produced and assembled than heretofore.

In the annexed drawings, the letter *a* denotes the caster-frame or "horn," the same being suitably formed to receive and support the caster-wheel *b*.

c denotes a pintle of tubular form, instead of solid, as heretofore. This pintle may be produced from drawn tubing cut to proper length, or preferably may be rolled up from a flat blank previously punched from sheet metal. After having been thus rolled up the tube is upset near one end to provide an annular rib *c'*. Said pintle is then inserted in an opening in the frame *a*, and the portion between rib *c'* and the pintle end is spread and eyeleted over to inclose the frame-plate *a'*, as will be understood by reference to Fig. 1 of the drawings, thus securely fastening together the pintle and frame.

The described method of forming the pintle and securing it to the frame is a marked and valuable improvement over the ordinary practice of riveting solid pintles into the frame-plate, for the obvious reason that the frames are usually made of brittle cast metal and a large number of such frames are cracked and destroyed in the riveting operation, whereas by my improved method the hollow pintle end may be upset by a single slow movement of suitable swaging-dies without the slightest

danger of breaking the plates. Ordinarily the tubular pintle, as described, is sufficiently stiff and strong; but in casters that are expected to support heavy weights the pintle may be cheaply and effectively strengthened by inserting therein a short piece of wire *d*, that may be held in place by rolling an annular groove *c²* into the pintle and thus forcing the metal into the wire *d*. (See Figs. 1 and 3.) The core of wire should preferably extend downward nearly through the eyeleted end of the pintle, so as to strengthen and reinforce that part of the complete caster that will be subjected to the severest strain when put to work.

The socket *e* is formed of sheet metal rolled into a tube of suitable diameter to receive the described pintle, and in order to prevent the accidental separation of the pintle and socket I indent the blank from which the pintle is formed to produce radial spurs *c³* at opposite sides of the upper end of the pintle and then cut away the intervening metal, substantially as at *c⁴*, so that the projecting portions may readily spring inward, as in dotted lines in Fig. 3, to permit the pintle to be passed through the socket. Ordinarily the spurs *c³* prevent the pintle from slipping out of the socket, but do not interfere with the free rotation of said pintle in said socket.

The letter *f* indicates a plate of cupped-disk form, having a central hole of size suitable to receive the lower end of the socket *e*, which latter is provided near said lower end with an annular rib *e'*, which limits the entrance of the socket in the disk-plate *f*. The upturned edge of the plate *f* is formed with an internal annular groove *f'*. After the socket *e* and plate *f* have been assembled a conical disk *g* is slipped down over the socket until its circumferential edge is coincident with the internal groove *f'*. Said disk *g* is then swaged downward until it rests upon the socket-flange *e'*, such swaging operation serving to expand the disk *g* and force it outward into the internal groove *f'* of the track-plate *f*, thus securely locking together the socket *e*, disk *g*, and plate *f*.

It will be noted that all of the operations necessary for the production of a caster of my improved form may be very rapidly and cheaply performed, and as the various ele-

ments (excepting, possibly, the frame *a*) are formed from sheet metal a finished appearance is produced without subsequent polishing or other labor.

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

1. In a caster, in combination, a perforated frame, a hollow pintle secured to said frame
10 substantially as set forth, and a reinforcing core of wire secured within said pintle.

2. In a caster, in combination, a frame, a socket and a hollow pintle eyeleted to said frame, substantially as set forth, the free end
15 of said pintle being formed with radially pro-

jecting spurs and also slitted substantially as specified.

3. In a caster, in combination, a frame and a pintle secured thereto, a socket having an annular flange *e'*, a perforated cupped track- 20 plate mounted upon said socket below said flange, and a perforated disk *g* mounted upon said socket above the said flange, all being combined substantially as and for the purpose specified.

GEO. DWIGHT CLARK.

Witnesses:

L. N. CAMP,
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