

No. 746,636.

PATENTED DEC. 8, 1903.

J. W. LAWRENCE.

CASTER.

APPLICATION FILED JULY 8, 1903.

NO MODEL.

2 SHEETS—SHEET 1.

Fig. 1.

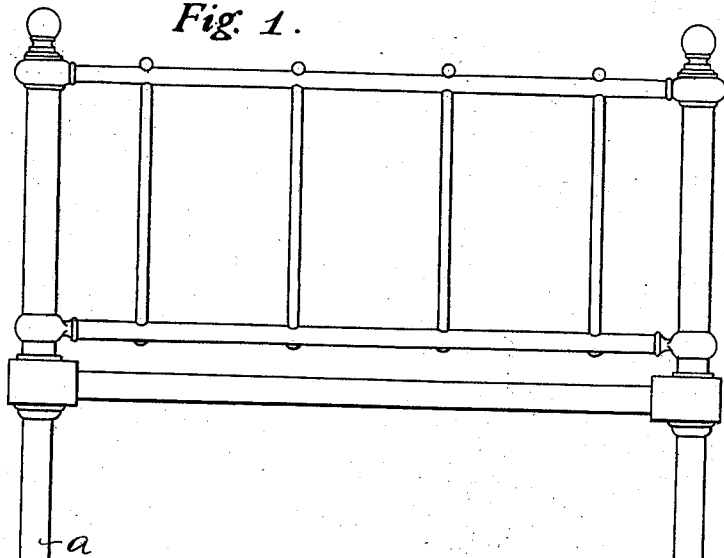
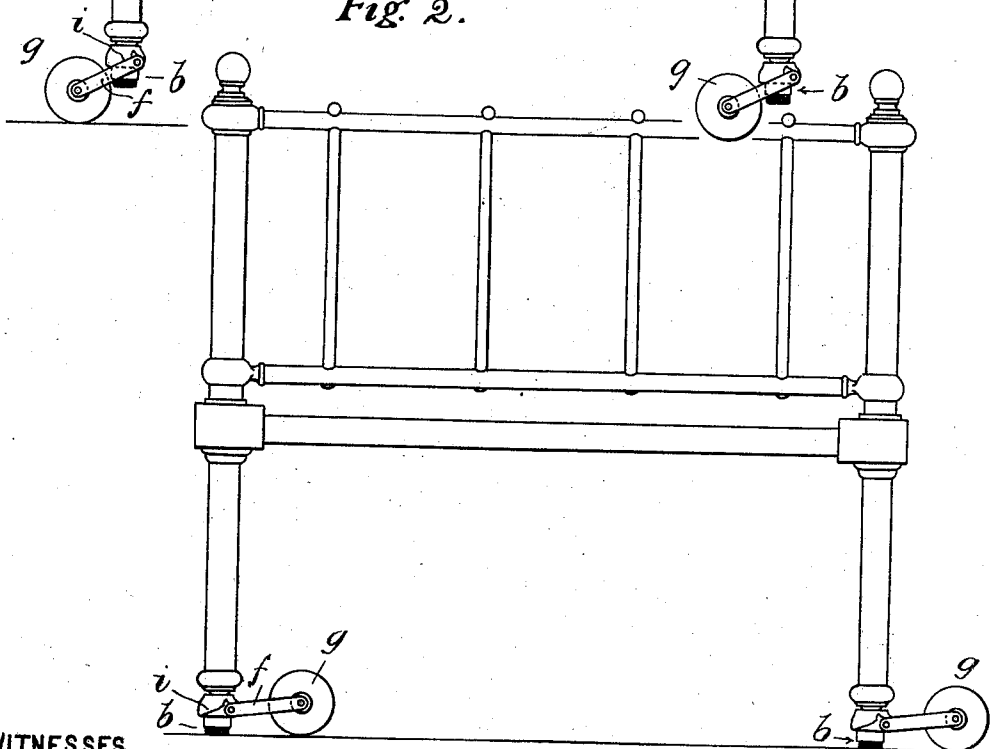


Fig. 2.



WITNESSES

John Brown

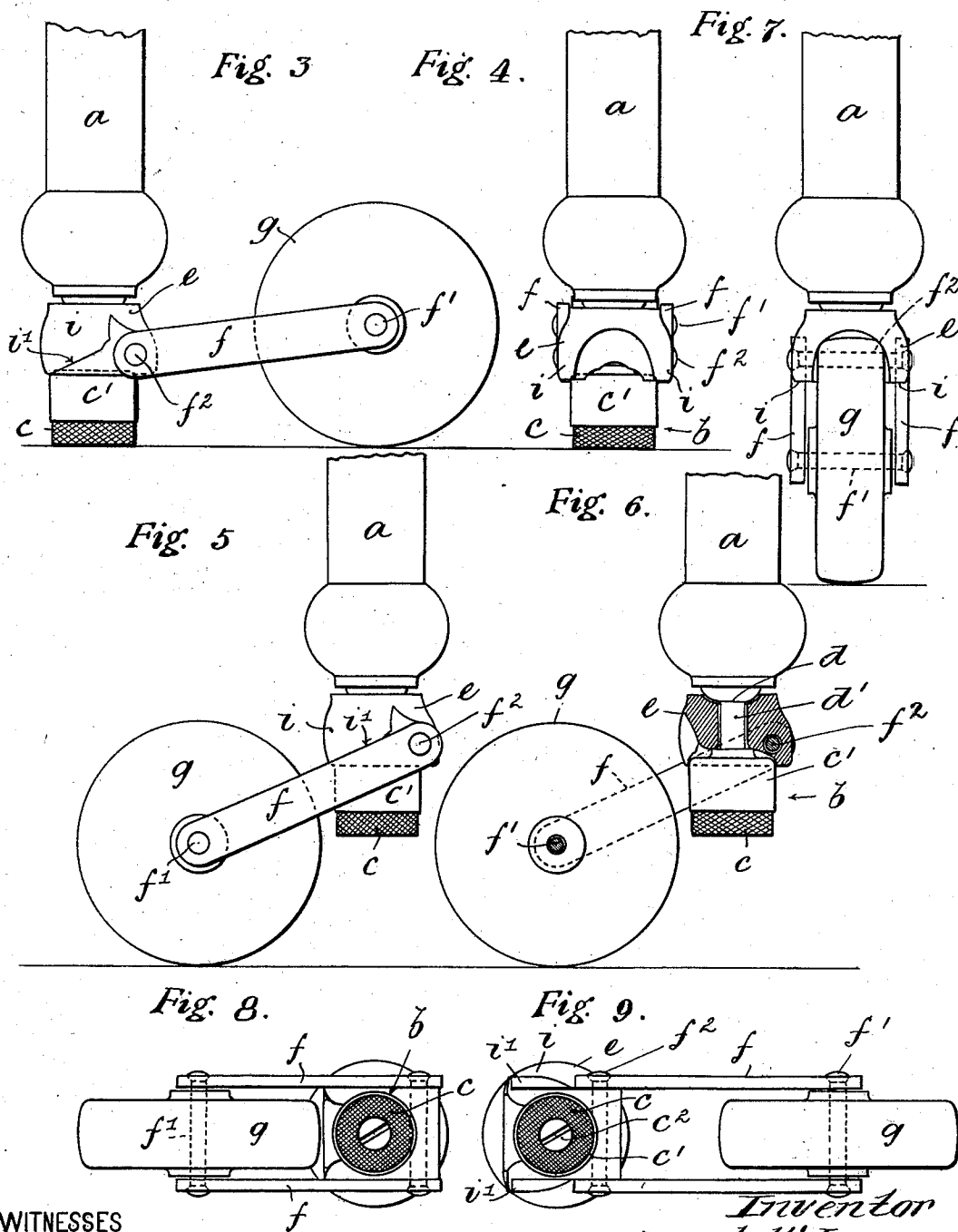
Inventor
Joseph W. Lawrence
By James L. Norris
att'y.

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2 SHEETS—SHEET 2.



WITNESSES

John Brown

Inventor

Joseph W. Lawrence
By *James L. Norris*
att'y.

UNITED STATES PATENT OFFICE.

JOSEPH WILLIAM LAWRENCE, OF SMALL HEATH, NEAR BIRMINGHAM, ENGLAND, ASSIGNOR TO HOSKINS AND SEWELL, LIMITED, OF BORDESLEY, BIRMINGHAM, ENGLAND.

CASTER.

SPECIFICATION forming part of Letters Patent No. 746,636, dated December 8, 1903.

Application filed July 6, 1903. Serial No. 164,467. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH WILLIAM LAWRENCE, fitter, a subject of the King of Great Britain, residing at 7 Bankes road, Small Heath, near Birmingham, England, have invented certain new and useful Improvements in Casters, of which the following is a specification.

This invention has relation to casters for bedsteads, cots, operating and other tables, couches, and furniture generally, and for other analogous purposes, but is principally applicable to casters for use in connection with hospital, asylum, sanitarium, and other institution bedsteads and appliances for hospital and invalid's use.

The invention consists of the novel combination and arrangement of parts hereinafter more specifically described, illustrated in the accompanying drawings, and particularly pointed out in the claims hereunto appended.

Figure 1 of the accompanying drawings represents an end elevation of a hospital cot or bedstead the legs of which are fitted with combination and convertible caster-fittings constructed and arranged in accordance with this invention. This view shows the bedstead supported on the running caster bowls or wheels of the combination-fittings for facilitating transportation. Fig. 2 is a similar view of the said cot, but showing the same resting upon dumb or silent feet of the combination caster-fittings. Fig. 3 represents, upon an enlarged scale, a side elevation of one of the caster-fittings, showing the dumb or silent caster part resting upon the floor and the running-bowl lying in its inoperative or idle position. Fig. 4 is an end elevation of Fig. 3. Fig. 5 is an elevation of the said fitting upon the same scale as Figs. 3 and 4, showing the running bowl or wheel in its supporting position and the dumb or silent foot raised or elevated above the floor, so that the weight to be supported is borne entirely by the running part of the said fitting. Fig. 6 shows the said fitting with the parts in the same position as in Fig. 5, but with portions thereof drawn in section. Fig. 7 is an end elevation of Figs. 5 and 6. Fig. 8 is an under side plan of the caster-fitting with the

parts in the same positions as represented in Figs. 5, 6, and 7, while Fig. 9 is an under side plan showing the parts in the positions indicated in Figs. 3 and 4.

The same letters of reference indicate corresponding parts in the several figures of the drawings.

According to the illustrated form of the said invention as applied to a convertible combination-caster for hospital bedsteads and cots the foot end of each pillar or leg *a* of the bedstead is provided with an ordinary dumb or silent caster or fixed foot *b*, which consists in the arrangement shown of a block or pad *c*, of india-rubber, felt, or similar material, secured within a socket *c'* by a screw *c''* or in any other convenient manner, the said socket being carried by a peg *d* or the like cast into or otherwise secured to the said bedstead-pillar, but leaving a plain shank or neck *d'* between the under side of the pillar and the crown of the socket, such neck constituting a spindle or pivot center on which a loose swiveling or rotating collar *e* is mounted. Pivoted eccentrically or hinged in any suitable manner to one side of this collar or other portion of the fitting is an extended caster-bowl horn or a pair of arms or links *f* or a double-sided frame adapted to swing in a vertical plane and carrying at the outer end a cross-pin *f'* or other support, upon which a caster bowl or runner *g* of considerable diameter or a small wheel is mounted, while on the other side of the collar or upon a part thereof removed from the pivot or joint pin *f''* of the swinging arm or frame are a pair of projecting lugs, shoulders, or other outstanding stops, such as *i*, having inclined abutments *i'* on their under sides and arranged in the path of the swinging movement of the said arms or frame, so that they are adapted to prevent the same being moved or raised above the center of their joint when the bowl is brought to the one side of the collar, and thus serve as means for positioning the carrier-arms and roller when the weight is transferred to said roller for facilitating transportation. These parts are so arranged that when the carrier-arms of the caster are bearing against the positioning stops or shoulders

on the collar the dumb or silent foot part of the combination caster-fitting is retained or held in an elevated position or is raised off the floor, as shown in Figs. 1, 5, 6, 7, and 8, and the weight to be supported is borne entirely by the roller, runner, or wheel, so that the bedstead can then be readily transported or wheeled about from place to place; but on the arms, with the roller, being brought or changed round, so as to project from the joint side of the said collar, (on which there are no projecting parts to interfere with the free swinging movement of the arms or for retaining the roller in a fixed and definite position with respect to the other parts of the fitting,) then the block of the dumb caster is lowered onto the floor, as shown in Figs. 2, 3, and 4, and the weight of the bedstead is transferred thereto, while the roller or wheel stands idle or in an inoperative position and takes no part in supporting the said bedstead.

The transference of the weight of the bedstead from the dumb or stationary caster or foot to the running bowls or wheels is accomplished by bodily raising and pulling forward the bedstead, which causes the links or carrier-arms of the bowls or wheels to swing over from one side of the bowl-centers to the other side as the stationary feet pass over the tops of the bowls, and then on the bedstead being again lowered the shoulders or stops on the caster-collars come against the said arms and the bedstead-legs are then supported upon the rollers. To throw the rollers out of action, the bedstead is raised and the links or arms are swung in the reverse direction and the dumb or stationary casters are allowed to drop onto the floor.

When the casters are to be used on tables and other furniture, the ordinary small bowls may be used.

Instead of providing stop-shoulders in the path of movement of the swinging or radial arms any other means may be provided which

will position the roller and its carrier-arms and prevent the turning of the said arms into planes above those of their joint-centers when the rollers or wheels are desired to come into action for supporting the bedstead or the like or which will prevent the dropping of the centers or jointed ends of the arms below the centers on which the bowls or wheels run.

Having fully described my invention, what I desire to claim and secure by Letters Patent is—

1. The combination of a fixed foot provided with a stem, a collar suitably mounted upon the foot and surrounding the stem, said collar provided with stops, an adjustable carrier pivoted to said collar and when moved in one direction adapted to have its movement arrested by said stops and when moved in the opposite direction to be free of the said stops, and a roller mounted in the free end of said carrier.

2. In combination, a fixed foot, a collar loosely mounted thereon and provided with inclined bearing-surfaces, and an adjustable carrier pivoted to the collar and provided with a roller, said carrier when adjusted to its normal position, adapted to engage said bearing-surfaces, said surfaces further forming a stop for limiting the movement of the carrier in one direction.

3. A caster comprising in combination, a stationary member, an adjustable carrier provided with a roller, and means for swivelly and pivotally connecting said carrier to said member, said means provided with inclined bearing-surfaces for the carrier when moved to its normal position.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

JOSEPH WILLIAM LAWRENCE.

Witnesses:

E. HARKER,

HARRY OSMOND PRATT.