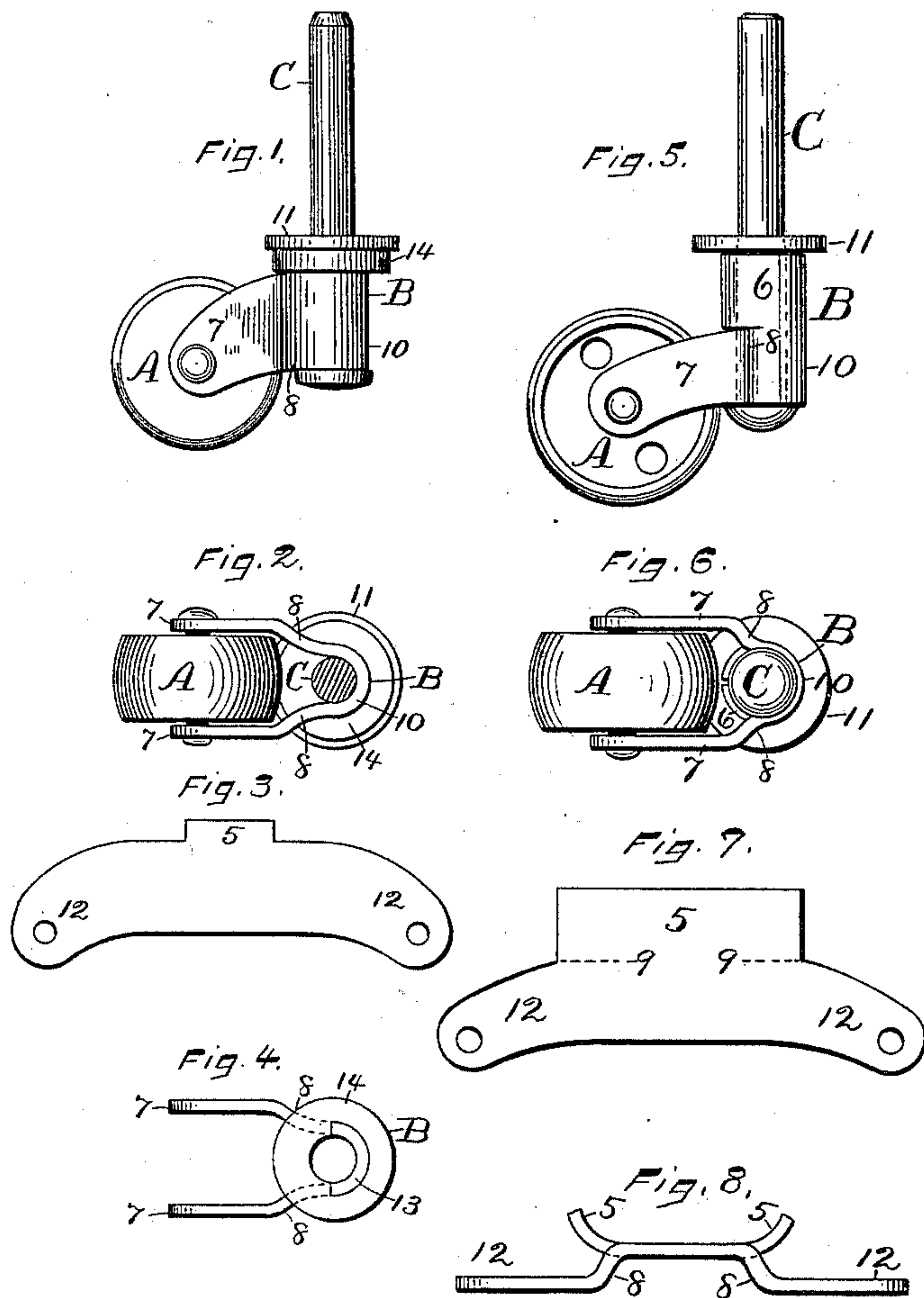


(No Model.)

T. CORSCADEN.
CASTER.

No. 452,834.

Patented May 26, 1891.



WITNESSES.
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UNITED STATES PATENT OFFICE.

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CASTER.

SPECIFICATION forming part of Letters Patent No. 452,834, dated May 26, 1891.

Application filed August 11, 1890. Serial No. 361,615. (No model.)

To all whom it may concern:

Be it known that I, THOMAS CORSCADEN, a citizen of the United States, residing at New Britain, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Casters, of which the following is a specification.

My invention relates to improvements in casters in which the frame is formed of sheet metal; and the main objects of my improvement are simplicity and cheapness of construction and efficiency and durability when constructed.

In the accompanying drawings, Figure 1 is a side elevation of my caster. Fig. 2 is a reverse plan view thereof with the spindle in horizontal section. Fig. 3 is a plan view of the blank from which to form the main portion of my caster-frame. Fig. 4 is a detached plan view of said frame. Fig. 5 is a side elevation of my caster in a modified form. Fig. 6 is a reverse plan view of the same. Fig. 7 is a plan view of the blank for forming the frame of the same, and Fig. 8 is an edge view of said blank partly bent into shape.

I have shown my improvement as applied to that style of a caster-frame in which the entire pin or spindle is stationary, while the frame revolves upon the lower end thereof. It is, however, evident that my frame is adapted for being rigidly connected to the lower end of a spindle, which spindle may revolve in any ordinary socket.

A designates the caster-wheel of any ordinary style; B, my improved sheet-metal frame, and C the spindle. Said frame consists of horns for supporting the caster-wheel and a socket by which said horns are supported on the spindle. I form the blank for the main portion of said frame, as shown in Fig. 3, with a portion 5 to be formed into a part of the cylindrical socket at the upper end of the frame, which completely incloses the spindle C. From each end of the portion 5 of the blank I form wings 12 12, which are slightly curved, and which are to be bent to form the horns 7 of the caster, by which to secure the caster-wheel A.

In forming up the blank I prefer to form offsets 8 8 in the blank for the frame, as shown in the modified form of blank, Fig. 8, and afterward bend the middle portion between

said offsets into substantially a semicircle, thereby giving that portion of the frame in reverse plan view the form shown in Fig. 2. In order to complete the frame so that the socket at its upper end shall completely inclose the spindle and form a firm cylindrical bearing therefor, I cut out or form a sheet-metal disk 14 with a central opening, one half of which is of a diameter to fit the spindle and the other half of a larger diameter, that will take in that part of the socket 13, Fig. 4, into which the portion 5 of the blank has been formed, and I drive said part 13 into said disk, as shown in Fig. 4, so that the complete socket at the upper end of the frame is formed partly by the edge of the metal composing the disk at the smaller diameter of its opening, while the remainder of said socket is formed by the inner surface of the part 13. Said disk is in the nature of a tie or binder, for in addition to forming half the bearing-surface of the socket it binds or ties the semicylindrical portion of the socket, so as to prevent it from spreading even at the lower end. The portion of the frame below said disk forms a semi-cylindrical socket, into which the spindle fits. The disk is forced on with sufficient pressure to rigidly secure it to the main portion of the frame, so as to be practically integral, the same as if the whole were of one piece.

In the modified form of my caster the portion 5 of the blank is both longer and higher.

In forming up the blank I prefer to first bend the ends of the portion 5 into the proper curve, and at the same time bend the offsets 8 8 of the horns in the opposite direction by means of a combined cutting and bending die, which will cut the blank on the lines 9 9 of Fig. 7 and bend it into the form shown in Fig. 8. That portion of the blank between the curved ends of the part 5 and the offsets 8 8 is then bent into the form of a semicircle, which, in connection with the previous bends at the ends of the portion 5, forms said portion into the complete cylinder 6, as shown at the upper end of the tubular socket in Fig. 5, while the portion of the blank below said socket forms the semi-cylindrical portion 10, Figs. 5 and 6, of the complete tubular socket. In both forms the spindle C is provided with a head at its lower end, which projects over

the lower edge of the semi-cylindrical part of the socket and prevents said frame from being detached therefrom. The semi-cylindrical socket is open on that side which faces the roller, thereby bringing the spindle and roller nearer together than in casters that have the spindle wholly inclosed at its lower end. The caster is, however, firmly supported, the weight upon it being sustained by the complete cylindrical portion at the upper end of the frame and by the solid wall of the semi-cylindrical socket on the side opposite the roller at the lower end of the spindle. A washer 11 is rigidly secured to the spindle C to confine the opposite end of the caster-frame thereon. I prefer to form the upper end of the spindle C of a slightly-smaller diameter than the lower end, as indicated by the broken lines in Fig. 5, and forming the junction of the larger and smaller portions of the spindle at the point where the washer 11 is to be placed, so that said washer may be secured thereon by simply driving the spindle into it.

I claim as my invention—

1. The herein-described caster, consisting of a roller A, the spindle C, and the sheet-metal frame B, having a complete socket at its upper end that wholly incloses the spindle, a semi-cylindrical socket extending to the head at the lower end of said spindle, with the open side facing said roller, and the horns 7, projecting from said semi-cylindrical socket at the opposite edges of its open side, substantially as described, and for the purpose specified.

2. In a caster, the herein-described sheet-metal frame having the semi-cylindrical socket formed between the horns 7 and integral therewith, the part 13 of the complete socket at the upper end, and the binding-disk 14, having a central opening of two different diameters, substantially as described, and for the purpose specified.

THOMAS CORSCADEN.

Witnesses:

JAMES SHEPARD,
JOHN EDWARDS, Jr.