No. 664,875. Patented Jan. 1, 1901.

W. LIVINGSTONE.

CASTER SOCKET.

(Application filed July 13, 1900.)

(No Model.)

Fig. 1.

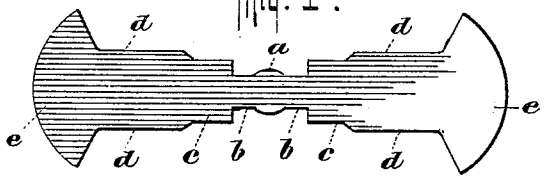


Fig. 2.

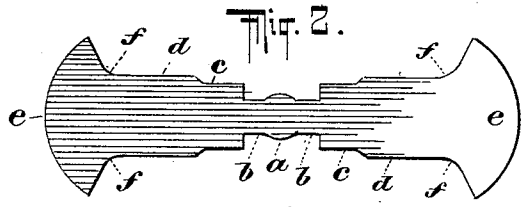


Fig. 3.

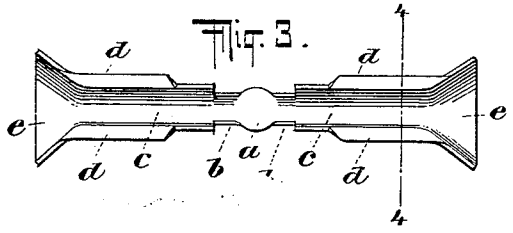


Fig. 4.

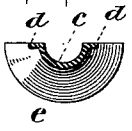


Fig. 5.

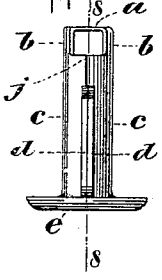


Fig. 6.

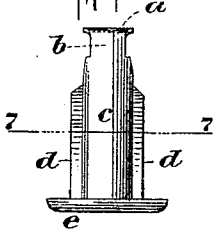


Fig. 7.

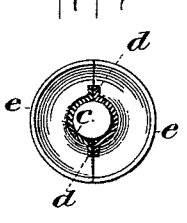


Fig. 8.

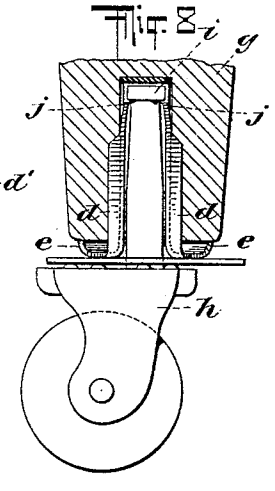


Fig. 9.

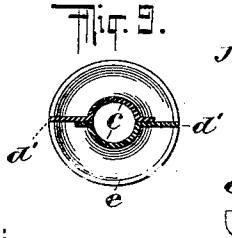
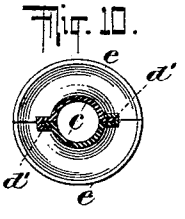


Fig. 10.



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UNITED STATES PATENT OFFICE.

WILLIAM LIVINGSTONE, OF NEW YORK, N. Y., ASSIGNOR TO ROBERT MURRAY, TRUSTEE, OF SAME PLACE.

CASTER-SOCKET.

SPECIFICATION forming part of Letters Patent No. 664,875, dated January 1, 1901.

Application filed July 13, 1900. Serial No. 23,450. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM LIVINGSTONE, a citizen of the United States, residing at New York, (Flushing,) Queens county, State of New York, have invented certain new and useful Improvements in Caster-Sockets, of which the following is a specification.

My invention relates to caster-sockets, and has for its object to produce a caster-socket from sheet metal which will firmly engage the article to which it is applied, so as to remain rigidly in place therein, and which by reason of its form can be stamped out of resilient sheet metal with great economy.

In the accompanying drawings I have shown constructions in which my invention is embodied.

In the drawings, Figure 1 is a plan view of a blank from which the caster-socket is struck up. Fig. 2 is a modified form thereof. Fig. 3 shows the caster-socket struck up from the blank at an intermediate stage of its formation. Fig. 4 is a section on line 4 4 of Fig. 3. Fig. 5 is a side view of the caster-socket in its completed form. Fig. 6 is another side view of the caster-socket, taken at right angles to the direction of view in Fig. 5. Fig. 7 is a section on line 7 7 of Fig. 6. Fig. 8 shows the caster-socket in position with the caster in place therein, the view being sectional, the section being taken on the line 8 8 of Fig. 5. Fig. 9 is a sectional view similar to the section shown in Fig. 7, showing a modified form wherein the wing of one side of the socket is intended to be bent over the wing of the other side of the socket, the completed socket being shown in section in Fig. 10 preferably bent up into shape.

It will be understood that Fig. 10 is more or less diagrammatic, as the metal of the wings is shown therein as bent a little too sharply.

The metal blank shown in Figs. 1 and 2 preferably consists of the central web *a*, which is united by webs *b* to side pieces *c*, which are provided with wings *d* and terminal portions *e*, preferably curved, which constitute the track-plate when the socket is formed up. It will be observed that blanks of this shape may be efficiently grouped upon a surface, so that the great loss of metal heretofore experienced in sockets of this character is obviated, as this blank may be very economically punched out of sheet metal.

The blank shown in Fig. 2 is similar to the blank shown in Fig. 1, except that the edges are more pronouncedly curved at *f*, where the track-plate *e* joins the body or side piece *c*. The blank shown in Fig. 1 is by suitable dies or presses formed into the intermediate form shown in Figs. 3 and 4, wherein the side pieces *c* are shown as longitudinally curved to form semitubes and the track-plates *e* as flared, the wings *d* being also formed up. The cross-section Fig. 4 will give a very good idea of the shape when it is taken in connection with Fig. 3.

In Figs. 5, 6, and 7 the socket is shown as bent into its final form, wherein the middle web *a* and the connecting-pieces *b* are shown as bent up into a laterally-apertured cap. The curved side pieces *c* may be substantially parallel, and the wings *d* are brought together and constitute ribs, and the track-plates *e* are bent up into final form and brought together to receive the thrust of the top plate of the caster.

The construction thus constituted is shown in use in Fig. 8, wherein *g* represents the leg of the table, and *h* a caster, which caster is provided with a collar *i*, which is springily engaged by the inwardly-bent tangs *j*, constituted by the upper corners of the side pieces. It will be observed that the ribs when the socket is driven into place in the furniture-leg will firmly engage such furniture-leg and will remain securely and rigidly in place. In the caster-sockets heretofore proposed, wherein in order to secure the socket in place reliance was had upon teeth on the upturned edges of the track-plate, it has been found that these teeth gradually set up a sawing action, so that the upturned edge of the track-plate acts after the manner of a circular saw and the caster-socket comes loose. Such a result could not occur with the caster-socket forming the subject of my present invention, as the ribs are operative to firmly secure the socket in place.

It will be observed that the caster-socket may be said to comprise, essentially, a caster-socket bent up of a single piece of sheet metal

and formed in corresponding halves united by the webs *a b*, whereby the halves of the caster-socket are given a tendency to spread. By thus constructing the caster-socket compensation is made for any shrinkage of the wooden legs into which the caster-socket is inserted, which shrinkage would produce an enlargement of the hole in the leg. In other words, as the shrinkage and consequent enlargement of the hole occur the caster-socket will expand laterally, separating the wings *d d* slightly and compressing them firmly against the walls of the expanded hole. By this means the socket is invariably kept rigidly in position. I am aware that it has been proposed to form a rib or ribs in a drawn socket; but the socket being of invariable shape has no elasticity save its inherent elasticity due to the character of the metal.

In the modification shown in Figs. 9 and 10 one wing *d'* of each side piece is wider than the adjacent opposite wing and may be bent over the narrower opposite wing, as shown in Fig. 10.

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

1. As a new and useful article of manufacture, a one-piece caster-socket made of flexible sheet metal, and comprising in its structure curved sections or members *c* united at their tops by a web of bent metal to form a tubular socket, and having a plurality of lateral extensions *e* forming a base or track plate, and wings *d* on separable portions of the tubular socket, the said wings extending longitudinally of the socket and projecting laterally thereof at or near the base or track plate, whereby the wings may be driven into the walls of the hole into which the socket is inserted and will maintain the socket against rotary movement in the hole.

2. As a new and useful article of manufacture, a one-piece caster-socket made of flexible sheet metal, and comprising in its structure curved sections or members *c* united by a web of bent metal to form a tubular socket, and having a plurality of lateral extensions *e* forming a base or track plate and wings *d* on separable portions of the tubular socket, the said wings extending longitudinally of the socket and projecting laterally thereof at or near the base or track plate.

3. As a new and useful article of manufacture, a one-piece caster-socket made of flexible sheet metal, and comprising in its structure curved sections or members *c* united to each other to form a tubular socket adapted to be forcibly driven into a hole in a wooden furniture-leg and wings *d* on separable portions of the tubular socket, the said wings extending longitudinally of the socket and projecting laterally thereof at or near the lower end whereby the wings may be driven into the walls of the hole into which the socket is inserted and will maintain the socket against rotary movement in the hole.

4. A caster-socket adapted to be forcibly driven into a hole in a wooden furniture-leg, said socket being shaped from a single sheet of metal bent into tubular form, provided with laterally-projecting longitudinally-extending wings on separable portions thereof, and terminal projections constituting a track-plate.

5. An expansible caster-socket, adapted to be driven into a hole in wood, formed from a single sheet of metal and bent into tubular form, the edges of the sections which form the tube abutting so as to form an extended bearing for the caster-pintle, and laterally-projecting wings extending longitudinally of the tube and carried by separable portions thereof, said wings adapted to be driven into the walls of the hole into which the socket is inserted.

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Witnesses:
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CHARLES E. SMITH.