

C. W. PARSONS.

CASTER.

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1,047,115.

Patented Dec. 10, 1912.

Fig. 1.



Fig. 2.

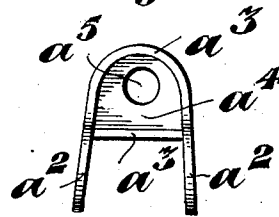


Fig. 3.



Fig. 4.

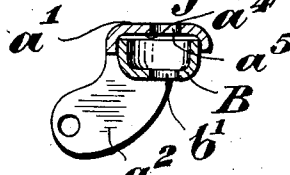


Fig. 5.

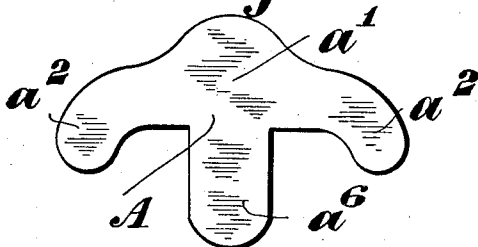


Fig. 6.

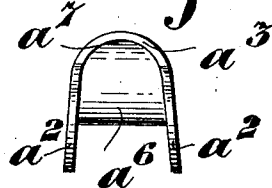


Fig. 7.



Fig. 8.



Witnesses
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UNITED STATES PATENT OFFICE.

CECIL WILLIAM PARSONS, OF BIRMINGHAM, ENGLAND, ASSIGNOR TO WILFRED BAGNALL PUREFOY, RALPH BIRCH, AND CHARLES WILLIAM WOOD, ALL OF LONDON, ENGLAND.

CASTER.

1,047,115.

Specification of Letters Patent.

Patented Dec. 10, 1912.

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To all whom it may concern:

Be it known that I, CECIL WILLIAM PARSONS, a subject of the Kingdom of Great Britain, residing at Rayo Works, Aston Lane, Birmingham, in the county of Warwick, England, works manager, have invented certain new and useful Improvements in Casters, of which the following is a specification.

This invention comprises certain improvements in or relating to casters or like devices for chairs, tables, and other articles of furniture, and the like, and the present improvements have for their purpose to materially reduce the cost of such articles, to facilitate manufacture, and generally to render the caster of greater strength and more satisfactory in use than heretofore.

This invention relates more particularly to the swivel Ω member or bracket in which the caster wheel or roller is mounted.

In order that this invention may be clearly understood and readily carried into practice, reference may be had to the appended explanatory sheet of drawings, upon which:—

Figure 1 is a view of a sheet metal blank before being operated upon. Fig. 2 is an inverted plan showing the blank after having been operated upon and converted into one portion of the swivel Ω -member. Fig. 3 is a side elevation of the swivel Ω -member showing the hereinafter described box part in position. Fig. 4 is a vertical section through the members shown in Fig. 3. Fig. 5 is a blank from which a modified form of swivel member may be constructed. Fig. 6 is an inverted plan of the modified swivel member. Fig. 7 is a side elevation, and Fig. 8 a vertical section through the modified swivel member.

In accordance with one form of the present invention the Ω -member is manufactured from a blank of comparatively thick sheet metal A, the configuration of which is substantially that of a central body portion or plate a^1 having two arms or extensions a^2 which are subsequently bent at right angles to form the side web members of the bracket. The blank A is however so pressed up or operated upon that a shallow flange a^3 is formed at right angles across the front and back of the top web of the Ω -member in such a manner as to form a box part a^4 integral at all corners below the flat horizontal web

a^1 at the top. The said box part a^4 which is flat at the sides at which the web members a^2 are provided is also advantageously flat or straight across the front (*i. e.*, the edge above the caster wheel) while at the rear of the upper box part of the bracket may be of substantially semi-circular form the strengthening flange being adapted to follow the contour of such substantially semi-circular form as illustrated in Fig. 2.

A cup member B of short cylindrical formation of semi-spherical or other suitable form is provided and adapted to be forced into the inverted box part forming the top of the Ω - or bracket member, the open mouth of the cup member B being disposed uppermost so that the edge of the member forming the cup advantageously takes a position contiguous to the uppermost horizontal plate a^1 of the main Ω member. By forcing such cup member B into position there is provided a lower web or support in rigid relation to the upper horizontal plate a^1 or support and two points of bearing are thereby provided for a vertical swivel screw or pivot passed through both, having conveniently a cone above the part a^1 and a washer below the cup member B and which pivot may be riveted or otherwise enlarged or provided with an enlargement at its lower extremity in any suitable manner. The cup member B by reason of its having been forced in position, satisfactorily remains in such position throughout the life of the caster as any stress exercised by the pivot tends to force the cup-member B into the box part a^4 rather than otherwise. It is obvious however that if necessary or desirable the edge flanges a^3 of the box part might be slightly bent over or other provision made to form a more secure grip or embrace upon the cup member B.

The cup member may be perforated centrally at b^1 in alinement with a central perforation a^5 in the upper horizontal plate a^1 in which case the cup member B would conveniently be of semi-spherical form but it is preferable to provide the perforation b^1 in eccentric relation to the circle of the cup member B, in which case the lower web thereof is more or less flat and the side wall of the cup member in the form of a short cylinder as afore-suggested. The object of disposing the pivot in eccentric relation to or at the one side of the cup-member B and

5 Ω bracket is to permit of the main body of
 the latter being disposed essentially to the
 one side of the pivot so that space is left at
 the side thereof and no obstruction offered
 10 to the introduction of screws, nails, imple-
 ments, or the like through perforations pro-
 vided in the plate which is secured around
 the swivel screw and which plate in use
 takes a position adjacent to the lower flat
 15 extremity of the leg of the chair, table or
 other article of furniture or the like to
 which the caster is applied. The cup-shaped
 member may furthermore be in plan of
 shape or configuration exactly conforming
 20 with the internal shape or configuration of
 the box part a^4 at the top of the Ω member,
 that is to say square at one extremity and
 more or less semi-circular at the other ex-
 tremity in which case the perforation a^5
 would conveniently be provided more or
 less near to the semi-circular extremity.

According to another form of the present
 invention the Ω member is manufactured
 25 from a blank A of comparatively thick sheet
 metal the configuration of which is substan-
 tially that of a central plate a^1 having two
 oppositely disposed arms or extensions a^2 in
 approximate alinement and also a third arm
 or extension a^6 extending from the circular
 30 plate a^1 at right angles to the aforemen-
 tioned oppositely disposed arms a^2 so form-
 ing a T-shaped blank, the plate a^1 being at
 the juncture of the horizontal arms a^2 with
 the vertical arm a^6 .

35 The blank is operated upon so that the
 two oppositely disposed arms a^2 are bent at
 right angles to the plate a^1 to form the side
 members for the wheel or roller and a shal-
 low flange a^3 is formed or pressed up around
 40 the circumference of the plate a^1 at a posi-
 tion between the roller arms a^2 and opposite
 to the vertical arm a^6 . This vertical arm a^6
 is then bent at right angles to the plate a^1
 and then bent again in parallel relation to

said plate a^1 in such a manner that the par- 45
 allel portion lies between the two roller arms
 a^2 and approximately on the same level as
 the top edge of the aforementioned flange a^3 .
 Prior to bending the vertical arm a^6 in par- 50
 allel relation to the plate a^1 the extremity or
 tip a^7 of such arm is bent at right angles to
 itself in such a manner that upon afterward
 bringing the arm a^6 into the parallel posi-
 tion the bent extremity a^7 lies flatwise
 against the face of the upstanding flange a^3 55
 internally of the plate a^1 . The parallel por-
 tion of the vertical or third arm a^6 and also
 the plate a^1 can now be drilled or punched
 for receiving the caster spindle or if desired
 these two parts may be punched or drilled 60
 prior to bending or operating upon the T-
 shaped member.

By the foregoing constructions or arrange-
 ments Ω members or brackets for receiving
 65 caster wheels or rollers may be constructed
 at a very low cost from single pieces of sheet
 metal and also said members when com-
 pleted are particularly efficient and satisfac-
 tory in use.

What I claim as my invention and desire 70
 to secure by Letters Patent is:—

In a blank for forming horns consisting of
 a central body portion comprising a top
 horizontal pintle bearing part, and side sec-
 tions bent downwardly from said horizontal 75
 part in vertical and substantially parallel
 relation with respect to each other to re-
 ceive the roller cross pin, said blank having
 a second central bearing portion substan-
 tially parallel with the top bearing part and 80
 disposed beneath the same and between said
 side sections, substantially as described.

In witness whereof I have hereunto set
 my hand in the presence of two witnesses.

CECIL WILLIAM PARSONS.

Witnesses:

LEWIS W. GOOLDS,
 ARTHUR H. BROWN.