(No Model.)

G. E. NEUBERTH.

CASTER.

No. 589,217. Patented Aug. 31, 1897.

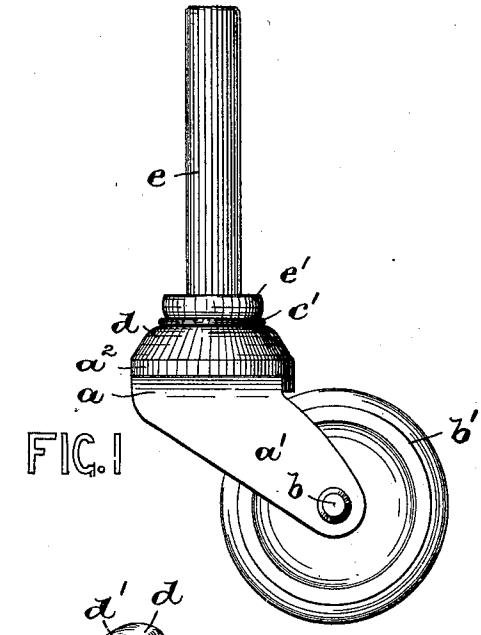


FIG. 1

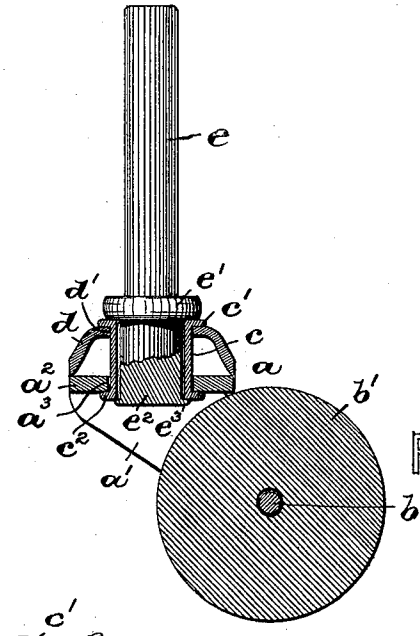


FIG. 2



FIG. 3

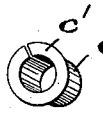


FIG. 4

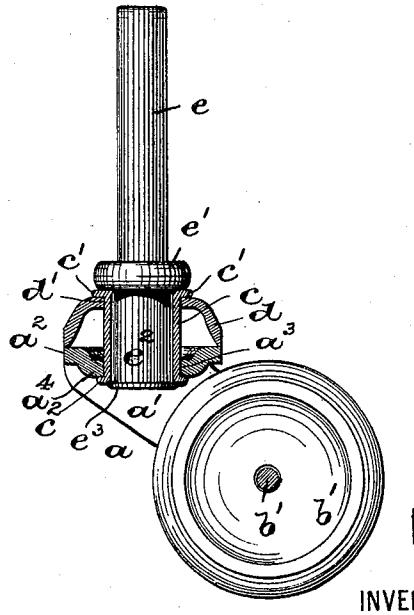


FIG. 5.

WITNESSES:

Wm. H. Caulfield, Jr.

Marcy L. Drusdell

INVENTOR:

GEORGE E. NEUBERTH,

BY

Fred'k C. Fraentzel,

ATTORNEY

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

GEORGE E. NEUBERTH, OF NEWARK, NEW JERSEY, ASSIGNOR TO HENRY ILL, OF SAME PLACE.

CASTER.

SPECIFICATION forming part of Letters Patent No. 589,217, dated August 31, 1897.

Application filed January 15, 1897. Serial No. 619,279. (No model.)

To all whom it may concern:

Be it known that I, GEORGE E. NEUBERTH, a citizen of the United States, residing at Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Casters; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

This invention relates to improvements in casters, and has for its primary object to provide a novel form and construction of caster which shall be of a very simple and cheap construction.

A further object of this invention is to provide a caster in which the pintle is rotatively arranged in a tubular bearing and a cup-plate suitably secured to the perforated top plate of the roller-support of the caster to produce additional bearing-surface for the pintle, and also to provide greater strength of the supporting portions between the top plate and a supporting-bead on the pintle.

A further object of the invention is to provide a construction of caster in which the lateral or shaky connection between the end of the pintle and the top plate of the caster-frame is entirely overcome.

The invention consists in the novel construction of caster and in the combinations and minor arrangements of the several parts, such as will be hereinafter fully described, and finally embodied in the clauses of the claim.

The invention is illustrated in the accompanying drawings, in which—

Figure 1 is a side view of my novel construction of caster, and Fig. 2 is a vertical section of the same. Figs. 3 and 4 are perspective views of the cup-plate and tubular bearing, respectively, which are employed in my novel form of caster. Fig. 5 is a view of the caster, certain parts being represented in elevation and others in vertical section, of a slightly-modified form of construction, but still embodying the leading features of my present invention.

Similar letters of reference are employed in all of the above-described views to indicate corresponding parts.

In said views, a indicates the usual form of caster-frame, provided with a pair of downwardly-extending brackets or horns a', perforated at or near their lower ends to receive a pin b, on which is rotatively arranged the usual form of wheel or roller b', as will be clearly evident from the several figures of the drawings. Said horns a' are connected by the usual form of top plate a^2, provided with a central perforation a^3, in which I arrange a sleeve or tubular bearing c. Said sleeve, which is preferably made from sheet metal, is provided at the top with an annular flange c'. As will be seen from the several figures of the drawings, the body portion of the said sleeve c is passed through a central opening d' in a cup-shaped plate d, and said body portion of said sleeve c is also inserted in the opening a^3 in the top plate a^2 of the caster-frame, and the annular edge of said body portion of the sleeve then bent over against the under surface of the plate a^2 to form a holding-bead c^2. In this manner said sleeve or bearing c and the supporting cup-shaped plate d are firmly secured to the top plate a^2 of the caster-frame, resulting in an increased bearing-surface for the portion e^2 of the pintle e, which is rotatively arranged in said bearing or sleeve c, by having a collar e' on said pintle e resting on the annular flange or bead c' of the sleeve c and having its lower edge suitably clenched to form the holding-bead e^3, and whereby the said pintle e is operatively and rotatively connected with the said caster-frame a, as will be clearly understood from an inspection of Fig. 2.

I have found that in the construction of casters as heretofore made, in which the lower end of the pintle is rotatively connected with the top plate a^2 and the pintle has its supporting-collar directly placed upon said top plate or on a small washer thereon, that the parts thus connected will have a lateral or shaky motion, whereas in the present form of construction by the use of said cup-plate d and said bearing or sleeve c an additional bearing-surface for the end e^2 of the pintle is provided for, and hence the caster-frame will

rotate more perfectly on the pintle, and a stronger construction of caster is the result.

In some cases I may provide the said top plate a^2 with a downwardly-extending ridge a^4, as clearly shown in Fig. 5, provided with a central opening in which the said sleeve or bearing c is secured in the manner as has been hereinabove described. By means of this annular ridge a^4 the said top plate a^2 is additionally strengthened, as will be evident.

Having thus described my invention, what I claim is—

1. In a caster, the combination, with a caster-frame, consisting, essentially, of a flat top plate a^2 having a central perforation, and a pair of downwardly-extending horns or brackets, of a tubular sleeve or bearing arranged in said perforation and secured on the under side of said plate a^2 and extending through the perforation in said top plate and above the same, a cup-shaped plate having a central opening, whereby said plate is arranged over said sleeve and is placed upon the upper surface of said plate a^2, means connected with said sleeve for tightly drawing said cup-shaped plate down upon the top of said plate a^2, and a pintle rotatively arranged in said sleeve or bearing, substantially as and for the purposes set forth.

2. In a caster, the combination, with a caster-frame, consisting, essentially, of a flat top plate a^2 having a central perforation, and a pair of downwardly-extending horns or brackets, of a tubular sleeve or bearing c arranged in said perforation and having a bead c^2 for securing it against the under side of said plate a^2, said sleeve c extending through said perforation in said top plate and above the same, a cup-shaped plate d having a central opening d' whereby said plate d is arranged over said sleeve and is placed upon the upper surface of said plate a^2, an annular bead c' on the upper portion of said sleeve c adapted to be closed down upon said cup-shaped plate d for tightly drawing the same down upon the top of said top plate a^2, and a pintle rotatively arranged in said sleeve or bearing, substantially as and for the purposes set forth.

3. In a caster, the combination, with the caster-frame having a perforated top plate a^2, and a downwardly-extending annular ridge a^4 surrounding the opening in said top plate, a cup-shaped plate on said top plate having a central opening, a sleeve or bearing in said openings in said top plate and the said cup-shaped plate, and a pintle rotatively arranged in said bearing, substantially as and for the purposes set forth.

4. In a caster, the combination, with the caster-frame having a perforated top plate a^2, and a downwardly-extending annular ridge a^4 surrounding the opening in said top plate, a cup-shaped plate d on said top plate having a central opening d', a sleeve or bearing c in the opening in said top plate of the caster-frame and said plate d, said sleeve or bearing having annular beads c' and c^2 for securing the several parts together, and a pintle rotatively arranged in said sleeve or bearing, substantially as and for the purposes set forth.

In testimony that I claim the invention set forth above I have hereunto set my hand this 12th day of January, 1897.

GEORGE E. NEUBERTH.

Witnesses:
FREDK. C. FRAENTZEL,
WM. H. CAMFIELD, JR.