

(Model.)

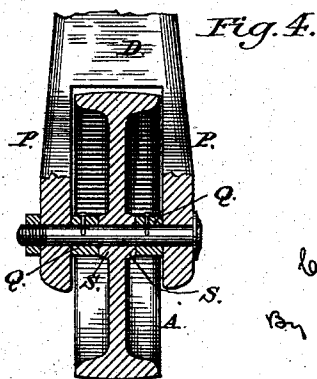
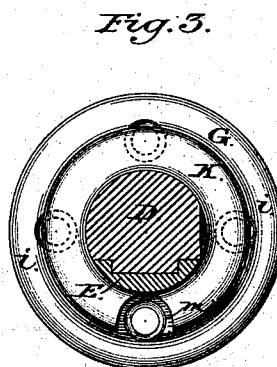
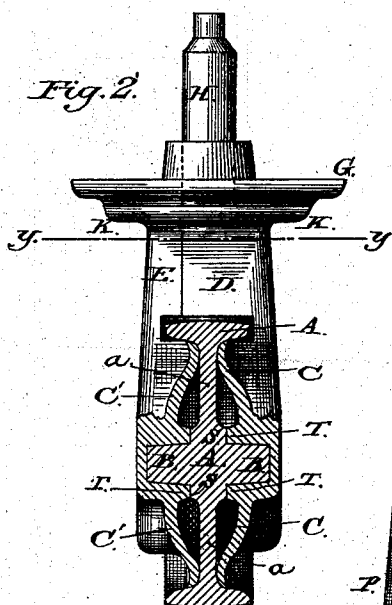
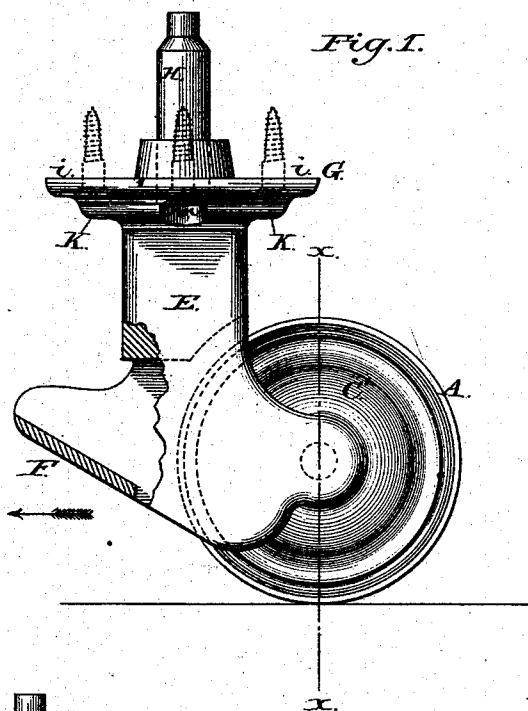
2 Sheets—Sheet 1.

C. E. HASENPFLUG.

CASTER FOR TRUCKS, &c.

No. 288,633.

Patented Nov. 20, 1883.



Witnesses:

John C. Ellis.
Walter H. Wolfe.

Inventor:

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(Model.)

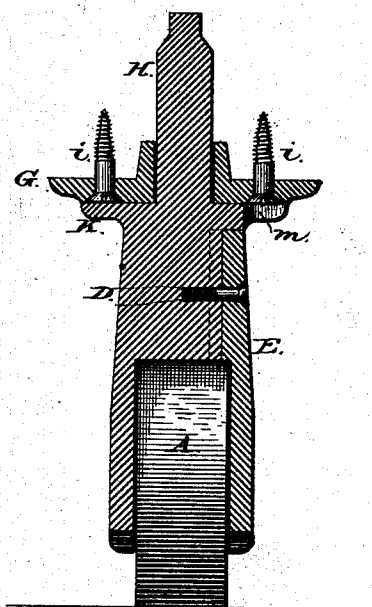
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2 Sheets—Sheet 2.

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Fig. 5.



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UNITED STATES PATENT OFFICE.

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CASTER FOR TRUCKS, &c.

SPECIFICATION forming part of Letters Patent No. 288,633, dated November 20, 1883.

Application filed February 17, 1883. (Model.)

To all whom it may concern:

Be it known that I, CHARLES E. HASENPFLUG, of Paterson, in the county of Passaic and State of New Jersey, have invented a new and useful Improvement in Casters; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

My invention relates to casters for goods and parcel boxes or baskets, or for the wheeled trucks used in mills and warehouses for moving and carrying goods from place to place on one floor.

The object of my invention is to provide a caster which shall be fully protected from the dust, fine lint, and fibers which in cotton and other mills readily entangle and choke the ordinary forms of casters, rendering them inoperative and comparatively useless, and also from a contact of its wheel with the edge of a sill or other projection on the floor, which, when struck directly by the wheel, will tend to break it.

It consists, first, of an annular offset formed upon the hub of the wheel, about its axis, and rotating with it, in combination with a fixed sleeve or extended journal-box of like diameter encircling the axis, and whose inner end is adapted to form a close joint with the face of the offset.

It consists, secondly, in the combination, with a caster-wheel whose journals are formed in one piece therewith and are encircled by an offset, as above set forth, of circular plates fixed to the stock of the caster, and whose peripheries are adapted to fit closely within the projecting flange of the rim of the wheel on each side thereof, these plates being constructed with central tubular projections adapted to encircle and inclose the trunnions of the wheel and form axial bearings therefor, and whose inner face shall form a close joint with the rotating face of the annular offset on the hub.

It consists, also, in an extension of the stock of the caster in the form of a foot, having its lower face inclined at a tangent with the bottom of the wheel, to extend and project thence toward and beyond the vertical axis of the caster, and thus operate as an inclined fender to protect the wheel and ease it over the door-

sill or other projection over which the casters may be drawn.

In the accompanying drawings, Figure 1 is a side elevation, partly in section, of my improved shielded caster; Fig. 2, a vertical transverse section through its wheel in line *xx* of Fig. 1; Fig. 3, a horizontal section in line *yy* of Fig. 2, looking upward; Fig. 4, a modification of my invention, illustrating its application to a caster-wheel rotating upon a separate pivot-pin; and Fig. 5, a vertical section in line *zz* of Fig. 1.

A represents the wheel of the caster, made with a wide rim, forming a projecting flange on either side of the radial arms or central plate, *a*, connecting the rim with the axis.

B B are trunnions formed in one piece with the plate, to constitute its axis.

S is an annular offset formed upon the hub of the wheel, to encircle its axis.

C C are circular plates adapted to fit closely within the under side of the flanged rim of the wheel. At the center of each plate, on its innerside, a cylindrical projection, T, is formed, of a diameter corresponding to that of the annular offset S, and which is recessed centrally to constitute a journal-box for the trunnion of the wheel. The outer end of each tubular projection is faced off truly to form a close joint with the outer face of the counterpart offset S, against which it abuts. One of the inclosing plates, C, is formed in one piece with the stock D of the caster, to project laterally from the lower end thereof, and the second plate, C', is formed in one piece with a detachable lateral plate, E, adapted to fit against and upon the stock, and to be firmly united thereto. When the two divisions of the stock are properly brought together and united, the plates C C' form between them a recess adapted to exactly receive and inclose the wheel A, and to provide a proper journal-bearing therefor, as clearly illustrated in Fig. 2 of the drawings. As the offset S rotates with the wheel, while the abutting sleeve or cylindrical journal-box T, which incloses the journal of the wheel, is stationary, the lint or threads and fibers, &c., which may fall upon the face of the wheel, or upon the offset S or journal-box T, are caught and rolled up, and so prevented from working into the joint between the journal-box and wheel, and thus reaching the axis

to clog it. The detachable plate E and the lower portion of the stock D are extended to project beyond the vertical axis of the stock on the side opposite the wheel, and the lower edges thereof are inclined inwardly on a pitch tangential to the circumference of the wheel below its axis, and are connected by a transverse plate, which is divided, so that one-half thereof shall project inwardly from the lower edge of the lateral extension on one side, and the other from its opposite lower edge, and unitedly form an inclined fender, F, adapted, when the caster is moving in that direction, (see the arrow in Fig. 1,) to strike against any obstruction in its path, and thus protect the wheel from the blow, and, if the case admits thereof, to ride upon said obstruction, and so carry the wheel easily over it.

The caster is designed to be secured to the box or basket, in the customary manner, by means of a collar, G, adapted to furnish a bearing for the shank of the pintle H of the caster, which is made to project up through the collar. The collar is secured and fixed by means of screws passing upward through its encircling flange *i*, as shown by dotted lines in Figs. 1 and 3, and these screws are prevented from falling should they work loose, and from interfering with the rotary movement of the caster, by means of a flange, K, formed to encircle the upper end of the stock at its intersection with the pintle, and to project out far enough to overlap the heads of the screws and so confine them, the withdrawal or insertion of the screws being effected through a notch, *m*, cut out of the flange, as shown in Figs. 1 and 3.

The caster thus constructed is not only strong, but is cheaply made, being cast in four pieces—viz., the wheel, the two divisions of the stock which inclose the wheel, and the collar, which furnishes a bearing for the vertical axis of the stock.

In the modification of my improved inven-

tion illustrated in Fig. 4 the wheel is made to rotate between the fixed jaws P P of the stock of the caster upon a transverse pin, R, secured to the jaws in the customary manner. An annular offset, S, is formed upon the hub of the wheel, about its bore, and a sleeve, Q, of the same diameter is interposed upon the pivot-pin between the offset and the jaw which supports the pin. This sleeve is fixed to the pivot-pin, so as to remain stationary therewith while the offset carried by the wheel rotates in contact with the sleeve.

I claim as my invention—

1. A caster constructed of a wheel whose journals are formed in one piece therewith, in combination with a stock formed in two vertical divisions adapted to inclose the body of the wheel between them and furnish internal bearings for its axis, substantially in the manner and for the purpose herein set forth.

2. A caster-wheel constructed with an annular offset upon its hub, about its axis, in combination with a counterpart sleeve or extended journal-box projecting from the stock to receive the axis, and whose inner end is adapted to form a close joint with the face of the offset, substantially in the manner and for the purpose herein set forth.

3. The combination, with the stock of a caster, and with a wheel supported to revolve in said stock, of a fender whose lower face is inclined upward from the bottom of the wheel, and projects thence at a tangent to its circumference beyond the vertical axis of the caster, substantially in the manner and for the purpose herein set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

C. E. HASENPFLUG.

Witnesses:

JOHN A. ELLIS,

WALTER M. WOLFE.