(Model.)

S. C. MENDENHALL.

SKATE AND CASTER ROLLER.

No. 343,185. Patented June 8, 1886.

FIG. I.

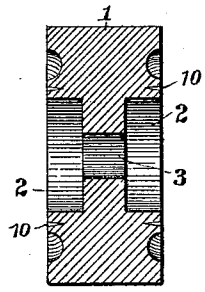


FIG. II.

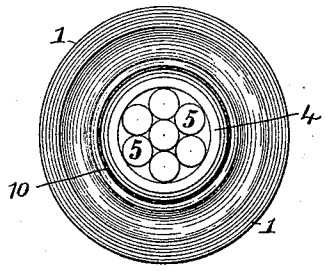


FIG. III.

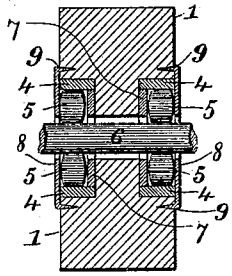
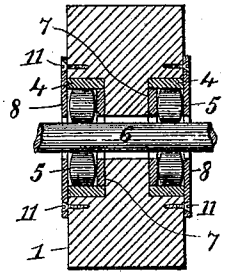


FIG. IV.



Attest:
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UNITED STATES PATENT OFFICE.

STEPHEN C. MENDENHALL, OF RICHMOND, INDIANA.

SKATE AND CASTER ROLLER.

SPECIFICATION forming part of Letters Patent No. 343,185, dated June 8, 1886.

Application filed September 8, 1885. Serial No. 176,512. (Model.)

To all whom it may concern:

Be it known that I, STEPHEN C. MENDENHALL, a citizen of the United States, residing at Richmond, Wayne county, Indiana, (present business address Cincinnati, Ohio,) have invented a new and useful Improvement in Skate and Caster Rollers, of which the following is a specification.

My present invention relates to an improved method of applying a series of anti-friction rollers around the axle or journal of a skate or caster-roller; and it consists in chambering the floor-roller on each side, placing a plain circular ring or cylinder within each of the chambers, and a plate or washer against the inner wall of the chambers within the rings or cylinders to prevent the rollers coming in contact with the wood or other material, arranging a series of loose anti-friction rollers within such ring, and retaining the whole in position by a circular plate of greater diameter than said ring, and fixed to the body of the floor wheel or roller without and around the same.

In order that the invention may be better understood, I will proceed to describe it with reference to the accompanying drawings, in which—

Figure I represents in vertical section a floor wheel or roller of wood or other suitable material, chambered out to receive anti-friction bushings. Fig. II is a side elevation of the same, the bushing being in position, but the cap-plate being removed. Fig. III is an axial section of the roller with the bushing and cap-plate in position. Fig. IV is a similar view showing a modified form of fastening for the cap-plate.

1 may represent a floor wheel or roller of wood, hemacite, or other hard material, having circular chambers 2 at each side, and axle-opening 3 for the journal or axle of the skate or caster.

4 4 are rings or cylinders, preferably of steel, placed in the chambers of the roller and affording ways for the loose anti-friction rollers 5, arranged in annular series around the axle 6.

7 is a washer having a central aperture of greater diameter than the axle, and placed against the inner walls of the chambers 2, to prevent the friction of the rollers 5 on the wood or other material of the floor wheel or roller.

8 8 are cap-plates of greater diameter than the rings 4, and having in the preferred form of the invention (shown in Fig. III) a rim or circular series of sharp points, 9, driven into the body of the roller or into a groove, 10, Fig. II, therein, in order to retain it in place.

In Fig. IV, I have shown screws 11, employed for fixing the cap-plate to the roller.

It is apparent that the improved roller is equally applicable to skates and casters, in the former case being preferably made with a cylindrical and in the latter case with a rounded bearing-surface.

Having thus described my invention, the following is what I claim as new therein and desire to secure by Letters Patent:

1. The combination, with a floor-wheel recessed or chambered at each side, of the bearings herein shown and described, each bearing consisting of a series of loose anti-friction rollers, a plate or washer interposed between the rollers and the inner wall of the chamber, a ring or cylinder surrounding the plate or washer and the rollers, and separable from the former while forming a track for the latter, and a cap to the chamber of greater diameter than the ring or cylinder and fixed to the wheel without and around the same, substantially as set forth.

2. The combination of a floor-wheel chambered at each side and having annular grooves 10 around each chamber, and the bearings herein shown and described, each bearing consisting of a series of loose anti-friction rollers, a plate or washer interposed between the rollers and the inner wall of the chamber, a ring or cylinder surrounding the plate or washer and the rollers, and separable from the former while forming a track for the latter, and a cap to the chamber having sharp inturned projections or rim 9 driven into the groove outside of and around the ring, substantially as set forth.

STEPHEN C. MENDENHALL.

Witnesses:

HARRY E. KNIGHT,

EDWARD STEIR.