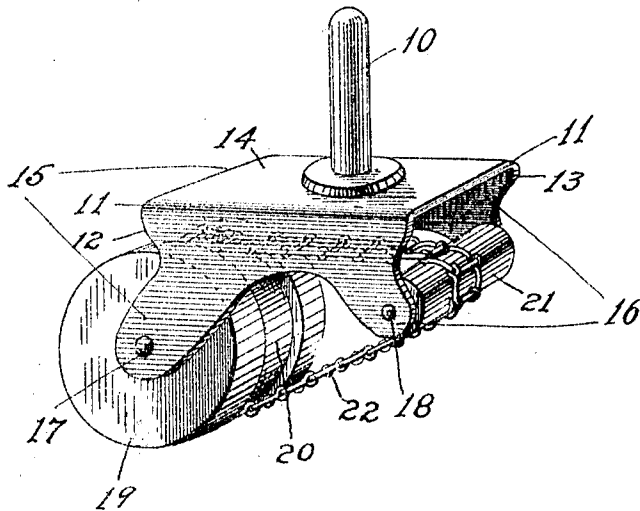


O. RISON.
CASTER.

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1,066,754.

Patented July 8, 1913.



Witnesses

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UNITED STATES PATENT OFFICE.

OTTO RISON, OF SEBEKA, MINNESOTA.

CASTER.

1,066,754.

Specification of Letters Patent.

Patented July 8, 1913.

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To all whom it may concern:

Be it known that I, OTTO RISON, a citizen of the United States, residing at Sebeka, in the county of Wadena and State of Minnesota, have invented certain new and useful Improvements in Casters, of which the following is a specification.

My invention relates to an improvement in casters, and has for its object to provide a caster that can be operated over carpets, rugs and other floor coverings, and having means to carry itself over wrinkles, inequalities in the floor, etc. It is also possible to move objects from a slightly lower to a higher level of floor, the means employed in my invention enabling this to be done without the necessity of bodily lifting the objects.

The full objects and advantages of my invention will appear in connection with the detailed description thereof and are particularly pointed out in the claims.

In the drawings, illustrating the application of my invention in one form, the figure is a perspective view showing the features of my invention in detail.

In this figure a spindle 10 is rotatably mounted either with or without ball bearings upon a frame 11 which is preferably stamped from a single piece and formed as shown by having its two sides 12 and 13 bent at right angles to the top platform 14. The sides 12 and 13 are each provided with a pair of ears preferably of different length. The longer ears 15 are at the rear of the frame 11 and the shorter ears 16 are at the front thereof. Spindle shafts 17 and 18 are rigidly secured to the lower portion of each pair of ears, shaft 17 securing the longer ears 15, and shaft 18 joining the shorter ears 16. Rotatably mounted on shaft 17 is a roller or wheel 19 of the type usually employed for casters, but provided with a peripheral groove or slot 20 about the center of said roller 19. Rotatably mounted on shaft 18 is a roller or wheel 21, smaller than roller 19. Roller 19 is mounted on the frame 11 so that its bearing point comes back of the axial line of spindle 10. Roller 21 is preferably forward the axial line of spindle 10. Passing over and joining roller 19 to roller 21 is a flexible member or endless chain 22 which fits into groove 20 and is so related in size to said groove that none of it projects beyond the periphery of roller 19. This flexible member is shown constructed of iron links, but I do not wish

to be understood as limiting myself to this form as any flexible material of proper size and strength would do the work, and different materials might be preferable under different conditions.

In operation my invention would be applied to an object just as would the ordinary casters and under favorable conditions would operate in the same manner. If it was necessary to move the object over a rug or carpet, however, my invention would enable this to be done a great deal easier than with the ordinary caster. Immediately after starting the object the roller 19 of the caster would at once rotate on the spindle so that the roller 19 would be at the rear of the axial line of spindle and would always keep the same position relative thereto. Upon reaching the edge of a rug or carpet the ordinary caster would at once tend to shove the material before it, stopping all progress till the rug is smoothed or the object lifted bodily over the obstruction. My invention enables the caster upon coming to a wrinkle in a rug to engage therewith by means of the flexible member 22 and pull the caster over the wrinkle and at the same time operate to reduce the wrinkle, both of these results being highly desirable. In passing over thresholds of rooms or over inequalities in the surface of the floor my device enables the caster wheel to pass over readily because the flexible member practically lays a track over the inequality. My device is simple, inexpensive and of great utility. It will lessen the labor and strain incident to the moving of large objects to a great extent, and is so manifestly useful that further enumeration is unnecessary.

The mode of operation of my improved caster and the advantages incident thereto having been fully pointed out, I claim:

1. A caster comprising a spindle, a roller connected therewith having its bearing surface outside the axial line of said spindle, and a flexible member coöperating with but independent of said roller to cause it to climb over inequalities in the floor or obstructions.

2. A caster comprising a spindle, a roller connected therewith, said roller having a centrally located peripheral groove, and a flexible member running within said groove and extending outside the face of the roller to draw rugs or other obstructions beneath the roller.

3. A caster comprising a spindle, a bearing roller connected therewith, a smaller roller also connected therewith, and a flexible member running over said rollers to draw rugs or other obstructions beneath the bearing roller.

4. A caster comprising a spindle, a bearing roller connected therewith having a centrally located peripheral groove, a smaller roller also connected to said spindle, and a flexible member on said rollers and extending within said groove to draw rugs or other obstructions beneath the bearing roller.

5. A caster comprising a spindle, a roller

connected therewith having a centrally located peripheral groove, a smaller roller connected with said spindle, and a link chain comprising square links of the same width as the groove, running over the rollers and registering within the groove to draw rugs or other obstructions beneath the first named roller.

In testimony whereof I affix my signature in presence of two witnesses.

OTTO RISON.

Witnesses:

W. R. KLEVEN,

D. A. NUTTING.