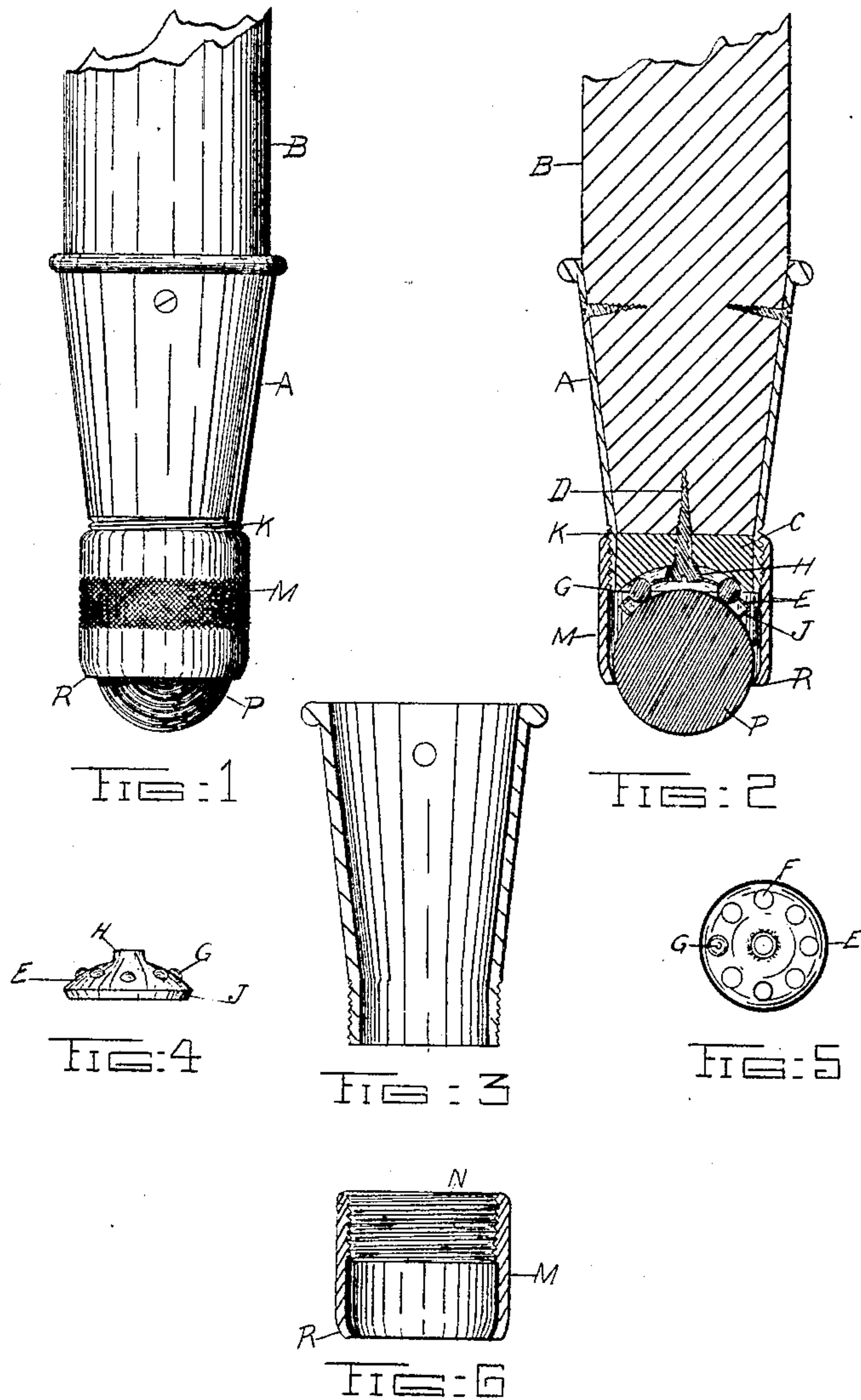


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W. SEAVILL.
FURNITURE CASTER.
APPLICATION FILED JULY 5, 1904.



Witnesses:

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WALTER SEAVILL, OF WAINGARO, NEW ZEALAND.

FURNITURE-CASTER.

No. 803,366.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, WALTER SEAVILL, gentleman, a subject of His Majesty the King of the United Kingdom of Great Britain and Ireland, and a resident of Waingaro, in the Provincial District of Auckland and Colony of New Zealand, have invented an Improved Caster for Furniture, of which the following is a specification.

10 The purpose of this invention is to provide a freely-moving caster that will give a direct pressure on the floor or ground on which it rolls with the least possible friction.

15 The invention consists of a circular controller fitted to a socket and controlling and guiding small bearing-balls resting between the bottom of the socket and on and in contact with a large caster-ball, which is kept in contact with the small bearing-balls by a cup or cap screwed onto the lower end of the socket.

The manner of working the invention is illustrated on the accompanying drawings by six figures, of which—

25 Figure 1 is an elevation showing the lower end of the furniture-leg, the outer side of the socket, cap, and part of the roller caster-ball. Fig. 2 is a sectional elevation showing the furniture-leg, socket, concave block, screw therethrough, circular controller, small bearing-balls within holes therein, roller caster-ball in contact with said small bearing-balls, and cup or caps screwed onto said socket. Fig. 30 3 is a sectional elevation of the socket. Fig. 4 is an elevation of circular controller with small bearing-balls, showing through holes therein. Fig. 5 is a plan of circular controller; and Fig. 6 is a sectional elevation of cup or cap, showing upper side inwardly screw-threaded.

40 Referring the drawings by reference characters, A denotes a sleeve forming a socket and which is constructed of any suitable material, preferably brass or gun-metal, and is furthermore so constructed that it can be fitted to the lower end of the furniture-leg B. 45 The end of the leg B rests on a block C, more or less thick, said block C being formed integral with the socket A or suitably fitted therein. The under part of the block C is made concaved and is centrally bored to permit of the passage therethrough of a screw B for securing said block C and the socket A to the leg B.

55 The reference character E denotes a circular controller which is shaped and curved in such a manner as to fit the concavity of the

block C, and said circular controller is provided with a series of openings F, adapted to receive small bearing-balls G. The circular controller E is also centrally bored to permit 60 of the passage of said screw D for connecting the controller with the block C to retain the said controller in place, and the wall H of the central bore of the controller E is turned upward, so as to form a seat for the head of the screw D, as well as position the body of the controller a suitable distance from the concaved face of the block C. The controller E may also have its outer edge bent downwardly, 65 so as to position it from the caster-ball to be hereinafter referred to, although it is not necessary to bend the lower edge J downwardly. The controller is so fitted around the head of the screw D that it will turn thereon easily. The lower end of the sleeve A is exteriorly 70 screw-threaded, as at K, and is adapted to have secured thereto a cup or cap M, which is interiorly screw-threaded, as at N. Before the cap M is secured on the sleeve A the roller caster-ball P is placed against and in 80 contact with the small bearing-balls G, so as to turn freely and easily against the same and to enable the free moving of the balls G. When this is done, the cap M is secured to the sleeve A in a manner as described. The 85 lower edge R of the cap M is slightly turned in, so as to keep the ball P within the cap, as shown in Fig. 2.

The bearing-balls G, placed within the openings F, operating between the concavity of 90 the block C and the roller caster-ball P, will relieve any pressure there may be on the controller E, which keeps them in their place. The bearing-balls G work freely with and assist the roller caster-ball P to roll and turn in 95 any direction. The cap and all other parts may be made of any suitable metal and size.

Fig. 2 indicates the points of impact between the bearing-balls G and the roller caster-ball P and shows that the pressure of the 100 furniture leg B will in consequence of the same be even and uniform in whatever direction the furniture may be moved so long as there is a sufficient number of legs to keep it even and each leg is fitted alike. 105

The number of bearing-balls and openings within which they are placed are shown and described as eight; but a lesser or greater number may be used, providing sufficient freedom is given to the balls to work and that 110 they are not unduly diminished in number and that the minimum of friction provided

for in the foregoing description and illustration is in no way imperiled.

In the case of furniture having it on or other metal legs not quite suitable for carrying the sleeve A herein described the outer lower edge of the leg can be given a screw-thread, such as K, to allow cup M to be screwed thereon, and the under surface of the end of leg can be made concave and centrally bored and threaded for screw to fit in, or it can be recessed to allow the block C to be securely fitted therein and the other parts fitted as before described. Again, with furniture and other articles not having legs the sleeve A can be made and given an almost flat formation, so that the block C can be screwed direct into the under part of the piano-frame or other articles and the other parts fitted, as before described.

Having fully described my invention, what I desire to claim and secure by Letters Patent is—

1. A furniture-caster consisting of a sleeve forming a socket and provided in its lower end with a block having its lower face concaved and further provided with a central bore, said sleeve adapted to surround the lower end of a leg of an article of furniture, a controller concavo-convex in cross-section arranged against said block and provided with a plurality of openings, and a central bore with the wall thereof extending upwardly from the body portion of the control-

ler and engaging in said block means extending through said bore and block and engaging in the furniture-leg for securing the block and controller in position, bearing-balls mounted in the openings in the controller, a caster-ball bearing against the balls in the controller, and a cup secured to said sleeve and adapted to retain the caster-ball in position, substantially as described.

2. A furniture-caster consisting of a sleeve forming a socket and carrying in its lower end a block having a concaved lower face and further centrally bored, said sleeve adapted to surround the lower end of the leg of an article of furniture, a circular controller bearing against the concaved face of said block and centrally bored, the wall of said bore projecting upwardly from the controller and engaging in said block, said controller further provided with a plurality of openings and having its outer edge projecting downwardly, ball-bearings mounted in said openings, a screw extending through the bore and the block for connecting the same to the furniture-leg, a caster-ball, and a cup secured to said sleeve and adapted to hold said caster-ball in contact with said bearing-balls mounted in the openings of the controller, substantially as described.

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Witnesses:

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