

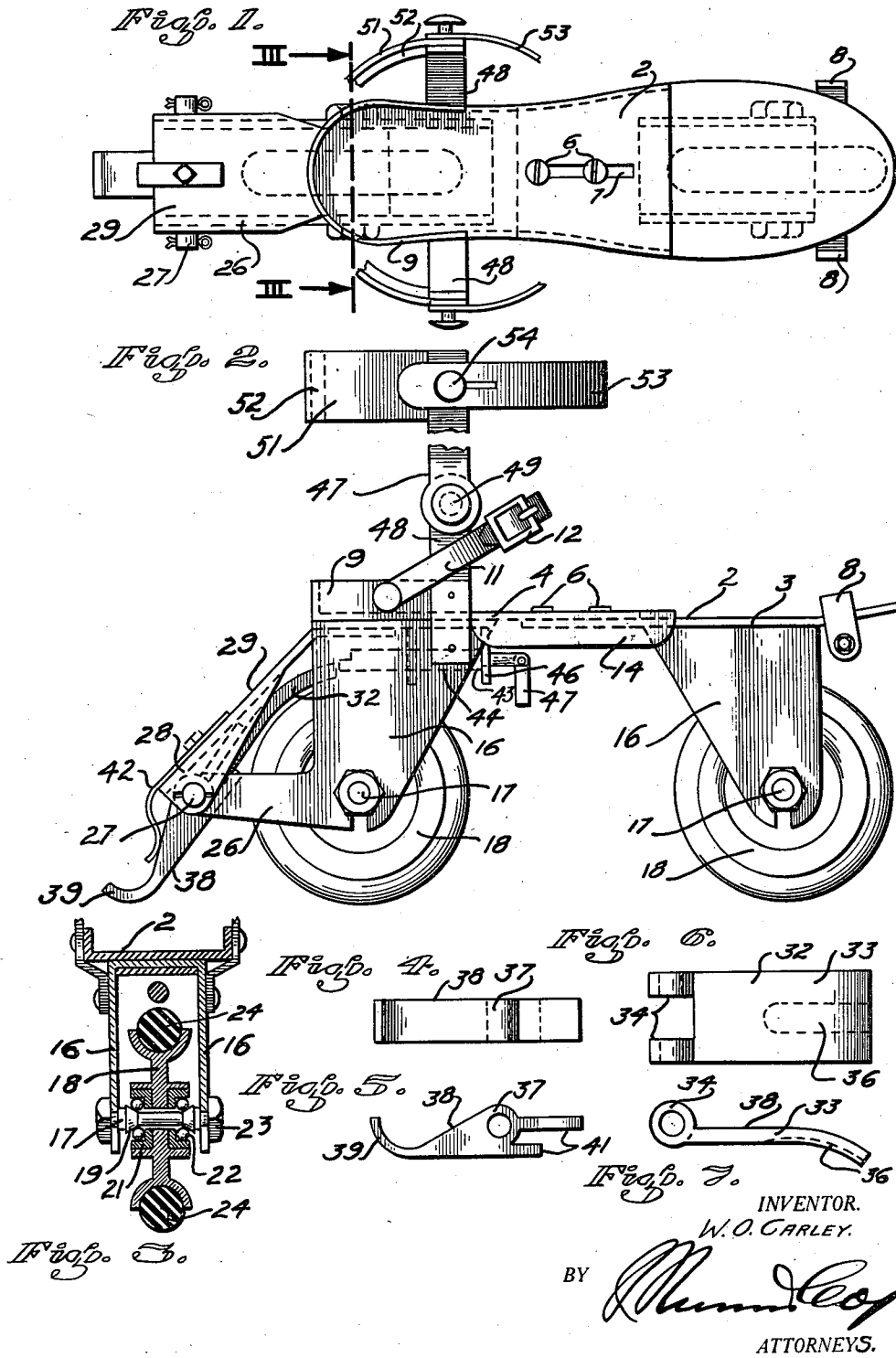
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W. O. CARLEY

PAVEMENT GLIDE

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UNITED STATES PATENT OFFICE.

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PAVEMENT GLIDE.

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To all whom it may concern:

Be it known that I, WILLIAM O. CARLEY, a citizen of the United States, and resident of Walla Walla, county of Walla Walla, and State of Washington, have invented a new and useful Pavement Glide, of which the following is a specification.

The present invention relates to improvements in pavement glides or roller skates and its object is to provide a pavement glide that will in every respect equal in efficiency ordinary ice skates, that will need two wheels only instead of the four wheels now commonly used and will thereby decrease friction, that will allow the wheels to be of larger diameter with a resultant higher degree of stability and a larger radial working lever, that will provide a brake thereby allowing the operator to come to a stop even when gliding down a hill and at the same time largely eliminating the danger of falling over backward, and that has a number of other advantages as will appear in the following description.

The preferred form of my invention is illustrated in the accompanying drawing, in which Figure 1 is a plan view of my pavement glide, Figure 2 a side elevation, Figure 3 a cross-section through my glide along line 3—3 of Figure 1, Figure 4 a detail plan view of a brake member, Figure 5 a side elevation of the same, Figure 6 a detail plan view of another brake member used in my glide, and Figure 7 a side elevation of the same.

Referring to the drawing in detail, in my pavement glide the foot rests on a flat base (2) consisting of a forward member (3) and a rear member (4). The two members overlap at their joint and are secured to each other by two screws (6) extending through perforations in one of the members and a slot (7) in the other member so that the base may be adjusted to fit the foot of the user. The front portion is provided with two adjustable clamps (8), which do not differ from the ones now commonly used. The rear portion is provided with an upwardly extending flange (9) adapted to receive the heel of the foot and a strap (11) securing the glide to the foot and adapted to be fastened by the buckle (12). A central downwardly extending flange (14) at either side gives additional strength to the glide.

Two brackets (16) project downward from the base at either side of the same to provide bearings for the two axles (17) on

which the wheels (18) rotate. To eliminate friction as much as possible I provide a cup and cone thrust bearing between the axle and the wheel, as shown in Figure 3, where the axle is shown as being provided with two conical surfaces (19) sloping away from each other and forming the two inner races of the ball bearing, while two diagonally opposed annular angle irons (21) form the other two races, balls (22) being interposed between the respective races. The axles are secured in the brackets by proper nuts (23). The frame of the wheels is preferably made of metal while the tires (24) are preferably made of rubber. The wheels should be of a diameter considerably larger than they are now commonly used on roller skates.

The rear end of each rear bracket is provided with a projection (26) extending rearwardly, the two projections being connected by a pin (27) well in the rear of the rear wheel. On this pin are supported the two flanges (28) of a plate (29) slanting downward from the rear end of the base and welded to the same. The pin also supports pivotally the brake shoe (32) shown in detail in Figures 6 and 7 and comprising a curved plate (33) having two perforated lugs (34) at one end and a slight recess (36) at the other end, the latter being adapted to fit on the tire of the wheel. The two perforated lugs (34) are spaced apart from each other a certain distance and allow a perforated portion (37) of another brake member (38) to be received on the pin between them. The latter brake member has a curved rear end (39) adapted to make a sliding contact with the ground surface when the forward end of the pavement glide is slightly raised and a forked front end (41), the fork being adapted to grip the brake shoe and to force the same into operative contact with the tire of the wheel. A spring (42) secured to the plate (29) pressing down on the brake member (38) normally keeps the brake inactive. In case it is desired to keep the brake shoe from coming in contact with the tire of the wheel, a stop (43) may be used, which consists of a pin (44) rotatably supported in two bearings (46) depending from the base and has a handle (47) at its front end, by means of which it may be turned, and an extension of semi-circular cross-section at its rear end in operative proximity to the brake shoe. As will be seen from the drawing, when the

pin is turned so that the extension is down, the latter will strike the brake shoe before the same comes in contact with the rubber tire, while, when the pin is turned half a turn, it will not interfere with the operation of the brake shoe. Preventing the brake shoe from being applied does not stop the use of the other brake member as a check.

10 A particular feature of my glide, which makes it possible to use two wheels only and to increase their diameter, is my ankle support, which comprises preferably two rigid vertical members (48) secured to the
15 base near the ankle and extending above the ankle, possibly almost to the knees. These members are hinged at or near the ankle, as shown at 49, so as to allow the ankle to play longitudinally. The upper
20 ends are secured to the leg by a semi-circular member (51), preferably of rigid material and provided with a pad (52) to conveniently fit on the rear portion of the leg, and a flexible member (53) adapted to be
25 carried around the front portion of the leg and to be secured to the rigid portion, as shown at 54.

It will be seen that in this manner I provide a glide that will firmly fit on the shoe, will give lateral support to the ankle without hindering the free play of the latter in a longitudinal direction, runs on rubber tires and ball bearings, needs two wheels only and is provided with a brake, the effectiveness of which can be partly eliminated and which at the same time gives a strong support to a party losing his balance and about to fall over backward.

I claim:

A pavement glide, comprising a front
40 and a rear axle, a wheel rotatably secured on each axle, a foot base centrally supported over the wheels, brackets depending from the rear end of the base providing a bearing rearwardly of the rear wheel, a ground
45 and a wheel brake pivotally supported in the bearing having means associated therewith for maintaining them in alinement, a spring for holding them in an operative position and means associated with the foot
50 base adapted to render the wheel brake inactive.

WILLIAM O. CARLEY.