

April 28, 1931.

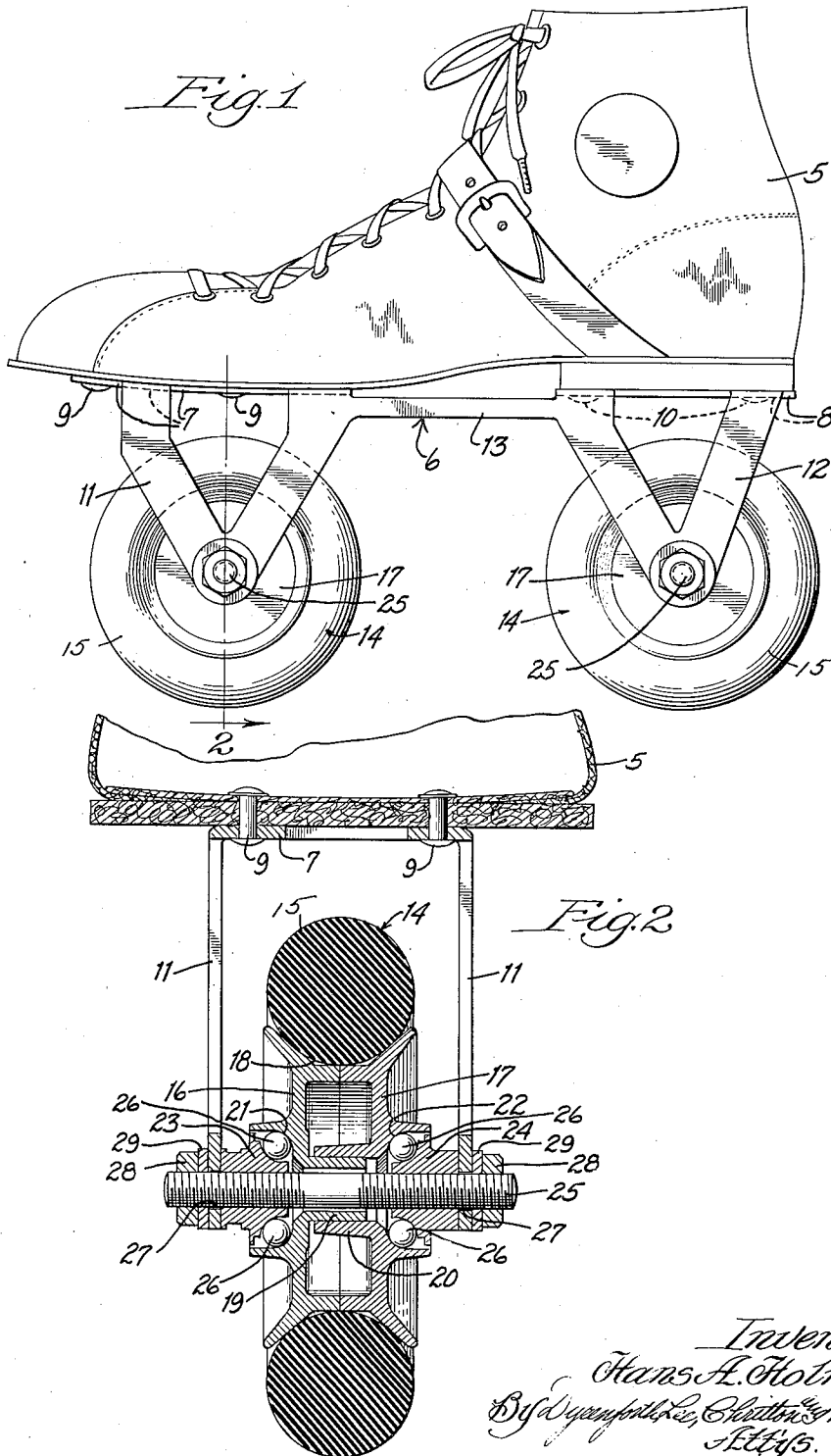
H. A. HOLM

1,803,019

ROLLER SKATE

Filed May 24, 1929

2 Sheets-Sheet 1



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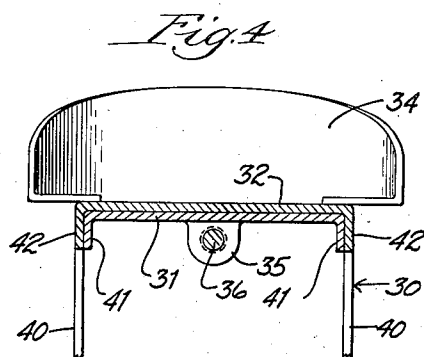
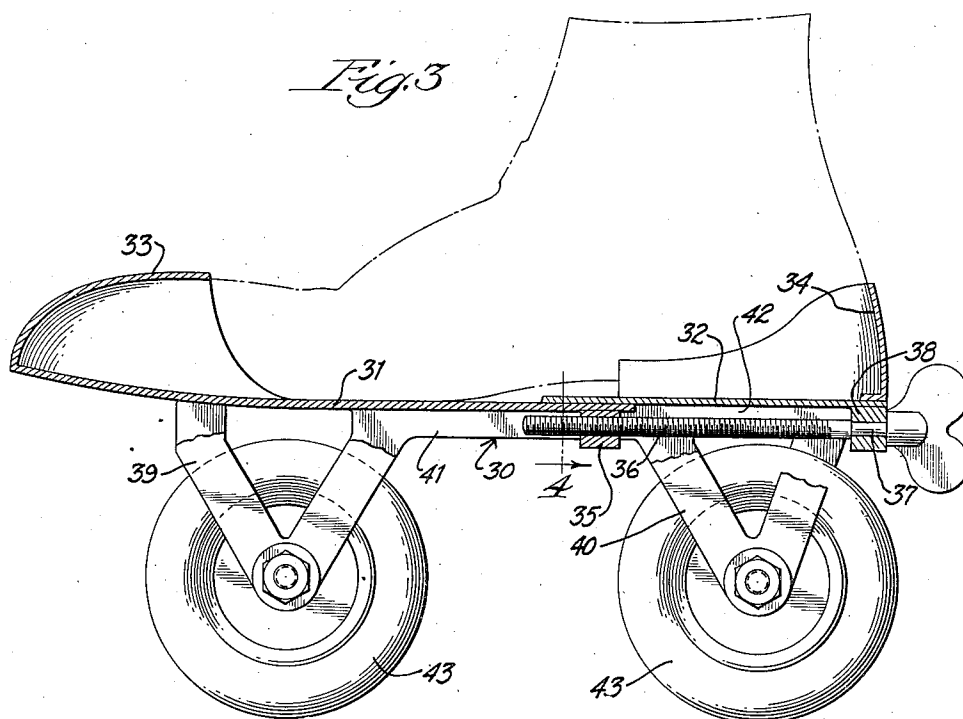
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2 Sheets-Sheet 2



UNITED STATES PATENT OFFICE

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ROLLER SKATE

Application filed May 24, 1929. Serial No. 365,723.

My invention relates to rubber-tired wheels, particularly for roller skates; and my object is to provide a novel, simple and inexpensive construction of such a wheel, the parts of which with its journalling portion and tire may be quickly assembled and disassembled as desired.

Referring to the accompanying drawings:

Figure 1 is a view in side elevation of a roller skate embodying my improvements, the skate being shown as applied to a shoe.

Figure 2 is an enlarged broken section taken at the line 2 on Fig. 1 and viewed in the direction of the arrow.

Figure 3 is a view in side elevation, partly sectional, of a modification of the structure shown in Fig. 1; and

Figure 4, a section taken at the line 4 on Fig. 3 and viewed in the direction of the arrow.

Referring to the construction shown in Figs. 1 and 2 the skate therein shown is provided for permanent attachment to a shoe represented at 5 and comprises a body portion 6 stamped from a single sheet of metal and comprising a front sole-plate portion 7 and a rear heel-plate portion 8, the shoe 5 being shown as secured flatwise against the portions 7 and 8 as by rivets 9 and 10, respectively.

At opposite sides of the sole-plate 7 are depending spaced apart legs 11 and the heel-plate is similarly provided with legs represented at 12. Bar sections 13 located at opposite sides of the skate body extend from the front to the rear legs 11 and 12. It will be understood from the foregoing that all of the parts of the body portion 6 of the skate are formed from a single sheet of metal punched and bent to form the portions above described.

In the construction two wheels only are provided, these wheels, represented at 14, being arranged in tandem, one being located at the sole portion of the skate and the other at the heel-portion thereof and in alinement with the longitudinal axis of the skate, these wheels being mounted in the spaces between the pairs of legs 11 and 12 as shown.

The wheels 14, each of which is equipped

with an endless rubber tire 15, are of the same construction, each being formed of two annular sections 16 and 17 which fit flatwise together each comprising substantially one-half of the wheel and together forming an annular channel 18 about the periphery of the wheel in which the tire 15 is located and securely held against displacement. The sections 16 and 17 are provided at their centers with tubular, laterally extending, portions 19 and 20, respectively, which telescope with each other as shown in Fig. 2 when the various parts of the wheel structure are assembled.

The particular illustrated construction of wheel is of the ball-bearing type, and to this end the sections 16 and 17 are provided with outwardly facing race-ways 21 and 22 between which and cones 23 and 24 on an axle 25, series of balls 26 are interposed.

An axle 25 is threaded at its opposite ends as represented and extends through openings 27 in the legs 11 and through central openings in the wheel sections 16 and 17. The cones 23 and 24 are threaded on this axle and nuts 28 on the ends of the axle and bearing against washers 29 hold the axle in place.

It will be understood from the foregoing that the wheel sections are held in flatwise engaged position and the bearings in properly adjusted position by the relative adjustment of the cones 23 and 24, the construction provided permitting of the ready assembling of the various parts of the tire-equipped wheel structure and the disassembling thereof.

Referring now to the construction shown in Figs. 3 and 4, the skate of these figures is provided of a form adapting it to be releasably clamped to shoes of different lengths.

In this construction the body portion of the skate, and represented at 30, is formed of a front toe-plate section 31 and a separate rear heel-plate section 32 both formed of sheet metal. The toe section 31 is shaped at its forward end to provide a rearwardly opening socket 33 to receive the toe of the shoe and the heel-plate section 32 is provided with an upwardly opening heel-receiving socket portion 34.

The plate sections 31 and 32 are relatively overlapped at their adjacent ends as shown, the toe-portion 31 being provided with a depending nut 35 rigid therewith in which a screw shaft 36 is threaded, the shaft 36 being journalled at a reduced portion 37 thereof in a depending boss 38 on the heel-plate 32.

The sole-plate 31 and heel-plate 32 are provided at their opposite lateral edges with pairs of depending legs represented at 39 and 40, respectively, and corresponding with the legs 11 and 12 of the construction of the preceding figures of the drawings.

The sole-plate 31 is provided at the rear ends of its opposite lateral edges with depending flanges 41 and the heel-plate portion 32 is provided at the front ends of its lateral edge portions with depending flanges 42, these adjacent portions of the plates 31 and 32 being telescoped as shown in Fig. 4.

The wheels of the skate and represented at 43 may be of the same construction as the wheels 14 and be journalled in the legs 39 and 40 in the same way.

While I have illustrated and described a certain particular embodiment of my invention, I do not wish to be understood as intending to limit it thereto as the same may be variously modified and altered and the invention embodied in other forms of structure without departing from the spirit of my invention.

What I claim as new, and desire to secure by Letters Patent, is:

1. A rubber-tire-equipped wheel having a tire-receiving channel formed with a closed bottom and comprising sections having annular rim portions which together form said closed bottom channel, said sections having telescoped portions integral with said rim portions and located inwardly thereof and each section presenting a journalling portion.

2. A rubber-tire-equipped wheel having a tire-receiving channel formed with a closed bottom and comprising sections having similar annular rim portions which together form said closed bottom channel, said sections having telescoped portions integral with said rim portions and located inwardly thereof.

3. A rubber-tire-equipped wheel having a tire-receiving channel formed with a closed bottom and comprising sections having similar annular rim portions which together form said closed bottom channel, said sections having telescoped portions integral with said rim portions and located inwardly thereof and each section presenting a journalling portion.

4. A rubber-tire-equipped wheel having a tire-receiving channel and comprising sections having annular rim portions which together form said channel, and journalling

means for said wheel holding said sections in assembled relation.

5. A rubber-tire-equipped wheel having a tire-receiving channel formed with a closed bottom and comprising sections having annular rim portions which together form said closed-bottom channel, said sections having telescoped portions located inwardly of said rim portions and each section presenting a journalling portion integral with the rim portion thereof.

6. A rubber-tire-equipped wheel having a tire-receiving channel formed with a closed bottom and comprising sections having annular rim portions which together form said closed-bottom channel, said sections having telescoped portions integral with said rim portions and located inwardly thereof and each section presenting a journalling portion integral with the rim portion thereof.

7. In a wheeled structure the combination of a support, a rubber-tire-equipped wheel having a tire receiving channel and comprising sections having annular rim portions which together form said channel, each of said sections being formed in one piece and having an outwardly projecting ball-receiving annular flange and an inwardly extending boss, said bosses telescoping, and means journalling said wheel on said support comprising a shaft extending through said sections and having ball races and balls confined between the ball races of said sections and said journalling means.

8. A rubber tire equipped wheel having a tire-receiving channel and comprising sections having rim portions which together form said channel, the rim portion of each section comprising an annular inwardly extending flange adjacent its periphery, the inner edges of said flanges being substantially in contact, said sections having telescoped tubular bosses integral with said rim portions and located between said flanges and the central axes of said sections.

9. A rubber tire equipped wheel having a tire-receiving channel comprising sections having rim portions which together form said channel and on which the tire seats at its inner periphery, said rim portions forming the sole support for the tire, the rim portion of each section comprising an annular inwardly extending flange adjacent its periphery, said sections having telescoped tubular bosses integral with said rim portions and located between said flanges and the central axes of said sections and spaced from the parts upon which the tire seats.

HANS A. HOLM.