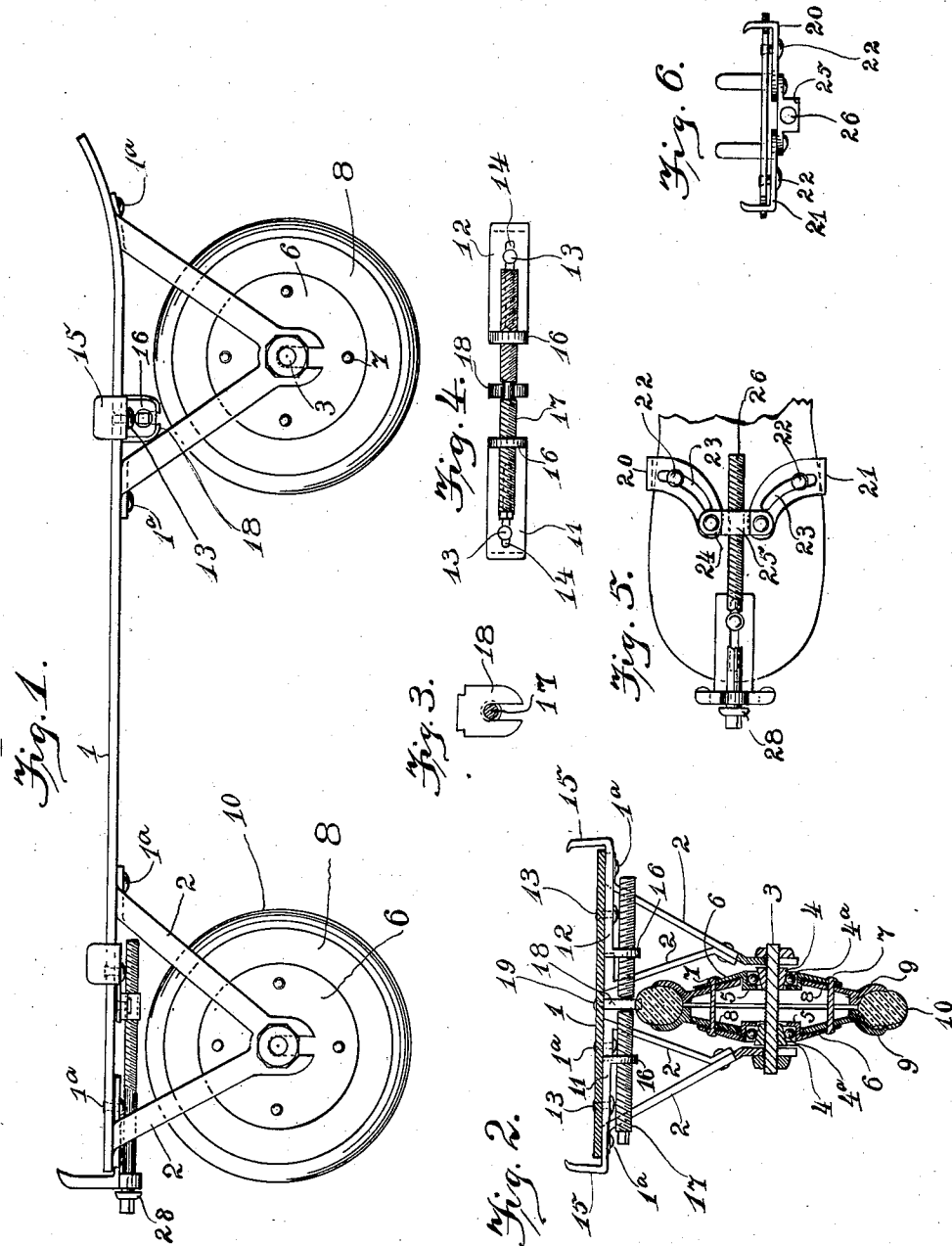


No. 853,447.

PATENTED MAY 14, 1907.

W. W. FRENCH.
WHEEL FOR ROLLER SKATES.
APPLICATION FILED MAR. 20, 1905.



WITNESSES:

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WHEEL FOR ROLLER-SKATES.

No. 853,447.

Specification of Letters Patent.

Patented May 14, 1907.

Application filed March 20, 1906. Serial No. 250,906.

To all whom it may concern:

Be it known that I, WALTER W. FRENCH, a citizen of the United States, residing at Duluth, in the county of St. Louis and State of Minnesota, have invented certain new and useful Improvements in Wheels for Roller-Skates; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to roller skate and has for its object the production of an improved bicycle skate.

It consists of the constructions, combinations and arrangements of parts hereinafter described and claimed.

In the accompanying drawings, Figure 1, is a side elevation of my improved skate: Fig. 2, is a transverse section of the same on the line A—B of Fig. 1. Fig. 3 is a detail side elevation of a center lug forming part of said invention. Fig. 4, is a bottom plan view of the front clamp of said skate. Fig. 5 is a bottom plan view of the heel clamp of said skate. Fig. 6 is a front-end elevation of said heel clamp.

In the drawings, 1 is a sole-plate approximately of the contour of the sole of a shoe. Secured at its upper ends to the toe of said plate, by any suitable means, as by rivets 1^a, is a frame or frames 2, of any suitable construction but preferably of the approximate form of a W in front elevation and preferably V-shaped in side elevation, the frame is transversely apertured at its lower ends to permit the passage of the axle 3. Upon said axle are threaded hubs or cones 4 adapted to operate as cone-bearings for a series of rollers or balls 4^a adapted to travel around the same and held in position thereon by housings or raceways formed by inwardly and centrally projecting flanges 5 formed upon disk face-plates 6, which plates are respectively secured, as by bolts or rivets 7, to the opposite spoke, or web portions 8, of a radially divided wheel, of which said disk plates form a part. Said web portions are provided near their outer edges with concave flanges 9, adapted to grasp a tire 10 of any suitable material, but preferably of cushion composition or rubber. Said web portions are preferably adjusted on said tire before being clamped together by said bolts 7, in such manner as

that when said web-portions are secured together said tire cannot escape. A similar frame 2 and wheel support the heel of said plate 1.

Secured to the toe of said plate 1 are clamps 11 and 12 slidably supported on buttons 13 secured to said plate 1 and depending through slots 14 in the horizontal portions of said clamps. These clamps have upwardly turned flanges 15 formed thereon in the usual manner for grasping the sole of the shoe to which said skate may be secured. They also have depending apertured internally-threaded flanges 16 adapted to receive the screw 17. One of said flanges is right-threaded and the opposite flange is left-threaded and the screw is correspondingly threaded at its opposite ends, and one of the ends thereof is squared to receive a screw-operating key or wrench of any suitable kind, well known to the art. An annular groove is formed in said screw at the center thereof which is engaged by a depending forked lug 18, which is secured to said plate 1, in any suitable manner, as by one or more rivets 19. At the heel of said plate 1 are arranged transversely directed clamps 20 and 21 supported by buttons 22 depending from said plate through slots 23 in said clamps. These latter clamps are linked together by a link 24 pivotally secured at its opposite ends to the inner ends of said clamps. To the center of said link is secured a lug 25 apertured longitudinally of said skate and internally threaded to receive the forward end of a screw 26, which screw at its rear end is projected through an aperture formed in a heel-clamp 27 loosely mounted on said screw. Outward of, or in rear of said clamp 27 a collar or shoulder 28 is formed on said screw, and in rear of said collar the terminal of the screw is squared to engage the operating key or wrench aforesaid.

The operation of said skate is substantially similar to the operation of other roller skates well known to the art, except that a greater degree of efficiency and durability is obtained by my improved construction.

While I have described and illustrated certain minor details of construction it is obvious that said construction may be modified in such minor details by the substitution of equivalents, or otherwise, within the spirit and scope of my said invention.

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

5 A wheel, for roller skates, comprising a radially divided peripherally concaved felly, disk face plates secured to the opposite halves of the felly and each centrally aper-
10 tured and having the edges of said apertures turned inward and concentrically with the axis to form raceways for the balls of ball
bearings, a threaded axle projected through
said disks, cones threaded onto the opposite

ends of said axle and projecting into the disk apertures, series of balls surrounding said cones and held thereby in said raceways, and a tire clamped between the halves of said felly and extending radially beyond the same. 15

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

WALTER W. FRENCH.

Witnesses:

JAMES T. WATSON,

WELLINGTON M. BLEWETT.