

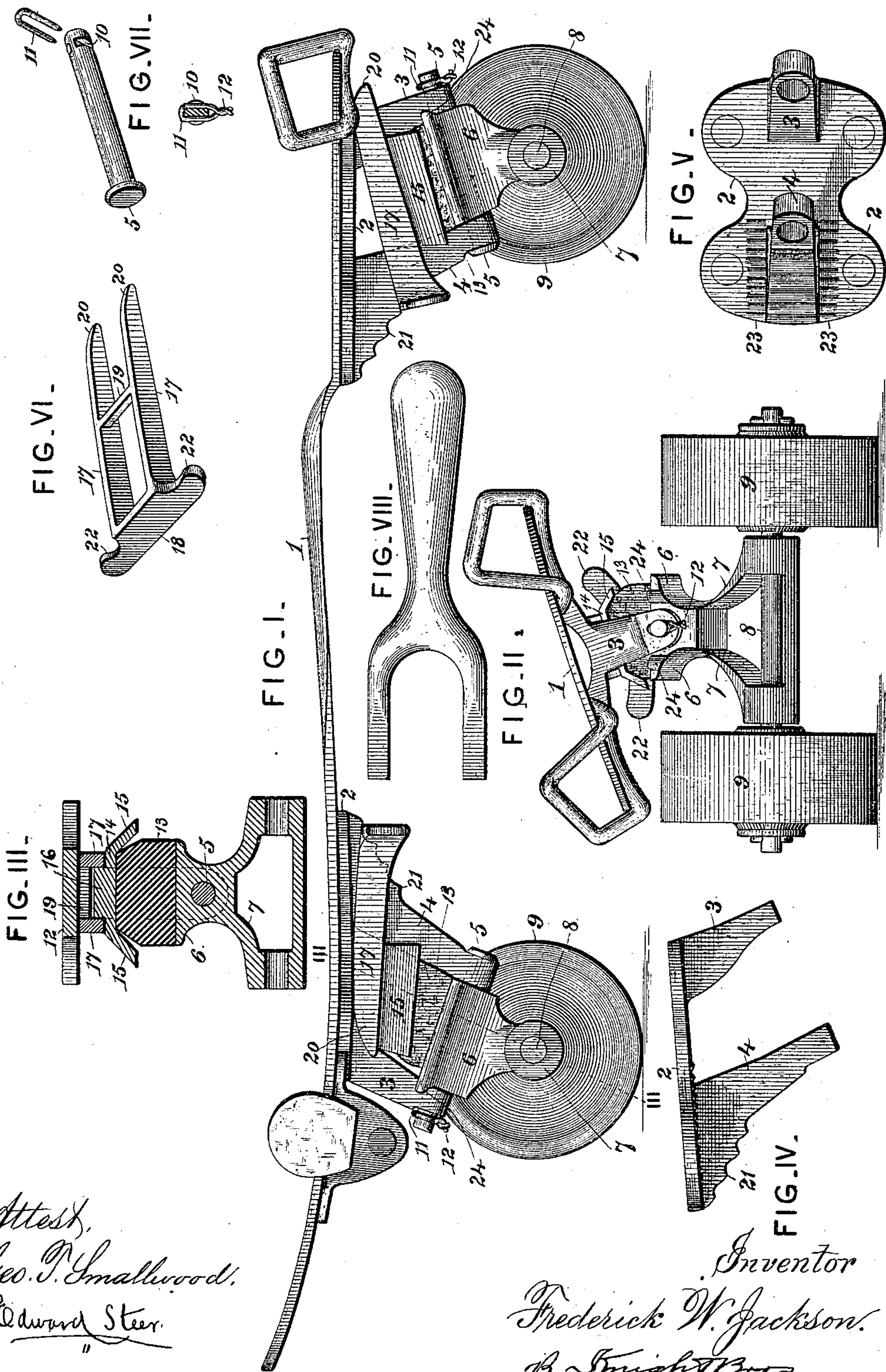
(No Model.)

F. W. JACKSON.

ROLLER SKATE.

No. 329,907.

Patented Nov. 10, 1885.



Attest,  
Geo. P. Smallwood,  
Edward Steer.

Inventor  
Frederick W. Jackson.  
By *Frederick W. Jackson*

*attys*



# UNITED STATES PATENT OFFICE.

FREDERICK W. JACKSON, OF RICHMOND, INDIANA, ASSIGNOR TO STEPHEN C. MENDENHALL, OF SAME PLACE.

## ROLLER-SKATE.

SPECIFICATION forming part of Letters Patent No. 329,907, dated November 10, 1885.

Application filed February 11, 1885. Serial No. 155,565. (No model.)

*To all whom it may concern:*

Be it known that I, FREDERICK W. JACKSON, a citizen of the United States, residing at Richmond, in the county of Wayne and State of Indiana, have invented a new and useful Improvement in Roller-Skates, of which the following is a specification.

My invention relates, primarily, to an improvement upon the means for adjusting the tension of the rubber cushion or spring located above the axle-housing of a roller-skate. Heretofore these cushions have been arranged to be compressed or released to adjust the tension by means of a set-screw, which is defective in its action and liable to be shaken loose by the vibration of the skate. To avoid this difficulty, I employ a sliding yoke or key, one end of which is made adjustable on an inclined series of steps or notches upon one of the standards, attached to the foot-plate in such manner that by shifting the position of the key the plate of above the rubber is forced downward or released to adjust the tension of the cushion. The bearing-plate for the cushion is made with outwardly-inclined side flanges to receive the rubber, when pressed upon one side or the other, and prevent its being cut between two opposing faces of metal, as in the ordinary skate of this form.

In order that the invention may be fully understood, I will proceed to describe it with reference to the accompanying drawings, in which—

Figure I is a side elevation of a skate embodying my invention. Fig. II is a rear elevation of the same, showing the foot-plate tilted to one side. Fig. III is a section on the line III III, Fig. I. Fig. IV is a side elevation of the yoke supporting the foot-plate from the bearing-frame of the floor-wheels. Fig. V is an under side view of the same. Fig. VI is a perspective view of the key for adjusting the tension of the rubber cushion. Fig. VII represents in perspective and sectional views the pivot-pin and its retaining-key. Fig. VIII is a view of the tool employed for setting up the tension-key.

I may represent a wooden or metallic foot-plate of a roller-skate, having any customary or preferred means of attachment to the foot

of the wearer. 2 2 are yokes fixed to the said foot-plate by riveting or otherwise, and having standards 3 4 projecting downwardly therefrom, with an inclination either forward or rearward, according to whether the yoke is on the front or rear end of the skate. Through the lower ends of said standards are passed pivot-pins 5 5, inclined, as shown, in opposite directions, and receiving on their portion intermediate of the said standards the upper solid parts, 6, of the bearing-frame 7, in which are fixed the axles 8 of the floor-wheels 9. It will be observed that the inclined position of the pins 5 gives the necessary horizontal oscillation to the bearing-frame to force the rollers to an arcuate path on the tilting of the foot-plate.

To retain the pivot-pin 5 within its bearings in the standards 3 4, I notch it on opposite sides at one end, as shown at 10 in Fig. VII, so as to adapt it to receive a staple-shaped wire key, 11, which, when in position, has its ends clinched, as shown at 12.

13 is a rubber cushion confined between the block 6 and plate 14 in such manner as, while allowing the oscillation of the foot-plate and yoke upon the pin 5, to return said foot-plate to horizontal position immediately on the release of pressure. Heretofore the plate 14, employed in this connection, has had abrupt edges over which the rubber was compressed when forced down on one side or the other, resulting in its speedy destruction. To avoid this difficulty, I provide the said plate with outwardly-inclined lips or flanges 15, of sufficient width to receive the rubber, however much compressed at one side or the other. The plate 14 is seated, by means of offset or fin 16 on its upper side, upon the bars 17 of the adjusting-key. (Shown in Fig. VI.) The said key is made with cross-bars 18 19, to brace its longitudinal bars apart. The bar 19 is made of such small width as to allow the said bar to move freely above the fin 16 on the plate 14 when the said key is forced longitudinally to increase or diminish the tension of the cushion 13. Said bar 19 also serves as a stop to prevent the key from being entirely removed from the yoke. The said key bears throughout its whole length, or only upon its end 20, according to cir-



cumstances, upon the yoke 2, fixed to the under side of the foot-plate.

The standards 4 are provided with inclined series of notches 21 on their outer faces to receive the cross-bar 18 of the key. Said cross-bar is provided with extensions or lugs 22, under which the prongs of the tool shown in Fig. VIII may be placed for lifting the key from notch to notch. It will be readily seen that in this action the key is forced longitudinally of the foot-plate, sliding over the plate 14, while forcing the said plate down to compress the rubber cushion 13, or lifting it to raise the plate and release said cushion.

To facilitate the action of the tool shown in Fig. VIII, I provide on each side of the standard 4 a milled or roughened surface, 23, as shown in Fig. V, forming a firm bearing for the ends of the prongs of said tool.

While it is possible with the arrangement just described to compress the rubber cushions 13 to a considerable degree of tension, it is desirable to employ a stop of some kind to limit the oscillation of the foot-plate, so as to prevent the impingement of the floor wheel or roller thereon. To this end I provide the block 6 with outwardly-projecting lugs 24, on one or other of which the standard 3 will impinge when the foot-plate is oscillated, as shown in Fig. II, and thus prevent the said foot-plate from being sufficiently depressed at one side to touch the floor wheel or roller.

Having thus described my invention, the following is what I claim as new therein and desire to secure by Letters Patent:

1. In combination with a bearing-frame having oscillating connection with the foot-plate, a cushion above said frame, a tension-key above said cushion, and an inclined ratchet or series of notches for engaging said key, substantially as and for the purpose set forth.

2. In combination with a bearing-frame supported on the floor wheels or rollers and a cushion above the same, a plate arranged over said cushion and having a fin on its upper side, a yoke having a ratchet, and a sliding key engaging said ratchet and having longitudinal bars, between which said fin is held, substantially as and for the purpose set forth.

3. The tension-key having longitudinal bars 17, cross-bars 18 19, and lugs 22, substantially as and for the purpose set forth.

4. In combination with the bearing-frame, cushion, and key, as described, the yoke fixed to the foot-plate and having suitable roughened or milled surface, for the purpose set forth.

5. The combination, with a foot-plate, of a yoke having standards, notched side, and milled surface, substantially as set forth.

FREDERICK W. JACKSON.

Witnesses:

CHARLES BECK,  
EDWARD DE HAYS.