M. B. GROUT.

ROLLER SKATE.

APPLICATION FILED MAY 13, 1908.

921,102. **Patented May 11, 1909.**

Fig. 1.

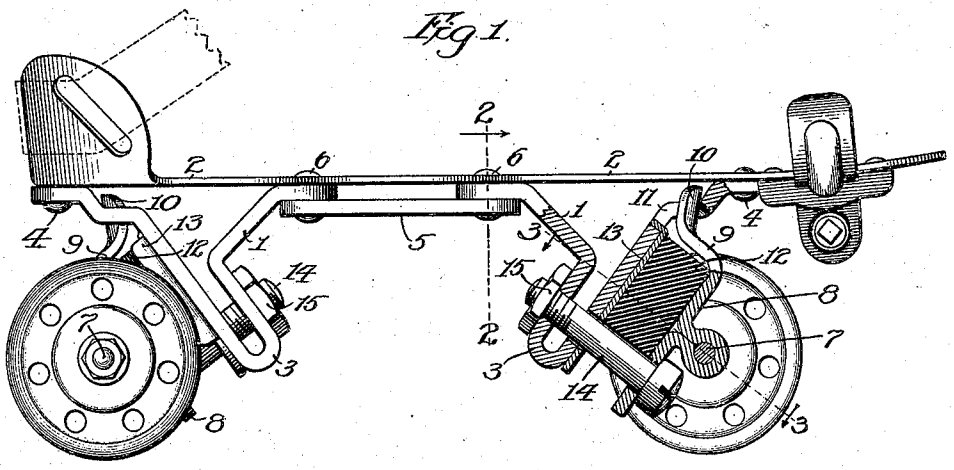


Fig. 2.

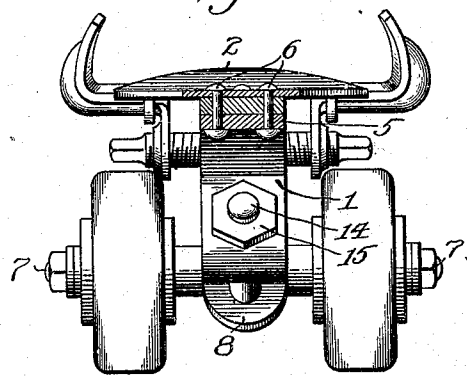


Fig. 3.

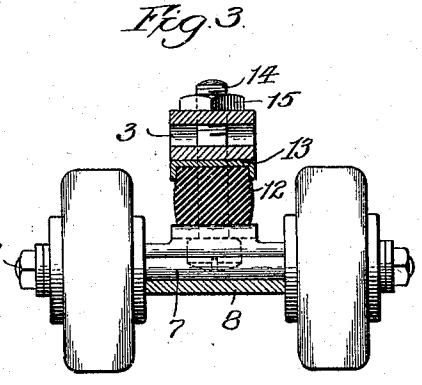
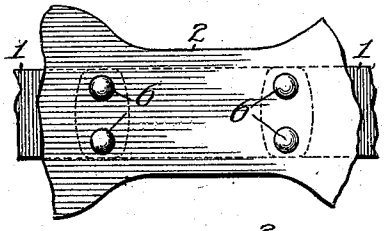


Fig. 4.

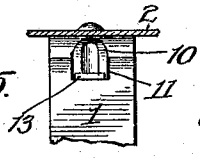


Witnesses:

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Fig. 5.



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ROLLER-SKATE.

No. 921,102. Specification of Letters Patent. Patented May 11, 1909.

Application filed May 13, 1908. Serial No. 432,577.

To all whom it may concern:

Be it known that I, MARTIN B. GROUT, citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Roller-Skates, of which the following is a full, clear, concise, and exact description.

My invention relates to roller-skates, and its object is to provide a simple structure which is cheap to manufacture and which, nevertheless, possesses increased durability and efficiency.

My invention contemplates a roller-skate in which the roller-carrier is hung in such manner as to permit the free lateral tilting movement of the foot-plate, without affecting the carrier, which is essential to a perfect control and guidance of the skate.

My invention further provides a firm but yielding connection between the carrier and the hanger, so as to permit of said lateral tilting and also to support the weight of the skater upon cushions.

One feature of my invention consists in forming the hanger of a single integral angular piece anchored at each end to the foot-plate, and on which the carrier is securely and simply hung in such manner as to permit of a free lateral tilting of the foot-plate in the use of the skate.

These and other features of my invention may be more readily understood by reference to the accompanying drawing, wherein—

Figure 1 is a side elevation partly in vertical section, of a roller-skate embodying my invention; Fig. 2 is a section on the line 2—2 of Fig. 1; Fig. 3 is a section on the line 3—3 of Fig. 1; Fig. 4 is a fragmentary plan view; and Fig. 5 is a fragmentary sectional view showing the tongue and slot connection between the carrier and hanger.

Corresponding to each pair of rollers is a hanger 1, secured to and beneath the foot-plate 2. Each hanger is formed of a single integral plate, bent in an angular shape, the plate being doubled upon itself at the vertex of the angle to form a U-shaped part 3. The longer arm of the hanger 1 is secured by rivets 4 or in other suitable manner to the foot-plate 2 near one end thereof. The inner end or arm of the hanger extends up against the bottom of the foot-plate near the middle thereof. The space between the inner ends of the two hangers is bridged by an overlapping plate 5, which thus serves as a strengthening-plate for the foot-plate 2. A plurality of rivets 6 are employed at each end of the plate 5 to secure said plate and hangers to the foot-plate in such manner as to prevent pivotal motion of the hangers on the foot-plate.

The roller-axle 7 is carried by the carrier 8, said carrier near its middle portion being bent tightly about said axle. The carrier, after being bent around said axle, extends in opposite directions in the same plane. The upper end of the carrier 8 is bent at an angle to form an end piece 9, which end piece at its extreme end is bent outwardly to form a tongue 10, which extends through a slot 11 in the hanger 1, the tongue having a rounded under surface which bears against the walls of the slot.

A short rectangualr block 12 of rubber or similar cushioning material is interposed between the carrier 8 and the adjoining arm of the hanger 1, said cushioning block preferably lying in a channel-plate 13 carried underneath the lower face of the hanger.

A clamping bolt 14 passes loosely through alined openings in the lower end of the carrier and the adjoining arm of the hanger, the threaded end of the bolt engaging a threaded hole in the upper leg of the U-shaped member 3. A lock nut 15 engages the end of the bolt 14. The under side of the head of the bolt 14, where it bears upon the carrier plate 8 is slightly rounded, so as to permit of a slight rolling of the lower end of the carrier plate upon said bolt as a pivot. With this construction it will be noted that the carrier 9 can rock upon the tongue 10 as a fulcrum, the cushion 12 readily permitting the skater to tilt the foot-plate in the one direction or the other in guiding the skate. It will also be particularly noted that the hanger 1 being anchored at each end to the foot-plate, the clamping action of the bolt 14 is practically a straight pull upon the inner arm of the bracket 1. Furthermore, the U-shaped portion 3 of the hanger forms, in effect, a thick bearing for the end of the bolt 14, such as would be provided if the U-shaped part 3 were a solid piece. This particular structure, therefore, is simple, strong and light. It will also be noted that while the carrier is securely fastened to the hanger, there is nothing rigid about such connection, and the parts are not liable to injury by a sudden or severe strain being placed upon them. The rubber block 12, in addition to

forming a cushion for receiving the weight placed upon the skate, by its flexibility permits the desirable tilting of the foot-plate 2 in guiding the skate.

What I claim is:—

1. In a roller skate, the combination with the foot-plate, of a hanger consisting of an integral angular plate having a portion thereof doubled back upon itself for a short distance at its vertex and having its ends secured to the foot-plate, said hanger having a socket therein near its outer end, a carrier provided with a tongue at its upper end engaging said socket, and means for yieldingly connecting the lower end of said carrier to the vertex of said angular hanger.

2. In a roller skate, the combination with a foot-plate, of a downwardly-extending angular hanger-plate having its ends secured to said foot-plate, said hanger being bent upon itself to form a U-shaped vertex with the limbs of the U spaced apart, a carrier pivoted at its upper end to said hanger, cushioning means interposed between said carrier and hanger, and a clamping bolt passing through the lower end of the carrier and both limbs of said U-shaped vertex.

3. In a roller skate, the combination with a foot-plate, of a hanger consisting of a single integral angular-plate having its ends secured to said foot-plate and extending downwardly from the foot-plate and which at its lowermost part has a portion doubled back upon itself for a short distance, a carrier having its upper end pivoted to said hanger, a cushion interposed between said carrier and hanger, and a clamping bolt passing loosely through said carrier and the adjacent one of the sections of the doubled portion of the hanger and threaded in the other section thereof.

4. In a roller skate, the combination with a foot-plate, of a hanger consisting of a single integral angular plate having its ends secured to said foot-plate and having a portion intermediate its ends doubled back upon itself for a short distance to form a U-shaped vertex, said hanger having a slot near one of its upper ends, a carrier having its upper end bent at approximately right angles and formed with a tongue-like extension engaging said slot in the hanger, a cushioning member interposed between said carrier and hanger, and a clamping bolt passing loosely through said carrier and the adjacent leg of said U-shaped vertex and threaded in the other leg thereof.

5. In a roller-skate, the combination with a foot-plate, of a hanger consisting of a single integral angular plate having its ends secured to said foot-plate and having a portion intermediate its ends doubled back upon itself for a short distance and spaced from the main part, a carrier having its upper end pivoted to said hanger, a cushion interposed between said carrier and hanger, and a clamping bolt passing loosely through said carrier and threaded in the doubled back portion of the hanger.

In witness whereof, I hereunto subscribe my name this 9th day of May A. D., 1908.

MARTIN B. GROUT.

Witnesses:
GEORGE E. FOLK.
GEO. C. DAVISON.