Oct. 12, 1954 DE ELDON E. HAYNER 2,691,532

STOP DEVICE FOR ROLLER SKATES

Filed March 20, 1953

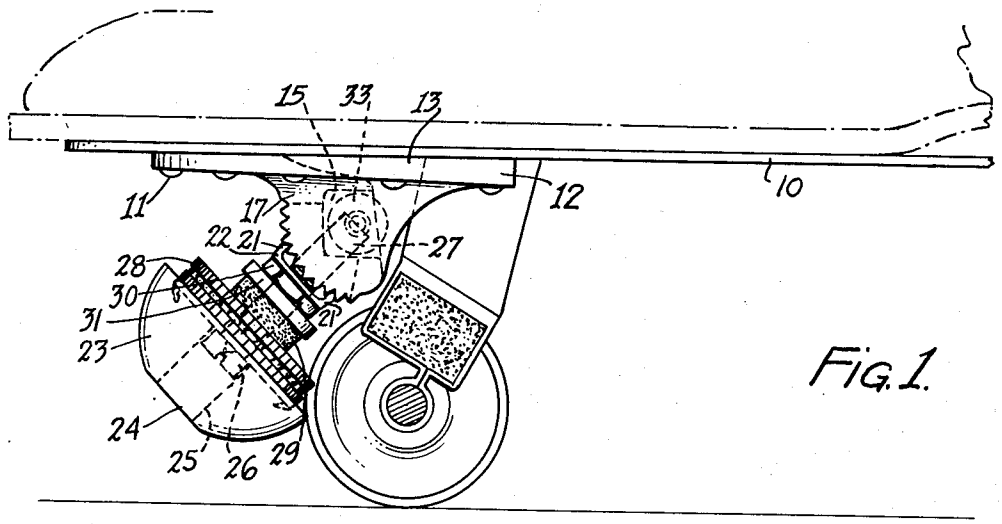


FIG. 1.

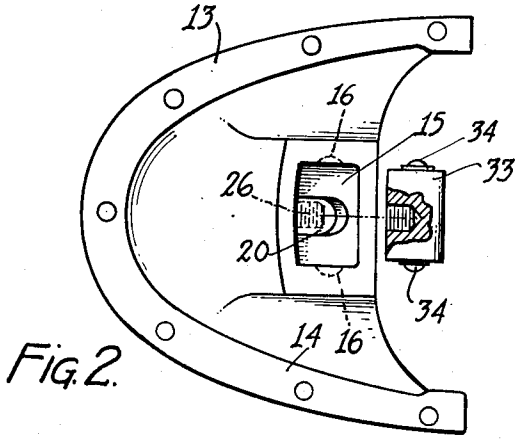


FIG. 2.

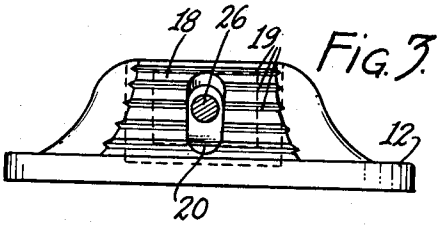


FIG. 3.

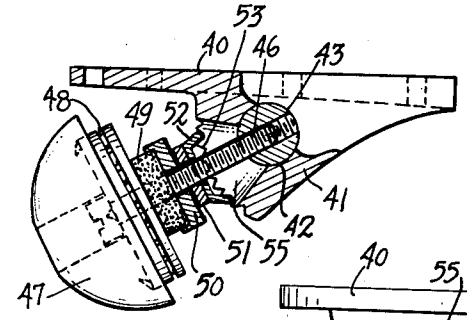


FIG. 4.

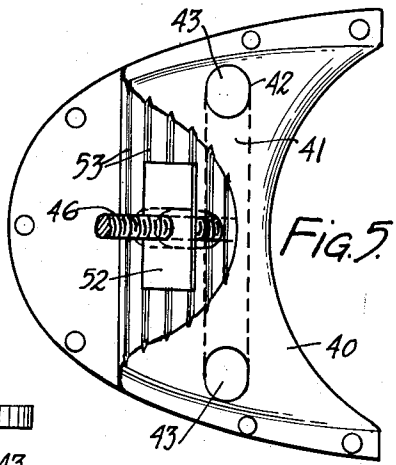


FIG. 5.

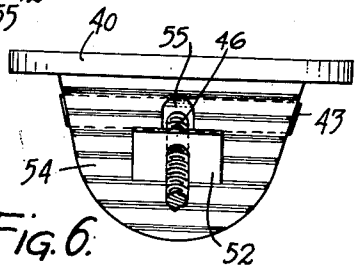


FIG. 6.

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STOP DEVICE FOR ROLLER SKATES

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4 Claims. (Cl. 280—11.2)

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This invention relates to roller skates and in particular to a stop means applied thereto.

An object of the invention is to improve the structure of the stop means as disclosed in Patent No. 2,551,122 granted to me May 1, 1951, so that it will be stronger without the necessity of adding to the weight thereof. In the use of skates particularly by professional skaters where sudden stops, spins and other exhibitions of skating skill are involved, it is essential that the stop structure be of sturdy construction for the safety of the performer.

Further objects of the invention are to provide a stop structure that is adjustable with respect to the toe of the skate; to provide one that can be removed from its mounting without the necessity of taking the supporting bracket off the skate or the skate off the shoe; to provide a stop of pivotal construction that can be easily adjusted to any desired angular position and to provide a stop whose parts may be readily and quickly replaced with a minimum of effort.

With these and other objects in view, the invention comprises certain constructions hereinafter described and then particularly pointed out in the claims and a preferred embodiment of my invention is illustrated in the accompanying drawing, in which:

Figure 1 is a view through the forward portion of a roller skate showing the application thereto of my improved stop device,

Figure 2 is a plan view of the bracket portion of the stop showing schematically the mounting for the stop device adjustably supported in said bracket,

Figure 3 is a view looking at the front face of the bracket in reversed position and showing the adjusting face thereof;

Figure 4 is a view in side elevation, partly in section, of a modified form of the invention,

Figure 5 is a view looking upwardly at the stop device of Fig. 4 as it would appear on the skate, the cushion or rest portion thereof being omitted to show the structure, and

Figure 6 is a view looking at the front of the bracket shown in Figure 5.

Referring to the drawing in detail, 10 indicates the platform portion of a skate which is fixed to the sole of a shoe in the well known manner and to which the skate is secured as by rivets 11 or the like, a bracket 12. The bracket is cast to provide a base portion 13 of substantially U-shape to fit about the wheel carrying projections of the skate body and provide an edge lip 14 through which the bracket can be secured to the skate. The

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bracket is a single casting presenting, in the form shown in the Figures 1 to 3 inclusive, an inner recess or cavity 15 of rectangular shape having pockets 16 in horizontal alignment in the opposing vertical walls thereof. The body of the projecting portion 17 of the bracket is shaped to provide an arcuately shaped face 18, laterally ridged as at 19 and having a vertically extending central slot 20 opening into said cavity 15. The ridges 19 constitute teeth in which the claw ends 21 or longitudinal edges of a curved adjusting plate 22 engage to arcuately adjust the position of the stop structure to be described.

The stop consists of a rubber cushion or pad 23 which may be flat or hemispherical in shape with a flattened end 24 in which a countersunk bore 25 is provided for the reception of a bolt 26 having a threaded shank 27 on which is mounted a ball bearing 28 secured to the stop and backed up by a rubber cushion disk 29. A lock nut 30 and a washer 31 are positioned on the bolt between the adjusting plate 22 and the cushion sleeve 29. The bolt has the usual slotted head and can be turned with a screw driver to thread the outer end of the bolt into a pintle 33 which is detachably held in the cavity 15 by the yielding engagement of spring pressed projections 34 with the pockets 16 above referred to. These spring urged projections are of the well known type and are placed in the axis of the pintle to afford an easy turning movement thereof so that slight loosening of the bolt will permit the stop to be adjusted to any desired angle. The pintle is so arranged in the cavity and the bracket so formed that said pintle can be readily removed when released by the bolt so that replacements to the stop structure may be made or another form of stop assembly may be attached to the skate without delay and without removing the skate from the shoe. The plate 22 can be adjusted to any desired position by loosening the bolt and swinging the stop about the pintle as a center.

In the modified form of the invention as shown in Figures 4 to 6 inclusive, a skate bracket 40 is secured by rivets or other means to the bottom of a skate and presents a projecting portion 41 which has a laterally extending bore 42 passing therethrough for the reception of a pintle or axle pin 43 which is free to rotate in the bore. As will be seen in Figure 5 the pintle extends to the exterior of the bracket so that it is completely removable therefrom when a threaded bolt 46 is unthreaded therefrom. This bolt whose shank is threaded also carries a stop 47, ball bearing 48, a

cushion ring 49 of rubber or any suitable substance as is the case with the member 29 above mentioned, a lock washer 50 and a lock nut 51 which bears against an adjusting plate 52 whose sharpened edge portions are adapted to engage any of the lateral serrations 53 in the arcuate face 54 of the bracket portion 41. It is also evident that in this form of the invention, the stop parts can be readily adjusted or replaced or the entire stop structure completely changed for a different type by the removal of the pintle, and without taking the bracket off the skate or the skate off the wearer if need be. The pin 43 is freely rotatable in its seat into which opens a slot 55 for passage of the bolt 46. The adjusting plate may be flat or curved and the face of the projecting portion of the bracket need not necessarily be curved, but may be obliquely disposed to serve the purpose of positioning the plate as desired. If desired the bracket in each instance could be made an integral part of the skate. The ball bearing may be as shown in the patent, and the disks may be attached to the pad by prongs. The hole is threaded through the pintle to allow for adjustment of the bolt and the amount of compression of the cushion can be adjusted to vary the rotary freedom of the stop, the cushions being held in place by the cupped washers.

My invention is not to be restricted to the precise details of construction shown since various changes and modifications may be made therein without departing from the scope of the invention or sacrificing the advantages to be derived from its use.

What I claim is:

1. A stop for a roller skate comprising a bracket shaped to provide a body portion having a cavity therein and pockets in the opposing walls of said cavity, the exterior of the cavity defining portion being horizontally serrated and being vertically slotted from said cavity to said exterior, a pintle revolvably mounted in said cavity, yieldable means in the ends of said pintle for seating in said pockets, a threaded bolt secured at one end to said pintle and extending through said slot, stop means on said bolt including a plate for adjustable engagement with said serrations to hold the stop in different radial positions, and means for securing said bracket to a skate.

2. A stop for a roller skate as set forth in claim 1, wherein said stop means includes a stop cushion and means for revolvably mounting said stop cushion on said bolt.

3. A stop for a roller skate as set forth in claim 1, wherein said stop means includes a stop cushion, means for revolvably mounting said stop cushion on the bolt, and spacing means on the bolt between said mounting means and the adjusting plate to force the latter into said serrations when the bolt is threaded into said pintle.

4. A stop for a roller skate as set forth in claim 1, including a compressible pad on said bolt between said stop means and said plate for adjusting the rotary tension of said stop.

References Cited in the file of this patent

UNITED STATES PATENTS

Number	Name	Date
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1,089,891	Woolley	Mar. 10, 1914
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