United States Patent [19]

Aranson

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[54] **ROLLER SKATE TOE STOPS**

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[52] **U.S. Cl.** **280/11.2**

[51] **Int. Cl.** **A63c 7/14**

[58] **Field of Search** 280/11.2, 11.28

[56] **References Cited**

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[57] **ABSTRACT**

A roller skate is provided having in combination a skate frame and front wheel truck with a downwardly depending support boss and a socket assembly, a front axle housing having an upwardly extending brace member engageable in the socket of the truck, an integral forwardly extending arm carrying a stop member and a rearwardly projecting lug on the housing receiving a shock absorbing member and mounting screw whereby the housing is fixed to the depending lug of the front wheel truck.

1 Claim, 4 Drawing Figures

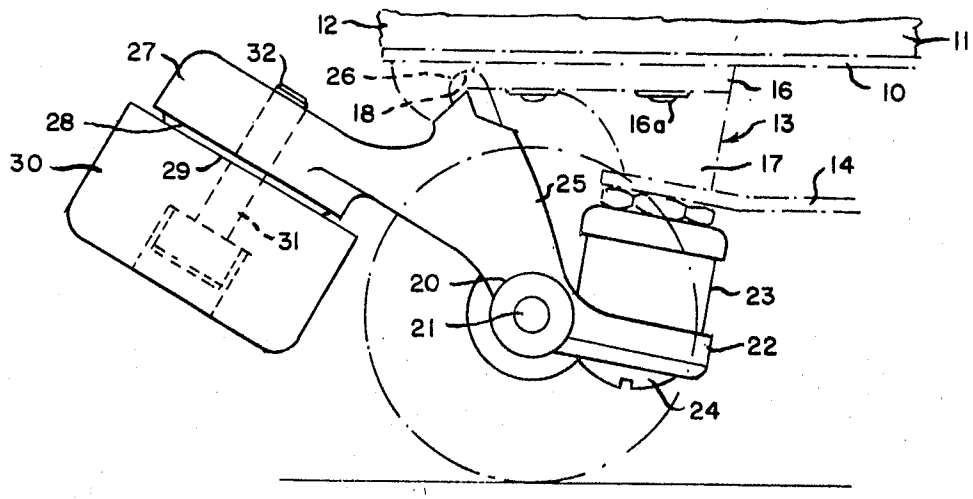


Fig. 1.

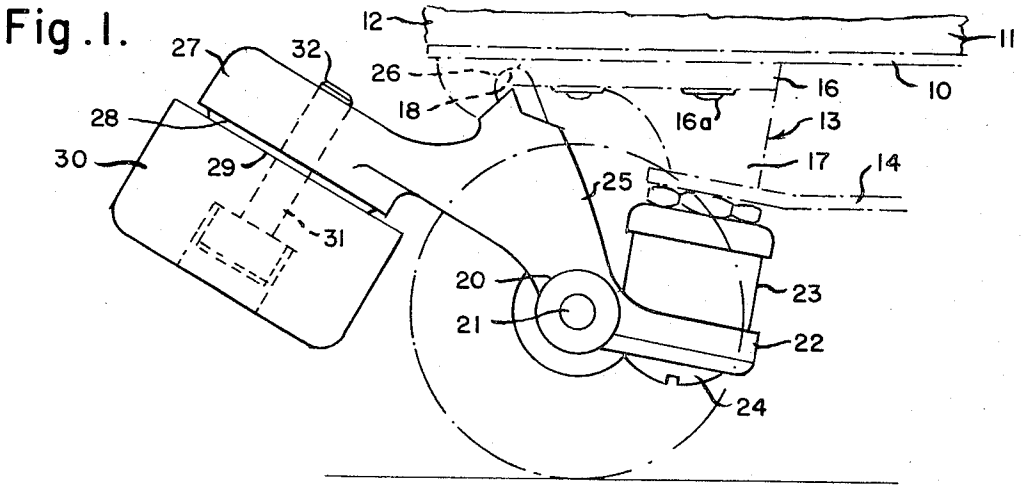


Fig. 2.

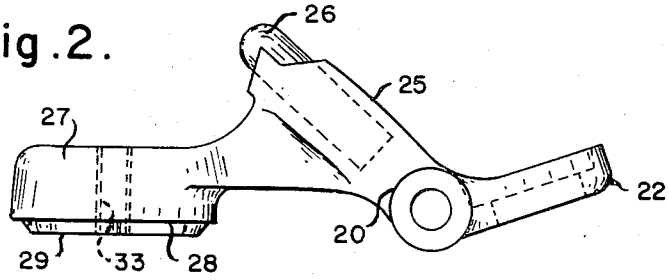


Fig. 3.

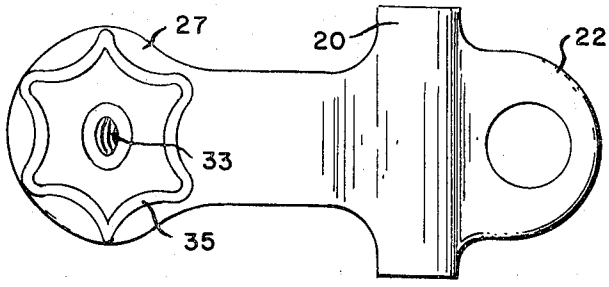
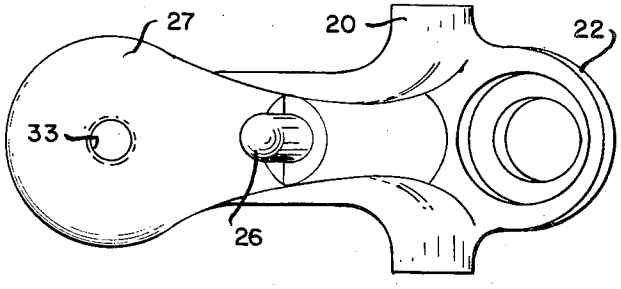


Fig. 4.



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ROLLER SKATE TOE STOPS

This invention relates to roller skate toe stops and particularly to a brace element and toe stop combination for roller skates.

It is common in the art of roller skating to attach to the forward portion of the conventional shoe type roller skate a braking member or stop to aid the skater in executing intricate maneuvers such as dance steps. Since the entire body weight of the skater coupled in many cases with a considerable amount of kinetic energy must be supported by the toe stop during quick stops, take-offs and various intricate FIGURES used in intricate FIGURE skating, it is essential that the toe stop be strong and resistant to fracture and distortion.

There have been many attempts made to provide a toe stop which could be attached to a conventional roller skate, however these attachments require intricate mechanisms for attaching to the brace member of the skate. These devices required various universal type clamps to be used on the variety of skates now available on the market. As a result they are not only likely to be insecurely fastened but they also transmit all of the forces of a sudden stop onto the brace members of the skate which are not designed for this additional loading.

I have developed a skate structure and particularly a toe stop structure which eliminates these problems. The structure of my invention provides a toe stop which is integral with a universal front brace member and axle housing which can be quickly and easily applied to a conventional skate structure having a downwardly depending supporting boss and a socket assembly.

Preferably I provide in combination with a roller skate frame and front truck, said truck having a downwardly depending boss and a socket assembly, the improvement comprising a front axle housing having an upwardly extending brace member, said brace member being provided with an end portion engageable in the socket of said truck and having a forwardly projecting arm, a stop member on said arm and a rearwardly projecting lug receiving a shock absorbing member and mounting screw whereby the housing is attached to the front truck of the roller skate. Preferably the forwardly projecting arm is provided with stop engaging portion having a generally planer face with a central opening and radially extending raised ribs, generally star shaped to engage the toe stop to prevent its rotation.

In the foregoing general description I have set out certain objects, purposes and advantages of this invention. Other objects, purposes and advantages will be apparent from a consideration of the following description and the accompanying drawings in which:

FIG. 1 is a fragmentary side elevational view of a roller skate having the toe stop and axle housing of this invention;

FIG. 2 is a side elevational view of the toe stop and axle housing of FIG. 1;

FIG. 3 is a bottom plan view of the toe stop and axle housing of FIG. 2;

FIG. 4 is a top plan view of the toe stop and axle housing of FIG. 2.

Referring to the drawings, I have illustrated a rigid sole plate **10** of a conventional roller skate attached to the sole **11** of a shoe **12.** The sole plate **10** carries a front truck **13** and a rear truck (not shown). The two trucks are connected together by a tie member **14,** preferably connected intermediate its ends to the sole plate **14** by a rivet in conventional manner. The front wheel truck **13** is attached to the sole plate by appropriate fastening means **16***a* such as rivets. The truck **13** consists of a base **16,** a depending support boss **17** and a depending socket **18.** The axle housing **20** has a passage for axle **21** and a rearwardly extending lug **22** adopted to carry shock absorbing member **23** and bolt **24** which extends axially of the shock absorbing member into support boss **17.** The axle housing also carries an upwardly extending brace member **25** provided with a hemispherical ball end **26** replaceable pin engageable in the socket **18** of truck **13** and with a forwardly projecting arm **27** having on its forward end a stop engaging portion **28** provided with a generally planer surface **29** formed thereon against which a resilient stop element **30** abuts. The stop element **30** is preferably of rubber or some similar resilient material having a high coefficient of friction. The stop element is provided with a central bore **31** receiving a bolt or screw **32** which engages a threaded hole **33** in the stop engaging portion **28.** Preferably, the planer surface **29** is provided with a raised radial rib design **35** in the general shape of a star which engages the bottom surface of the toe stop element **30** and prevents its relative rotation with respect to the surface **29.** This provides greater control and safety than a planer surface.

Preferably the housing is cast from aluminum, although it may be made of steel or other suitable material.

While I have illustrated and described a presently preferred embodiment of my invention in the foregoing specification, it will be understood that this invention may be otherwise embodied within the scope of the following claims.

I claim:

1. In combination with a roller skate having a frame and a front truck, said front truck having a downwardly depending boss and a socket assembly, the improvement comprising a front axle housing having an upwardly extending brace member, said brace member having a replaceable ball end portion engageable in the socket of said truck, a forwardly projecting arm integral with said brace member, a stop member on said arm and a rearwardly projecting lug on said housing receiving a shock absorbing member and mounting screw whereby said housing is fixed to said depending boss, said projecting arm carrying a stop engaging portion having a generally planar face with stop engaging ribs thereon in the form of a star periphery.

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