

May 25, 1954

D. S. WILLIAMS

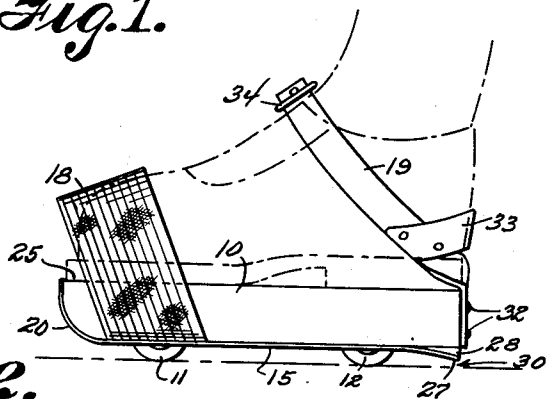
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ROLLER SKATE

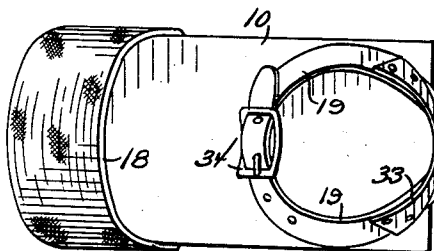
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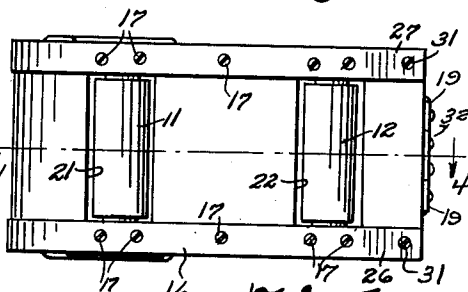
*Fig. 1.*



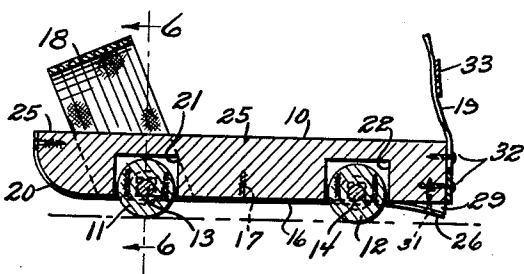
*Fig. 2.*



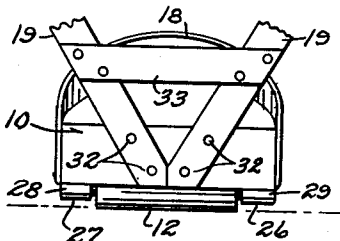
*Fig. 3.*



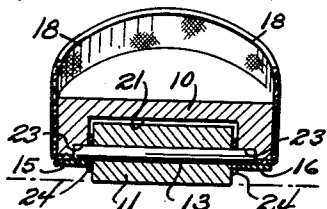
*Fig. 4.*



*Fig. 5.*



*Fig. 6.*



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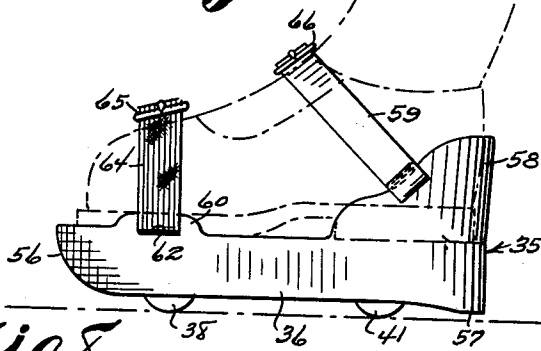
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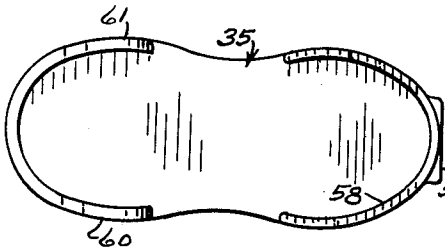
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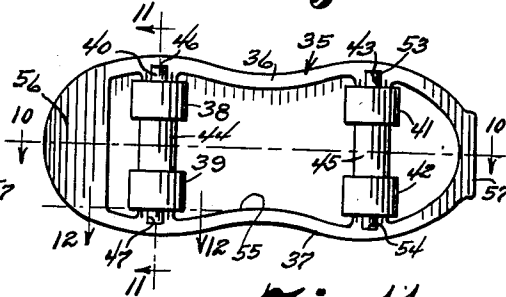
*Fig. 7.*



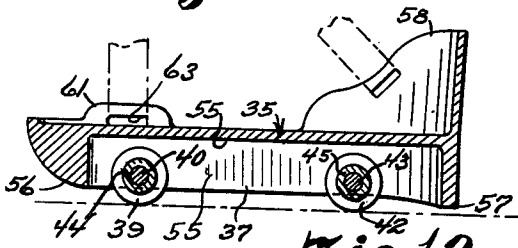
*Fig. 8.*



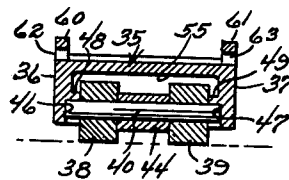
*Fig. 9.*



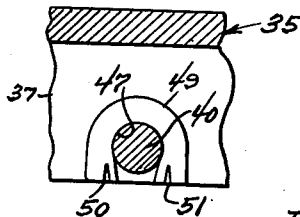
*Fig. 10.*



*Fig. 11.*



*Fig. 12.*



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## UNITED STATES PATENT OFFICE

2,679,401

## ROLLER SKATE

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Application June 27, 1952, Serial No. 295,949

2 Claims. (Cl. 280—11.23)

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This invention relates to roller skates of the roller type wherein rollers are used instead of wheels, and in particular a roller skate having continuous rollers journaled in a block forming a base with parts of the block extended downwardly to a point a comparatively short distance above a surface upon which the skate is positioned and with straps for securing the skate to a foot or shoe extended upwardly from the block.

The purpose of this invention is to provide a roller skate particularly adapted for beginners wherein stationary parts of the skate are comparatively close to the floor whereby a beginner may tilt the skate to bring a side or heel portion of the block or base against the floor to provide a brake.

In the conventional type of roller skate the frame of the skate upon which the rollers are mounted is positioned above the rollers so that it is spaced a considerable distance from the floor and with the parts formed in this manner it is difficult for a child to bring a fixed part of the skate in contact with the floor, when it is desired to stop or retard the progress of the skates. With this thought in mind this invention contemplates a roller skate having rollers journaled by shafts in the under surface of a base whereby the base extends downwardly over the rollers and wherein the heel portion thereof is comparatively close to the floor.

The object of this invention is, therefore, to provide means for forming a roller skate for beginners wherein fixed parts of the skate may be moved into contact with a surface upon which the skate is positioned with comparatively small tilting action of the skate.

Another object of the invention is to provide a child's roller skate, particularly adapted for beginners in which rollers thereof may readily be removed and replaced.

A further object of the invention is to provide a roller skate in which fixed mounting elements of rollers thereof are comparatively close to a surface upon which the skate is positioned in which the skate is of a simple and economical construction.

With these and other objects and advantages in view the invention embodies a block having cavities in the under surface, providing a base with rollers mounted on pins positioned in the cavities in the under surface of the base and journaled in the base with shafts and with straps extended upwardly from the base for securing the skate to a shoe or the like.

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Other features and advantages of the invention will appear from the following description taken in connection with the drawing, wherein:

Figure 1 is a side elevational view illustrating the beginner's skate with the skate shown on a foot as it appears in use.

Fig. 2 is a plan view of the skate.

Fig. 3 is a view looking upwardly toward the under side of the skate.

Fig. 4 is a longitudinal section through the skate taken on line 4—4 of Fig. 3.

Fig. 5 is a rear end elevational view of the skate, with parts of the straps broken away.

Figure 6 is a cross section through the skate taken on line 6—6 of Fig. 4.

Figure 7 is a side elevational view similar to that shown in Fig. 1 illustrating a modification wherein the skate is formed of plastic.

Figure 8 is a plan view of the skate shown in Fig. 7.

Figure 9 is a view looking upwardly toward the under surface of the skate shown in Fig. 7.

Figure 10 is a longitudinal section taken on line 10—10 of Fig. 9 showing the roller mounting of the skate.

Figure 11 is a cross section through the skate taken on line 11—11 of Fig. 9.

Figure 12 is a detail illustrating the crimped end of bosses for holding shafts upon which the rollers are mounted in a skirt or flange depending from the body of the skate, said section being taken on line 12—12 of Fig. 9.

Referring now to the drawings wherein like reference characters denote corresponding parts the improved beginners skate of this invention includes a block 10 providing a base, rollers 11 and 12 journaled by pins 13 and 14, respectively in the base, straps 15 and 16 secured to the under surface of the base with screws 17, an elastic toe strap 18, and an ankle strap 19.

The block or base 10 is provided with an arcuate forward end 20 and recesses 21 and 22 are provided in the under surface for receiving the rollers 11 and 12 and notches, as indicated by the numeral 23 are provided at the ends of the recesses for receiving the ends of the pins 13 and 14. Washers 24 are provided at the ends of the rollers to retain the rollers with the ends thereof in spaced relation to the ends of the recesses.

The straps 15 and 16, which extend from the upper surface 25 of the block 10, at the forward end, extend over the ends of the pins 13 and 14, retaining the pins in the notches and thereby securing the rollers in operative positions in the recesses. The straps extend continuously to the

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rear end of the block and ends 26 and 27, of the straps are extended downwardly with wedges 28 and 29, respectively whereby the ends of the straps are comparatively close to a floor, as indicated by the numeral 30 so that with a slight upward movement of the toe or forward end of a skate the ends 27 and 28 of the straps will contact the floor. The wedges are secured in position with screws 31 that extend through the downwardly extended end of the straps and wedges, and into the block.

The elastic band 18 at the forward end of the skate is secured in position with ends thereof clamped between the straps and under surface of the block, as illustrated in Fig. 6, and it will be understood that the ends of the elastic band may be secured in position by other types of fasteners or other suitable means.

The heel or ankle straps 19 are secured to the end of the block at the rear with keepers or other fastening elements 32 and the upwardly extended sections of the straps are held with a cross strap 23, as shown in Fig. 5. The ends of the sections of the strap 19 are provided with a buckle 34.

In the design illustrated in Figs. 7 to 12 the skate is formed with a plastic body 35 having continuous depending flanges 36 and 37 at the sides with rollers 38 and 39 mounted on a shaft 40 at the forward end of the skate and rollers 41 and 42 mounted on a shaft 43 at the opposite or rear portion of the skate.

A tubular spacer 44 is positioned on the shaft 40 between the rollers 38 and 39 and a similar spacer 45 is positioned on the shaft 43 between the rollers 41 and 42.

As illustrated in Fig. 11 the ends of the shaft are positioned in sockets 46 and 47 in bosses 48 and 49 on the inner surfaces of the flanges 36 and 37, and, with the shafts in position the lower edges, as indicated by the numerals 50 and 51, in Fig. 12, are peened inwardly locking the shafts in the sockets. The ends of the shaft 43 are held in similar sockets 53 and 54 in bosses also on the inner surfaces of the flanges 36 and 37.

In this design the rollers are positioned in a cavity 55 in the under surface of the body 35 and the forward end of the body is provided with an arcuate surface 56 whereas the rear edges of the flanges extend downwardly providing a low point 57 at the heel.

The upper surface of the body is provided with a heel flange 58 in which a strap 59 is positioned and lugs 60 and 61 with openings 62 and 63 therein are positioned at the sides of the forward end for retaining a toe strap 64. The strap 64 is provided with a buckle 65 and a buckle similar to the buckle 65 may be provided in the strap 59, as indicated by the numeral 66.

With the lower edges of the depending flanges

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at the sides of the skate extended downwardly as shown in Figs. 7 and 11 the lateral tilting action of the skate is limited.

It will be understood that modifications, within the scope of the appended claims, may be made in the design and arrangement of the parts without departing from the spirit of the invention.

What is claimed is:

1. In a roller skate, the combination which comprises a substantially rectangular shaped block having an arcuate forward end, spaced transversely disposed recesses in the under surface and having notches at the ends of said recesses, pins extended through the recesses with the ends positioned in said notches, rollers mounted on said pins, longitudinally disposed straps secured to the arcuate forward end of the block and to the edges of the block and covering the ends of the pins for securing the pins in the notches with the rollers in the recesses, means securing the straps to the block, said straps having downwardly disposed sections at the rear ends, and straps extended upwardly from the block for securing the skate on a shoe or the like.

2. In a roller skate, the combination which comprises a substantially rectangular shaped block having an arcuate forward end, spaced transversely disposed recesses in the under surface and having notches at the ends of said recesses, pins extended through the recesses with the ends positioned in said notches, rollers mounted on said pins, longitudinally disposed straps secured to the arcuate forward end of the block and to the edges of the block and covering the ends of the pins for securing the pins in the notches with the rollers in the recesses, means securing the straps to the block, said straps having downwardly disposed sections at the rear ends, an elastic strap extended upwardly from the forward end of the block and positioned with the ends thereof clamped between the straps and the under surface of the block and ankle straps extended upwardly from the rear portion of the block.

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