

July 23, 1940.

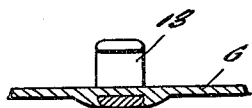
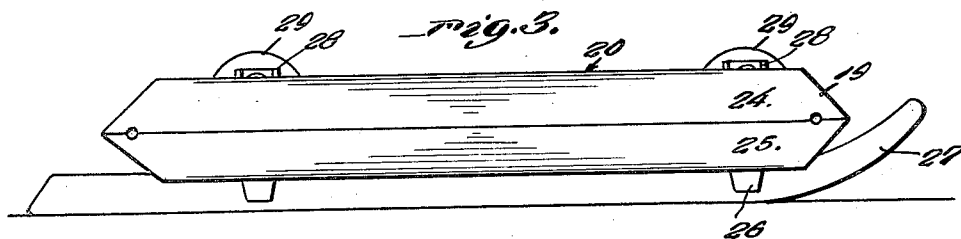
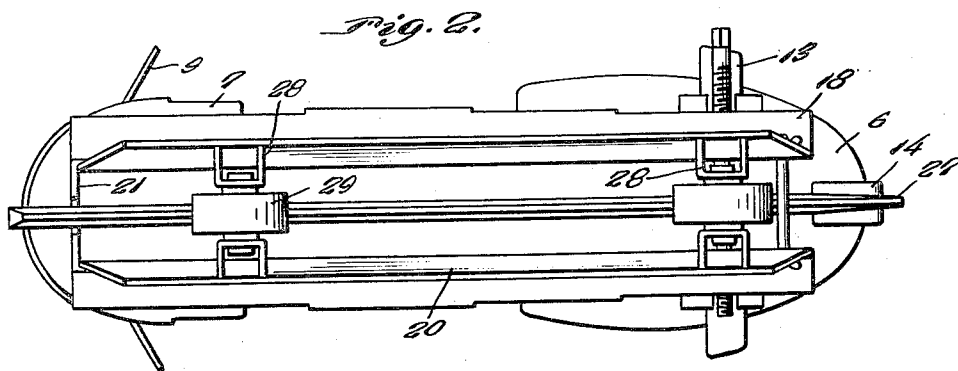
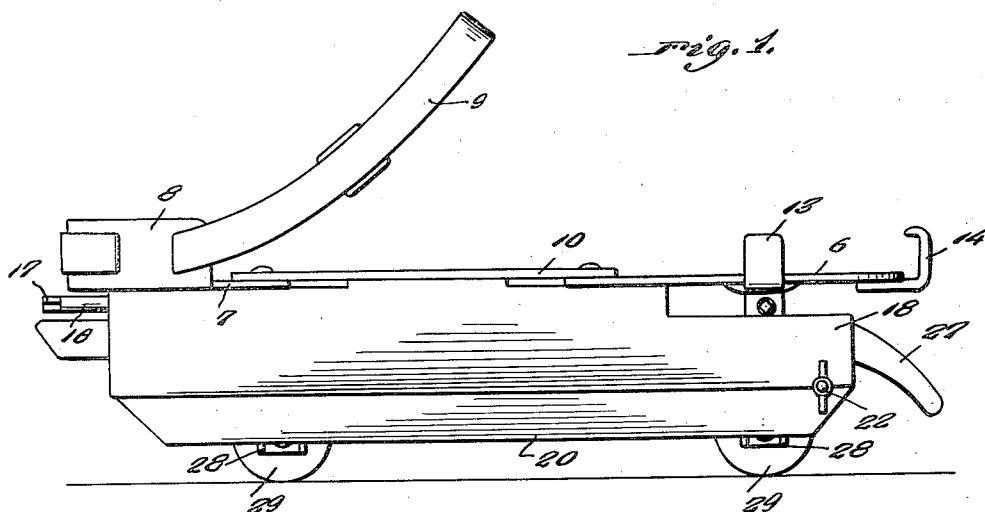
L. M. FRIEDMANN

2,209,116

COMBINATION ICE AND ROLLER SKATE

Filed Nov. 22, 1939

2 Sheets-Sheet 1



Inventor

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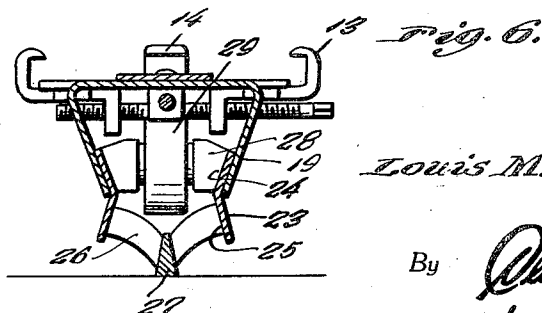
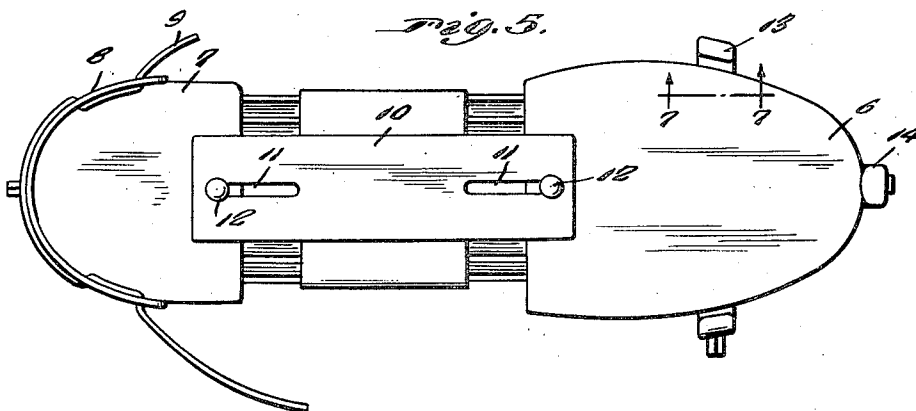
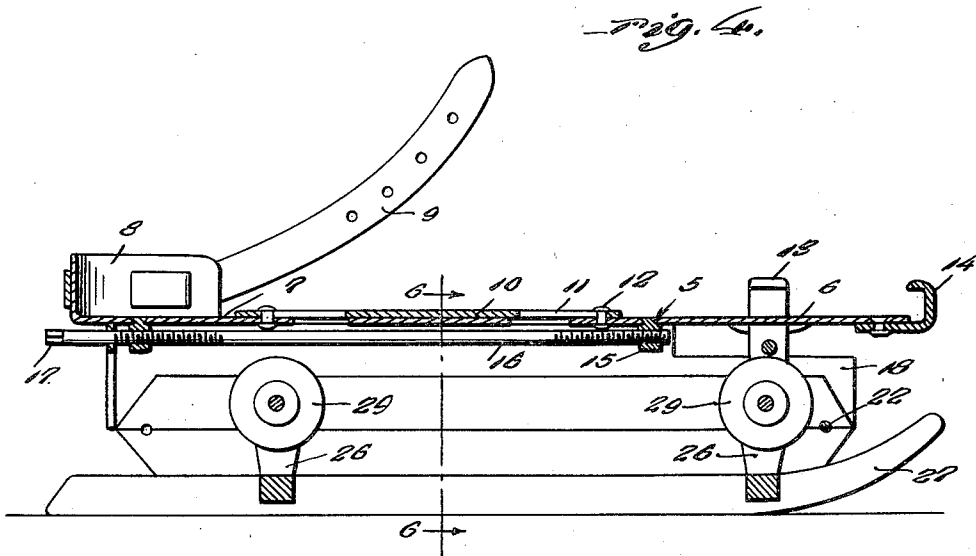
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COMBINATION ICE AND ROLLER SKATE

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2 Sheets-Sheet 2



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UNITED STATES PATENT OFFICE

2,209,116

COMBINATION ICE AND ROLLER SKATE

Louis M. Friedmann, Chicago, Ill.

Application November 22, 1939, Serial No. 305,715

3 Claims. (Cl. 280—11.10)

This invention relates to skates, and has for the primary object the provision of a device of this character which will combine in a unit a roller skate and an ice skate either of which may be easily and quickly brought into use and which consists of a minimum number of parts and will be compact, durable and may be manufactured and sold at a low cost and will be easily adjusted to different size shoes and may be detachably secured to a shoe or permanently attached there- to if desired.

With these and other objects in view, the invention consists in certain novel features of construction, combination and arrangement of parts to be hereinafter more fully described and claimed.

For a complete understanding of my invention, reference is to be had to the following description and accompanying drawings, in which:

Figure 1 is a side elevation illustrating a skate constructed in accordance with my invention and showing the same arranged for roller skating.

Figure 2 is a bottom plan view illustrating the same.

Figure 3 is a side elevation illustrating the unit combining the roller and runner construction.

Figure 4 is a vertical sectional view illustrating the skate arranged for ice skating.

Figure 5 is a top plan view illustrating the skate.

Figure 6 is a transverse sectional view taken on the line 6—6 of Figure 4.

Figure 7 is a detail sectional view taken on the line 7—7 of Figure 5.

Referring in detail to the drawings, the numeral 5 indicates the platform of a skate including a toe plate 6 and heel plate 7 having a heel flange 8 to which is connected an ankle strap 9. The heel and toe plates are adjustably connected by a tie plate 10, the latter having slots 11 through which rivets or like fasteners 12 carried by said heel and toe plates extend whereby the latter may be adjusted toward and from each other for the purpose of fitting shoes of different sizes.

Adjustable clamps 13 are provided on the toe plate to engage with opposite sides of the sole of a shoe and are of a conventional construction. The toe plate at the forward end thereof is provided with a fixed toe-engaging clamp 14.

Feed nuts 15 are secured to the toe and heel plates and depend therefrom. One of the feed nuts has a right hand thread while the other feed nut has a left hand feed thread. An adjusting rod 16 having feed threads matching the feed threads of the nuts is threaded into the

latter and projects rearwardly of the heel plate and equipped with wrench-engaging faces 17 whereby the adjusting rod may be rotated in opposite directions for the purpose of adjusting the toe and heel plates toward and from each other.

An elongated box-like mounting 18 is secured to the under face of the connecting plate 10 and the length thereof is somewhat shorter than the length of the skate platform and includes opposed depending converging walls 19. The purpose of the mounting 18 is to removably receive a combined roller and ice skate unit 20 and is provided at one end thereof with opposed stop flanges 21. The unit 20 may be slid into the mounting 19 from one end of the latter and abut the stop flanges and be retained against sliding movement by a removable pin 22 extending through both the mounting and the unit.

The unit 20 includes a body composed of opposed elongated plates 23 each including angularly related portions 24 and 25. The portions 24 of the plates diverge toward their upper edges while the portions 25 of the plates diverge toward the lower edges. The plates 23 are connected by rigid arms 26 which form an integral part of an ice skate runner 27. The arms 26 are formed on the portions 25 of the plates 23 while the portions 24 of said plates carry journals 28 for rollers 29 arranged one opposite the other and in alignment with each other.

The unit 20 thus constructed may be readily adapted or positioned in the mounting so that the ice skate runner 27 may be positioned for use, as shown in Figure 4, with the rollers confined within the mounting or the unit may be reversed so that the rollers will be in operative position with the ice skate runner positioned thereabove and within the mounting.

Thus it will be seen that a skate has been provided which can be conveniently and quickly converted either for ice skating or roller skating and when employed in the latter-named manner presents a skate of the two-roller type.

While I have described and shown the invention with the unit 20 as being composed of both the rollers and the ice skate runner, it is to be understood that units may be constructed wherein certain units will include the rollers and the other units include the ice skate runners so that either type of unit may be readily adapted to the mounting of the skate as desired for the different kinds of skates, that is, roller skating or ice skating. Further, it is to be understood that while the present invention has been shown as quickly de-

tachable from a shoe through minor alterations the platform may be permanently fixed to the sole and heel of a skating shoe.

The adjusting shaft 16 extending outwardly from the rear end of the skate proper with the wrench engaging faces 17 exposed permits a person to readily adjust the skate from the rear to a desired size. Also it is to be noted that the wheels are removable so that should the wheels wear or become damaged they can be readily removed and others placed in lieu thereof. Further, it is to be understood that the sleeve box 20 may be reinforced where the journals 28 are mounted thereon so that the sleeve box will not bend or become out of shape when under weight.

It is believed that the foregoing description, when taken in connection with the drawings, will fully set forth the construction and advantages of this invention to those skilled in the art to which such a device relates, so that further detailed description will not be required.

Having thus described the invention, what I claim is:

1. A skate comprising a platform including toe and heel portions, a connecting plate adjustably connecting said portions, an adjusting means connected with said toe and heel portions for adjusting the latter toward and from each other, a box-like mounting carried by said connecting plate and underlying the platform and including converging opposed walls and stop flanges at one end thereof, and a skate unit including converging walls slidably fitting within said mounting and engaging said stops, and means for detachably securing the unit in said mounting.

2. A skate comprising a platform including toe and heel portions, a connecting plate adjustably connecting said portions, an adjusting means connected with said toe and heel portions for adjusting the latter toward and from each other, a box-like mounting carried by said connecting plate and underlying the platform and including converging opposed walls and stop flanges at one end thereof, a skate unit including converging walls slidably fitting the converging walls of the mounting and abutting the stop flanges and having a runner and rollers arranged in opposed relation to the runner whereby either the runner or the rollers may be brought into operative position by the reversing of the unit in the mounting.

3. A skate comprising a platform including toe and heel portions, a connecting plate adjustably connecting said portions, an adjusting means connected with said toe and heel portions for adjusting the latter toward and from each other, a box-like mounting carried by said connecting plate and underlying the platform and including converging opposed walls and stop flanges at one end thereof, a skate unit including converging walls slidably fitting the converging walls of the mounting and abutting the stop flanges and having a runner and rollers arranged in opposed relation to the runner whereby either the runner or the rollers may be brought into operative position by the reversing of the unit in the mounting, and means extending through the unit and the mounting for releasably securing the unit against removal from the mounting.

LOUIS M. FRIEDMANN.