

May 17, 1938.

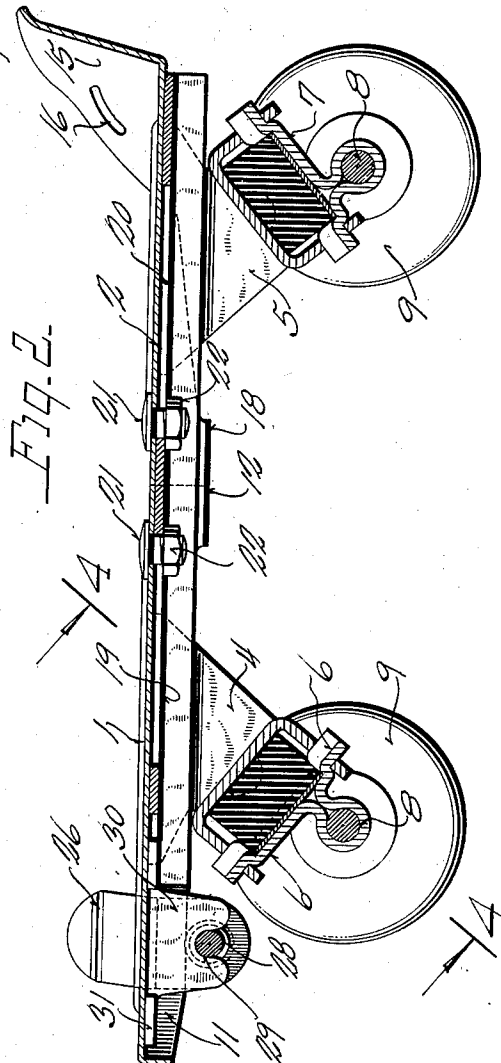
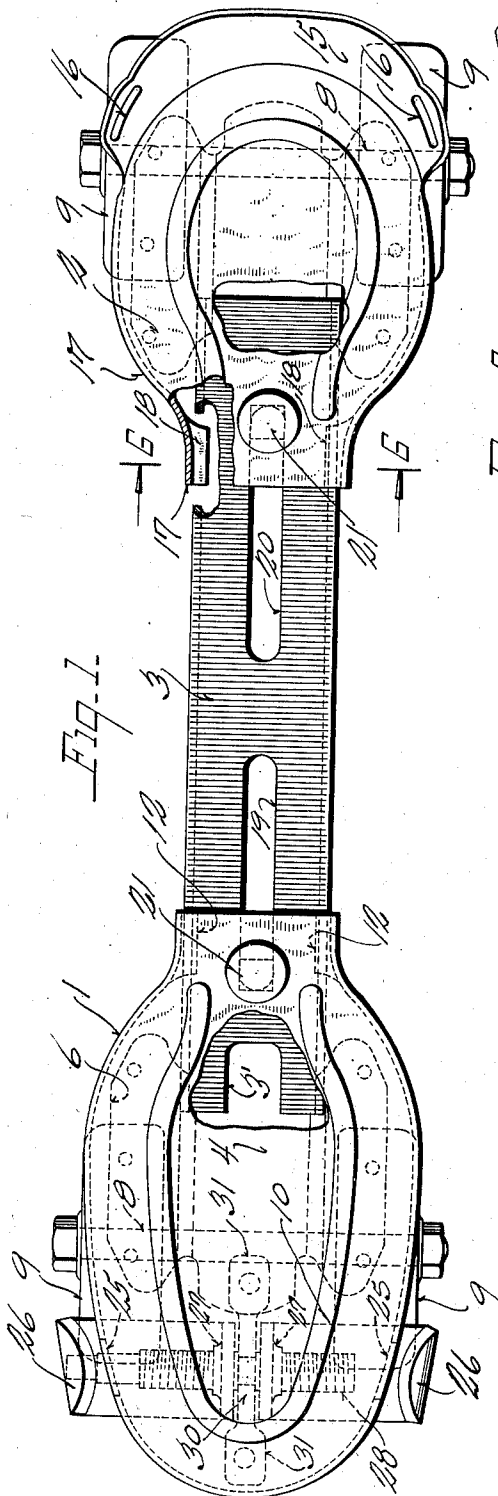
J. S. COLDWELL ET AL

2,117,704

ROLLER SKATE

Filed Nov. 8, 1933

2 Sheets-Sheet 1



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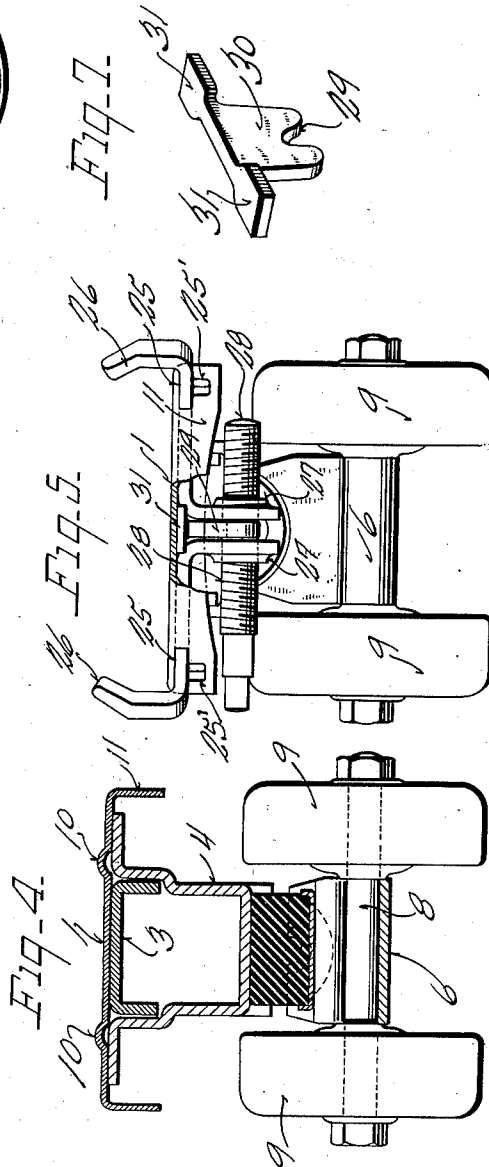
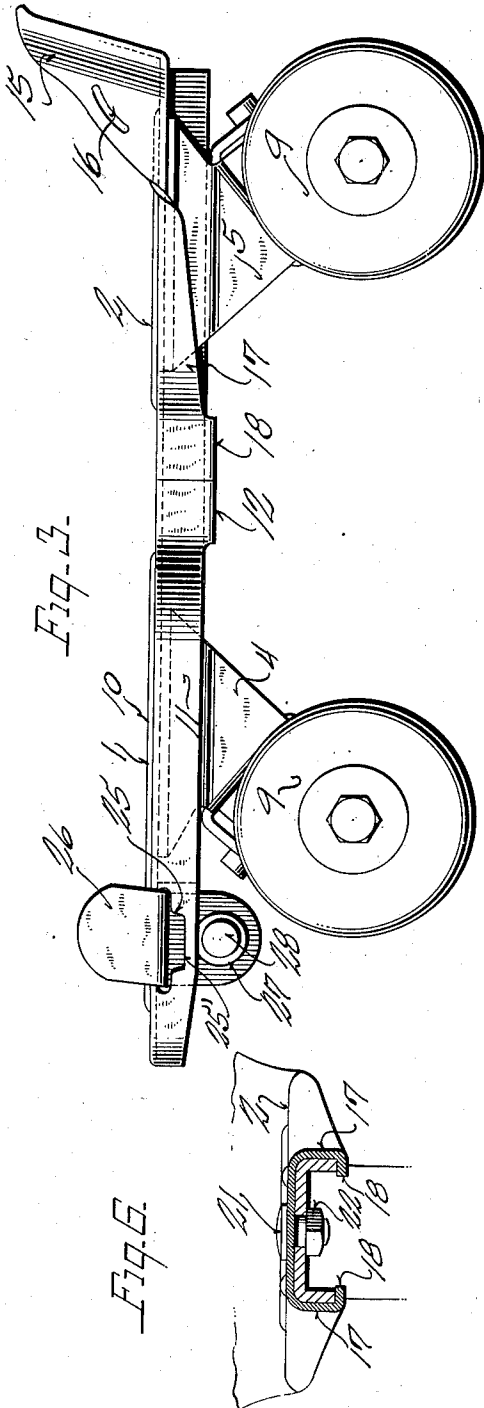
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UNITED STATES PATENT OFFICE

2,117,704

ROLLER SKATE

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to Globe-Union Inc., Milwaukee, Wis., a
corporation of Delaware

Application November 8, 1933, Serial No. 697,096

5 Claims. (Cl. 280—11.26)

This invention relates to an improvement in roller skates and has for its object to simplify the construction of the roller skate while providing the maximum of adjustability and in-

creasing the strength, stiffness and durability of the complete skate as well as its component parts. More particularly, the present invention improves the structure of the toe and heel plates and combines this improved structure with a

connecting channel in a novel way; and also improves and simplifies the mode of interconnecting the toe clamps with the toe plates while rendering the skate more attractive in appearance. Other objects and advantages reside in cer-

tain novel features of the construction, arrangement and combination of parts which will be hereinafter more fully described and particularly pointed out in the appended claims, reference being had to the accompanying drawings, forming a part of this specification, and in which:

Figure 1 is a view in top plan showing a roller skate embodying the present invention;

Figure 2 is a view thereof in central longitudinal vertical section.

Figure 3 is a view of the skate in side elevation but showing the same shortened to its smallest dimensions;

Figure 4 is a view in section taken on line 4—4 of Figure 2;

Figure 5 is a view in front elevation, a portion of the skate being broken away for the sake of illustration;

Figure 6 is a view in cross section taken on line 6—6 of Figure 1; and

Figure 7 is a detail perspective view of the toe clamp in center position.

Referring to the drawings, it will be seen that the roller skate embodying the present invention comprises generally a toe plate 1 and a heel plate 2 adjustably connected together by means of a connecting channel 3. Hangers 4 and 5 are welded to the toe and heel plates and have connected therewith axle brackets 6 and 7 carrying the axles 8 on which the wheels 9 are rotatably mounted. The details of the construction of the hangers and axle brackets per se form no part of the present invention and they are fully disclosed in Patent 1,857,360, granted May 10, 1932, to J. S. Coldwell, and are claimed in the application of J. S. Coldwell for Roller skates, filed April 11, 1932, Serial No. 604,374.

The toe plate 1 is ribbed as at 10 and is provided with a marginal flange 11 extending around its edge except for the rear portion, the portions of the flange 11 extending along both side edges

having adjacent the rear portion of the toe plate inturned and horizontally disposed extensions 12 forming a socket-like guide.

The heel plate 2 is provided with an upwardly extending flange 15 formed with slots 16 to receive the heel straps. Forwardly of the flange 15 the side edges of the heel plate are provided with depending flanges 17. The front edge of the plate 2 is unflanged. The forward end portions of the flanges 17 have integral inwardly and horizontally disposed extensions 18 also forming a socket-like guide.

The connecting channel 3 is slidably fitted in the guides provided at the adjacent ends of the toe and heel plates and is itself formed with slots designated at 19 and 20 with which square openings in the toe and heel plates are alined. These slots and openings receive the shanks of bolts 21 on which nuts 22 are threaded to releasably secure the channel in any of its various adjustments with respect to the toe and heel plates.

The flange 11 of the toe plate 1 is provided with oppositely disposed T-shaped slots 25 for receiving the members 26 of the toe clamp. The legs or extensions 25' of these slots accommodate or provide the clearance necessary to permit of the assembly of the clamps, the extruded and internally threaded portions 27 on the downturned lips of the clamps (see Figure 5) passing through such legs or extensions. A screw 28 is threadedly engaged with these portions 27 for rotation in the notch 29 of a center post 30. The threaded portion of the screw is sufficiently short to allow complete disengagement thereof with the portions 27 before the downturned lips abut against the flange 11. The unthreaded portion of the screw being sufficiently small in diameter to allow removal of the screw after the threaded portion is disengaged. With the screw removed the members 26 readily slide out of the slots 25. Reassembly is accomplished in the reverse manner. The center post is blanked out from a strip of steel and has its ends 31 swaged or punched down to flat form so as to adapt it for spot welding to the toe plate thereby eliminating the use of rivets.

A skate constructed in this manner may be lengthened or shortened to the extent indicated by the two adjustments shown respectively in Figures 1 and 3. It will be noted that the ends of the connecting channel 3 slide through the hangers 4 and 5 and in the full shortened adjustment the notched forward end 3' of the channel straddles the center post 30 of the toe clamp. Inasmuch as the toe and heel plates have con-

tinuous marginal flanges the structure thereof is materially strengthened and stiffened without increasing its weight and the flanges blend into and form part of the guides for the connecting channel. The toe clamps are attached without disturbing the continuous flanged formation and their mounting screw is supported for rotation without employing rivets.

While we have shown and described one construction as typical of the manner in which the invention may be embodied it is to be understood that the construction shown has been selected merely for the sake of illustration or example and that various changes in the size, shape and arrangement of the parts may be made without departing from the spirit of the invention and the scope of the subjoined claims.

The invention claimed is:

1. A skate comprising toe and heel plates having depending marginal flanges, said flanges at the adjacent ends of the plates having inturned extensions providing guide sockets, a connecting channel slidably interfitted with said guide sockets and releasable fastening devices for securing said channel to said plates in its various adjusted positions with respect thereto in combination with truck hangers carried by the toe and heel plates and having openings extending between their side members through which the ends of the connecting channel may slide, the forward end of the connecting channel being notched so as to adapt it to straddle the center post of a toe clamp in the shortened adjustment of the skate.

2. A skate comprising a toe plate, a toe clamp made up of a pair of members slidable with respect to said plate, a screw for adjusting said members and a center post providing a mount-

ing for the screw and having flattened portions abutting and welded to the lower surface of the toe plate.

3. A skate comprising toe and heel plates, both of said plates having depending marginal flanges, the flanges of both plates at the adjacent ends thereof having inturned extensions providing guide sockets, a connecting channel slidably interfitted with said guide sockets, and releasable fastening devices for securing each of said plates to said channel in any of the various adjustments of the plates relative to the channels.

4. A skate comprising toe and heel plates, both of said plates having depending marginal flanges, the flanges of both plates at the adjacent ends thereof having inturned extensions providing guide sockets, a connecting channel slidably interfitted with said guide sockets, and releasable fastening devices for securing each of said plates to said channel in any of the various adjustments of the plates relative to the channels, in combination with truck hangers carried by the toe and heel plates and having openings between their side members in which the ends of the connecting channel are slidably interfitted.

5. A skate comprising toe and heel plates, both of said plates having depending marginal flanges, the flanges of both plates at the adjacent ends thereof having inturned extensions providing guide sockets, a connecting channel slidably interfitted with said guide sockets, said channel having spaced longitudinally extending slots, said plates having openings alined with said slots, bolts fitted in said openings and slots and nuts threaded in said bolts.

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